

# GREEN UP - TO CLEAN UP - OUR SCHOOLS

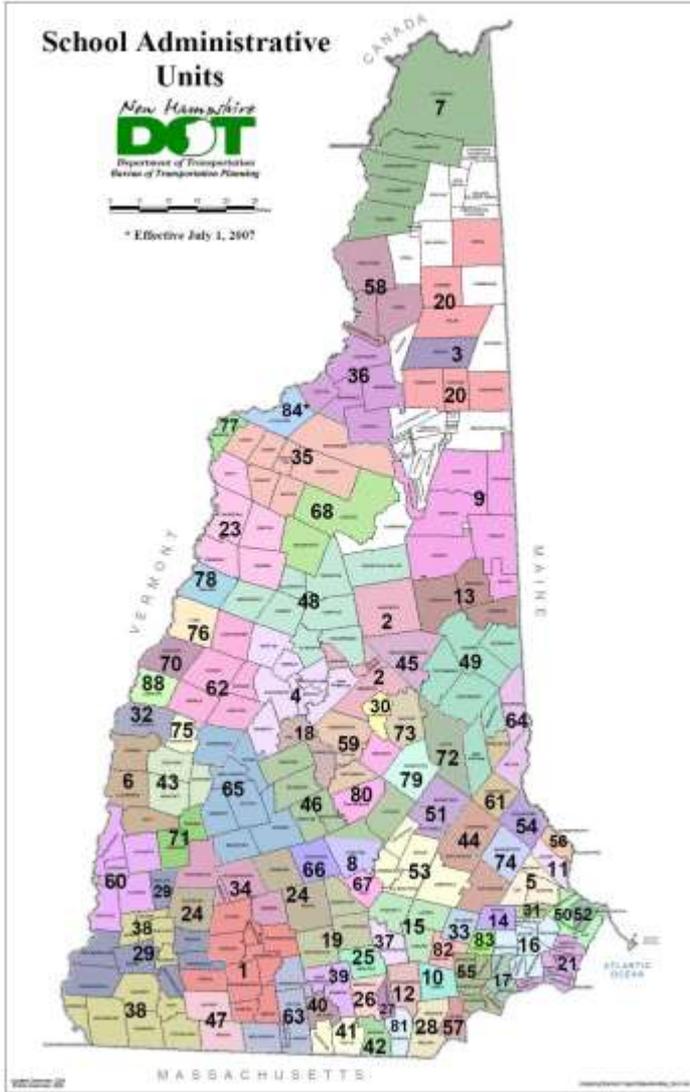
Create Clean and Healthy Classrooms  
Using Safer Products and Cleaning Techniques



Presented by  
Stephen Ashkin

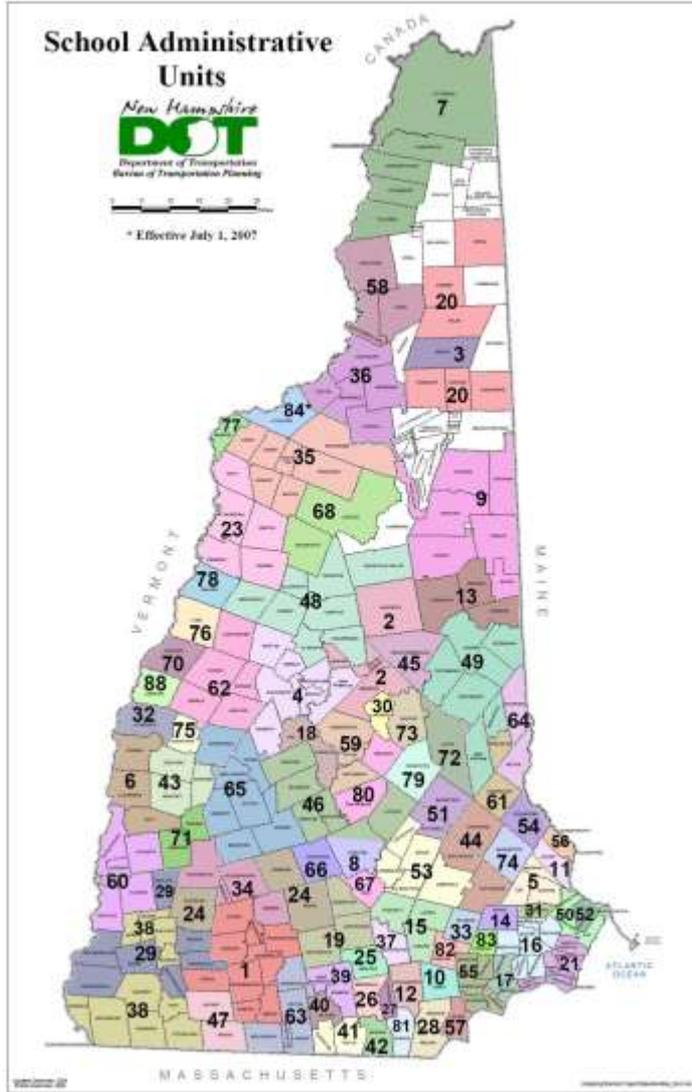


# How many schools districts are there in New Hampshire?



- A. 117
- B. 220
- C. 273
- D. 341
- E. 412

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# How many schools are there in New Hampshire?



- A. 275**
- B. 480**
- C. 620**
- D. 745**
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# How many kids are enrolled in schools New Hampshire?



- A. 108,000**
- B. 134,000**
- C. 161,000**
- D. 189,000**
- E. 225,000**

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# Green Cleaning In New Hampshire Schools



## Green Cleaning Made Easy....

1. Define Green Cleaning
2. Keys To Success
3. Green Product Selection
4. Custodial Training Issues
5. Final Details



# Green & Green Cleaning Defined



# Green & Green Cleaning Defined



- A. Requires third-party certifications
- B. Focuses only human health
- C. Focuses only on the environment
- D. Is a comparison to other similar products
- E. Is an approach or thought process

# Green & Green Cleaning Defined



## Concept / Approach to Cleaning

- Preventative maintenance
- Continuous improvement

A “lens” that focuses on reducing health and environmental impacts

# Green & Green Cleaning Defined



Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

This comparison may consider raw materials acquisition, product, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

Implementation Guidelines for  
Executive Order 13514



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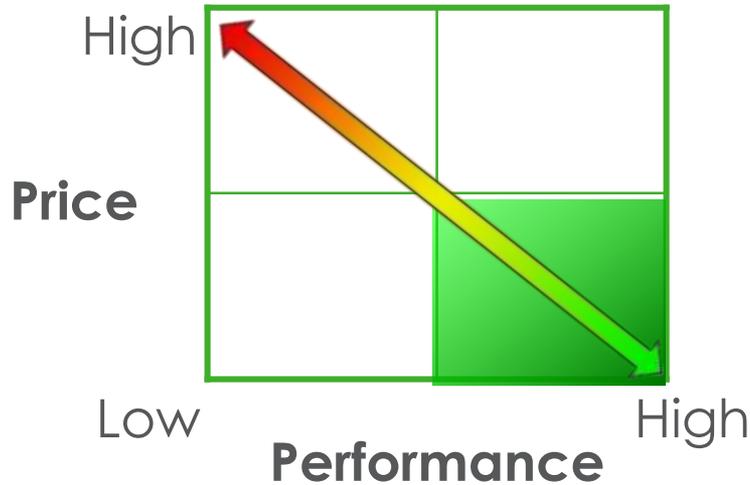
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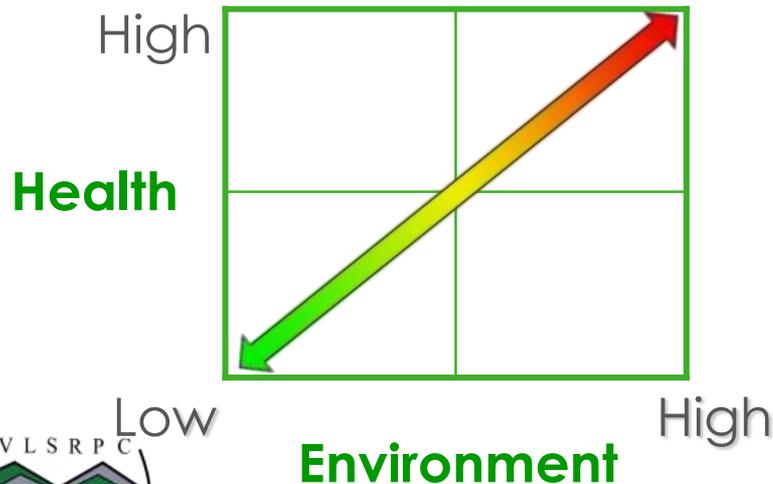
# Green & Green Cleaning Defined

## Traditional Purchasing



Products or services that have a lesser or reduced effect on human health and the environment when **compared** with competing products or services that serve the same purpose.

## Green Purchasing



This **comparison** may consider raw materials acquisition, product, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.



# Green & Green Cleaning Defined



## When no standards exist

...products and services that reduce the health and environmental impacts compared to similar products and services used for the same purpose.

## Green Continuum



- Reduce toxicity
- Recycle content
- Durability

- Conserve chemicals
- Conserve water
- Conserve energy

# Green & Green Cleaning Defined



Green Cleaning is the use of modern technology to reduce health and environmental impacts.



# Green & Green Cleaning Defined



**Why use products and processes that place our kids and staff at risk when other products are readily available, proven to be effective and cost competitive?**

Green Cleaning is the use of modern technology to reduce health and environmental impacts.



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# Keys to Success



# Keys to Success



- A. Understand the power of purchasing
- B. Make it a policy
- C. Training staff
- D. Continual improvement
- E. All of the above

# Keys to Success



## 8 Keys to Success

1. Understand Your Purchasing Power
2. Protect Health & Safety
3. Save Resources With Efficiencies
4. Make It A Policy
5. Engage Stakeholders
6. Training Staff
7. Goal Setting, Measuring and Reporting
8. Continual Improvement

# Keys to Success – 1. Understand Your Purchasing Power



## Understand your power as a purchaser

- Every purchase creates an opportunity
- What you purchase sends a message to your suppliers
- Suppliers want to help – and you're paying for it (or are you?)

## Keys to Success – 2. Protect Health & Safety



### Focus on protecting health and safety

- Green Cleaning is effective cleaning - enhances school appearance at the same time
- Use greener (safer) products and maintain them properly
- Practice infection prevention
- Focus on vulnerable occupants
- Don't forget custodial personnel

## Keys to Success – 2. Protect Health & Safety

### WHY WOMEN LIVE LONGER THAN MEN

1. Because of stuff like this:



# Keys to Success – 3. Save Resources With Efficiencies



**Be intentional about saving environmental resources through efficient operations**

- Get organized (use time more efficiently)
- Use the right tools and equipment
- Reduce products
- Reduce energy
- Reduce water
- Reduce waste

# Keys to Success – 3. Save Resources With Efficiencies



## Use the right tools and know how to use them

- Squeegee for windows and mirrors
- Squeegee for cleaning desks and cafeteria tables
- Right sized vacuums, scrubbers, floor finish applicators and other equipment

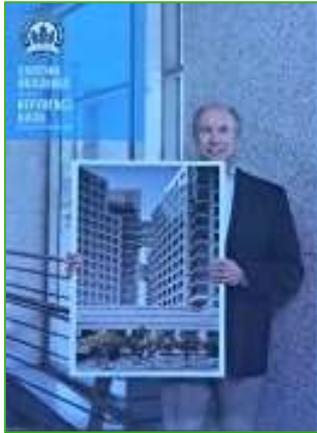
# Keys to Success – 3. Save Resources With Efficiencies



**Color-code electric devices so custodians know what they can turn off**

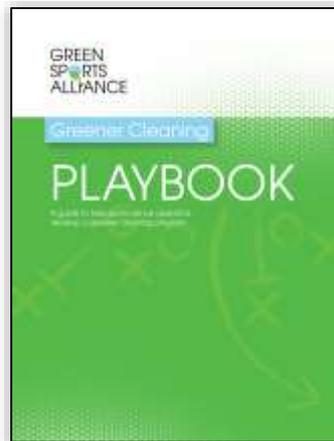
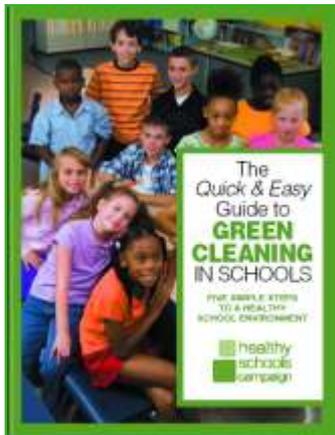
- Televisions and monitors
- Computers
- Printers
- Copiers
- Lights
- Coffee pots
- Fans
- Personal heaters
- Windows

# Keys to Success – 4. Make It A Policy



**A policy that clearly defines what needs to be done and who will do it is critical to success**

- Message of commitment
- Gets everyone on the same page
- Numerous programs exist – no need to reinvent the wheel
- Cleaning industry standards make it easy
- New Hampshire Department of Education



# Keys to Success – 5. Engage Stakeholders



**Change is hard. You can't do it by yourself.**

- Join an existing team
- Create a team
  - Principal (or their rep)
  - Facility management
  - Purchasing
  - Custodial managers
  - Teacher
  - Students
  - School nurse
  - Parents
  - Vendors

Keep your Superintendent updated

# Keys to Success – 6. Training Staff



## Training Staff

**60% to 70% of the cost  
for cleaning  
is labor**

# Keys to Success – 6. Training Staff



## Training Staff

- Language of the custodians
- Pre- and post-testing
- Feedback from custodians
- What to do and why we do it
- Classroom and hands-on
- Proper product use and disposal
- Protect health and safety
- Reduce energy and water consumption
- Provide a training area

# Keys to Success – 7. Goal Setting, Measuring & Reporting



## What gets measured gets done

- Products
- Measuring cleanliness
- Green product use (percent of purchases)
- Number of products
- Number of deliveries
- Training
- Innovation
- Complaints
- Absenteeism
- People units
- Environmental units

# Keys to Success – 8. Continual Improvement



It's all about learning and the cleaning industry is doing remarkable things

- New players
- Changing game plan
- New opportunities
- Take advantage of innovation

# Keys to Success



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# Implementation



# Implementation



- A. Create a team
- B. Purchase cheaper products
- C. Conduct an audit
- D. Forget planning, go golfing
- E. All of the above

# Implementation



## 5 Implementation Steps

1. Create A Green Team
2. Identify Goals & Objectives
3. Identify Barriers & Obstacles
4. Conduct An Audit
5. Create A Plan

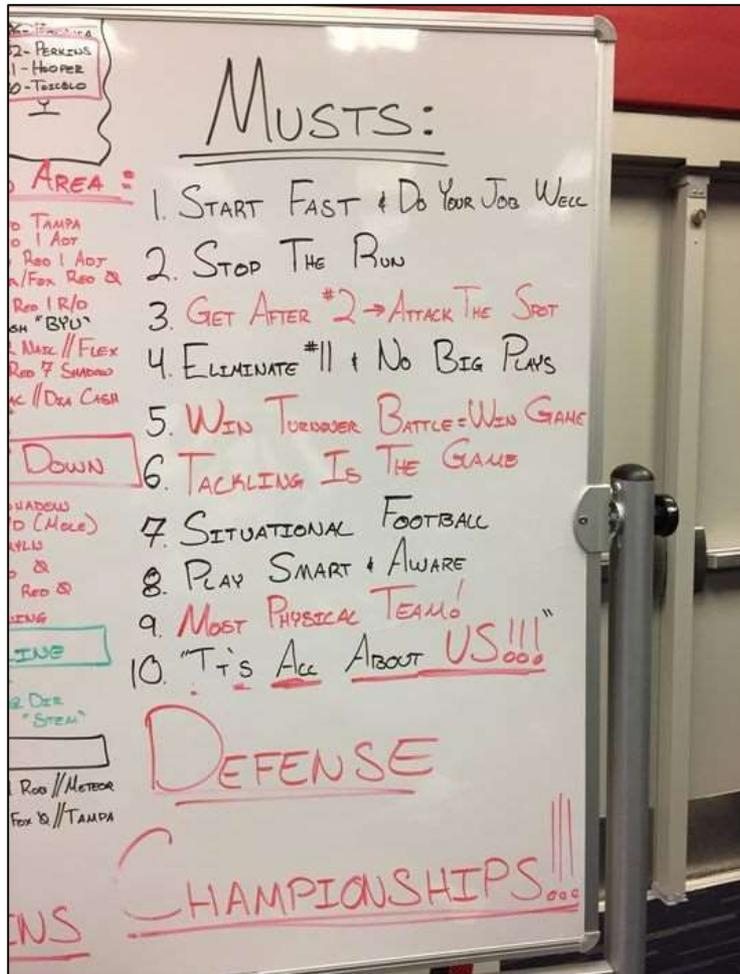
# Implementation – 1. Create A Green Team



## Create a Green Team

- Attach to an existing team or create a new one
- Include people throughout the school
  - Don't forget the nurse
  - Don't forget vendors
  - Someone for communications
- Create a winning culture

# Implementation – 2. Identify Goals & Objectives



## Details are important. Breakdown by:

- Facility areas
- Event types
- Contingency planning
- Time of day/year
- When tasks will be completed
- Stakeholders
  - Custodians
  - Vendors
  - Teachers
  - Administration
  - Parents
  - Other facility users
- Other

# Implementation – 3. Identify Barriers & Obstacles



If you're going to "play",  
play to win

- Financial restrictions
- Contracting language
- Personal issues
- Politics

# Implementation – 4. Conduct An Audit

**SP+ JUNIORS** SOCCERPLUS HIGH PERFORMANCE PROGRAM  
**HAWKS PLAYER ASSESSMENT - MID FALL 2011**  
**DREW JOHNSON**

Player assessment is an integral component to the SoccerPlus approach to player and coach development. Assessment is used by the coaches and club at every opportunity to make a difference in learning. Critically the assessment methods are appropriate to the players stage of development and are based on performance 'competencies' that form the foundation for progression to more complex skills and techniques.

**END OF STAGE COMPETENCIES:**  
 Development occurs on a continuum where chronological age is not as important as development age - the key competencies of this stage of development are: dribbling, turning, ball mastery, shooting and basic attacking. The formula for player development at this stage is simple - repetition and reinforcement. The activities chosen, the coaching methodology and our planned approach is designed to help each individual maximize their potential in a challenging environment. Our focus is on each player and what is best for him or her.

**ASSESSMENT ACTIVITIES:**  
 There are 3 main areas of focus and 5 assessment activities: Focus: Dribbling Ball Mastery (control on the ball) and Attacking. Activities: Toe Taps, Foundations, Change of Pace, Change of Direction and Dribble & Shoot. These are all objective assessment methods - the player's technical performance measured against a time limit.

**ASSESSMENT SCORES:**  
 Score - most recent score. Score - previous score. Rating - performance against expectation (Bronze, Silver or Bronze). Total - The combined total of all performance 'scores'. Avg Rating - The rating on each activity (1-3) divided by the number of activities. Performance - Overall performance (Bronze, Silver, Gold). Please consider this as a benchmark of how the player performed during the assessment and may not be a true reflection of the player's typical performance. Regular assessments will be performed to develop a more accurate evaluation and we will consider subjective assessments by the coaches.

ACTIVITY	SCORE & RATING	SCORE & RATING	CHANGE	OVERALL SCORE	
1. TOE TAPS (20 seconds)	49 - SILVER	38 - BRONZE	+11	TOTAL	134
2. FOUNDATIONS (20 seconds)	49 - GOLD	40 - SILVER	+9		
3. CHANGE OF PACE (20 seconds)	11 - GOLD	12 - GOLD	-1	AVG. RATING	GOLD
4. CHANGE OF DIRECTION (20 seconds)	14 - GOLD	11 - SILVER	+3		
5. DRIBBLE AND SHOOT (45 seconds)	11 - SILVER	10 - SILVER	+1	PERFORMANCE	3.6

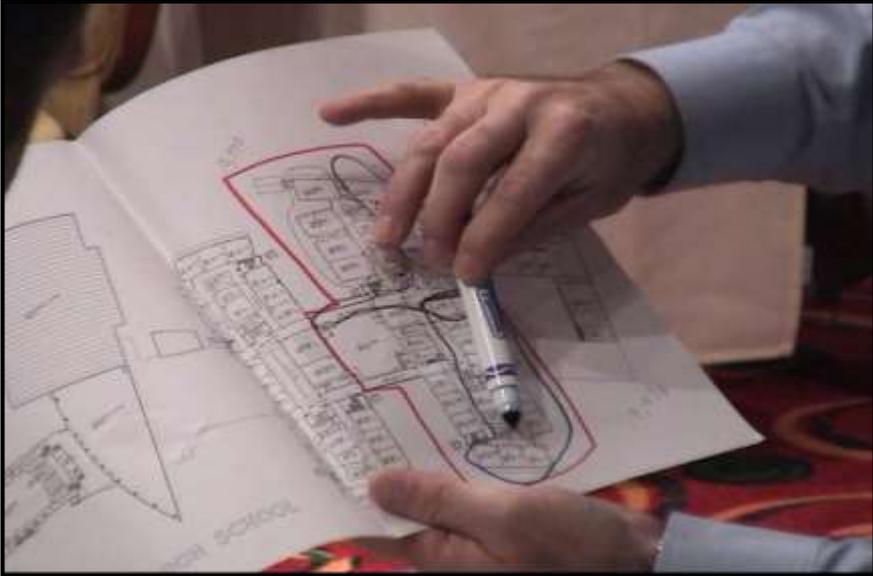
**INTERPRETING THE SCORES:**  
**GOLD** Performance exceeds the expectation for players of this stage in development.  
**SILVER** Performance matches the expectation for players of this stage in development.  
**BRONZE** Performance is below the expectation for players of this stage in development.

SoccerPlus is delighted to join the Soccer National Standards Project - a long-term initiative to measure, benchmark and track the technical ability of the 18.2 million youth soccer players in the USA. The Soccer assessment activities will form part of our High Performance Program, a comprehensive approach to player development, encouraging players to practice their technique at practice and in the yard at home. To learn more about the National Standards Project, visit [www.soccer.org](http://www.soccer.org)

An audit will identify your starting point and uncover opportunities

- Cleaning products
- Storage areas
- Custodial carts
- Classrooms
- Cafeterias and food prep areas
- Sport facilities
- Exterior and entryways
- Cleaning processes
- Overall cleanliness
- Consider using an ATP meter or other measuring tools & devices

# Implementation – 4. Conduct An Audit



# Implementation – 4. Conduct An Audit – Infection Control

## Simple infection control tactics for custodians

- Wash hands or use hand sanitizer (change gloves)
- Keep equipment clean (vacuum cleaners, mop buckets, carts, etc.)
- Dump and refill mop buckets (dispose properly)
- Color-code mops and cloths (appropriately launder them)
- Use high-efficiency vacuum cleaner bags
- Practice IPM (prevention)



Think about what people (custodians and occupants) touch

# Implementation – 5. Create A Plan



3 Bucket Method to  
Decision-Making

## Considering:

- Audit and other data
- Goals and priorities
- Protecting health and the environment
- Cost implications
- Ease of implementation (look for easy wins)
- Politics

# Implementation



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# Product Selection



# Product Selection



- A. Chemicals are bad, don't use them
- B. Save the forests by providing no paper products
- C. Buy certified products
- D. Cleaning equipment doesn't matter
- E. All of the above

# Product Selection

## Specs...

1. Chemicals
2. Sanitary Paper
3. Equipment
4. Plastic Liners
5. Miscellaneous



# Product Selection – Chemicals

## Appendix 1: Requirements for Green Cleaning Chemicals

### 1. All Purpose, Glass & Washroom Cleaners (non-disinfecting)

Shall meet one of the following requirements:

- Green Seal GS-37, for general-purpose, bathroom, glass and carpet cleaners used for industrial and institutional purposes;
- EcoLogo CCD-146, for hard-surface cleaners;
- U.S. EPA Design for the Environment (DfE) Program's *Standard for Safer Cleaning Products*<sup>24</sup>; and/or
- Cleaning device that produces ionized, ozonated, electrolyzed or similar water-based solutions<sup>25</sup>

### 2. Disinfectants & Sanitizers

Shall meet one of the following requirements:

- California Code of Regulations maximum allowable VOC levels for the specific product category<sup>26</sup>
- U.S. EPA Design for the Environment (DfE) Program's *Standard for Safer Cleaning Products*<sup>26</sup>; and/or
- Cleaning device that is registered with U.S. EPA as a disinfectant that produces ionized, ozonated, electrolyzed or similar water-based solutions<sup>27</sup>

### 3. Heavy Duty Degreasers

Shall meet one of the following requirements:

- Green Seal GS-34, for cleaning and degreasing compounds;
- EcoLogo CCD-110, for cleaning and degreasing compounds; and/or
- U.S. EPA Design for the Environment (DfE) Program's *Standard for Safer Cleaning Products*<sup>26</sup>.



# Product Selection – Chemicals



**You don't need to be a chemist or industrial hygienist if you...**

- Buy certified products
- Use concentrated products
- Properly use or dispose of products being replaced
- Use hand soaps for restrooms that do not contain antimicrobial ingredients
- Select the right disinfectants and use them appropriately
- Intentionally innovate



# Product Selection – Chemicals – Green Disinfectants



## U.S. EPA now certifies Green disinfectants

- Citric acid
- Hydrogen peroxide
- Lactic acid
- Ethanol
- Isopropanol
- Peroxyacetic acid
- Sodium Bisulfate

Please ask your vendors and state about them



# Product Selection – Chemicals – On-Site Generators



## Next generation of Green Cleaning chemicals

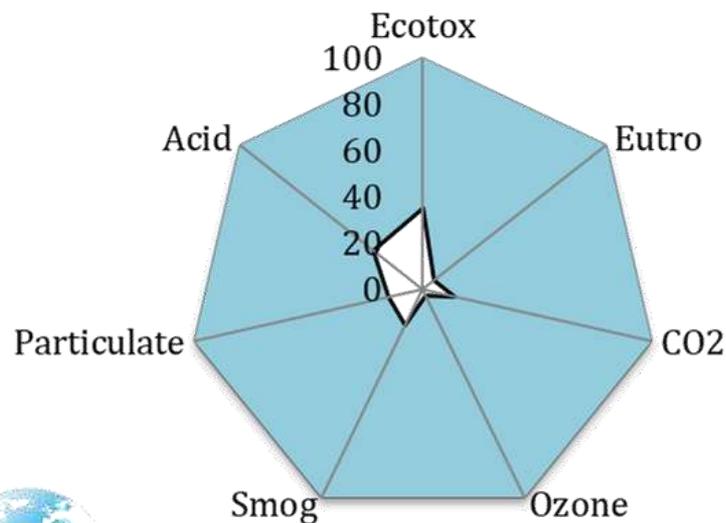
- Aqueous ozone
- Electrolyzed water
- Split stream
  - Sodium hydroxide
  - Hypochlorous acid
- Applications
  - Wall units (mop buckets, spray bottles)
  - Mobile (restrooms, classrooms)
  - Onboard scrubbers

# Product Selection – Chemicals – On-Site Generators



**Huge environmental and health benefits.**

- Raw material extraction
- Manufacturing
- Packaging
- Transportation
- Packaging materials and waste



# Product Selection – Sanitary Paper



**Toilet tissue and paper hand towels are a huge portion of your product spend and environmental footprint**

- Certified products
- Post-consumer recycled content
- FSC certification
- Rapidly Renewable Fiber
- Intentionally innovate
- Dispensing options
- Electric hand dryers

# Product Selection – Sanitary Paper – Use large rolls



# Product Selection – Sanitary Paper – Global Forestry



# Product Selection – Plastic Can Liners



## Plastic Liners

- Reduce consumption
  - Do you really need them?
  - Use for wet trash only
- Right size and thickness
- Post-consumer recycled content
  - 75% - 100% PCR
- Be wary of biodegradable and compostable bags

# Product Selection – Cleaning Equipment



## Vacuums, scrubbers and more

- Carpet & Rug Institute – Seal of Approval Program
- Protect workers
- Protect the environment
  - Increase energy efficiency
  - Reduce water consumption
  - Use low-emission gas engines
- Durable and repairable
- Intentionally innovate

# Product Selection – Cleaning Equipment – Innovation



# Product Selection – Miscellaneous Products



There are Green considerations in everything you buy/use

- Entryway mats
- Mops
- Buckets
- Carts
- Waste/recycling bins
- Floor pads

**Considerations include:**

- Recycled content
- Durability
- Repairability

# Green & Green Cleaning Defined



## When no standards exist

...products and services that reduce the health and environmental impacts compared to similar products and services used for the same purpose.

## Green Continuum



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# Tracking, Measuring & Reporting

FENWAY PARK													
P	1	2	3	4	5	6	7	8	9	10	R	H	E
NY	0	0	1	0	0	0	0	0	0	0	1	1	0
BOSTON	0	0	0	1	0	0	0	0	2		3	1	2

AT BAT	BALL	STRIKE	OUT	(P)	(E)
■	●●	●●	●●	●	●

GREEN MONSTER

## Data will help you with

- Tracking
- Benchmarking
- Continuous improvement
- Prevent backsliding
- Engagement of stakeholders
- Telling the story

If you're not tracking and comparing your data,  
you don't know if you are wasting money





# Occupant Education & Engagement



**Dodgers**  ROYAL CORPORATION  
**R**EVOLUTION **BAG**

The Dodgers' use of can liners right-sized to fit the container and from 100% post-consumer resin resulted in roughly 40,000 lbs of plastic being removed from the waste stream in 2014 alone.

This effort alone reduced air emissions by ~88 metric tons of CO2 which is equal to planting 2250 tree seedlings that are grown for 10 years, powering 8 homes for 1 year, or removing 19 passenger cars from the road for 1 year.

*At home make sure to buy plastic bags that are the right size for the container and made with a high percentage of post-consumer recycled plastic resin.*

*Excellence in Sustainability*

## Tell your story

- What you have done and why cleaning is important
- Explain health and environmental Impacts
- Explain how cleaning improves student and staff performance
- Consider teaching what people can do at home
- Celebrate

What are you doing for Earth Day?



# Sustainability



**Ask your distributors and their product manufacturers what they are doing to be more sustainable**

- Sustainability equals resource efficiency --- saves money
- Sustainability addresses what they are doing relative to their employees
- Sustainability addresses what they are doing in the communities they serve

Are your distributors participating in ISSA's DEAL Program?





# **We want you for the Green Cleaning Movement**

Never doubt that a small group of thoughtful,  
committed citizens can change the world.

In fact, it's the only thing that ever has.

Margaret Mead

