



# Green Cleaning Tool Kit

for Affordable Housing Owners  
and Property Managers



*Multifamily property owners and managers recognize that the way buildings are operated can create a healthier living environment, reduce cost and achieve environmental benefits.*

Green cleaning products offer an opportunity to improve health conditions for residents and staff and benefit the environment. Switching to green cleaning products and employing more effective cleaning practices and procurement systems can also save owners money.

## Why switch to green cleaning products?

### Green products are healthier for staff and residents

- **Maintenance Staff Benefit:** Janitors can experience more work related asthma than other occupations.<sup>1,2</sup> Many traditional products include Volatile Organic Compounds (VOCs), which can trigger breathing problems. Some workers find that their hands sting or their skin can be irritated when working with traditional cleaning products.

This toolkit is part of Two Shades of Green (TSG), an initiative that integrates green, healthy and cost effective measures into affordable housing rehabilitation and property maintenance. The aim is to reduce asthma triggers, improve the health and wellness of residents and building staff, and help reduce energy and water usage and lower maintenance costs. TSG is a partnership between [LISC New York City](#), [NYC Department of Health and Mental Hygiene](#), [NYC Smoke Free](#) and Community Development Corporation partners.

TSG provides targeted technical support to help nonprofit affordable housing owners and property managers implement energy efficiency, water conservation, safe and green pest management, smoke free housing, non-toxic cleaning and active design strategies.



*“After trying out green cleaners in two buildings, we were sold. We saved money, the cleaners really worked, and we see health benefits for our staff and residents”*

*—St. Nicks Alliance Staff*

- **Residents Benefit:** Some residents can experience difficult breathing, coughing, wheezing, worsening of asthma symptoms, or other allergic reactions after the use of traditional cleaning products in common areas.
- **Green Products Avoid Harsh Chemicals, Dyes, and Fragrances:** Green products minimize the use of chemicals and fragrances that can be linked to respiratory issues

and allergic reactions. The smell many associate with “clean” is often the result of chemicals used to create fragrances. Part of the switch to green cleaning involves educating maintenance staff and residents that clean does not have a smell.

### **Green products are better for the environment**

- **Reduced Contamination of Rivers, Lakes, Oceans and Nearby Lands:** Traditional cleaning solutions can contain harmful substances that, when disposed of, can find their way into streams or other water bodies through the sewer system, runoff, or wastewater treatment facilities.
- **Reduce Waste:** Green products rely on concentrates, reducing the packaging needed for pre-mixed products. As a result, less waste is sent to landfills or other disposal

facilities. Encouraging the use of recycled paper products and those meeting environmental standards helps to support sustainable forestry practices and broad sustainability goals.

### **Property owners can save money**

Traditional cleaning products can be more expensive than their green counterparts. Why?

Traditional products typically do not use concentrated formulas. Most green products rely on concentrate. As a result, customers of green products don't pay for water and extra packaging needed for larger pre-mixed products.

Many green products have a dilution delivery system that measures the exact amount of the cleaning product needed, minimizing wasted product.

Switching to green products can streamline the number of products used or improve the overall procurement system, which saves money. A green purchasing approach can allow owners to use 4-6 cleaning products to cover most cleaning needs. For some owners, a reassessment of their current products can reduce the overall number of products purchased or spur a transition from retail to wholesale purchasing. An owner purchasing ready-to-use retail cleaners could pay substantially more than an owner using a concentrated green cleaning product to create an equivalent 32 ounce spray bottle.

## How to Switch to Green Products?

- 1 Form a team including management, procurement, maintenance, residents
- 2 Identify current products, costs, and storage capacity
- 3 Discuss goals with green cleaning team
- 4 Select green products; train staff and residents
- 5 Evaluate green product performance and costs
- 6 Establish green cleaning policy and procedures

As with any change in management practices, it is important to involve the key decision makers and users in evaluating new products. The six steps below lay out such an approach.

### 1 Form a team to oversee the process

It is important to pull together senior management, procurement staff, maintenance staff, and residents. Collectively, the group can document current practices, products, and costs. They can identify opportunities to move to a greener approach, test new products, assess the costs, and establish a green cleaning program that works for all parties.





## 2 Identify current products, costs and storage capacity

**Determine the cleaning products currently in use.** Check if they are certified as green by the below organizations. Some states also certify green cleaning vendors and/or products. For example, the Massachusetts FAC 85 green cleaning contract ensures all cleaning products are third party certified, harmful ingredients are avoided, recycled content is encouraged, and vendors are vetted. The New York State Green Cleaning Program provides information and tools, including a searchable data base of approved green cleaning products.

**Determine the number of cleaning products and quantity used.** Some building owners find they can

streamline their product purchasing into several categories listed below. Determine if you are using multiple products in each of these categories. If so, opportunities may exist to reduce the number of cleaning products. To identify potential inefficiencies in cleaning practices, check that the quantity of product used is consistent with the square footage requiring cleaning. Finally, clarify your cleaning goals as you select products.

- All Purpose Cleaners
- Heavy Degreaser
- Hard Floor Cleaner
- Glass Cleaner

**Determine how much you are paying for cleaning products.** This will be important data in evaluating a switch to green cleaners. Evaluate the costs based on a consistent product size (e.g., usable quart of product).

Concentrated cleaning products may be more expensive per gallon, but are typically less expensive in creating a quart spray bottle of cleaning product. Be sure to look at both centralized and any onsite purchases. Consider products that are delivered versus purchased off-site and then picked up, requiring time and money to obtain the products.

**Determine if there is building space to store and prepare green cleaning products or if you will use a mobile dilution system.** Many green cleaning products use a concentrated formula that requires dilution or mixing. These systems work best if you have:

- A water source to mix cleaning concentrates and sink
- Wall space to mount clean product dispensers (not essential)
- A secure room to store products and supplies

If the existing janitorial closet meets these criteria, it may be easy to convert it to a green cleaning space with a dilution system. If space is limited, it is still possible to go green with a portable dilution approach. Such systems inject the green cleaning concentrate into the spray



### Cleaning Product Costs for 32 Ounce Spray Bottle Equivalent

Ready to Use Cleaner		Concentrated Green Cleaner	
Glass Cleaner	\$2.50-\$3.50	Glass Cleaner	\$.05-\$.10
All Purpose Cleaner	\$7.80	All Purpose Cleaner	\$.05-\$.20

Source of Green Cleaning Concentrate Costs: MD Stetson, MA



*“The switch to greener less toxic cleaning products has made it easier for me to breathe in my apartment.”*

*—Daughter of Jimmy Lugo, Building Super, St. Nicks Alliance*

bottle or container, which is then filled with water.

### 3 Discuss your green goals with your team

Discuss your goals and what is most important; there may be tradeoffs.

- What is your green target? Are you interested in the strictest green certification standard or are you open to products that meet more limited green criteria?
- How important are initial costs for new supplies versus ongoing costs? Some green cleaning systems require an initial investment, but can save money over time.
- Be wary of green washing and products that are advertised as organic or natural, but do not have the recommended third party green certifications.
- How will you measure success? Who have you identified to assess and evaluate new products (e.g., maintenance staff, property managers, residents)?

### 4 Select green products; train staff and residents

#### Select products

Identify your most common cleaning needs and green certified product options. Three of the most common certifications (Safer Choice, Green Seal and Eco Logo) are described below. You can purchase green certified products directly from manufacturers or work with a janitorial company that can supply such products, dilution dispensing



Portable Dilution System and Wall Mounted Dilution System

Source: MD Stetson, Randolph, MA





***St. Nicks Alliance**, which owns and manages 850 NYC affordable housing units, experienced an average 25% reduction in cleaning costs and a 50% reduction in one building after moving to green products.*

systems, staff training, and technical support to solve problems that may arise. Staff training can help to make sure products are used correctly and cleaning procedures are efficient.

When selecting green products, strive to use less toxic sanitizers and disinfectants. For example, look for products with the active ingredients that include hydrogen peroxide, lactic, caprylic and citric acid as well as hypochlorous acid. Avoid products with sodium hypochlorite or chlorine bleach and quaternary ammonium compounds, as such ingredients can trigger asthma attacks and be caustic or irritating to the eyes and skin.

#### **Train staff and residents**

Many green cleaning suppliers provide training to employees as part of their contracts. Training is a critical piece of green cleaning and helps dispel false assumptions. For example, many green products do not carry a smell. That does not mean they are less effective. Similarly, it is important to communicate to residents that the new green products may look different and not create the smell they have come to associate with “clean”. Training can also help improve the efficiency of cleaning protocols, which can reduce time and thus cleaning costs.

### **5 Evaluate green product performance and costs**

Working with your green cleaning team, evaluate how well the new green cleaners are working and their costs. Gather feedback from maintenance staff and residents. Ask both those using the products and residents living in the buildings:

- **Staff:** Have you noticed a change in your breathing or the way your skin feels when using the product?

Have you noticed a difference in cleaning effectiveness?

- **Residents:** Do you notice a change in your breathing or other health impacts from the new cleaning product? Have you noticed a difference in cleaning effectiveness?
- **Management:** How do the green cleaning costs compare to traditional product costs?

## 6 Adopt a green cleaning policy and procedures

Use the evaluation feedback and cost data to establish green cleaning policies and practices. Make sure the procedures are specific in terms of product use and cleaning protocols.



*Owners can reduce the number of cleaning products they use. One owner **cut the number of cleaning products in half**, from 8 to 4.*

## Like other purchases, shopping for green cleaning products and systems can take a little research.

**For added information on how well a green cleaner works, consult the Green Cleaning Lab at the Toxics Use Reduction Institute at the University of Lowell Massachusetts.** The lab can provide information on the effectiveness of professional green cleaning products as well as retail products, best cleaning practices, and less toxic sanitizers and disinfectants.

**EPA's Safer Choice certification evaluates a range of products** (<https://www.epa.gov/saferchoice>). You can search the EPA Safer Choice site by product type (e.g., multi purpose cleaner, degreaser, carpet cleaner, floor cleaner, toilet or bath cleaners). Look to see if any of your current products qualify for the Safer Choice label.

**Green Seal certification is a process that ensures that a product meets rigorous performance, health, and environmental criteria** (<http://www.greenseal.org/AboutGreenSeal.aspx>). Green Seal has 31 issued standards that cover over 375 product and service categories. The Green Seal Standard for Industrial and Institutional Cleaners, GS-37, establishes requirements for general purpose, restroom, glass, carpet, and biologically-active cleaning products. The standard includes product performance requirements as well as environmental and health considerations for vulnerable populations in institutional settings.

**EcoLogo cleaning products and packaging are certified for reduced environmental impact.** (<http://services.ul.com/service/ecologo-certification/>). A range of products, including hand cleaners, window & glass cleaners, cleaning products, bathroom cleaners, and disinfectants. Products undergo scientific testing to verify compliance with third party environmental performance standards.





## Resources

**Environmental Protection Agency (EPA) Safer Choice Certification**  
<https://www.epa.gov/saferchoice>

**Green Seal Certification**  
<http://www.greenseal.org/AboutGreenSeal.aspx>

**EcoLogo Certification**  
<http://services.ul.com/service/ecologo-certification/>

**Green Cleaning Lab at the Toxics Use Reduction Institute at the University of Lowell Massachusetts**  
<http://gcl.cleansolutions.org/index.php> For questions contact Implementation Specialist Heidi Wilcox, at [heidi@turi.org](mailto:heidi@turi.org).

**Massachusetts Green Cleaning Products, Programs, Equipment and Supplies**  
<http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/green-products-and-serv/specific-epp-statewide-contracts/green-cleaning-products.html>

**New York State Green Cleaning Program**  
<https://greencleaning.ny.gov/entry.asp>

**NYC Green Cleaning Case Study**  
[http://programs.lisc.org/nyc/programs/green\\_and\\_healthy\\_neighborhoods/two\\_shades\\_of\\_green.php](http://programs.lisc.org/nyc/programs/green_and_healthy_neighborhoods/two_shades_of_green.php)

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Our CDC partners for TSG are: [Bridge Street Development Corporation](#), [Banana Kelly Community Improvement Association Inc.](#), [Cypress Hills Local Development Corporation](#), [Belmont Arthur Avenue Local Development Corporation](#), [Fifth Avenue Committee](#), [Hope Community Inc.](#), [IMPACCT Brooklyn](#), [MBD Community Housing Corporation](#), [St. Nicks Alliance](#) and [West Side Federation for Senior and Supportive Housing](#).

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## Endnotes

<sup>1</sup> Rosenman, et al. 2003. Cleaning Products and Work Related Asthma, Journal of Occupational and Environmental Medicine.

<sup>2</sup> Culver, A. et al. 2002. Cleaning for Health: Products and Practices for a Safer Indoor Environment, INFORM, Inc.

