WELCOME!

Welcome to DES

&

to Today's Workshop

"Pollution Prevention & Household Hazardous Waste"

WHY ARE YOU HERE?

- Required by law and NH Solid Waste Rules.
- Build your resume & accumulate professional development hours.

WHY THIS WORKSHOP?

P2 & HHW

- Provide you with more information on HHW
- Introduce the concepts of preventing pollution
- Offer suggestions on how to educate customers on making better choices

TODAY'S AGENDA

- What is P2?
- CD Cover Game
- How to Implement P2 at SW Facilities
- What to do with your Gifts?
- Climate Change? Why be prepared?
- Educating Your Customers on HHW
- Alternatives to "Off the Shelf" Products

NEW HAMPSHIRE
POLLUTION PREVENTION PROGRAM

New Hampshire Pollution Prevention Program

What is Pollution Prevention?

NEW HAMPSHIRE
POLLUTION PREVENTION PROGRAM

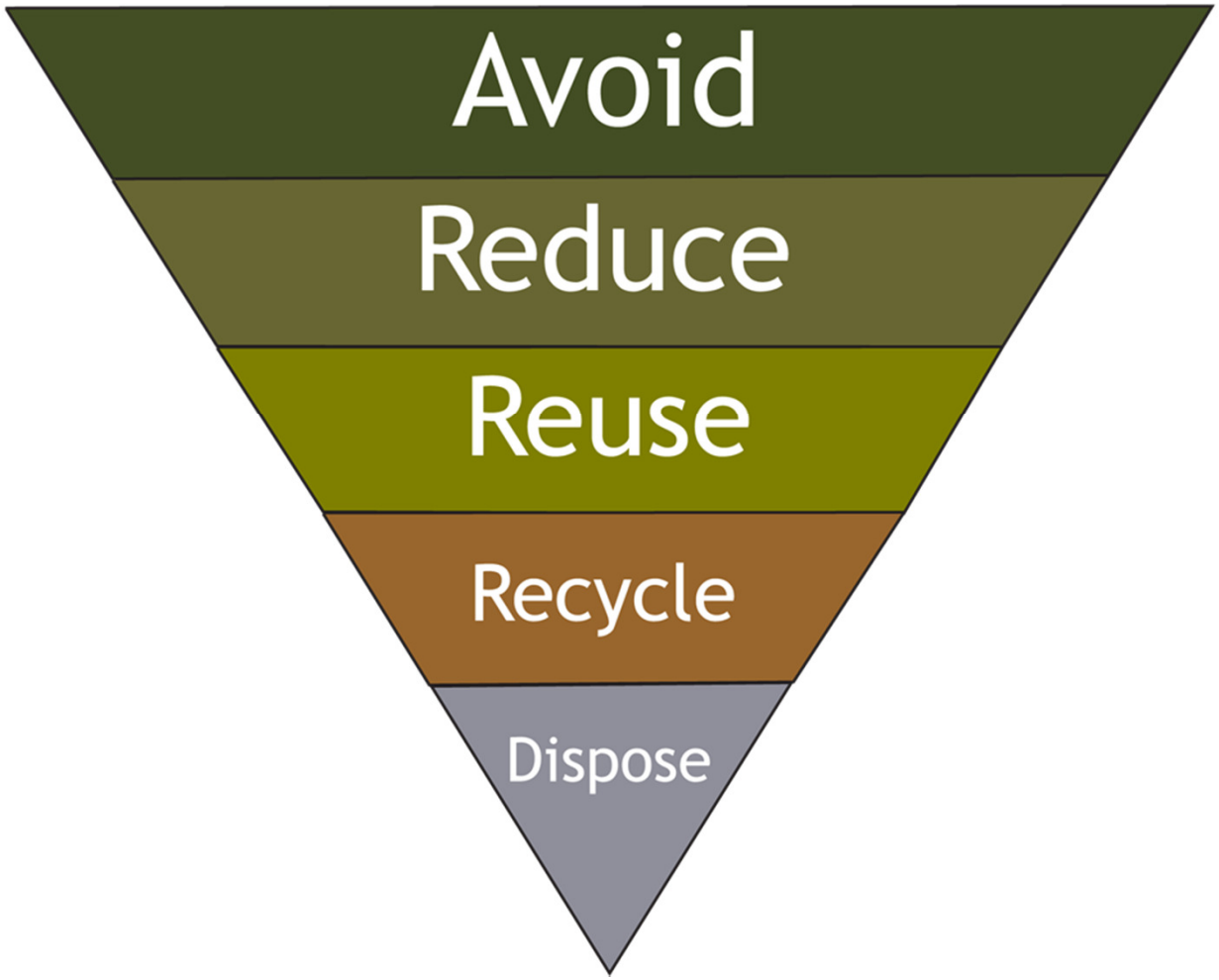
- Free
- Confidential
- Non-enforcement
- Pollution prevention and compliance assistance program available to all NH businesses, institutions, municipalities and agencies.

Pollution Prevention

Reducing or eliminating waste at the source…

Instead of managing that waste after it is generated.

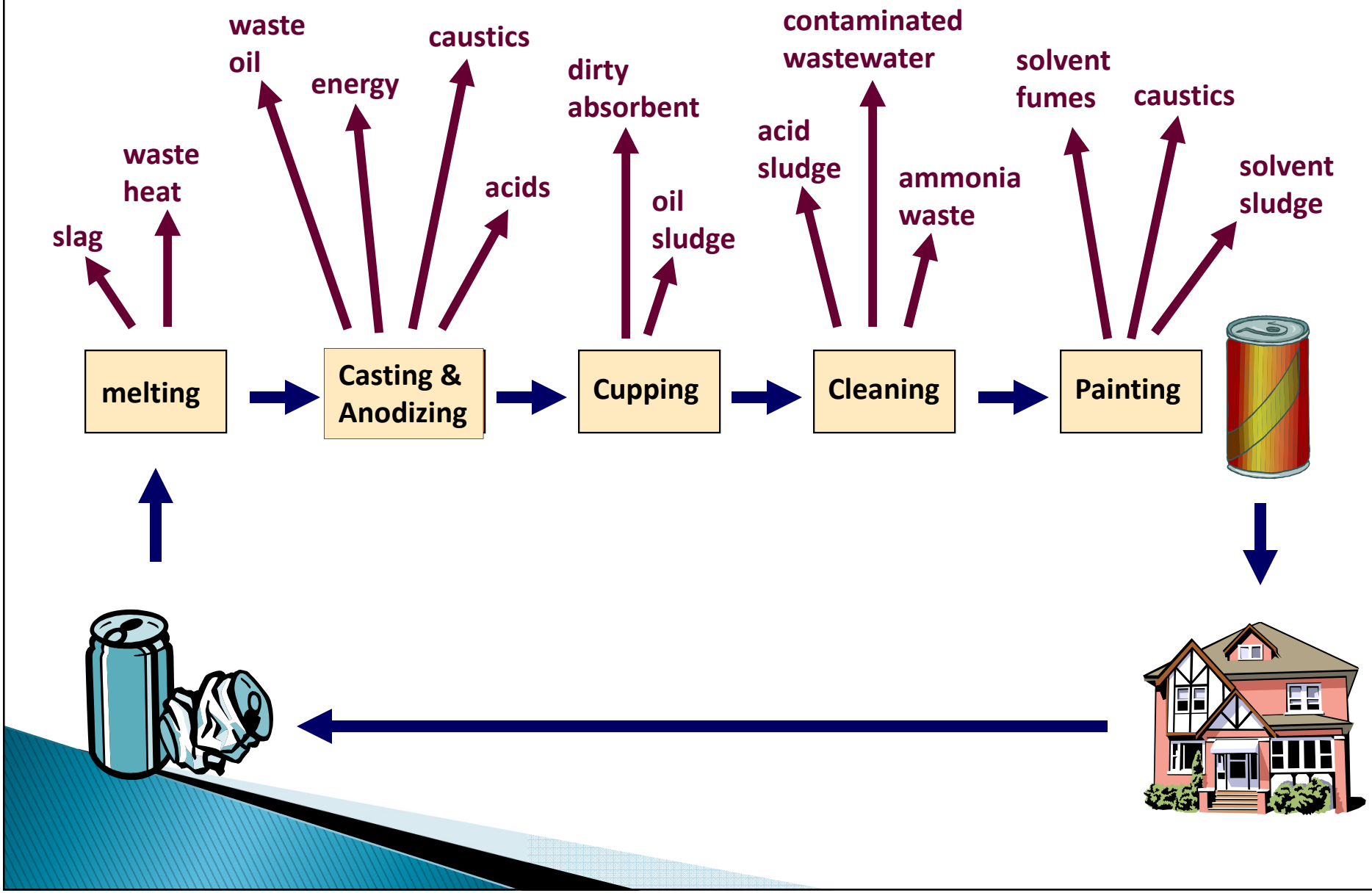
Pollution Prevention Hierarchy



Dispose

Recycle

ALUMINUM CAN RECYCLING



Is recycling bad?

Because it is a manufacturing process that generates waste?

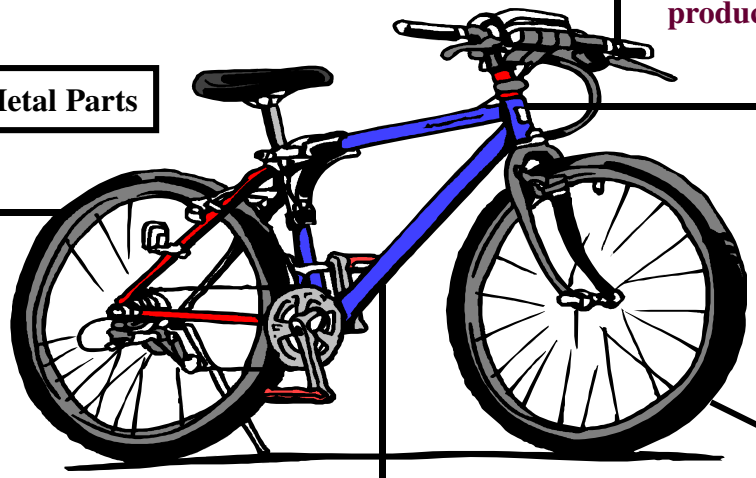
Recycling is good!

- Making a can from a can saves energy and resources.
- 80% of the energy that goes into making a can comes from the extraction of the ore.

Reuse

Reuse

Bicycle Materials, Wastes, and By-Products



Handle Bar Grips, Plastic Seat Cover, Paint, Synthetic Fibers, Synthetic Rubber Tires

- **Materials**: Petroleum products
- **By-Products and Wastes**: Waste oil, caustic & acid sludge, alkaline & acid waters, acid gases & filtering clays

Chromed and Plated Metal Parts

- **Materials**: Chrome, nickel, copper, zinc
- **By-Products and Waste**: (Highly toxic liquid wastes) Acids, chromium, zinc, copper, Nickel, tin, cyanides

Paints and Coatings

- **Materials**: Pigment, solvents, resins, cleaner
- **Wastes**: Paints, solvents, cleaners

Frame and Other Metal Parts

- **Materials**: Iron ore and coal to make steel
- **By-Products and Waste**: Ammonia, tar, acids (pickling liquor waste), blast furnace flue dust

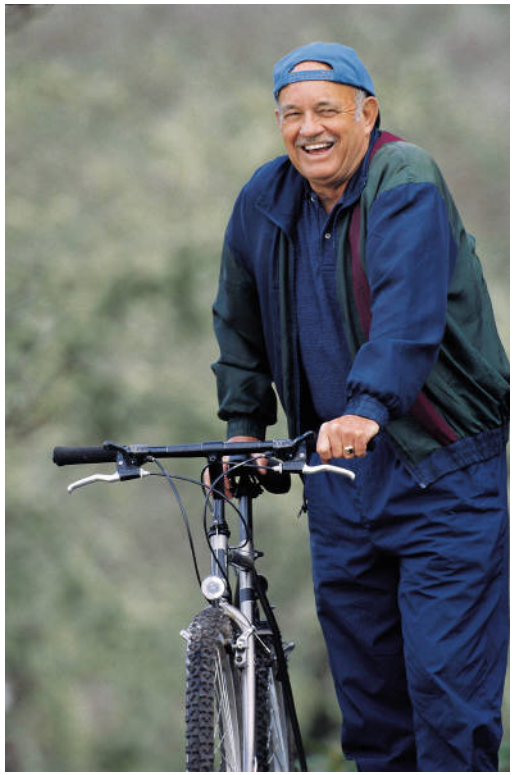
Fenders and Other Metal Parts

- **Materials**: Aluminum (from bauxite)
- **Wastes**: Large volumes of "Red mud" consisting of iron, titanium and silica

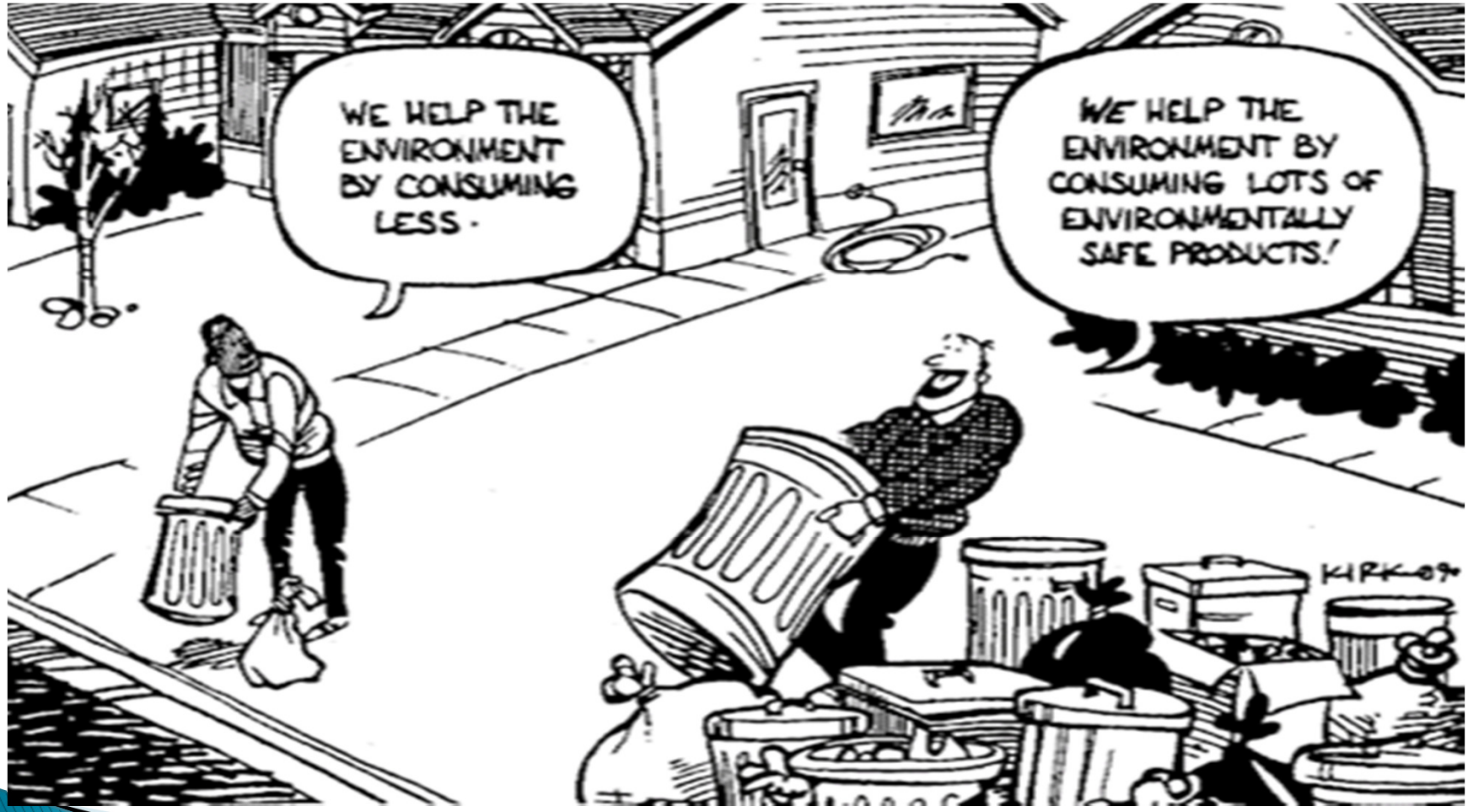
Reuse

…..even better than Recycling

Reusing a product eliminates the need to manufacture a new product.



Reduce


WE HELP THE ENVIRONMENT BY CONSUMING LESS.
WE HELP THE ENVIRONMENT BY CONSUMING LOTS OF ENVIRONMENTALLY SAFE PRODUCTS!
KIRK-09

Pollution Prevention questions:

- What's the real cause of the waste being created?
- Can the step or process simply be eliminated?
- Is there a non-toxic or less toxic material that can be used, instead?
- Is there a way the process can be changed to make less waste or a less toxic waste?
- Can the waste be reused or recycled?

What can you do?

Education

CONCORD RESIDENTS'
AUTOMOTIVE WASTE
DROP-OFF AREA
Acceptable Materials:
• USED MOTOR OIL
• USED ANTI-FREEZE
• TIRES
• LEAD ACID BATTERIES
We Do NOT Accept
GASOLINE, PAINT, THINNERS OR
DRY CELL BATTERIES
CONTACT THE CITY OF CONCORD
TO DISPOSE OF THESE ITEMS AT THE
NEXT HOUSEHOLD
HAZARDOUS WASTE DAY

Swap Shop

The Bedford
Second
Chance Shop
Hours:
Tues: 10-2
Wed: Closed
Thurs: Closed
Fri: 10-2
Sat: 10-4
Welcome

Save money!!!

What is Pollution Prevention?

Reducing or eliminating waste at the source by:

- promoting the use of **non-toxic** or less-toxic substances,
- implementing **conservation** techniques,
- and **re-using** materials rather than putting them into the waste stream.

Questions???

Contact Information:

NHPPP@DES.NH.GOV

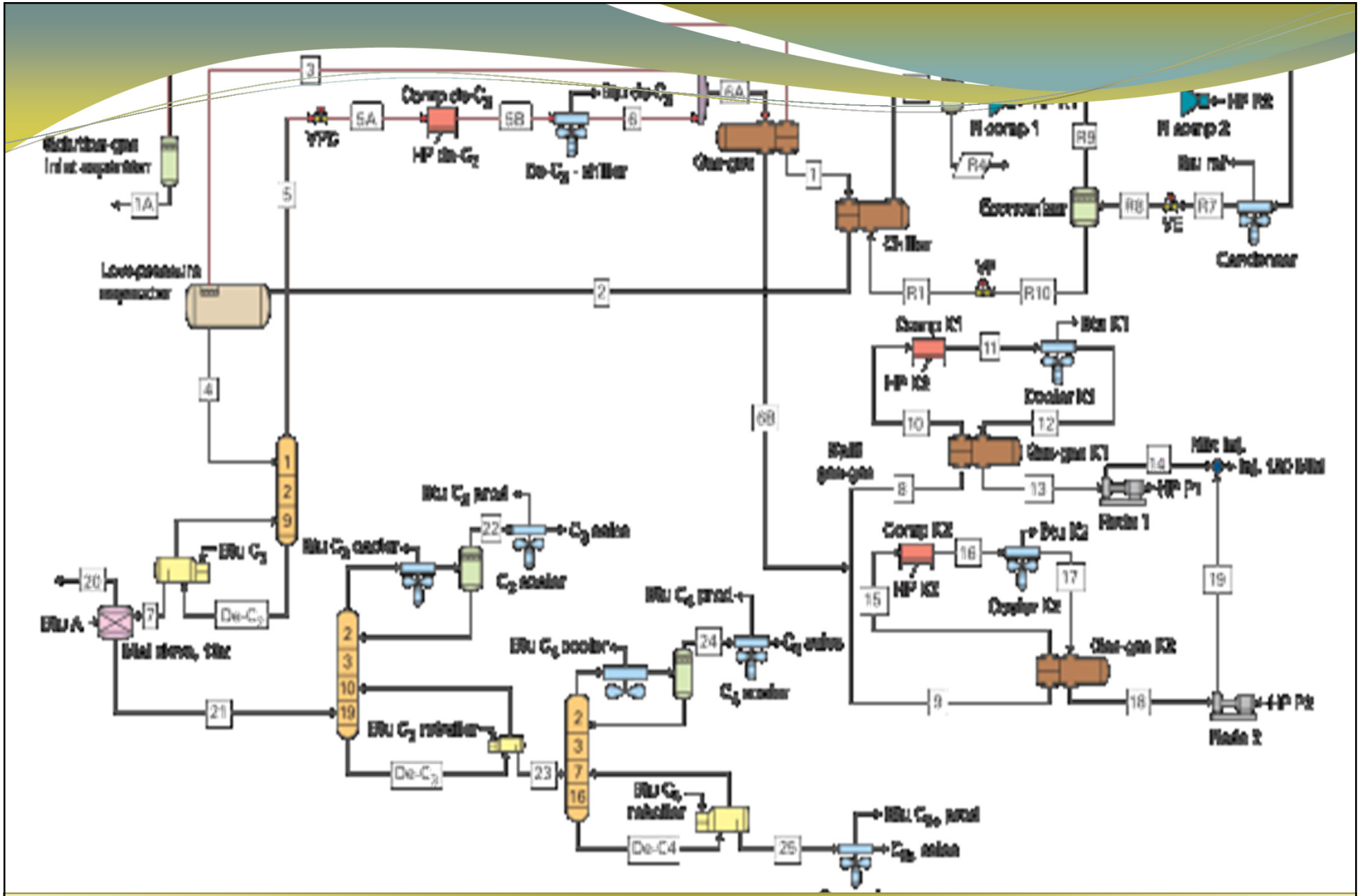
Melissa Zych
603-271-6460
melissa.zych@des.nh.gov

Cynthia Walthour
603-271-2956
cynthia.walthour@des.nh.gov

NEW HAMPSHIRE
POLLUTION PREVENTION PROGRAM

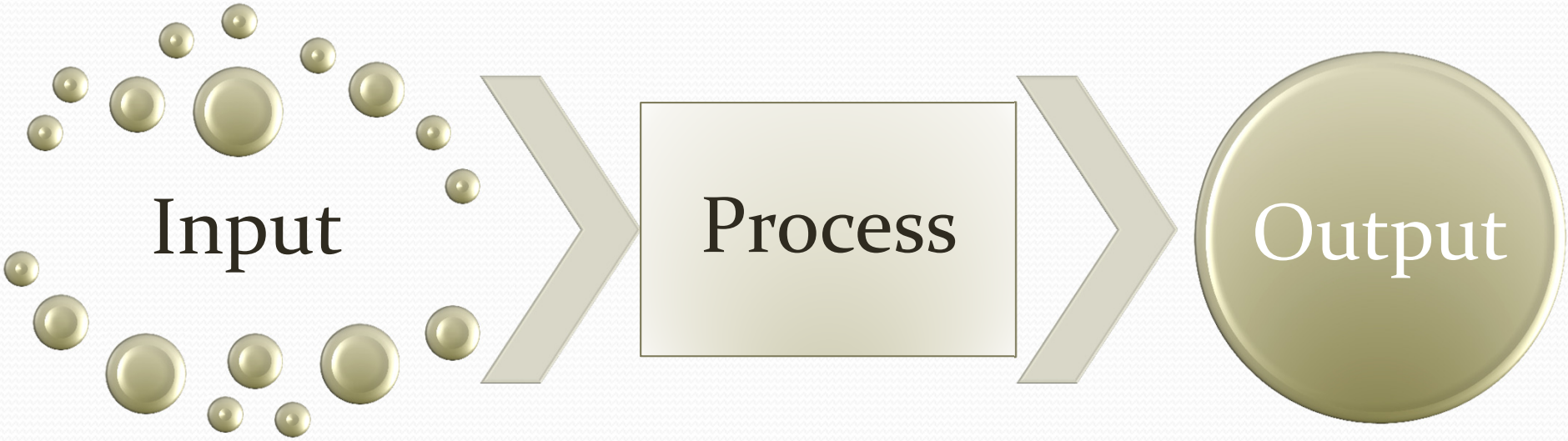
Implementing Pollution Prevention Strategies at Solid Waste Facilities

Tara Mae Albert, M.S.
SWOT Coordinator

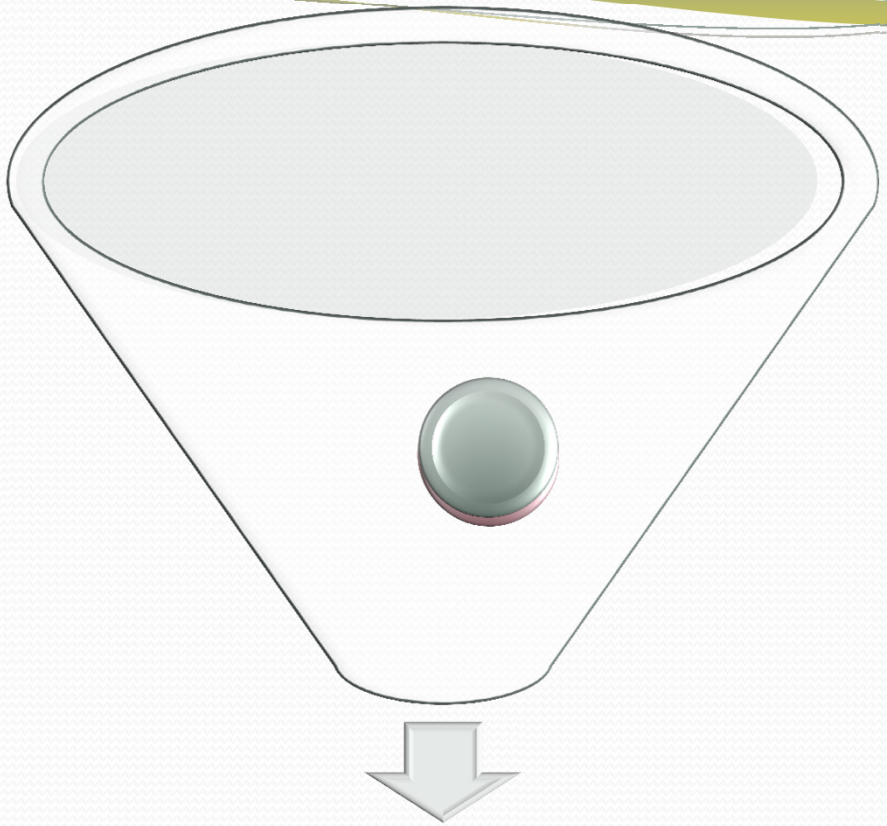


Process Flow Diagram

Process Flow Diagram



Simple Process



Dirty Water

Dirt

Other

Clothing

Steps to Reduce the "unwanted" Outputs

- Shake out the dirt
- Empty Pockets
- Spot Check

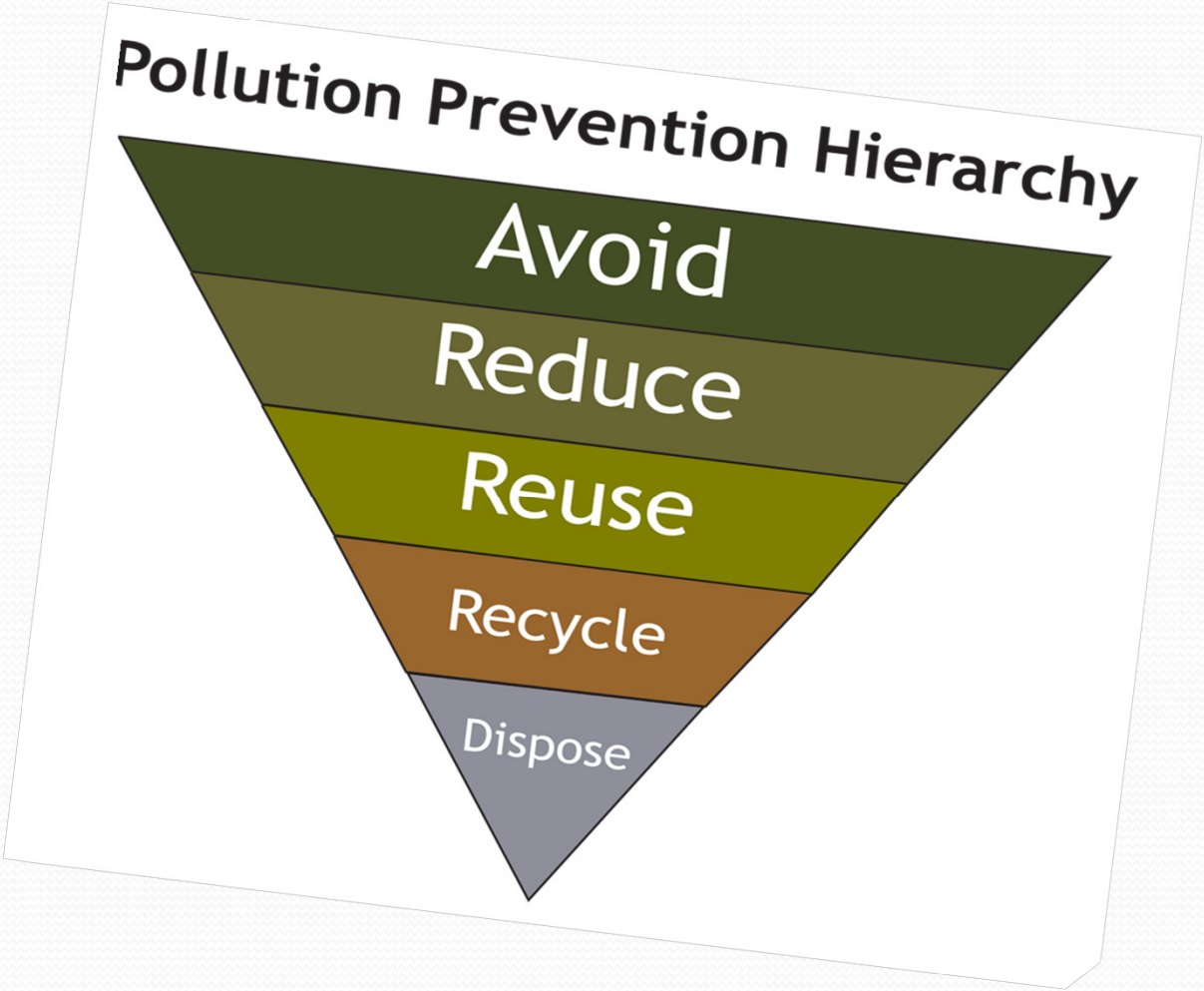
Steps to Reduce the "unseen" Wastes

- Full load of clothes
- Cold Water
- Use the appropriate amount of detergent

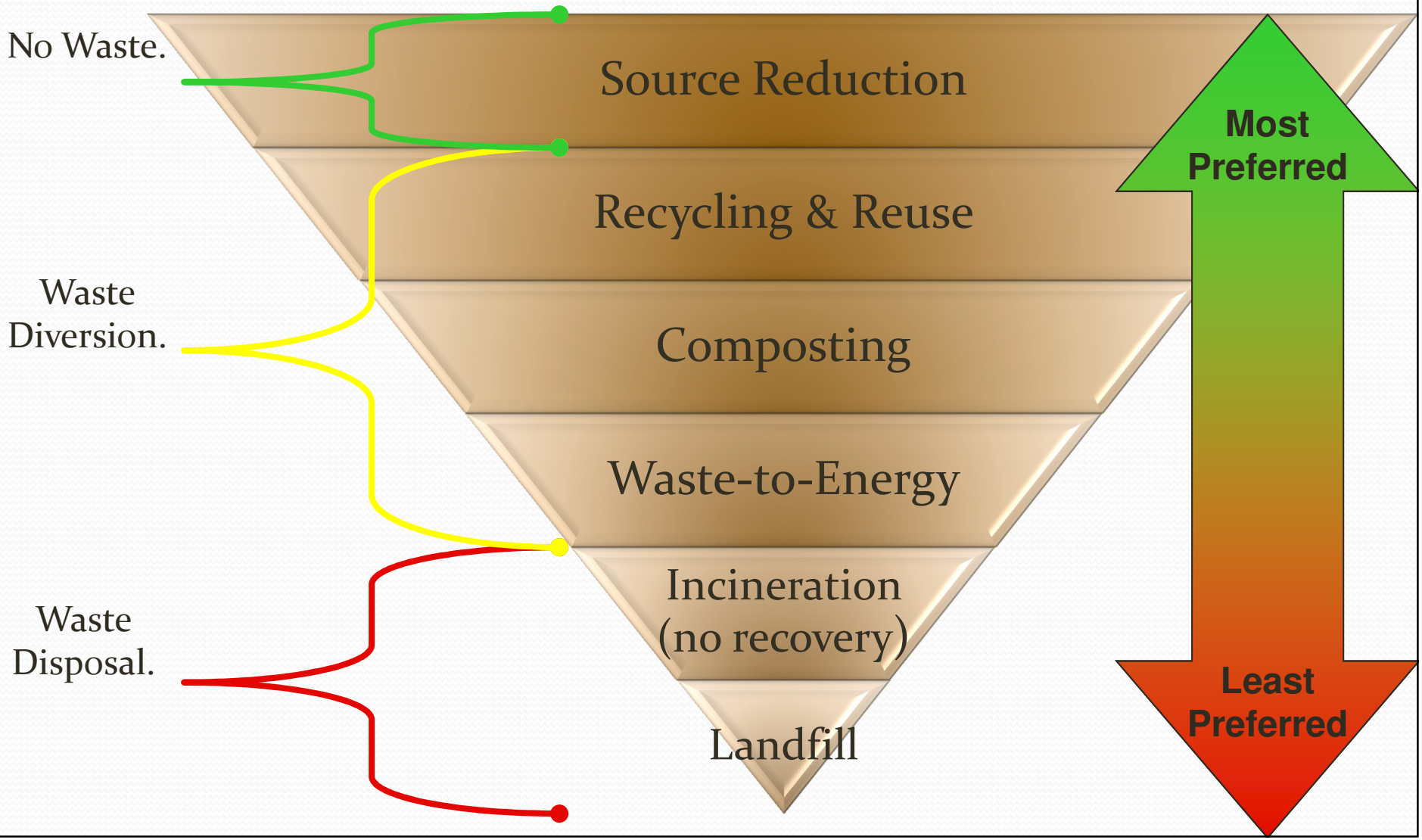
“It’s the LAW!”

- Solid Waste Facilities are permitted by NHDES
- NHDES is authorized to permit by RSA 149-M (LAW)
- RSA 149-M states that NH’s goal is to achieve 40% weight diversion of SW landfilled or incinerated per capita by 2000.

Remember this…



Waste Management Hierarchy



Process Flow

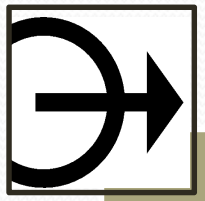
Transfer Station

Waste In

- MSW
- Electronics
- "Good Stuff"
- HHW
- Used Oil
- Recyclables
- Putrescible

"Process"

- Swap Shop
- Hopper
- Metal Pile
- Sharps
- Separated Recyclables
- Compost
- Landfill

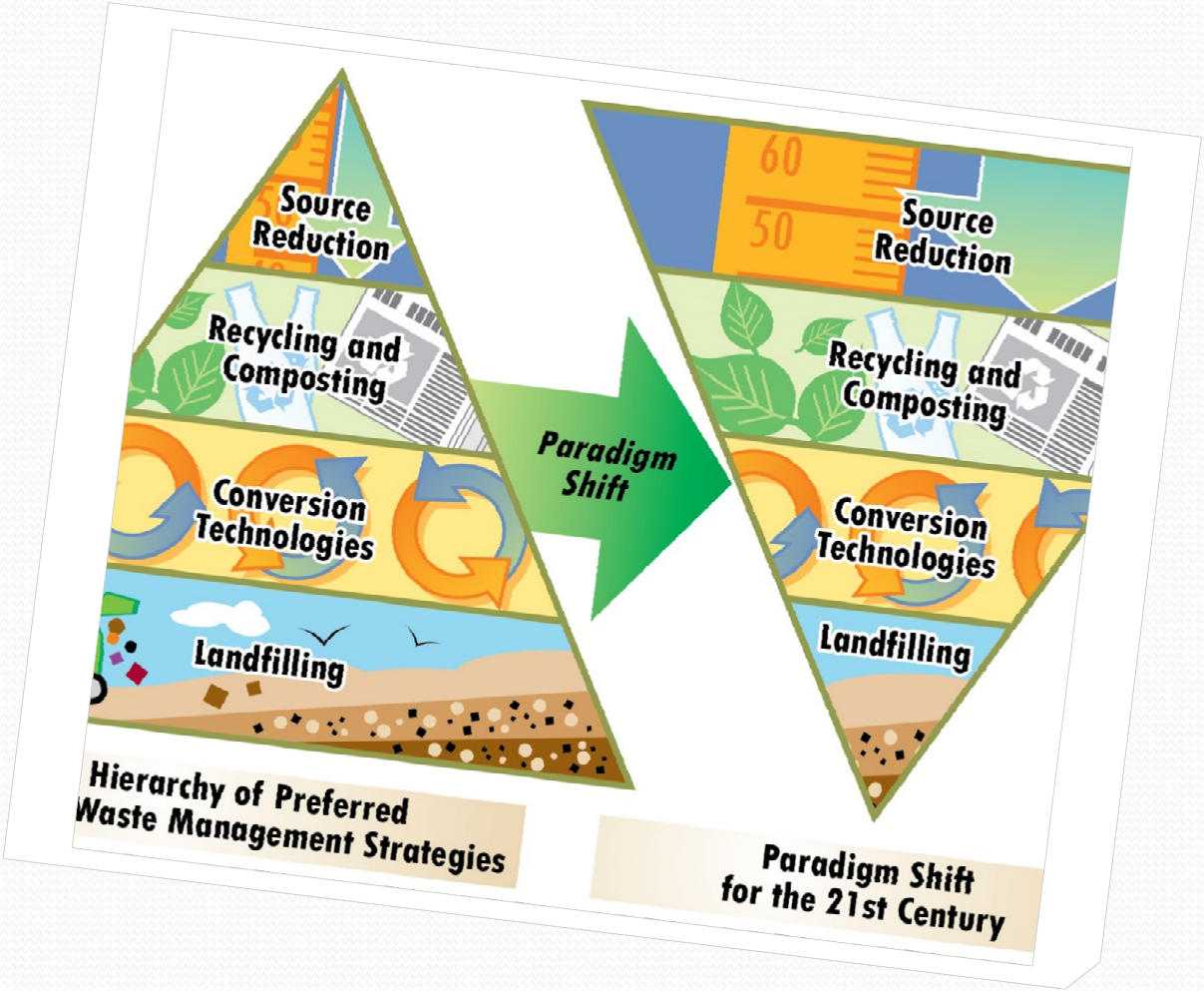


Waste Out

- MSW: Disposal
- Customer's Car: Reuse
- Plastic, metal, glass, etc.: Recycling
- Compost

Rethink your Options

The point is to get the stuff out from the landfills and incinerators into more preferred methods of managing our wastes.



What Can YOU Do?

Educate Your Fellow Operators

Partner with Your BOS or Managers

Educate Your Customers

Implement the Changes

Thanks for listening!
Any Questions?
No?
SUPER!

What to do With Your (HHW) Gifts

Dean Robinson
NH Department of Environmental Services

August 24, 2016

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

FIBERGLASS RESIN
QUAKER STATE
ORTHO
FLOTOX
Thompson's
Water Seal
Moor white primer
KINGSFORD
Charcoal Lighter
Gulf Lite
CHARCOAL STARTER
solid color exterior stain
Benjamin Moore
SOS
No Fumes
Oven Cleaner
SPITFIRE
Lawn
Driveway Cleaner & Degreaser
TSP-PF
ORTHO
WEED-B-GON
Lawn Weed Killer

Options
Just Ahead

Disposal

Household Hazardous Waste Program

The Household Hazardous Waste (HHW) Program is working toward changing the way New Hampshire's residents purchase, use and dispose of hazardous products, with a goal of reducing the amount or "toxicity" of the products they purchase. We work extensively with homeowners and municipalities, so for your benefit all information on the HHW home page has been divided into those two categories. Please read more to learn what the HHW program is doing for New Hampshire's homeowners and municipal solid waste facilities. *more ...*

Hot Topics

- Residential Household Hazardous Waste Collections: : July 1, 2016 - June 30, 2017
- National Prescription Drug Take-Back Day

Publications (Complete List)

- Businesses/SQGs
- Homeowners
- Municipalities

Rules/Regulatory

- Env-Hw 1000 Hazardous Waste Cleanup Fund

Education/Outreach

- Audio Visual
- Curricula
- Videos For Loan
- Written Materials

Training (Complete List)

Forms/Applications (Complete List)

- Certificate of Authority Guidance
- HHW Collection Guidance
- HHW Grant Application
- HHW Invoice Checklist
- HHW Report Form
- Insurance Example

Grants/Loans (Complete List)

FAQs (Complete List)

DES Calendar

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

TOWN	ORGANIZER	RELATED WEB-PAGE	CONTACT	GPS LOCATION	ADDRESS OF COLLECTION
Berlin	Androscogin Valley RRDD	http://www.uvlsrpc.org/project/Household_Hazardous_Waste_Collections_9/	603-752-3342	44.511885,-71.239046	100 West Milan Road, Berlin
Albany	Conway	http://conwaynh.org/public-works/	603-447-3811 X23	44.011035,-71.059216	755 East Conway Road, Center Conway
Alexandria	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.444507,-71.477398	Belmont Fire Station, 14 Gilmanton Road, Belmont
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.444215,-71.65117	Franklin Public Works Garage, 43 West Bow Street, Franklin
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.550982,-71.403269	Gilford Public Works Garage, 55 Cherry Valley Road, Gilford
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.670518,-71.505302	Mededith Public Works Garage, 15 Jenness Hill Road, Meredith
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.598388,-71.722208	NH DOT Highway Garage, 100 Ayers Island Road, Bristol
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.534371,-71.465100	Laconia Public Works Garage, 27 Bisson, Ave., Laconia
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.752582,-71.151261	Ossipee Town Highway Garage, 55R Main Street, Ossipee
	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.723545,-71.422527	Moultonborough Town Highway Garage, 68/30 Highway Garage Road, Moultonborough
Alton	Wolfeboro	http://www.wolfeboronh.us/Pages/WolfeboroNH_Hazardous/index	603-651-7530	43.632247, -71.206740	Lakes Region Household Hazardous Product Facility, 404 Beach Pond Road Wolfeboro
	Wolfeboro	http://www.wolfeboronh.us/Pages/WolfeboroNH_Hazardous/index	603-651-7530	43.632247, -71.206740	Lakes Region Household Hazardous Product Facility, 404 Beach Pond Road Wolfeboro
Amherst	Nashua RPC	http://www.nashuarpc.org/hhw/	603.424.2240	42.748327,-71.503358	Nashua Public Works Garage, 9 Stadium Drive, Nashua
Andover	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.444507,-71.477398	Belmont Fire Station, 14 Gilmanton Road, Belmont
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	Lakes Region Planning Commission	http://www.lakesrpc.org/services_hhw.asp	603-279-8171	43.723545,-71.422527	Moultonborough Town Highway Garage, 68/30 Highway Garage Road, Moultonborough
Ashland	Pemi Baker SWD	Unavailable	pemibakerswd@yahoo.com	44.282156,-71.800654	1213 Mt. Eustis Road, Littleton

Lakes Region Household Hazardous Product Facility

569 - 5826
569 - Let's Take Care Of it!

404 Beech Pond Road, Wolfeboro, NH

Open May - October
Third Saturday
8:30 AM - 12:00 PM

paintwastedisposal.com/municipal-newhampshire.php

Home | Disposal Locations | Recycling Centers | Paint Cans | Contact

Paint Waste Collection and Recycling in New Hampshire

Household Hazardous Waste Collection / Solid Waste Management Facilities / Paint Recycling Programs

New Hampshire Household Hazardous Waste Collection / Paint Recycling Programs

Concord, Dover, Manchester, Nashua, and Rochester

Latex Paint Waste Management in New Hampshire

Household Hazardous Waste Collection / Solid Waste Management Facilities / Paint Recycling Programs - Paint Reuse Exchange

Many New Hampshire Hazardous Waste Collection agencies provide recycling services and waste collection events of recyclable products. The U.S. Environmental Protection Agency calculates that annually nearly 70 million gallons of paint are left over in the United States. Local New Hampshire communities and municipal agencies have historically managed leftover paint waste either through household hazardous waste (HHW) facilities or through solid waste management programs. Neither of these paint waste disposal methods resolve the increasing costs of disposal and landfill environmental hazards.

At GreenSheen, they have developed a cost-effective, environmentally sound, and feasible latex paint waste reduction program that can be applied to New Hampshire city and county landfill and Solid Waste Management Facilities.

GreenSheen operates latex paint waste management programs for municipal communities in New Hampshire providing disposal options that are environmental friendly and cost-effective recycling. They offer New Hampshire municipal agencies the opportunity to reduce their solid waste disposal and landfill costs with the added benefit of reducing their yearly paint procurement expenses. The paint recycling and reuse program recycles paint waste collected from households and remanufactures the leftover paint into new paint for local residents and municipal use. The program turns the thousands of tax dollars which are spent each year disposing of latex paint into cost-savings for New Hampshire communities and taxpayers.

Efficient recycling reuse programs in New Hampshire keeps paint waste out of county landfills. The Three R's: Reduce, Reuse and Recycle. Reuse

CONTRACTORS FOR HOUSEHOLD HAZARDOUS WASTE COLLECTIONS PROJECTS 2016-2017

Clean Harbors 42 Longwater Drive Norwell, MA 02061 (781) 792-5000 NH Field Service (603) 224-6626 www.cleanharbors.com	**Clean Venture** 133 Leland Street Framingham, MA 01702 Phone: (508) 872-5000 Fax: (508) 875-5271 www.cyclechem.com	**Care Environmental** 10 Orben Drive Landing, NJ 07850 (800) 494-2273 www.careremediation.com Local Office: 973-398-5100	**Enpro Services, Inc.** 709 Keith Avenue Pembroke, NH 03275 603-410-11501-800-966-1102 www.enpro.com
Triumverate Environmental 61 Inner Belt Road Somerville, MA 02143 (888) 834-9697 www.triumvirate.com	**New England Disposal Technologies, Inc.** 83 Gilmore Drive Sutton, MA 01590 190 East Main (Route 20) Westfield, MA Office: 508-234-4440 Fax: 508-234-4441 www.NEDT.org	**APT Environmental** Services, Inc. P.O. Box 162 Milton, VT 05468 (802) 893-8281 http://aptsol.net	**Veolia Environmental Services** 398 Cedar Hill St Marlborough, MA 01752 (800) 354-2382 www.veoliaes.com
Complete Recycling Solutions 1075 Airport Road Fall River, MA 02720 508-402-7714 sales@crsrecycle.com www.crsrecycle.com	**Cyn Environmental** 8 Progress Drive Dover, NH 03820 603-749-4969 http://www.cynenv.com	**Tradebe Environmental Services** 410 Shattuck Way Newington, NH 03801 888-276-0885 http://www.tradebeusa.com	**US Ecology** 185 Industrial Road Wrentham, MA 02093 (800) 426-9878 Office (508) 965-4820 Cell (508) 384-6028 Fax https://www.usecology.com/Locations/All-Locations/US-Ecology-Boston.aspx

1) NHDES Web Page (other towns)

2) LRHHPF (Flyer)

3) Paintwastedisposal.com (Web Page)

4) Give it away or use it up

5) Private Haulers (Hand Out)

Overview of HHW & Practical Approaches to Alternative Products

Dean Robinson
NH Department of Environmental Services

August 24, 2016

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Cascade
NEW ZEALAND
20
ACTIONPACS
Swiffer
DUSTERS
FURNITURE
CARE
Remember
Wasp &
Hornet
KILLER
20 FT JET SPRAY
ELIMINATES THE NEST
seventh
GENERATION
& clear
ODOR &
ELIMINATE
FOR CARPET & RO

5,600

180

IGNITABLE — I

CORROSIVE — CAN'T

REACTIVE — REMEMBER

TOXIC — THAT

FLAMMABLE
LIQUID

CORROSIVE

SPONTANEOUSLY
COMBUSTIBLE

TOXIC

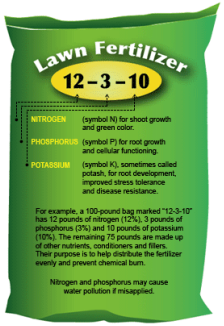
Lacquer
Thinner

CLOROX

All in 1
Cascade
COMPLETE

Cif
Oven Cleaner

Drano
MAX GEL


Lawn Fertilizer
12 – 3 – 10
NITROGEN (symbol N) for shoot growth and green color.
PHOSPHORUS (symbol P) for root growth and cellular functioning.
POTASSIUM (symbol K), sometimes called potash, for root development, improved stress tolerance and disease resistance.
For example, a 100-pound bag marked "12-3-10" has 12 pounds of nitrogen (12%), 3 pounds of phosphorus (3%) and 10 pounds of potassium (10%). The remaining 75 pounds are made up of other nutrients, conditioners and fillers. Their purpose is to help distribute the fertilizer evenly and prevent chemical burn.
Nitrogen and phosphorus may cause water pollution if misapplied.

CHLORINE
chlorinating tablets
BROMINE

Prestone

Drano
MAX GEL

Cif
Oven Cleaner

Gloss
Cleaner

All in 1
Cascade
COMPLETE

Lacquer
Thinner

Duragloss
METAL
POLISH

CHLORINE
chlorinating tablets
BROMINE

Most Dangerous Items in Your Home

Hydrocarbons & Solvents

- Agitation
- Confusion
- Coma
- Breathing difficulty
- Severe stomach pain
- Throat swelling
- Vomiting blood
- Blood in your stools
- Skin burns
- Vision loss
- Low blood pressure that develops rapidly

- Petroleum distillates - skin and lung cancer

- Nitrobenzene - Hemotoxin
- (absorbed through the skin)

Most Dangerous Items in Your Home

Ammonia & Hydrocarbons

- Vision loss
- Bloody stools
- Vomiting blood
- Collapse
- Coma
- Convulsions
- Necrosis (holes) in the skin or underlying muscle
- Kidney Failure

- Diethanolamine (DEA) Carcinogen
- Triethanolamine (TEA). Carcinogen
- 1,4-dioxane, Carcinogen
- Ethoxylated alcohols. Carcinogen
- Ethylene glycol monobutyl ether - Neurotoxic - damage to the brain and nervous system

Most Dangerous Items in Your Home

Sodium Hydroxide & Hydrogen Chloride

- Abdominal pain
- Throat swelling
- Collapse
- Loss of vision
- Mouth pain (severe)
- Rapid drop in blood pressure
- Throat pain (severe)
- Severe tissue damage
- Brain Damage
- Death

- Sodium hydroxide (lye)
  (120-140 degrees)
  heat dilution

Having a
great
time!

BUTLER-WARREN NEWS NOW
Chemical Bombs Explode
SHERIFF ISSUES WARNING
9
WCPO

April 19, 1995

Fertilizer & Oil - Atlanta

Officials: 2 killed, 80 homes affected after massive explosion in Indianapolis

By the CNN Wire Staff

Updated 10:22 AM ET, Mon November 12, 2012

Residents return to damaged homes 01:19

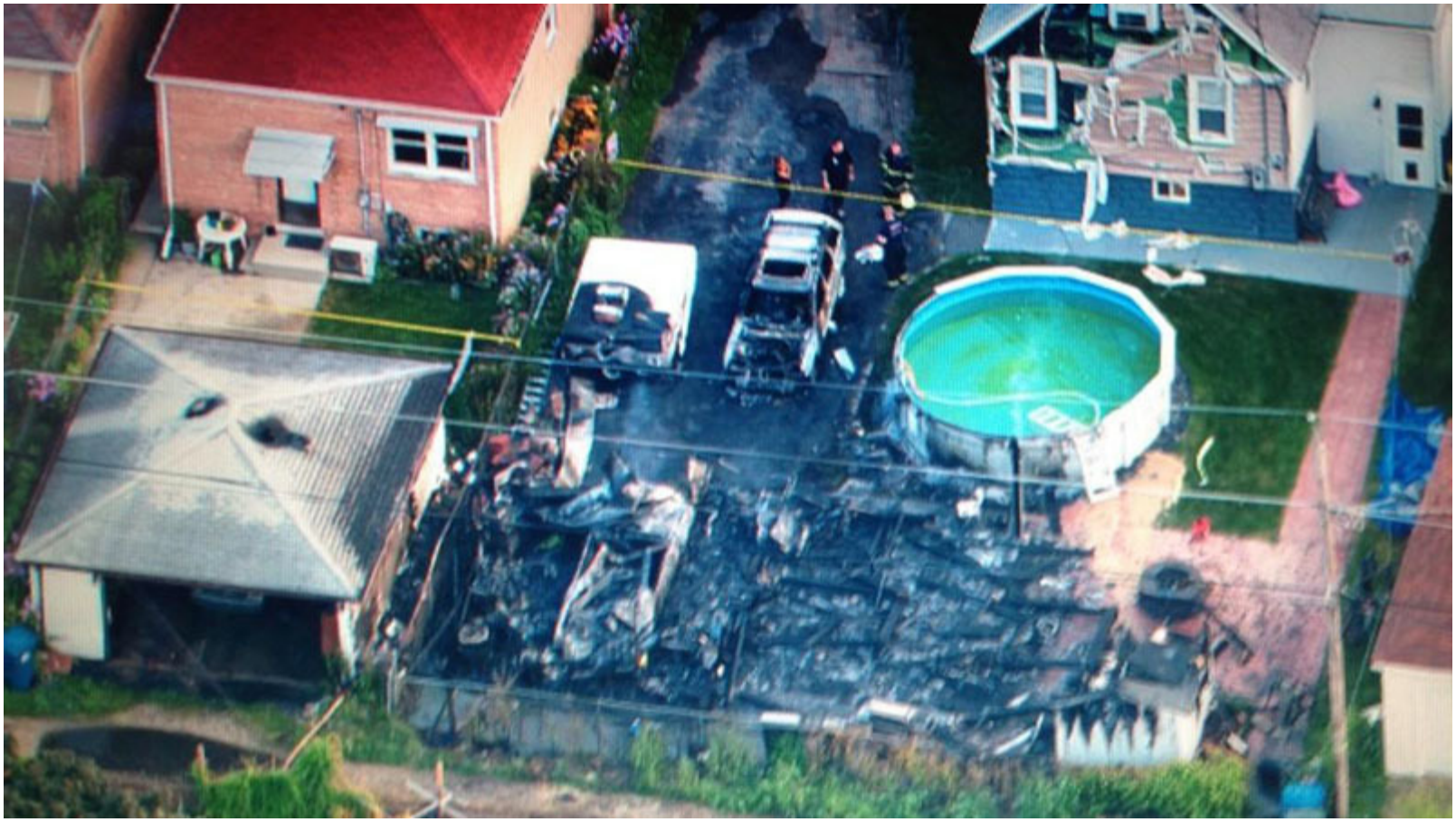
Story highlights

Seven go to hospitals after the late-night blast in an Indianapolis neighborhood, officials say

It must be a bomb.

That was Debbie Wagner's first thought when she heard the boom as she lay in bed overnight Saturday in her

Pool Chemicals - Chicago



Pool Chemical Fire

Pool Chemicals Fire

Chemaxx was hired to investigate pool chemicals believed to have been responsible for a sudden, unexpected vigorous fire. The tragic incident took place inside the rear of an SUV that was traveling with two parents in the front and three children in the back seat. It is believed that an aerosol product leaked an organic solvent that made contact with the pool chemicals. The mixture burst into flames that instantly engulfed the entire vehicle in flames. While the parents were just able to exit the vehicle they were not able to rescue all their children even though they received severe burns trying. Only one child was saved and two children perished in the fire. It just doesn't get any more horrific than this.

LIFE

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New Hampshire Department of Environmental Services
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Phone: (603) 271-2047