



**GREEN SEAL**

# **Green Seal Standards and Product Certification**

**The Mark of  
Environmental  
Responsibility**

**Christine Chase  
Green Seal, Inc.**



# Green Seal, Inc.

## Leading US Type I Program

- . Non-profit, independent organization that promotes a more sustainable economy
  
- 1. Set environmental leadership standards
- 2. Certify products and services
- 3. Assist with greening of governments and institutions
- 4. Educate purchasers



# Background on Green Seal

- 20 years old
- 501(c)(3) non-profit
- Science-based
- Exclusive focus on products, services, purchasing, operations
- Multiple product category standards
- Multiple criteria (life-cycle approach)
- Meets ANSI, EPA, ISO, GEN criteria
- No financial interest in products, companies





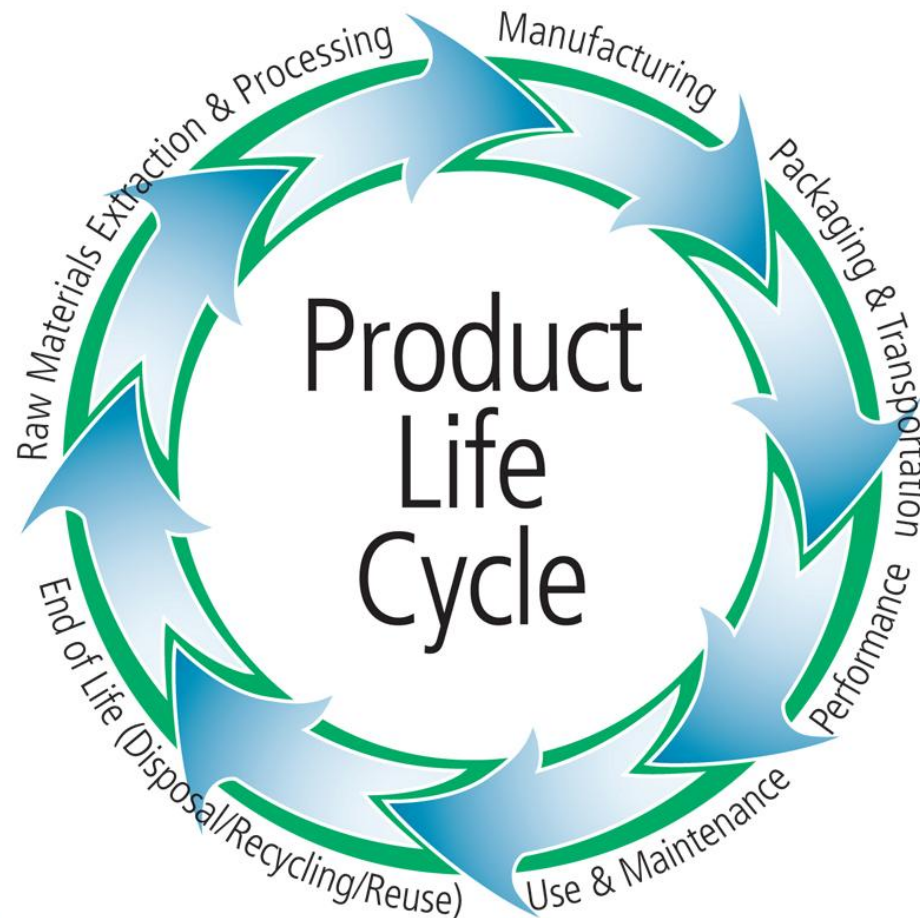
# Guidelines for Seal of Approval+Ecolabels

- “ ISO 14020 Environmental labels and declarations
- “ ISO 14024 Type I Environmental labelling
- “ Global Ecolabelling Network membership criteria
- “ EPA 3rd-Party Guidance criteria
- “ Consumers Union criteria
- “ FTC Environmental Marketing Guidelines



# Ecolabel Standards:

Incorporate Environmental and Health Considerations Throughout the Life Cycle of the Product or Service



# Benefits of Certified Products

- ” Certified = independent, third-party, meets technical criteria
- ” Provides market with definition, direction
  - . Producers re formulation, design
  - . Users re procurement, use
- ” Assures that cleaning optimal for human health and environment





# Green Seal's Programs

- **Product/Service Certification**
  - based on leadership environmental standards
  - seal is registered certification mark
- **Work with institutions**
  - Greening Your Government Program
  - Green Lodging Program



# Green Seal Certification Program

- **GS standards in number of categories recognized by market**
- **Over 3200 products/services certified**
  - range from windows, electric chillers, and lodging facilities to institutional cleaners, paints, paper products, etc.





# Benefits of environmentally preferable products

- “ Improved worker and employee safety and health
- “ Reduced liabilities
- “ Reduction in disposal or hazardous waste costs
- “ Better work environment means less sick days and better productivity
- “ Sick Building Syndrome
  - ⇒ One of the causes chemical contaminants
  - ⇒ VOC concentration can be up to 10x higher indoors than outdoors

From the U.S. Environmental Protection Agency, EPP, Basic Information  
<http://www.epa.gov/epp/pubs/about/about.htm>



# Green Seal standards

\*under development or under revision

- “ **Cleaning Product Standards**
  - GS-37 I&I Cleaners, GS-40 I&I Floor-Care Products, GS-41 I&I Hand Cleaners
- “ **Paper Product Standards**
  - GS-1 Tissue Paper\*, GS-9 Paper Towels\*, GS-35 Food Service Packaging
- “ **Construction Materials and Equipment Standards**
  - GS-13 Windows, GS-31 Electric Chillers, GS-5 Compact Fluorescent Lamps (CFLs), GC-12 Occupancy Standards
- “ **Coatings Standards**
  - GS-11 Paint and Coatings, GS-47 Stains and Finishes\*, GS-43 Recycled Content Paint
- “ **GS-42 Commercial Cleaning Service**
- “ **GS-49 Residential Cleaning Service\***





# Green Seal standard update

## “ Revised GS-11 Paint and Coating Standard

- . Address Indoor Air Quality
- . Direct measurement of VOCs
- . Increase performance requirements

## “ Revised GS-37 Industrial and Institutional Cleaners

- . Addressed vulnerable populations
- . Asthmagens, skin absorption, Inhalation toxicity
- . Increased training and labeling requirements



# Green Cleaning

- **Green Cleaning in K-12 Schools**
  - Healthy Schools Campaign
- **Green Cleaning in Higher Education**
  - AASHE Sustainability, Tracking and Assessment and Rating (STARS) program
- **Green Cleaning in Federal Government**
  - US EPA Environmental Preferable Purchasing Network
- **Green Cleaning in hospitals**
  - Green Guide for HealthCare



# LEED References to Green Seal standards

- **LEED-NC, -CI, Core & Shell, Homes**
  - EQ 4.1 and 4.2 Low emitting materials
- **LEED-EB**
  - Sustainable purchasing
  - Green cleaning
- **LEED-EB (GS-42)**
  - Several categories – up to 8 credits





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# **Environmentally Preferable Facility Services**

**Cheryl Baldwin, Ph.D.  
Green Seal, Inc.**

# Environmentally Preferable Facility Services

- **Cleaning Services**
- **Food Services**
- **General Services**





# Green Cleaning

- ” Building
- ” Environment
- ” Health

*High performance cleaning with the least impact to the environment and human health.*



# Green Seal Institutional Cleaning Service Standard, GS-42

- “ Planning and procedures
- “ Equipment use and maintenance
- “ Products and supplies
- “ Communication and training





1



2



3

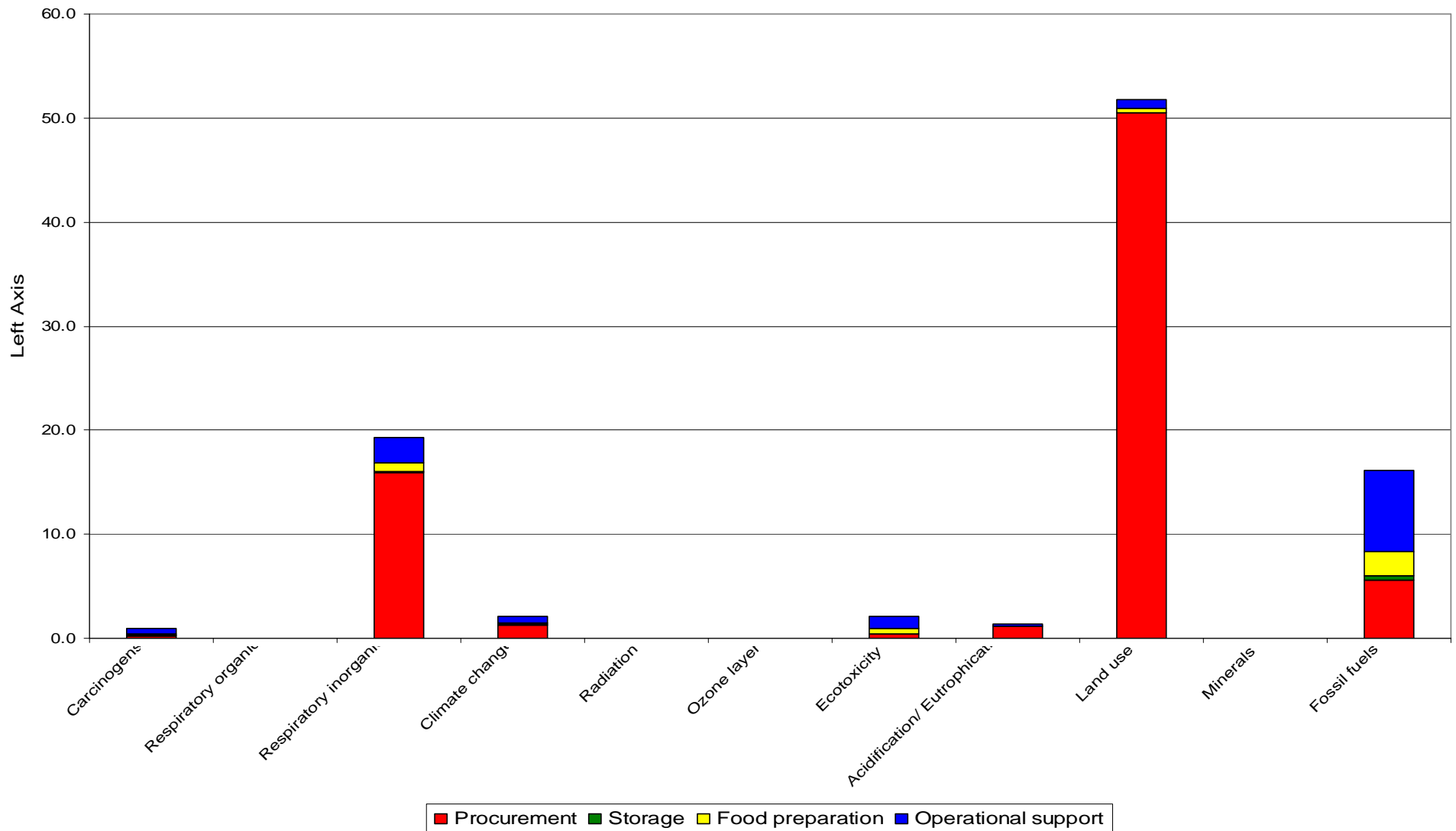


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The greatest contribution to the environmental load was **food**.



# Performance and Practices for Environmentally Responsible Food Services

“ Food

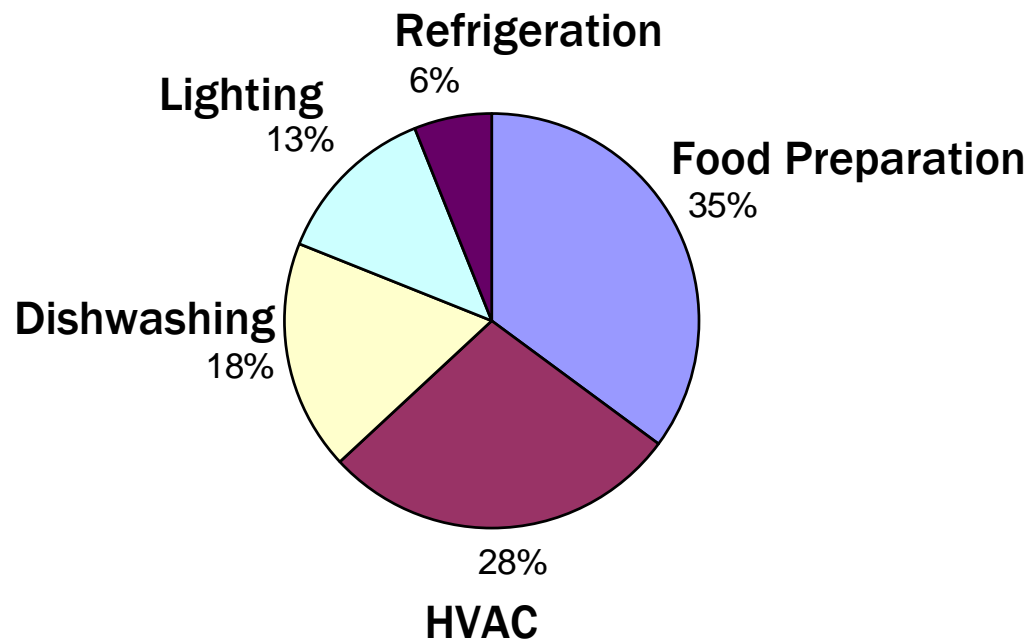


<sup>1</sup>SeaChoice.org

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20

# Energy Consumption<sup>1</sup>



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



# Performance and Practices for Environmentally Responsible Food Services

“ Energy



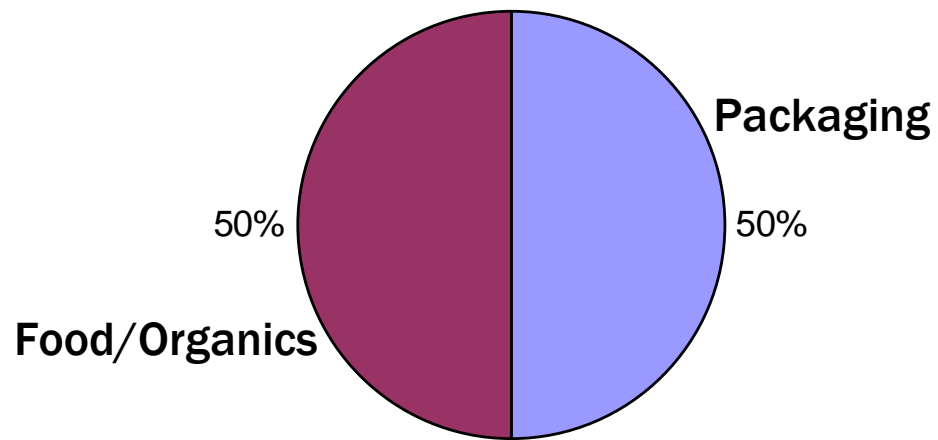
*Water use and conservation - similar approach*

<sup>1</sup>Commercial and Institutional Consumption of Energy Survey, Summary Report – June 2007  
<http://oee.nrcan.gc.ca/Publications/statistics/cices06/chapter1.cfm?attr=0>





## Waste<sup>2</sup>



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



# Performance and Practices for Environmentally Responsible Food Services

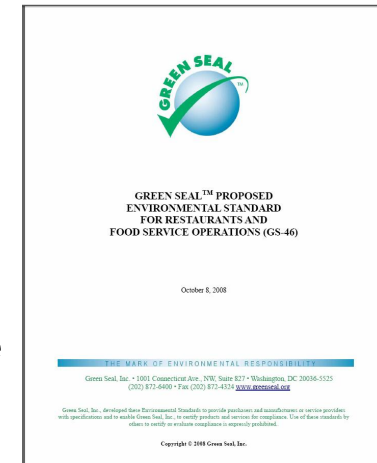
“ Waste



# Green Seal Restaurant and Food-Services Standard, GS-46

(in development . expected issuance in 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



# General Services

- “ Energy
- “ Water
- “ Waste
- “ Track
- “ Maintain
- “ Reduce (reuse, recycle)
- “ Efficient Options



# Thank You

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[www.greenseal.org](http://www.greenseal.org)





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# **Green Seal Green Purchasing & Facilities Partnerships**

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



# Green Seal Programs

- Standard Development
- Certification
- **Greening Your Government**
- Green Purchasing Partnership
- Green Facilities Partnership



# 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
- **State and Local:**
  - California
  - Pennsylvania
  - Massachusetts
  - Maryland
  - Virginia
  - Georgia
  - Colorado
  - Los Angeles County
  - Philadelphia
  - Chicago
- **Educational, Other:**
  - Univ. of Miami, Harvard
  - World Bank, IADB, NFCU



# Building Guidance for Pennsylvania

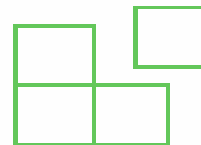
- *The Pennsylvania Green Building Operations and Maintenance Manual*
  - [http://www.dgs.state.pa.us/dgs/lib/dgs/green\\_buildingbook.pdf](http://www.dgs.state.pa.us/dgs/lib/dgs/green_building/greenbuildingbook.pdf)



**GREEN buildings**

Commonwealth of Pennsylvania

The Pennsylvania  
Green Building Operations  
and Maintenance Manual



More Sustainable Commerce

Build it **GREEN**

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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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and



**Green Seal, Inc.**  
1001 Connecticut Avenue, NW  
Suite 827  
Washington, DC 20036-5525

May 2007

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Contract No. HQ00034-06-F-1215



# Environmental Procurement Program



## Purchasing Manual

Version 1.0

Date: 3/18/08





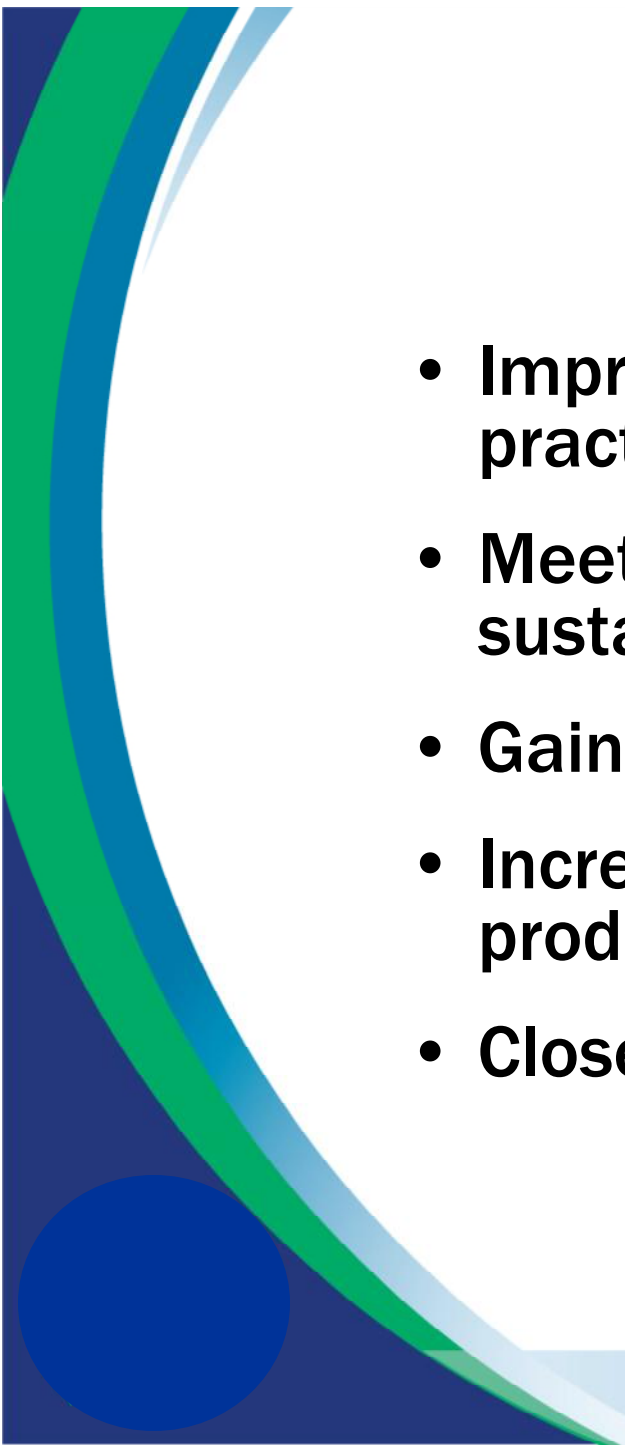
# Green Seal Programs

- Standard Development
- Certification
- Greening Your Government
- **Green Purchasing Partnership**
- **Green Facilities Partnership**



# **Green Seal's Green Partnership Programs**

- **Assist in purchasing, operations, facilities management**
- **Experience with Federal, State, local governments; non-profits; companies**
- **Technical assistance available**
- **Recognition for Green Purchasing Partners, Green Facilities Partners**



# Why Go Green?

- **Improve facilities management practices**
- **Meet mandates/expectations for sustainability**
- **Gain recognition**
- **Increase supply/demand for green products & services**
- **Close the loop**





# Green Purchasing Partnership

- Provides **recognition** and **technical assistance** if requested for organizations taking action to green their purchasing
- Based on **action plan** to implement green purchasing 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

# Green Purchasing Prioritization

Product Category	Priority	Environmental Rank	Category Annual Spend
Janitorial paper products	Very High	1	1,506,796
Books	Very High	2	571,857
Construction equipment rental	Very High	9	2,704,363
Countywide printing	Very High	15	9,743,663
Disposable foodware and plastic bags	Very High	17	479,475
Clothing, fabric & related materials	Very High	18	2,545,199
Computers	Very High	22	3,239,280
Janitorial supplies	Very High	25	1,243,073
Air conditioners, refrigerators	Very High	27	304,482
Herbicides	High	11	148,641
Pesticides	High	16	180,544
Lumber & plywood	High	24	141,076
Office supplies	High	32	12,893,011
Paint and related materials	High	33	224,788
Photocopy equipment	High	34	2,882,793
Laundry chemicals	High	36	422,336
Carpet and floor tiles	High	37	157,121
Fuels (liquid)	High	39	28,627,936

# Green Purchasing Schedule

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

File Edit View Insert Format Tools Table Window Help

Type a question for help

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Final Showing Markup Show

Reply with Changes...

1 2 3 4 5 6 7

**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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Norton 4:09 PM



# Green Facilities Partnership

## Institutionalizing Green Facilities Management

- **Baseline Evaluation**
- **Determine goals, objectives, priorities**
- **Develop a game plan**

**These form the basis of the  
Green Facilities Partnership**

# Green Facilities Partnership

- Develop an **action plan** to implement green O&M practices based on organization's objectives, challenges and opportunities
- Green Seal provides **annual monitoring** to ensure targets and timetables are met
- Green Seal can provide **technical assistance** as needed
- With **continued progress**, organization can advance from Partnership to Leadership or Championship levels





# Green Facilities Partnership

- Green Facilities Action Plan includes the following (or steps to achieve them):
  - Effective **policies**, procedures, organization and staffing
  - **Prioritization** of facilities management activities by annual expenditure, environmental impact, improvement potential
  - **Implementation schedule** based on prioritization, timing of upcoming improvement opportunities, ease of implementation and/or return on investment
  - Specifics of **environmentally preferable O&M practices** to be undertaken in current year of implementation schedule
  - **Monitoring and reporting** protocols adequate to document progress on green facilities management.





# Green Facilities Partnership

- O&M practices that Green Facilities Action Plan covers may include:
  - “ HVAC Maintenance
  - “ Lighting Maintenance
  - “ Water Use
  - “ Cleaning Products and Procedures
  - “ Waste Reduction and Recycling
  - “ Integrated Pest Management
  - “ Green Landscaping of Buildings
  - “ Snow Removal and De-icing
  - “ Roofing Maintenance
  - “ Parking Garage Maintenance, etc.





# Green Facilities Partnership

- **Relationship to LEED for Existing Buildings:**
  - GFP designed to compliment, not compete with, LEED EB
  - Highest level of GFP requires organization to be registered with USGBC and making all reasonable efforts to achieve LEED EB certification
  - GFP and LEED EB cover the same kinds of O&M issues (energy, water, materials, indoor air quality, etc.)



# Green Facilities Partnership

- **Relationship to LEED for Existing Buildings (continued):**
  - GFP focuses primarily on O&M practices, less on infrastructure
  - GFP may be especially useful for older buildings, which can make major improvements in O&M practices even if they may never be able to attain LEED EB
  - GFP can be tailored to achieve LEED EB or other objectives (e.g., STARS, GGHC etc.)



# **ROI for Green Facilities Management**

- **Significant reduction of waste**
- **Improved health and welfare of occupants & custodial staff**
- **More efficient purchasing, use of materials**
- **Reductions in operating costs**
- **Promotion by Green Seal**

# Thank You!



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**mrentschler@greenseal.org**

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