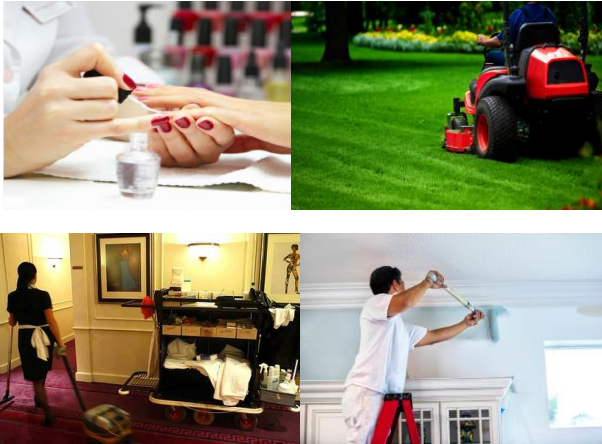


# Hazardous Products in Businesses



A guide to reducing or eliminating  
toxic substances in the work  
environment



Funding provided by  
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# Exploring the Impacts of Toxic Substances

## What are hazardous products?

Substances that poison or contaminate the environment, and threaten the health of those in the local community.



They may be flammable, corrosive, reactive, or toxic and should be disposed of properly so as not to harm people or damage the region's soil and water resources.

# Exploring the Impacts of Toxic Substances

## Difficulties of dealing with toxic materials:

### **Hazardous to children:**

- Children can be accidentally exposed to common household products which could result in serious illness.

### **General human health concerns:**

- Long term exposure to these kinds of products can cause many health complications.



### **Disposing of the materials:**

- If these products are poured down the sink or storm drains, they can pollute our drinking water and soil, threatening wildlife and local ecosystems



<https://www.mwatoday.com/news/hhw/proper-disposal-of-hhw.aspx>

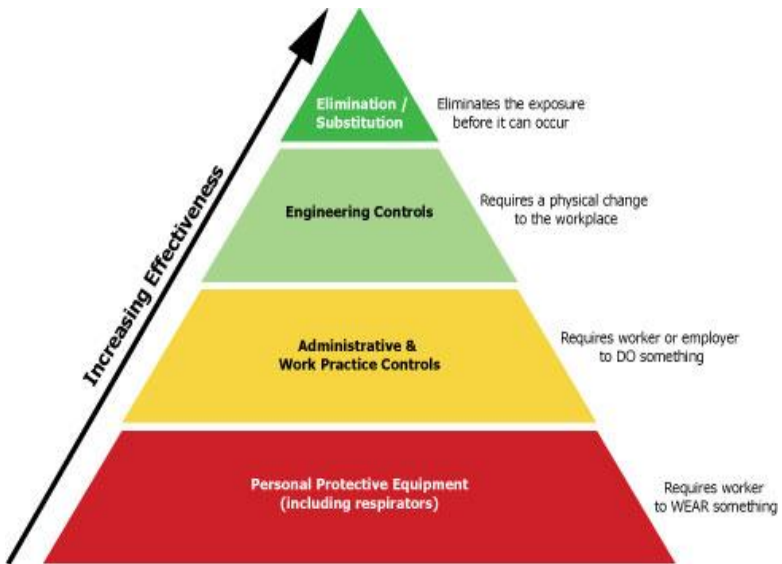
- Municipal treatment plants and leach fields are incapable of processing these chemicals. Even landfill disposal can lead to polluting the groundwater.
- If substances are disposed of together in the trash, it could react and produce toxic fumes, explosions, or fires which could cause injury

# Exploring the Impacts of Toxic Substances

## Why Should Alternatives be used?



Using non-toxic substances is an easy way to avoid some of these common but big problems



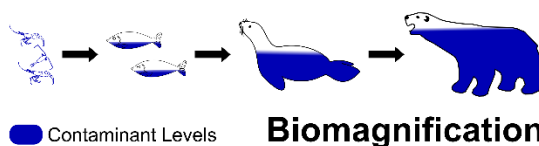
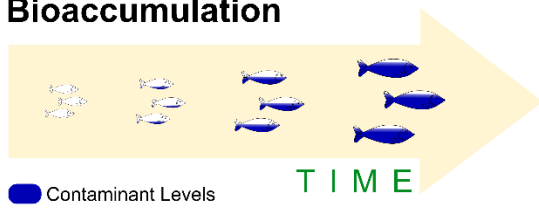
[https://www.osha.gov/dsg/safer\\_chemicals/why\\_transition.html](https://www.osha.gov/dsg/safer_chemicals/why_transition.html)

# What are the benefits of reducing or eliminating toxic substances in your business?

## Environmental concern

- Reduces environmental impact
  - The use of toxic substances can result in air and water pollution
  - Toxic chemicals can enter water bodies through improper disposal, runoff, and through air pollution.
  - These substances can bio-accumulate within an aquatic ecosystem, and eventually bio-magnify through trophic levels on land and water.

### Bioaccumulation



Reducing or eliminating the use of toxic substances contributes to the effort of keeping the air and water free of harmful chemicals.

# What are the benefits of reducing or eliminating toxic substances in your business?

## Healthier employees



- Minimize long-term harmful chemical exposure to employees
- Safe work environments encourage employees to stay with your business
- Less money spent on job advertising and training new employees

“In the United States, it is estimated that chemicals are the cause of more than 190,000 illnesses and 50,000 deaths suffered annually by workers”

Source: [http://coeh.berkeley.edu/docs/news/06\\_wilson\\_policy.pdf](http://coeh.berkeley.edu/docs/news/06_wilson_policy.pdf)

# What are the benefits of reducing or eliminating toxic substances in your business?

## Marketing Advantages

Use certification to market your business:

### **“Green” Certifications for Businesses**



**Green C Certification (American Consumer Council)** Earns a business the recognition and respect on consumers for your commitment to sustainability, environmental stewardship, and corporate social responsibility



**Green Seal Certification (Green Seal)** Represents compliance with a rigorous set of criteria designed to achieve leadership levels of sustainability



**Green Business Certification (Green Business Network)** A certification mostly aimed towards small businesses allowing them to actively promote their green practices for conscious consumers to find them.



**Green Plus Certification (Green Plus)** “Green Plus is recognized as a university-backed, third-party certification through a broad, mainly chamber-based network. It is more of a process certification, rather than a product certification. We provide member businesses with the resources they need to improve their bottom line through sustainability initiatives.”



## What are the benefits of reducing or eliminating toxic substances in your business?



### SITES Certification (The Sustainable SITES Initiative)

A certification that shows that a landscaping company uses practices that protect ecosystems.



### WasteWise (EPA)

“EPA’s WasteWise encourages organizations and businesses to achieve sustainability in their practices and reduce select industrial wastes. WasteWise is part of EPA’s sustainable materials management efforts, which promote the use and reuse of materials more productively over their entire life cycles.”



### SaferChoice (EPA)

SaferChoice is a label that helps consumers, businesses, and purchasers find products that perform and are safer for human health and the environment.



### Biopreferred (USDA)

Biopreferred is a label put on bio-based products for people to identify them more easily.

## What are the benefits of reducing or eliminating toxic substances in your business?

### Avoid “Green Washing,” Stay Trustworthy

- To greenwash, the dissemination of disinformation by an organization so as to present an environmentally responsible public image.
- Greenwashing within advertising for a business can be misleading using carefully picked wording, graphics, claims, exaggerations, and hidden facts.

Pictured below is an example of Greenwashing



- Greenwashing can lead to customer uncertainty, greater environmental harm, and negative perception in a business’s reputation.

# What are the benefits of reducing or eliminating toxic substances in your business?

## Increased Customers

- Develop additional client that are attracted to safer product use
- There is a higher demand from consumers for businesses to become more sustainable and green

## By reducing the use of toxic substances, companies may reduce long term costs

“Using hazardous chemicals in the workplace results in substantial direct, indirect, and liability costs to businesses and society.” \*

Less toxic substances to dispose of results in reduced costs

Using non-toxic alternative products is the same cost or slightly less than typical toxic products. ^

Pollution Control Tax Break

Subsidies:  
-Safe Disposal  
-Waste-Minimization  
-Combination of the two

Sources: \* <https://www.osha.gov/dcsp/products/topics/businesscase/>

^ [http://www.greenbusinessca.org/media/article\\_uploads/the\\_real\\_costs\\_of\\_green\\_cleaning\\_v6.pdf](http://www.greenbusinessca.org/media/article_uploads/the_real_costs_of_green_cleaning_v6.pdf)

## Ease of earning environmental grants and loans for business improvements

### Check out these agencies:

- Department of Energy
- Environmental Protection Agency
- National Science Foundation

- U.S. Department of Agriculture

## How could your business reduce toxic waste?

Determine your business sector:

Agriculture	Hospitals/Medical	Plastics
Aircraft	Iron and Steel	Printing and
Automotive	Laboratories/Schools	Photoprocessing
Chemicals	Lubricants	Pulp and Paper
Construction	Lumber and Wood	Recreation
Die Casting	Machining	Recycling
Dry Cleaning	Marine/Shipyard	Retail
Electric/Power/Energy	Metal Finishing	Rubber
Electronics/Computers	Metal Products	Solvents/Cleaning
Electroplating	Mining	Stone/Clay/Glass/Concrete
Fiberglass Operations	Painting and Coating	Textiles/Textile Services
Foods	Pesticides	Transportation
Furniture	Petroleum Refining	Used Oil
General Small Business	Pharmaceuticals	

Explore resources specific to your sector:

- Small Business Environmental Assistance Program

<https://nationalsbeap.org/info/sectors>

## How could your business reduce toxic waste?

Take a business self-assessment survey to find out the quantity of toxic products used:

- *Green business handbook*- NH Dept. of Environmental Services  
<https://www.des.nh.gov/organization/commissioner/p2au/p2au/ppp/documents/green-business-handbook.pdf>
- *Making your business greener workbook*- NH Dept. of Environmental Services  
[https://www.des.nh.gov/organization/commissioner/pip/publications/general/documents/green\\_business\\_wkbook.pdf](https://www.des.nh.gov/organization/commissioner/pip/publications/general/documents/green_business_wkbook.pdf)
- *Interstate Chemicals Clearinghouse Self-Assessment Guide*  
<http://www.theic2.org/aa-wiki-archive>



# Once you've explored some sources of toxicity in your business, how can you make a difference?

General changes a few business sectors could make:

## Landscaping

- Instead of Standard Pesticides – Consider using Bio-pesticide
- Instead of Fertilizers – Consider using Compost
- Instead of Insecticides – Consider using Essential Oils (such as: Clove bud, Cinnamon, or Citronella)
- Instead of Lawn Care – Consider using Over-Seeding ([https://extension.unh.edu/resources/files/Resource000519\\_Rep541.pdf](https://extension.unh.edu/resources/files/Resource000519_Rep541.pdf))

## Schools/Hotels/Motels/Cottages/Camps/Housecleaning Services

- When choosing pool chemicals – Consider using Chlorine-free pool cleaner
- When choosing toilet cleaners – Consider using plant and mineral-based cleaners
- When choosing standard toilet paper – Consider using unbleached paper products

## Painting

- Instead of oil-based paint – Consider using latex paint
- When choosing paint- Consider using low or no VOC paint
- When choosing paint application methods – Consider using electrostatic paint guns

## Salons

- When choosing hair dyes – Consider using hemp based dyes
- When choosing hair spray – Consider using non-aerosol sprays
- When choosing nail care – Consider using non-toxic nail polish

## Offices

- When choosing bathroom cleaner – Consider using non-toxic cleaners
- Instead of Fluorescent lighting – Consider using LED lighting
- Instead of oil-based paint – Consider using latex paint

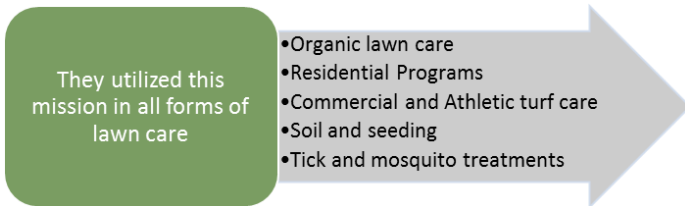
## How can you make a difference?

New Hampshire case study of one or more of these sectors:



### Organic First Lawn Care in Portsmouth, NH

- Founded in 2014
- Mission Statement: “Organic lawn care is a chemical-free approach to maintaining a healthy and natural lawn that looks great and is safer for the environment, your community and family. Organic lawn care conserves resources, controls pests, and saves money.”



- These practices aim for safety, heartiness, and longevity over quick fixes and chemical dependency.
  - Biodegradable compounds, essential oils, soil chemistry tests before treating/seeding

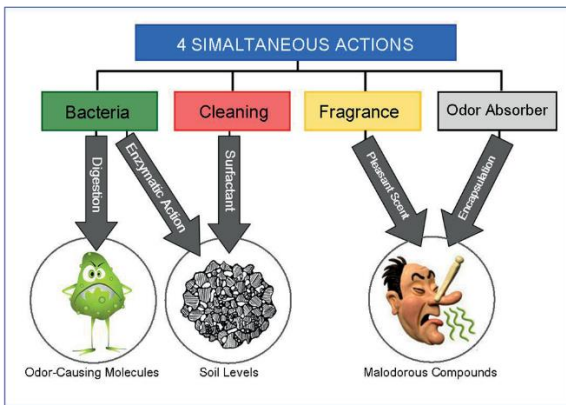
# How can you make a difference?



## Inter-Lakes School District in Sandwich, Meredith, and Center Harbor, NH.

- Schools included in this district are: Inter-Lakes High School, Middle Tier, Elementary School, and Sandwich Central School.
- In 2013, building and grounds employees began cleaning with non-toxic enzyme based products.

Here's how enzyme based products work:



- The motivation for making this switch was to keep surfaces free of toxic chemicals for the health and safety of the children and custodians.
- Using enzyme based cleaners also helped improve the overall air quality of schools.

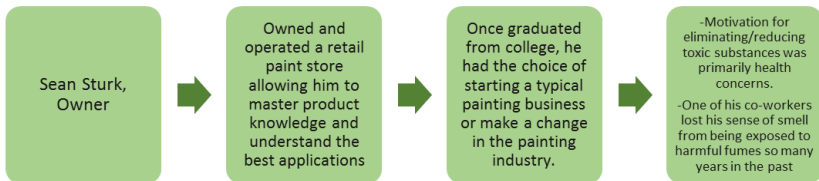


## How can you make a difference?



### Minutemen Painters in Portsmouth, NH

- Founded in 2000
- Part of their mission statement: “We specialize in using approved green paints and non-toxic, environ-friendly products. Our goal is to exceed your expectations...”
- Owner of Minutemen Painters states, “the costs are overall cheaper once you take into consideration eliminating labor costs of cleaning areas with standard paints (drying times are longer with chemical-heavy paints), and disregarding costs of masks and air filters because they are no longer needed.”



- Committed to using low/no V.O.C paints for health and environmental benefits.
  - No fumes
  - No “off gasing” that causes the air to become 3 times more polluted than the outdoor air
  - Eliminated being exposed to one of the top five hazards to human health

## How can you make a difference?



### **Ohm Lifestyle Center LLC in Wolfeboro, NH**

- Founded in 2015
- An organic spa, salon, and supplement shop.
- Part of their philosophy, “Practicality: We strive to provide efficient ways to increase the health and well-being of each client. All of us want you to feel our commitment to improving the lives of others.”



- This establishment provides many services such as: haircuts, hair color, makeup application, facials, and many types of body massages while using non-toxic products when applicable

# How can you make a difference?



## Grappone Toyota in Bow, NH

- Part of their mission statement, “to adapt and innovate to keep up with whatever comes our way.”
- Company leaders explored ways a facility could be improved so it was beneficial to employees, customers, and the environment.

During a building upgrade/expansion...

### Grappone Toyota became LEED certified (2012)

- 250 tons (85%) of construction waste was reused and diverted from landfills
- 60% of the structure was reused

### Interior features of building

- Green housekeeping
- ‘Solatubes’ used for lighting
- Low/No V.O.C.’s (paints, sealants, coatings, and adhesives were specified to not contain VOC’s)

### Exterior features of building

- No additional paved parking areas were created so as not to increase surface run off into the bordering Turkey River
- Recycled Landscaping



“It’s ingenious. It cuts down on material waste, on everything from paint to the large amounts of paint tape, and it provides the painter with the ability to match panels more effectively.”

Collision Center Manager invented and patented a new paint stand apparatus that allows for a more efficient process for painting vehicles.

## Interested in making the switch to minimize toxic waste? Here's how!

Follow steps 1-7 with OSHA's toolkit for business success on minimizing and eliminating hazardous chemicals in the workplace. [https://www.osha.gov/dsg/safer\\_chemicals/index.html](https://www.osha.gov/dsg/safer_chemicals/index.html)



- 1) **Engage:** Form a team to develop a plan
- 2) **Inventory and Prioritize:** Examine current chemical use
- 3) **Identify:** Identify alternatives
- 4) **Assess and Compare:** Assess and compare alternatives
- 5) **Select:** Select a safer alternative that's right for your business
- 6) **Test:** Pilot the alternative
- 7) **Evaluate:** Implement and evaluate the alternative

## Interested in making the switch to minimize toxic waste? Here's how!

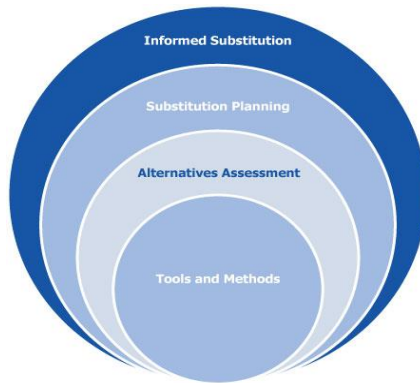
Determine what toxic substances can be replaced or used less

- Use a pollution prevention calculator developed for the Environmental Protection Agency, to see the impact of changes on your business:

<http://www.responsiblepurchasing.org/janitor/index.asp>

- Use the Informed Substitution and Alternatives Assessment developed by OSHA:

[https://www.osha.gov/dsg/safer\\_chemicals/basics.html](https://www.osha.gov/dsg/safer_chemicals/basics.html)



- Check out “Purchase Categories” on EPA’s website for an easy guide of how and what can be replaced.

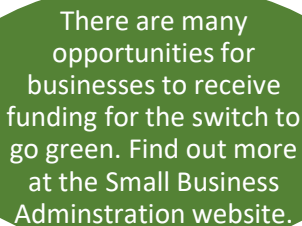
<https://www.epa.gov/greenerproducts/identify-greener-products-and-services>

## Interested in making the switch to minimize toxic waste? Here's how!

### Do you need funding to make the change?

- Apply for environmental grants and loans!

<https://www.sba.gov/managing-business/running-business/green-business-guide/environmental-grants-loans>



There are many opportunities for businesses to receive funding for the switch to go green. Find out more at the Small Business Administration website.

### Attract more customers and become more marketable!

- Find the right certifications for your business at:

<https://www.sba.gov/managing-business/running-business/green-business-guide/green-certification-and-ecolabeling>

### Need guidance?

- Resources for becoming green:

<https://www.sba.gov/managing-business/running-business/green-business-guide>

1. Marketing Strategies
2. Small business sustainability toolkit
3. Green business case studies and practices

# Interested in making the switch to minimize toxic waste? Here's how!

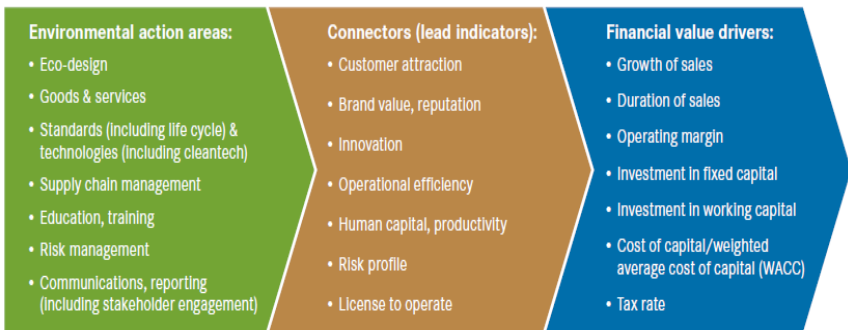
- Green business Model Innovation:

[http://www.nordicinnovation.org/Global/Publications/Reports/2012/2012\\_12%20Green%20Business%20Model%20Innovation\\_Conceptualisation%20next%20practice%20and%20policy\\_web.pdf](http://www.nordicinnovation.org/Global/Publications/Reports/2012/2012_12%20Green%20Business%20Model%20Innovation_Conceptualisation%20next%20practice%20and%20policy_web.pdf)

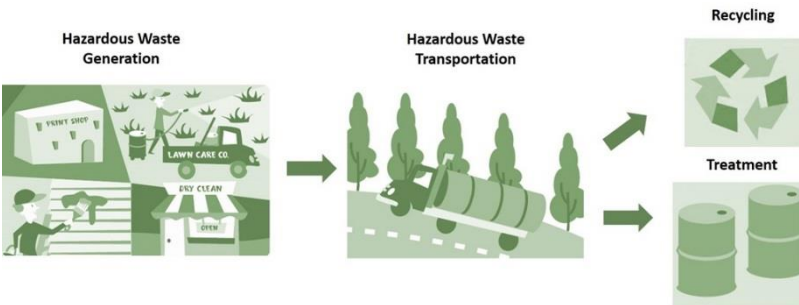
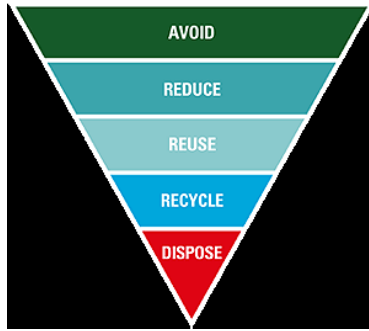
- Green Business Case Model:

- Find out more on Harvard Law School Forum:  
<https://corpgov.law.harvard.edu/2013/06/28/the-sustainability-business-case/>

## The green business case model



Source: Marc Bertoneche and Cornis van der Lugt, "Finding the God Particle of the Sustainability Business Case: Greener Pastures for Shareholder Value," Harvard Business School Working Paper, No. 13-072, February 2013.



For more information about hazardous products, visit [www.lakesrpc.org/serviceshhw.asp](http://www.lakesrpc.org/serviceshhw.asp) or call the Lakes Region Planning Commission at 603.279.5341.