

# Green and Healthy Cleaning

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# Learning Objectives

- **Understand the health impacts of common maintenance activities.**
- **Identify green cleaning products and low toxicity pest management strategies.**
- **Identify water and energy efficiency opportunities in building maintenance.**

# Boston Property Maintenance Costs

	<b>Low</b>	<b>Mean</b>	<b>High</b>
Water and sewer	\$117	\$516	\$977*
Pest control	\$32	\$75	\$156
Painting	\$13	\$72	\$189
Landscaping	\$0	\$72	\$187
Appliances	\$0	\$22	\$79
Cabinets - Maintenance	\$0	\$34	\$83
Cleaning supplies	\$2	\$33	\$65
Lighting fixtures and bulbs	\$6	\$17	\$38
Ovens and ranges	\$0	\$15	\$26
Windows	\$0	\$5	\$26
Lighting – Fixtures only	\$0	\$9	\$18
Kitchen and bath fans	\$0	\$9	\$2
Lighting - Bulbs only	\$0	\$3	\$6

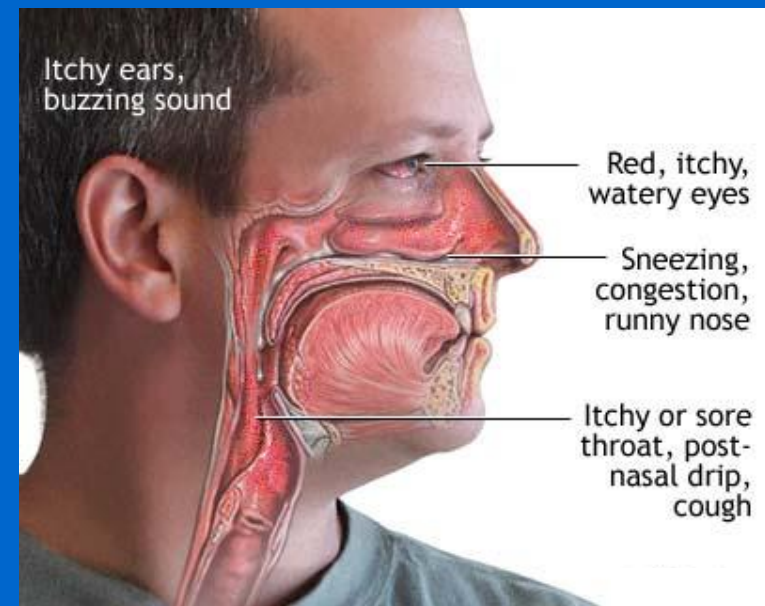
\* High costs are due to an unnoticed water usage with an outside hose.

# Green Cleaning

- Why ?
- How to start?
- Costs?
- Feedback?
- Resources?

# Health Concerns

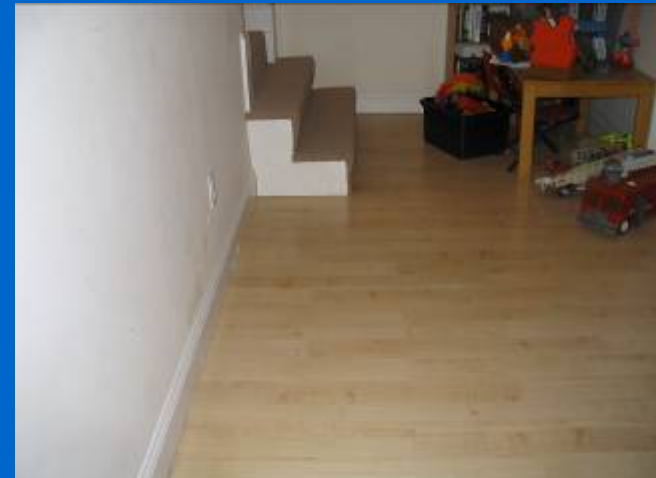
- Breathing problems like asthma
- Respiratory irritation
- Skin rashes
- Cancer
- Hormone disrupters
- Workers and Residents



# Other Benefits

- Environmental : Disposal & Manufacturing
- Potential Lower Costs -- \$\$ savings
  - Packaging
  - Bulk purchase
  - Environmental Preferable Purchasing prices

# Smooth Cleanable Flooring



# How to Get Started

- **Who does the cleaning? In house or third party?**
- **Survey cleaning needs and current costs**
- **Identify green alternatives**
  - **Greenseal.org**
  - **MA EPP**
- **Test the products, involve workers**
- **Make the choice that works for you**
  - **Contract changes**
  - **Internal policy changes**

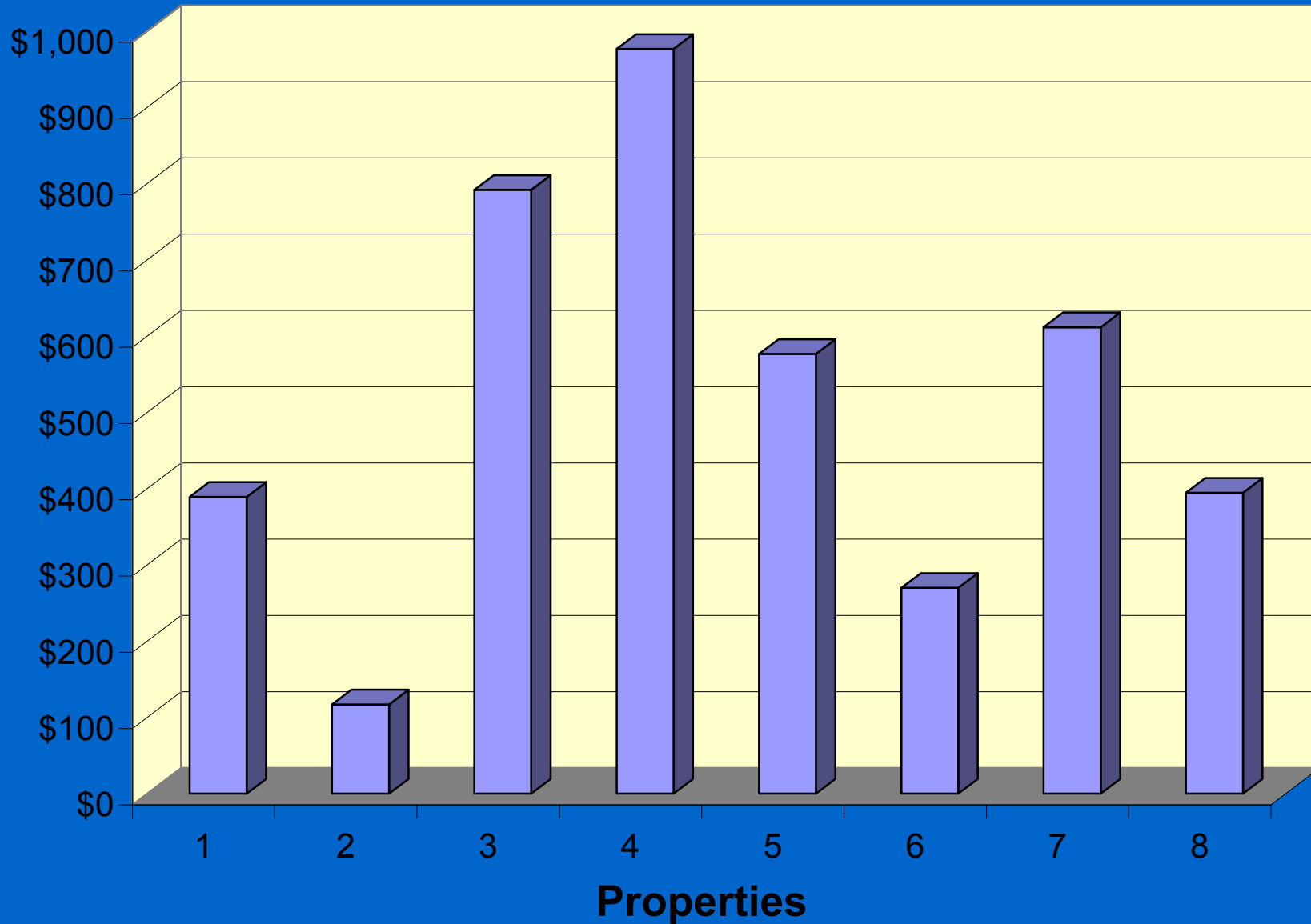
# MA EPP Cleaners

- ***MD Stetson:***  
General cleaner \$.22/gallon, disinfectant \$.29/gallon and floor stripper \$2.53/gallon.  
Contact Andrea Glass, 800-255-8651
- ***Atlantic Cleaning Products:***  
General cleaner \$.24/gallon; sanitizer/virucide \$2.40/gallon.  
Contact Shaun Mahoney, 800-423-1136
- ***Casey Engineering Maintenance, Inc. (EMI):***  
General cleaner \$.28/gallon; bathroom cleaner \$1.16/gallon;  
disinfectant \$.36/gallon  
Contact Craig Smith, 1-800-333-4385

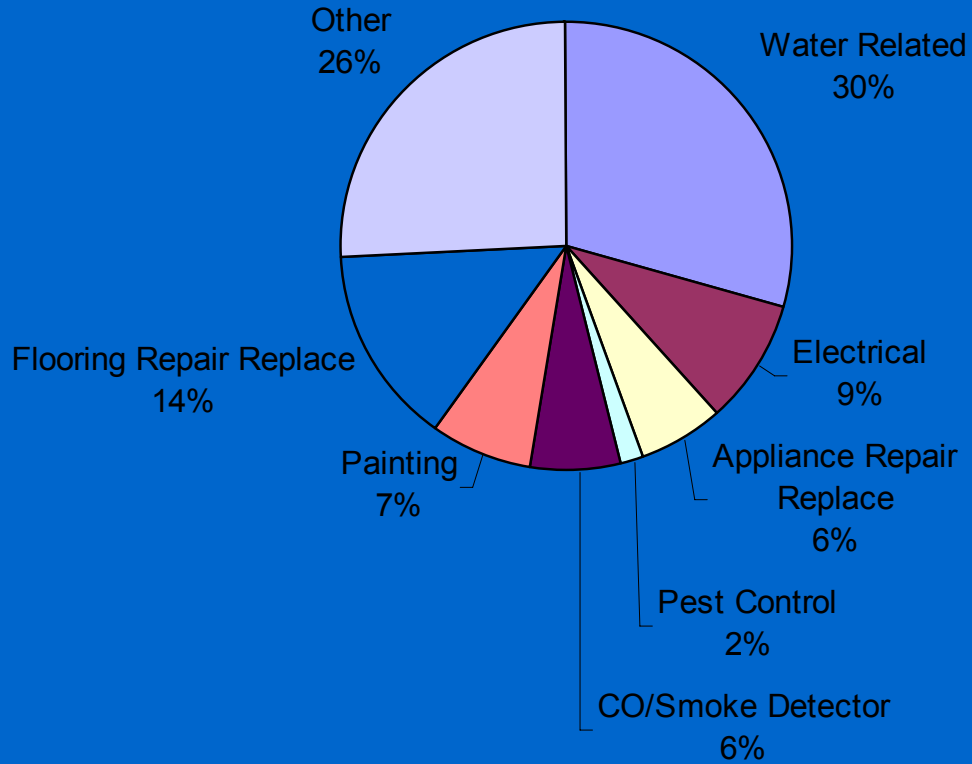
# Urban Edge Feedback

- Custodians felt that the green products performed better than existing products.
- One custodian who had asthma, noted that his asthma had improved since he started test piloting the new green cleaning products.
- [Urbanedge.org](http://Urbanedge.org) – Green Housing at UE

# Boston Water Costs/Unit/Yr – 8:1 Ratio



# JP Apartment Work Orders



- Water Related
- Electrical
- Appliance Repair Replace
- Pest Control
- CO/Smoke Detector
- Painting
- Flooring Repair Replace
- Other

# Dampness and Asthma

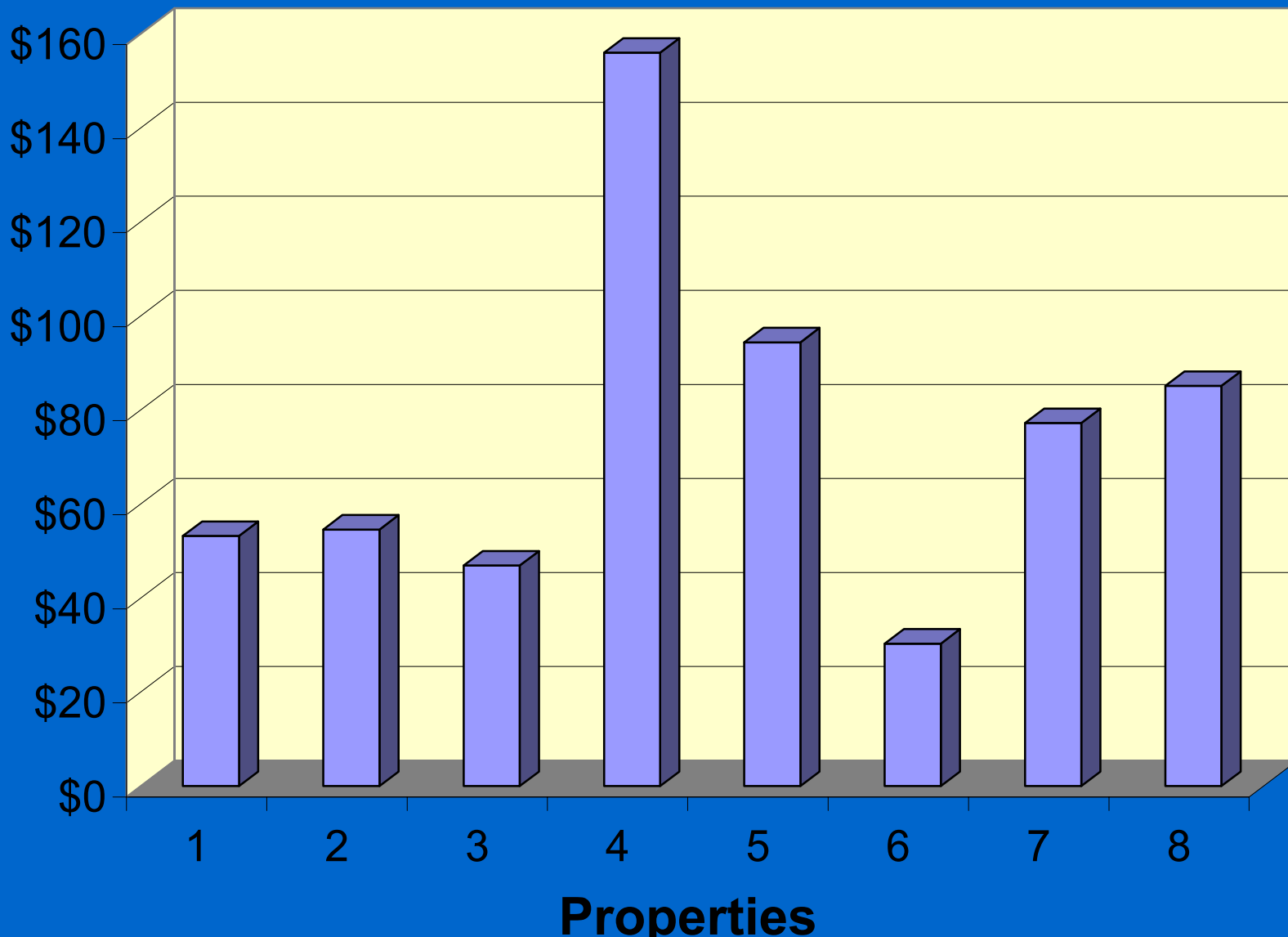
<b>Health Outcome</b>	<b>Estimated % Increase in Damp Homes</b>
Upper respiratory tract symptoms	52%
Cough	50%
Wheeze	44%
Current asthma	50%
Ever-diagnosed asthma	33%

# Water Opportunities

- Toilets <1.3 gpf; Water Sense & MAPT Study
- Washer - Energy Star
- Fixtures
  - Faucets <1.5 gpm
  - Bath faucets <1 gpm
- Shower Heads <1.75 gpm
- Winn saving \$ 1 million; 1 year payback



# Pest Cost/Unit/Year – 5:1 Ratio



# Pest Control

- No Spray & Fogging for roaches & mice
- Monitoring pest populations & complaints
- Reduce asthma triggers



# Thank you for your time!

## QUESTIONS?

This concludes the American Institute of Architects Continuing Education Systems Program.

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