



# MT Green School ABCs

Green Cleaning: An essential step towards a healthy  
school environment



# Green School Series

- Green Cleaning and School Environmental Assessment Tools (March 11<sup>th</sup>)
  - Basic building blocks of a green school program, all with the intention of creating a healthier indoor air quality
- School Chemical Clean-outs (March 25<sup>th</sup>)
  - Process of conducting an inventory of hazardous chemicals within the school (science classrooms, custodial storage areas etc.) and finding a way to get them out of there.
- Healthy Landcare (April 8<sup>th</sup> )
  - Development of Integrated Pest Management Plans and the realities of moving towards a less toxic land care system
- Green Renovation and Maintenance (April 22<sup>nd</sup> )
  - Summer projects- painting, floor and tile sealing, lighting upgrades, carpet replacement, etc.
  - Asbestos- do you have it? Now what?



# Peaks to Prairies – who are we?

- A Pollution Prevention Information Center for EPA Region 8 (MT, WY, ND, SD, UT, CO)
  - Pollution prevention - the elimination or reduction of the generation of waste at the source rather than controlling pollution through treatment or disposal
- One of 8 EPA funded Regional Centers whose mission is to distribute tools and information to businesses, industries, technical assistance providers, state and tribal government agencies for the purpose of aiding in the practice of pollution prevention
- A program under MSU's Department of Extension – Housing and Environmental Health- Bozeman

# What we will cover

- Hazards of traditional cleaners
- What is green cleaning
- What is involved with a green cleaning program
- How to plan and implement a green cleaning program
- Bellingham School District success story
- Tools to conduct an environmental assessement



# Cleaner usage in schools

- On average, custodians use **28** gallons of chemicals each year.
- **25**% of those chemicals are classified as hazardous chemicals.
- **6**% of custodians are injured every year by the chemicals they use.
- There are **17,000 petrochemicals** available for **home/institution** use, only **30%** of which have been tested for exposure to human health and the environment.
- **Indoor air pollution** levels can be 100 times above **outdoor air pollution** levels.

# Effects of traditional cleaner use

- Negative environmental and health impacts
- Increased health / insurance costs
- Increased absenteeism for students and staff

Glass Cleaners	2-Butoxyethanol	Absorbed through skin and can cause blood changes. EPA environmental hazard.
Carpet Cleaners	Urea	Mutagen. A skin irritant.
	Ethoxylated Nonylphenol	Eye and skin irritant. Suspected mutagen.
	N, N-Dialkyl (C8-10)-N, N-Dimethylammonium chloride	Hormone modifier. Slow biodegradation. Eye and skin irritant. Toxic to aquatic life.
Bathroom Cleaners	Ammonium Hydroxide	Severe burns to eyes and skin. Toxic to aquatic life.
Bleach-based Cleaners	Hypochlorite (NaClO)	Respiratory irritant. Toxic in high concentrations.

# What is green cleaning?

Cleaning to protect health without harming the environment.

Green?

Products and services that reduce health and environmental impacts compared with similar products and services used for the same purpose





# Why go green?

- Reduce negative environmental and health impacts
- Reduce liability, legal costs and insurance
- Reduce risks to children and staff
- Improve worker productivity
- Reduce absenteeism and improve employee retention

Green isn't going anywhere...it is here to stay.  
Let's be proactive rather than reactive.



# International Sanitary Supply Association says...

- Green cleaning is the number one trend in the industry
- It works!
- Green products reduce workers' compensation claims.
- Productivity increases due to reduced toxic exposure.
- Going green can increase your facility's appeal.



# Planning Phase: How do we implement a program?

1. Identify common challenges
2. Get everyone on board (principal/administrators, custodial staff, PAC, teachers, district school nurse, student representative) and build a team to move the process forward
3. Assess financial reality
4. Consider a pilot school



# 4 Basic Elements of a green cleaning program

1. Require the use of green cleaning products through a school district policy
2. Establish guidelines for purchasing products
3. Establish best practices for cleaning and maintenance
4. Provide staff training

# District Policies

- Gain commitment from district and school leadership
- There are many different examples of school district policies that can help with this ranging from:
  - low or no VOC requirements
  - product listings on Green Seal
  - no petrochemical products
- This can all be worked through with the team



# Product Purchasing

What to look for in a green cleaner

- Ingredient list
- Non-toxic
- Biodegradable
- Phosphate free
- Contains no dyes or bleach
- Recyclable containers
- Natural fragrances

# Product Purchasing

There are 3<sup>rd</sup> Party Certification programs that exist to help make these types of decisions



Green Seal – non profit standards setting organization dedicated to improving the indoor environment



Ecologo



EPA's Design for the Environment

These programs go beyond all purpose/tile/glass cleaners and carpet cleaners to include things like: Hand soap, paper towels, napkins, tissue paper, office products, damp mop cleaners, compostable trash liners.



# Best Practices

In addition to using green cleaners, more facilities are using better technology in their cleaning program

- Damp dusting
- HEPA vacuum cleaner filters
- 3 step walk off mats
- Microfiber dust cloths and mops
- Establishing list of prohibited chemicals
- Providing classroom teachers with one approved all purpose cleaner
- Discouraging air freshener use



# Staff Training

- Educate staff on proper use of new materials
- It is important to note that some environmentally preferable cleaners are used differently than their traditional counterparts, making training critical for the successful use of the product. Ask vendors or manufacturers to provide training on the proper use of their products... especially with concentrated products.
- Communication is important throughout the process (between management, administration, custodians, maintenance staff, teachers, students, etc.)





# Resources

Websites for more information:

- [www.doi.gov/greening/sustain/clean.html](http://www.doi.gov/greening/sustain/clean.html)
- [www.healthyschoolscampaign.org](http://www.healthyschoolscampaign.org)
- [www.greencleaningnetwork.org](http://www.greencleaningnetwork.org)
- [www.ofee.gov/janitor/buildinginfo.asp](http://www.ofee.gov/janitor/buildinginfo.asp) /
- [www.greencleaningfordummies.com](http://www.greencleaningfordummies.com)
- [www.green.ca.gov/EPP/building/cleaning](http://www.green.ca.gov/EPP/building/cleaning)



# Incentives

Eat Right Montana – Mini Grant Program (12 grants at \$500 each)- to support schools, childcare or senior facilities that want to support **GOING GREEN** activities. (March 30<sup>th</sup> deadline)

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

- EPA's Children's Environmental Health Excellence Recognition Program (yearly)
- Annual Green Cleaning Award for Schools and Universities
- Missoula – Aug 09 – R8 Children's Environmental Health Summit – focus is environmental exposures in schools and daycares

# Case Study: Bellingham School District

Mike Anderson – Head of Custodial and Maintenance

# Myla Kelly

Coordinator – Peaks to Prairies Pollution Prevention  
Center

406-994-6948

[myla.kelly@montana.edu](mailto:myla.kelly@montana.edu)