

Solid Waste in New Hampshire

Tara Mae Albert, SWOT Coordinator

Solid Waste Compliance Assurance Section

Why is Solid Waste Regulated?

- It's the Law!
 - RSA 149-M is in Title X
 - Statement of Purpose



Why is Solid Waste REALLY Regulated?



Proper and Integrated Management of SW Can...

- Protect human health;
- Preserve the natural environment;
and
- Conserve precious and dwindling natural resources.



How is Solid Waste Regulated?

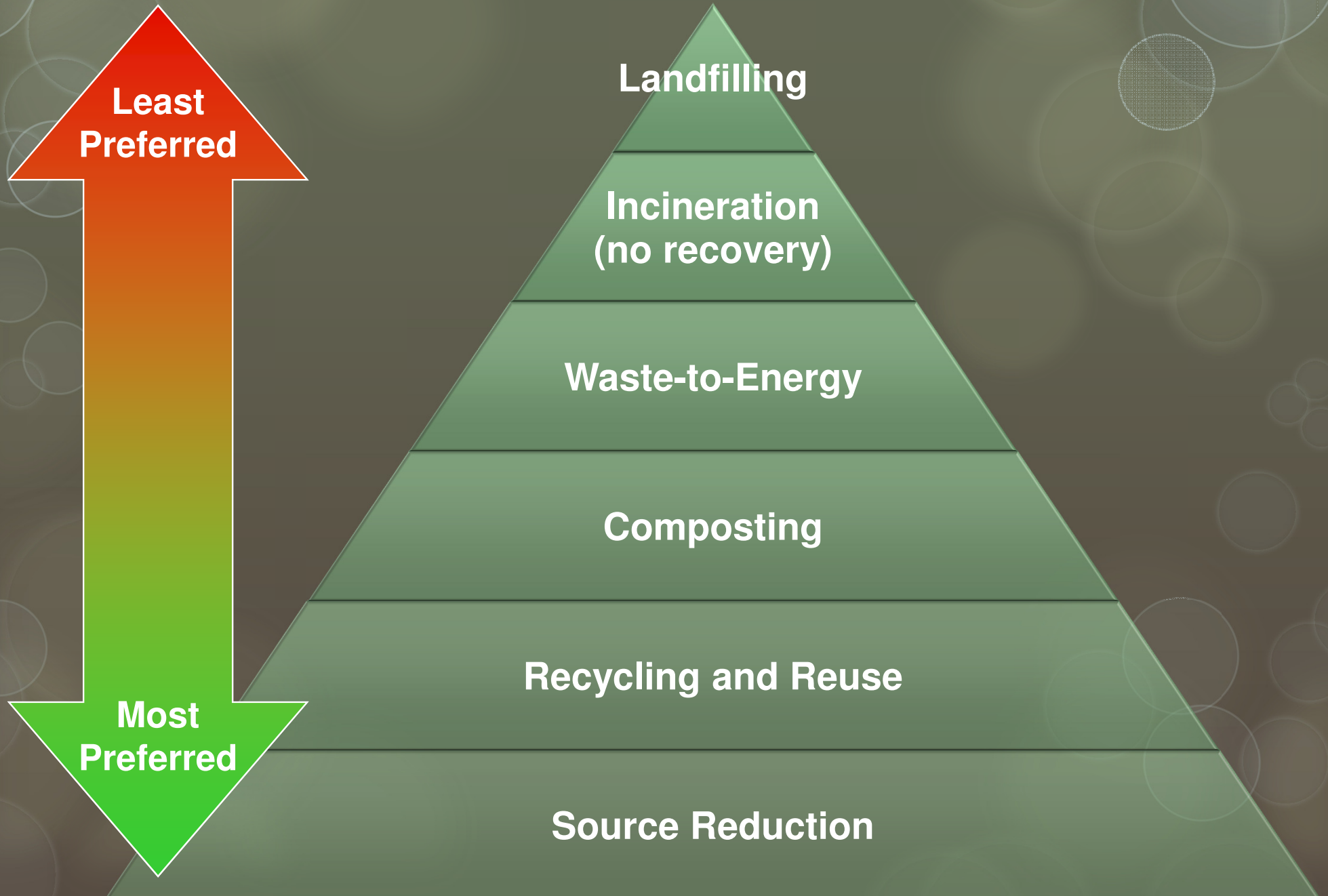
RSA 149-M
(aka The Law)

Env-Sw 100 – 2000
(aka Solid Waste Rules)



Solid Waste Facilities in NH

Waste Management Hierarchy

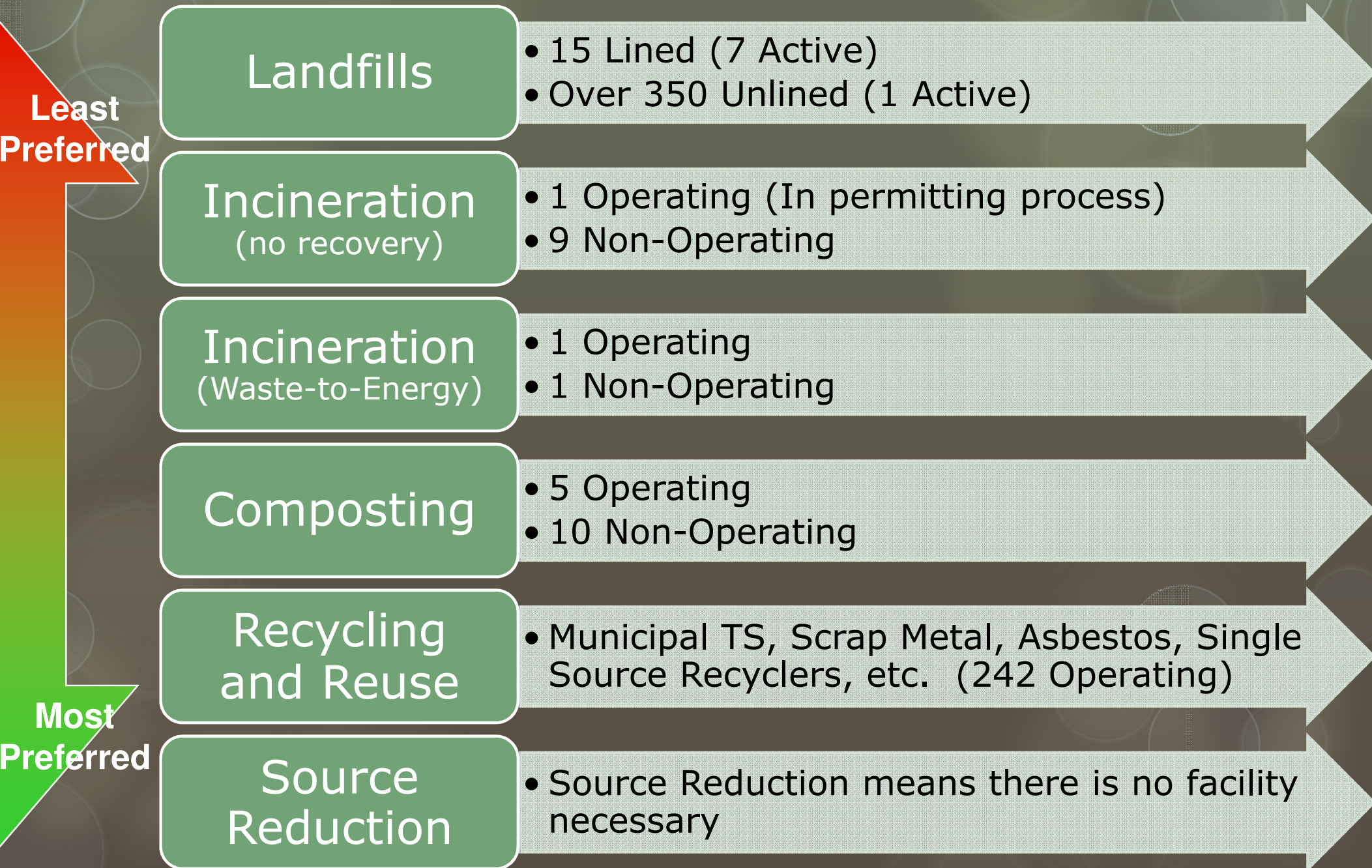


Waste Reduction Goal: 40% by 2000

RSA 149-M:2

- Concern about environmental and economic issues pertaining to solid waste in landfills and incinerators
- Reserve landfill and incinerator capacity for solid wastes that cannot be reduced, reused, recycled or composted
- Achieve weight diversion through source reduction, recycling, reuse, and composting, or any combination of such methods
- Discourage use of landfills or incinerators for recyclable materials

Current SW Permits in NH

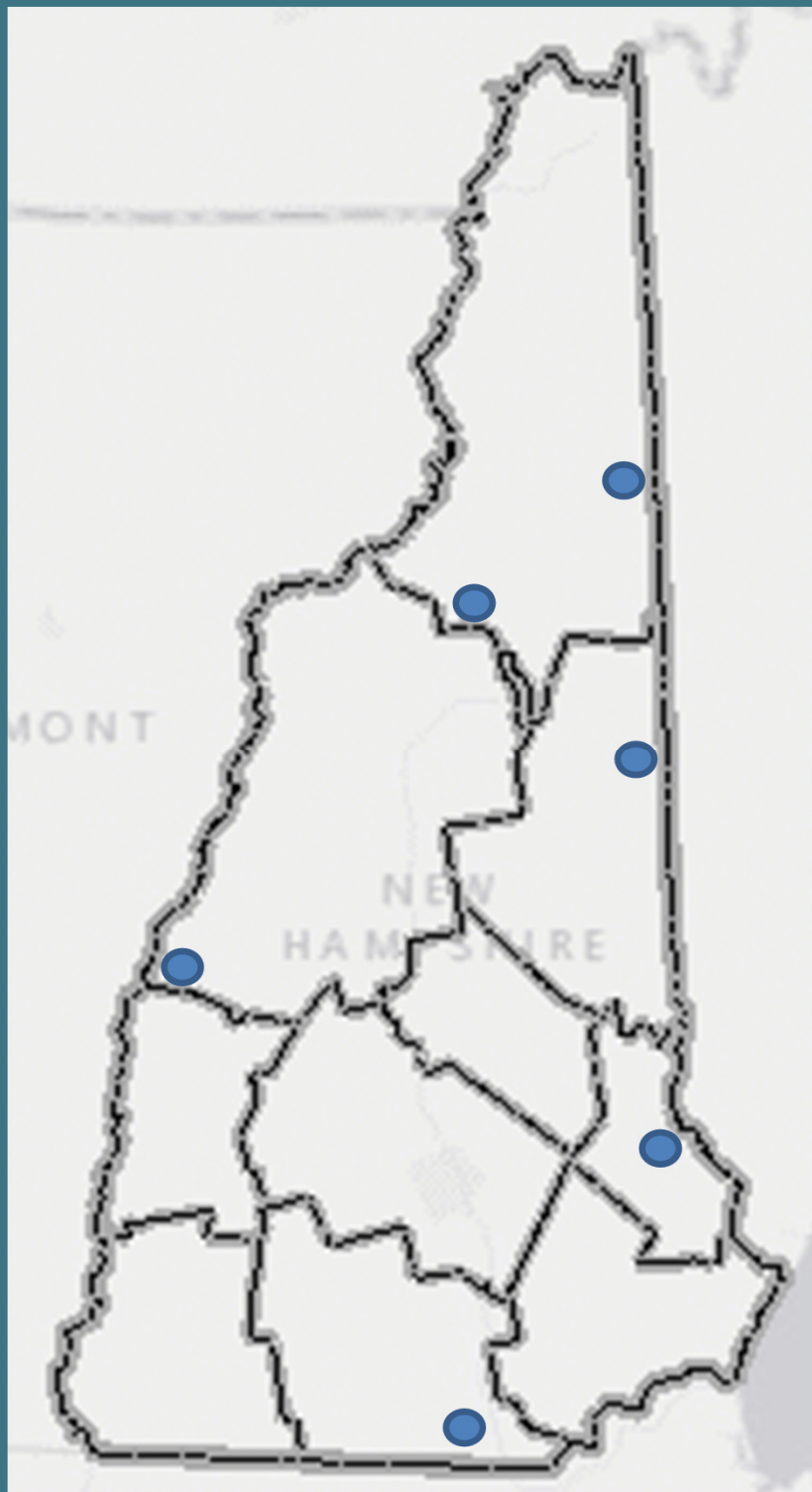


Least Preferred

Most Preferred

NH's 6 Active Lined Landfills

- North Country Environmental Services
- Lower Mt. Washington Valley
- Lebanon Regional Solid Waste Facility
- TLR-III Refuse Disposal Facility
- Four Hills
- Mt. Carberry



How Much Waste We Generate

(Per EPA 2014)

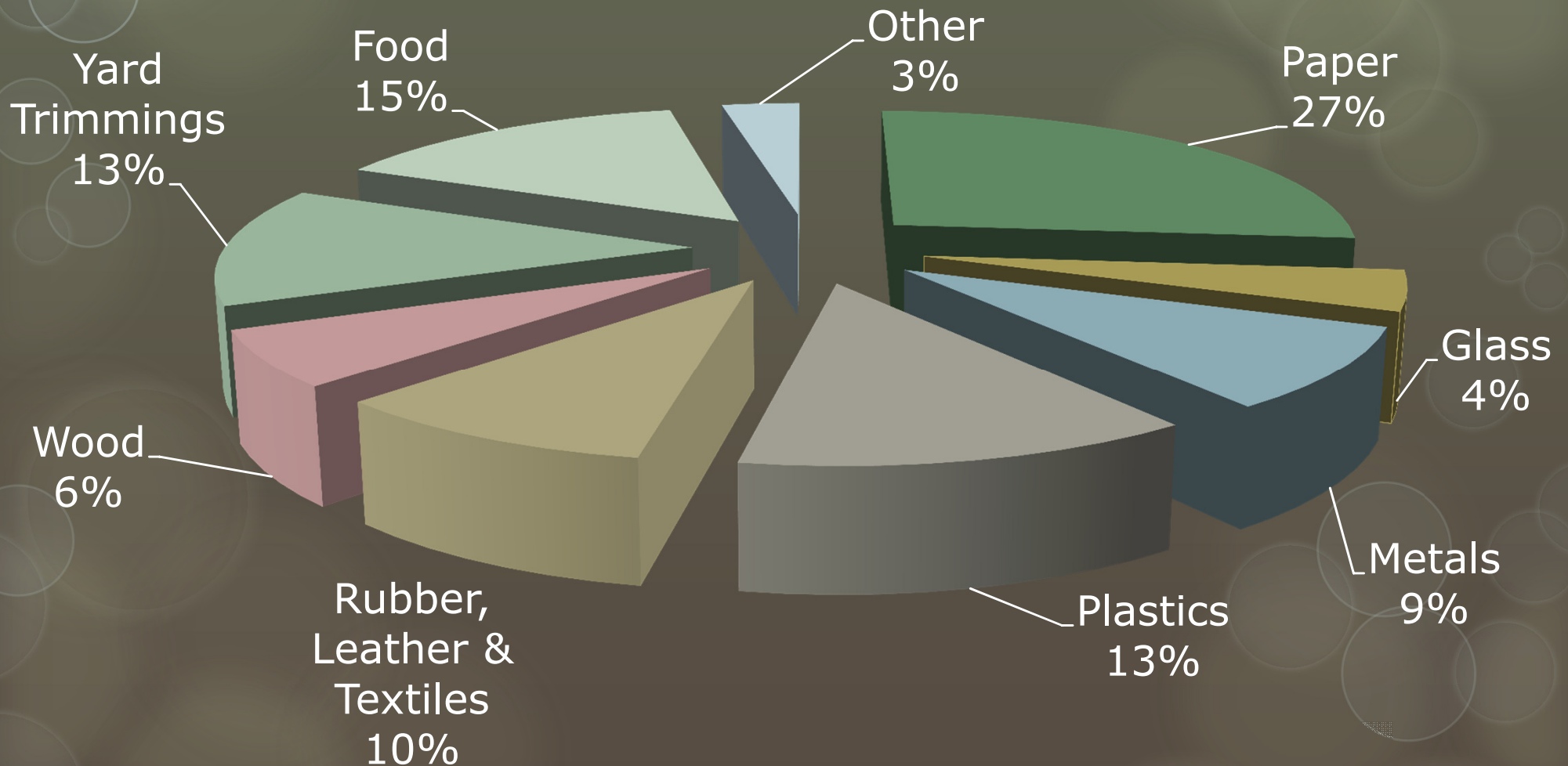
- 4.6 pounds per person per day
(Equals)
- 1,679 lbs per person per year
(Equals)
- 0.84 tons per person per year
- Multiply that with the population of NH: 1.3 Million
- 1,091,350 Tons of MSW generated per year in NH



And that's just MSW! Some estimate that, as a state, we each generate one ton of waste every year... 1.3 M tons!

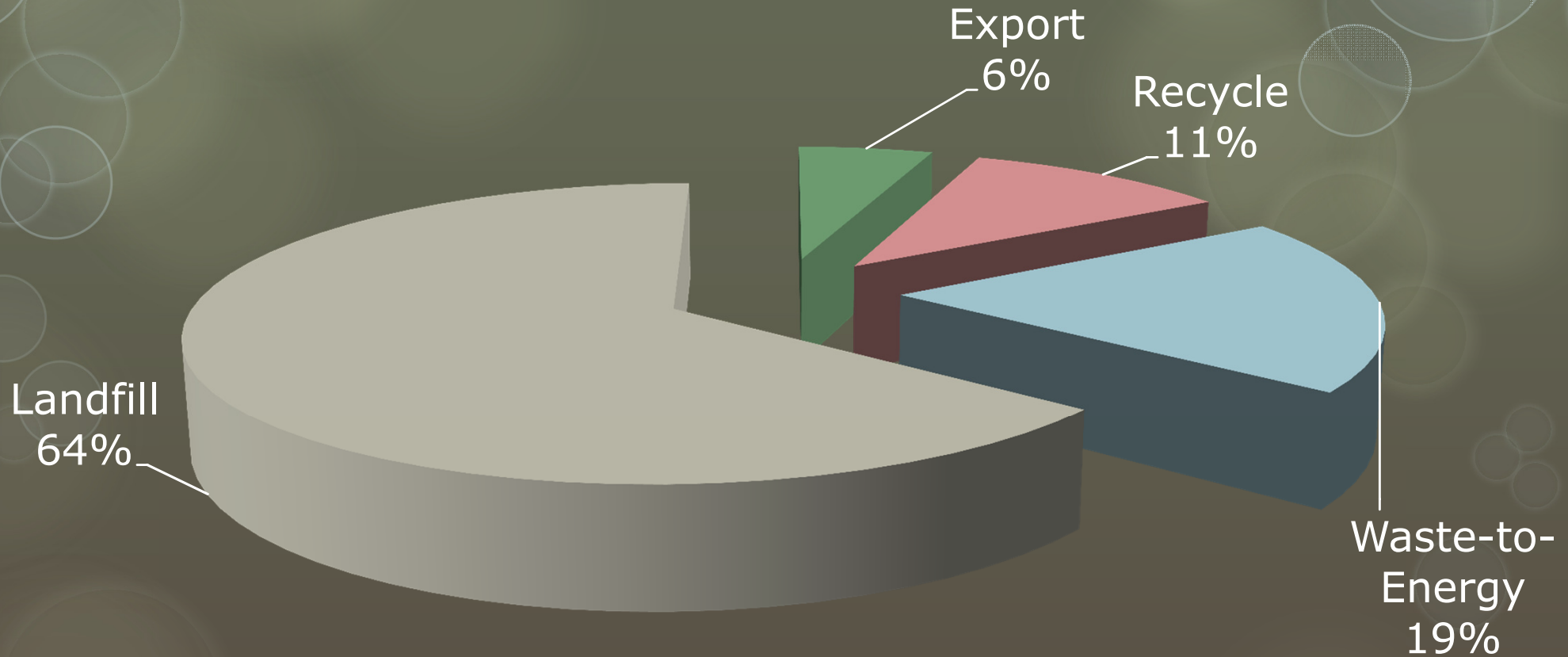
Total MSW Generation (per EPA 2014)

258 Million Tons (before recycling)



Management of MSW

(NH values per 2014 AFRs)



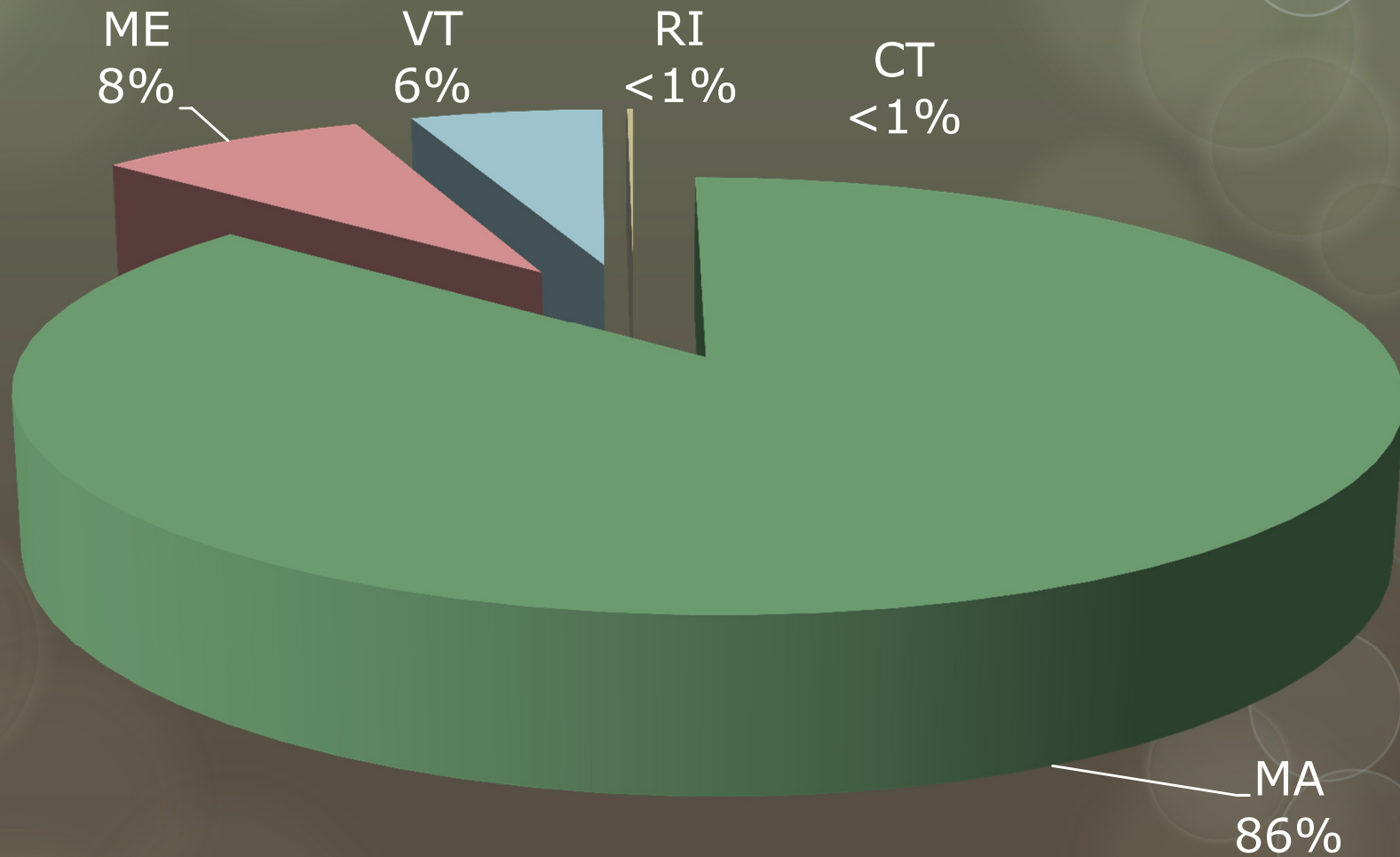
Total NH Solid Waste is 1 Million Tons
(excludes imports)

*** Approximate values.

Estimated Imports to NH

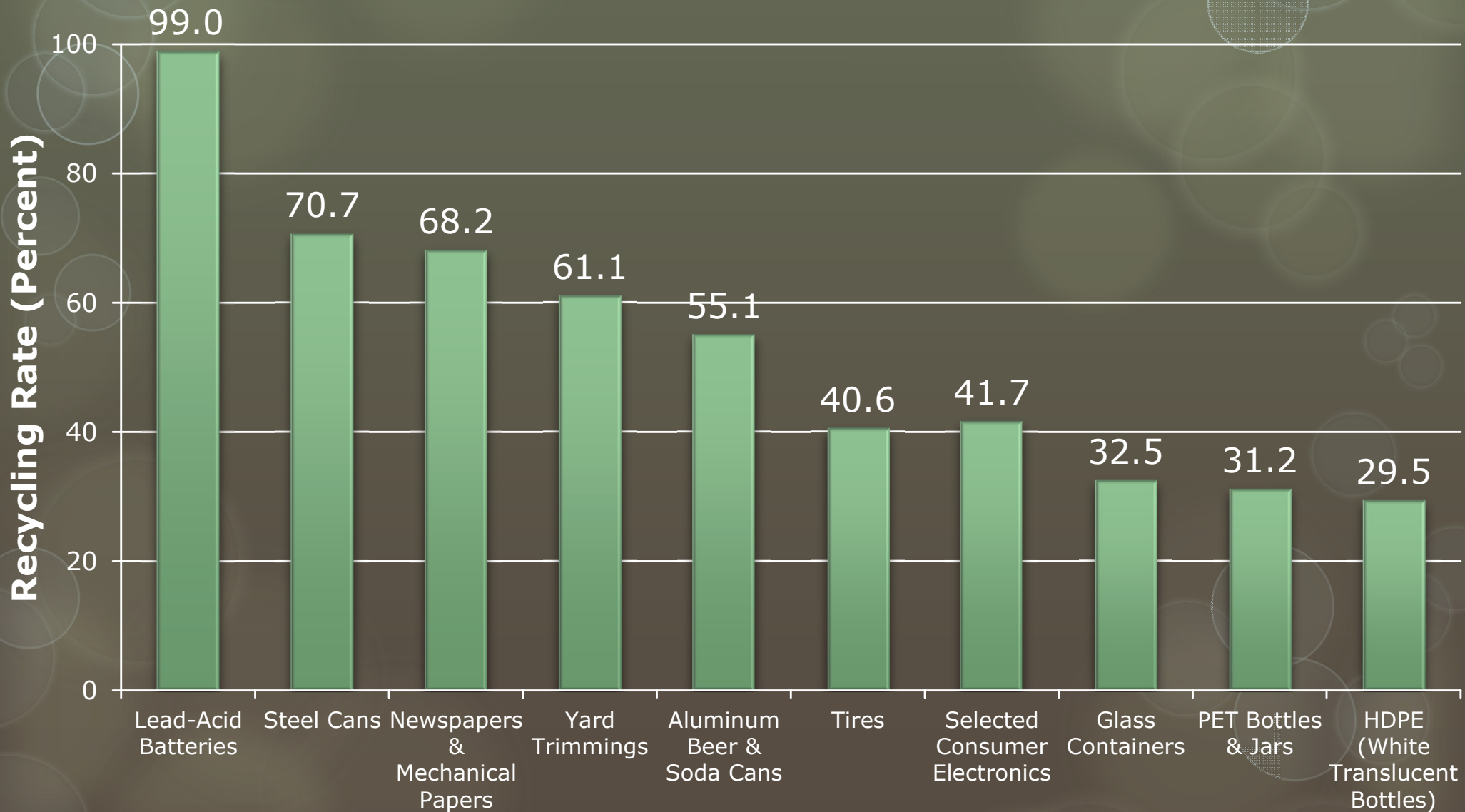
(per 2014 AFRs)

529,000 Tons



*** Approximate values.

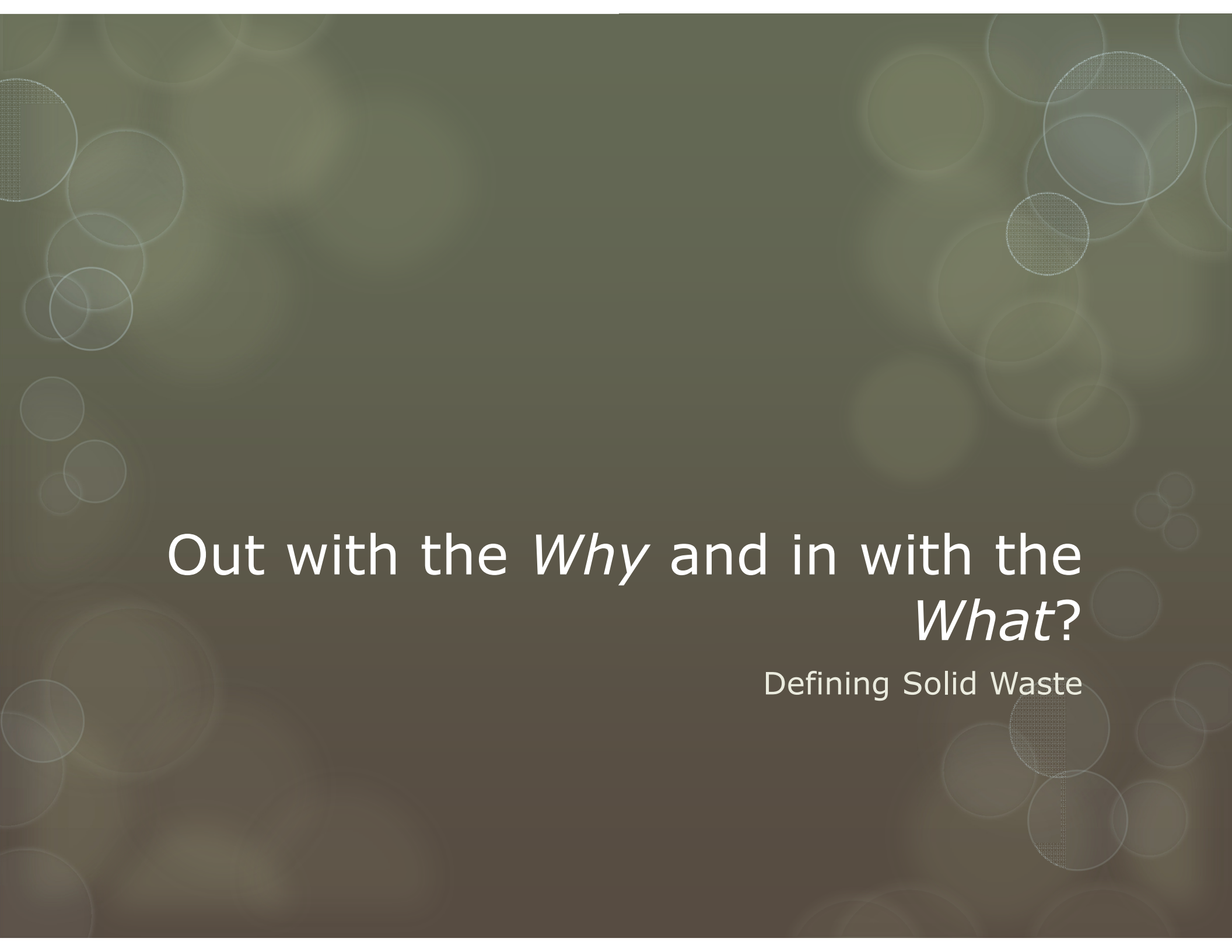
National Recycling Rates of Selected Products (EPA 2014)



The Business of Solid Waste in NH

- 5,000 employees (public and private)
- \$290 million a year



The background is a dark, muted green color. It is decorated with numerous overlapping circles of varying sizes and opacities. Some circles are solid, while others are filled with a fine grid pattern. The overall effect is a textured, bokeh-like aesthetic.

Out with the *Why* and in with the *What?*

Defining Solid Waste

What is Solid Waste?

- *Putrescible* material
- Refuse
- Residue from an air pollution control facility
- Other discarded or abandoned material



“Putrescible” - liable to become rotten or foul

It also includes solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities.

Examples

- Recyclable materials
- Asphalt shingles
- Municipal Solid Waste
 - *Household Garbage*
- Bulky waste
- Electronic waste
- Propane tanks
- Construction & Demolition Debris



What is *NOT* Solid Waste?

- Hazardous waste
- Solid or dissolved materials in irrigation return flows
- Cut or uprooted tree stumps buried on-site
- Municipal and industrial discharges
- Nuclear and nuclear by-product waste



What is *NOT* Solid Waste?

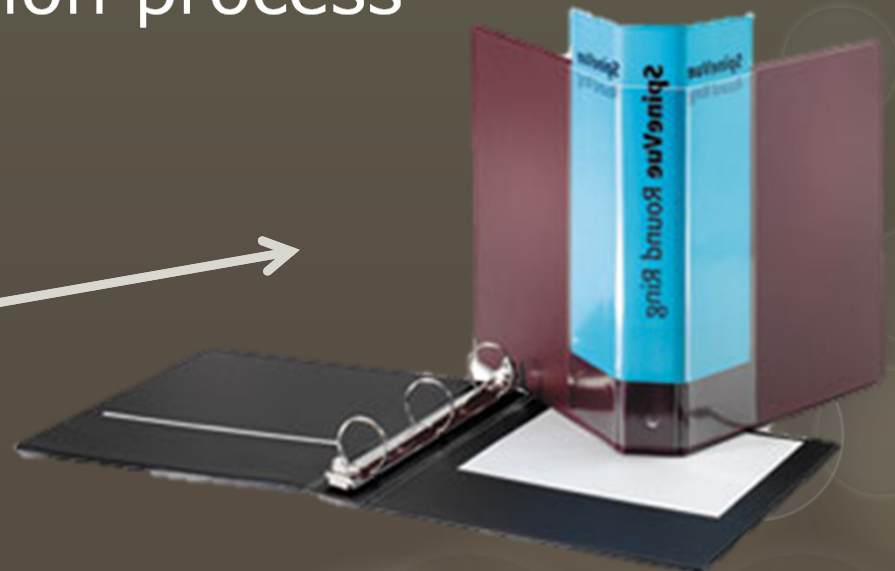
- Septage or sludge
- Yard waste
- Certified Waste-Derived Products
- Bodies of dead persons



When does a Solid Waste Stop Being a Solid Waste?

- Products that are made from “waste”
- Items are certified either
 - By Rule or;
 - Through an application process

For example, your binders today are made from recycled materials. They were once a solid waste!



Wastes that Are NOT Solid Wastes



Hazardous Waste Management including Used Oil and
Universal Wastes
Tim Prospert, HWMB

CAUTION

**THIS SIGN HAS
SHARP EDGES**

DO NOT TOUCH THE EDGES OF THIS SIGN



ALSO, THE BRIDGE IS OUT AHEAD



OVERVIEW

HAZARDOUS WASTES

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graph TD; HW[HAZARDOUS WASTES] --> T[“Typical” Hazardous Wastes]; HW --> UOR[Used Oil Being Recycled]; HW --> UW[Universal Waste];
```

“Typical” Hazardous Wastes

Managed under tough rules

Used Oil Being Recycled

Still Hazardous but usually managed under easier rules

Universal Waste

Still Hazardous but usually managed under easier rules

“Typical” Hazardous Waste





Regulations

Households



Exempt...until
Municipality takes it

ALL Businesses



ILLEGAL
for Municipality to accept

4 Steps to Handle HazWaste



1. Identify

2. Notify

3. Store

4. Ship



1. Identify if the waste is hazardous



∞ Ignitable → I.

∞ Corrosive → C.

∞ Reactive → Real

∞ Toxic → Trouble

Ignitable wastes...

☞ Catch fire VERY easily

- Oil/solvent-based paint
- Solvents and many spray cleaners
- Aerosol cans with flammable propellants still inside
- Alcohol
- Adhesives
- Roofing cement?
- HTH pool chemicals...



Corrosive wastes...

- ☞ Waste with a very low pH (acid)
- ☞ Waste with a very high pH (caustic, or basic)
 - ☞ Pool acid
 - ☞ Battery acid
 - ☞ Muriatic acid
 - ☞ Drain Cleaners (acid)
 - ☞ Drain Cleaners (basic)
 - ☞ Lye (basic)
 - ☞ Some other cleaners
 - ☞ Paint strippers



Reactive wastes...

☞ Things that explode

- ☞ Dynamite
- ☞ Fireworks
- ☞ Military (gunpowder, bullets, grenades...)
- ☞ Old ether, picric acid

☞ Things that react badly with water or air

- ☞ Might be packaged in oil or water



Toxic wastes

- ❧ Wastes that contain too much of certain dangerous chemicals
 - ❧ Oil/solvent-based paints
 - ❧ Some solvents and spray cleaners
 - ❧ Prescription medicines
 - ❧ Pesticides
 - ❧ Paint strippers
 - ❧ Roofing tar
 - ❧ Adhesives



OK... You have **IDENTIFIED**
some Hazardous Waste



What Do You Do?

4 Steps to Handle HazWaste



1. Identify
- 2. Notify**
3. Store
4. Ship



2. Notify DES of your situation



271-2921

or

hazwastereporting@des.nh.gov

4 Steps to Handle HazWaste



1. Identify
2. Notify
- 3. Store**
4. Ship



3. Store the waste safely

On a leak-proof surface

Closed



Not near
Floor Drains



Keep
incompatibles
apart



Bleach And Ammonia
Don't Mix!

Properly Label Containers

The words “Hazardous Waste”

Words to identify the contents of container or tank

Labels must be accessible (fully visible)

HAZARDOUS WASTE

CONTENTS:

Waste Paint

Labels must be visible



Incorrect



Correct



4 Steps to Handle HazWaste



1. Identify
2. Notify
3. Store
4. Ship



4. Ship Out the Hazardous Waste



COUNTER BELOW SHOWS DAYS
LEFT UNTIL HAZARDOUS WASTE
NEEDS TO BE SHIPPED OUT

IF LESS THAN 15 DAYS AND NO PICKUP DATE IS SHOWN ON
THE WHITE-BOARD PLEASE CONTACT EHS

88.94

NEXT PICK UP:

Get the Waste Off-
site **IN 90 DAYS!**



For Help!



☞ Hazardous Waste Hotline

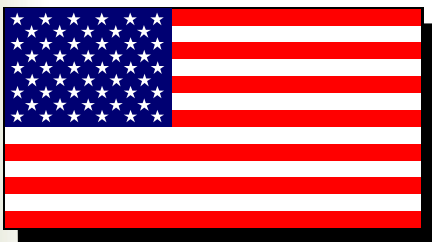
☞ 1-866-HAZWAST

☞ 1-866-429-9278

*Make Your Old Man Proud
Recycle Used Oil*



USED OIL



Got “Used Oil”?



KEEP IT THAT WAY!!

Don't mix anything else in!

Gasoline

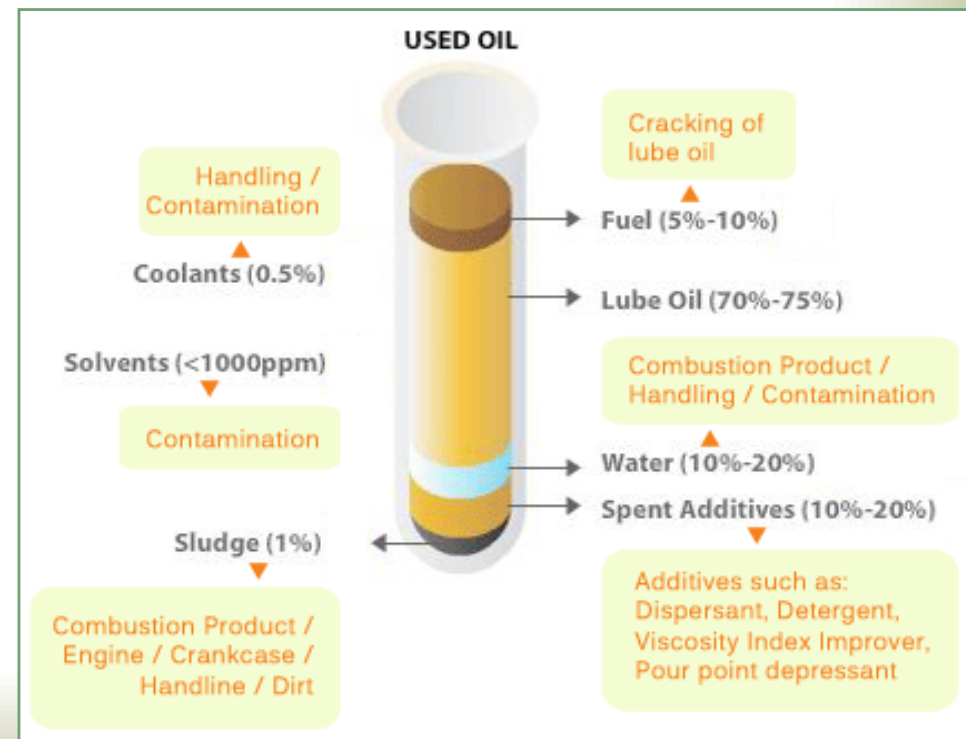
Solvents

parts washer solution

Paint

Anything in a spray can

IT would be **BAD!**



DANGEROUS?



What is NOT “used oil”?



- Anything used as a solvent or cleaner
- Anything used as wood preservative
- Oily water with less than 5% oil



How is used oil managed?

Keep containers and tanks closed. Why?



- ❧ Limits or prevents spills.
- ❧ Keeps sources of ignition out.
- ❧ Keeps vapors in.
- ❧ Forces employees to take a moment to recognize if they are adding the wrong stuff to the container or tank.

Use only containers in good condition

USDOT approved



YES!



NO!

Mark Containers...

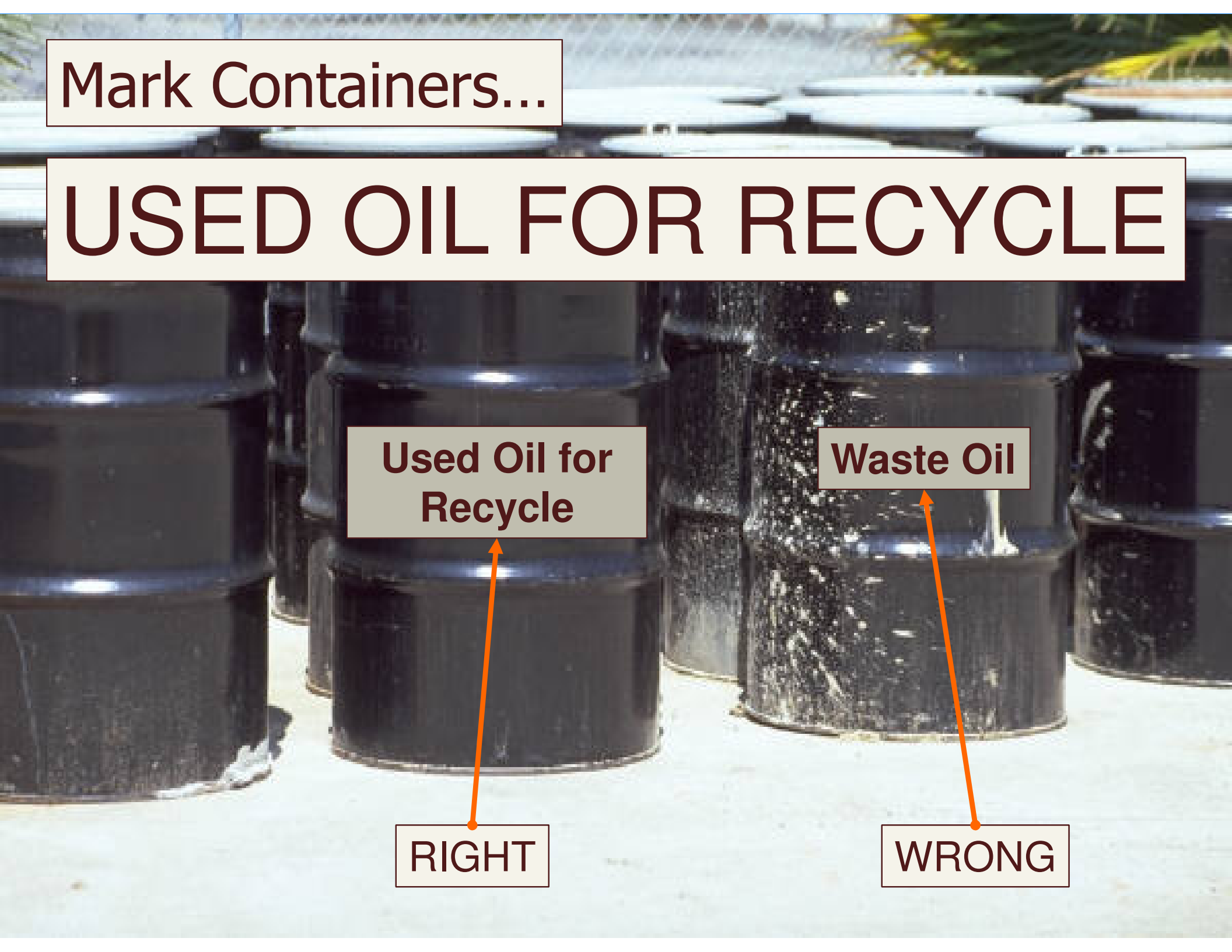
USED OIL FOR RECYCLE

Used Oil for
Recycle

Waste Oil

RIGHT

WRONG



Don't give Used Oil to the guy
down the street Or take it from him either!!!

- ∞ Transfers within departments of the same town are OK (Transfer Station to DPW, etc...)
- ∞ Transfers to different owners are regulated



Manage in a way to prevent spills,
leaks and seepage



☞ Little spills and drips add up to big trouble

☞ Thousands of dollars to clean up oily dirt!

☞ Keep used oil on a leak-proof surface

☞ Concrete or asphalt, usually

Outdoor Storage Requirements



- ❧ Must be in secondary containment
- ❧ 10% bigger than the biggest container
 - ❧ “Kiddie” Pool?
 - ❧ Cut open tank?
 - ❧ Concrete?
 - ❧ Other ideas?
- ❧ Keep away from surface water and wells



Used Oil Outdoors

Keep containers, tanks, and secondary containment covered from rain and snow.



No Wall
Here

**CONCRETE
CONTAINMENT**

No Wall
Here

And
No
Wall
Here



14 inches!!

Help!

☞ Dean Robinson, HHW Coordinator

☞ 271-2047

☞ Grants for YOU!

☞ Used Oil Coordinator

☞ 1-888-TAKEOIL

☞ Technical/Rule Questions

Universal Waste



What is it?

How to Manage it?

Where to Get Rid of it?

Types of NH Universal Waste



❧ Auto Antifreeze

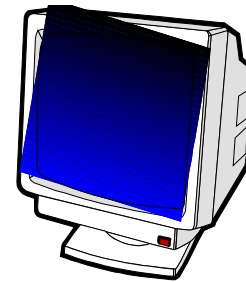
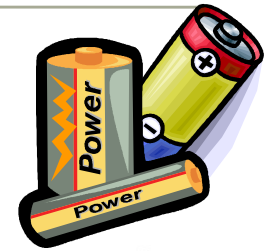
❧ Some Batteries

❧ Cathode ray tubes

❧ Some Lamps

❧ Mercury-containing devices

❧ Some Pesticides



Rules for USED Auto Antifreeze



- ☞ Store in a container or tank that is closed
- ☞ Good condition

May contain heavy metals and cancer-causing benzene



Batteries

Nickel-Cadmium (Ni-Cd)



Lithium



Button cell



Lead-acid



Dangerous for Heavy Metals, fire hazard, and sometimes acids



Cathode Ray Tubes (CRTs) contain lead.

Types of Universal Waste Lamps



- ❧ Fluorescent
- ❧ Mercury vapor
- ❧ High pressure sodium
- ❧ H.I.D.

THEY CONTAIN MERCURY!



Universal Waste Lamps

Do NOT crush the lamps on purpose.

It is **ILLEGAL!**





Thermostats

Mercury-containing devices



Switches



Relays



Thermometers

Store in a labeled container

Some pesticides are considered universal waste

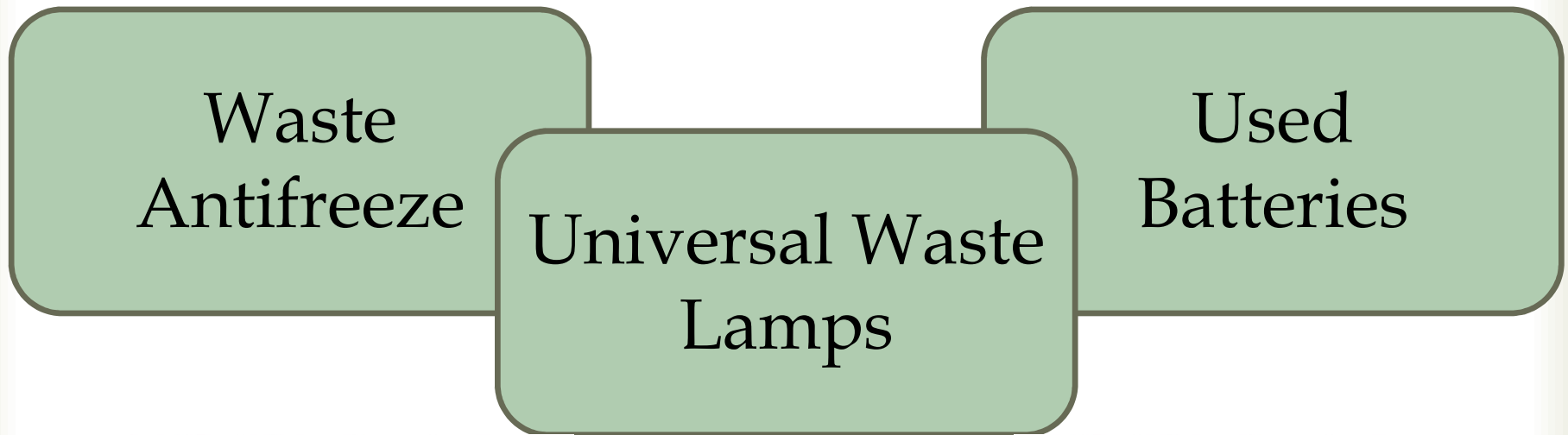
The NH Department of Agriculture keeps a list of which pesticides are universal wastes



Many pesticides are still “typical” hazardous wastes with strict regulations

Universal Waste Management Standards

Label or mark containers - 3 choices.



UNIVERSAL WASTE

CONTENTS Batteries

ACCUMULATION START DATE _____

SHIPPER _____

ADDRESS _____

CITY, STATE, ZIP _____

Leo Safety Supply inc Reorder No. 42106

UNIVERSAL WASTE

CONTENTS Lamps

ACCUMULATION START DATE _____

SHIPPER _____

ADDRESS _____

CITY, STATE, ZIP _____

Leo Safety Supply inc Reorder No. 42106

Universal Waste Management Standards

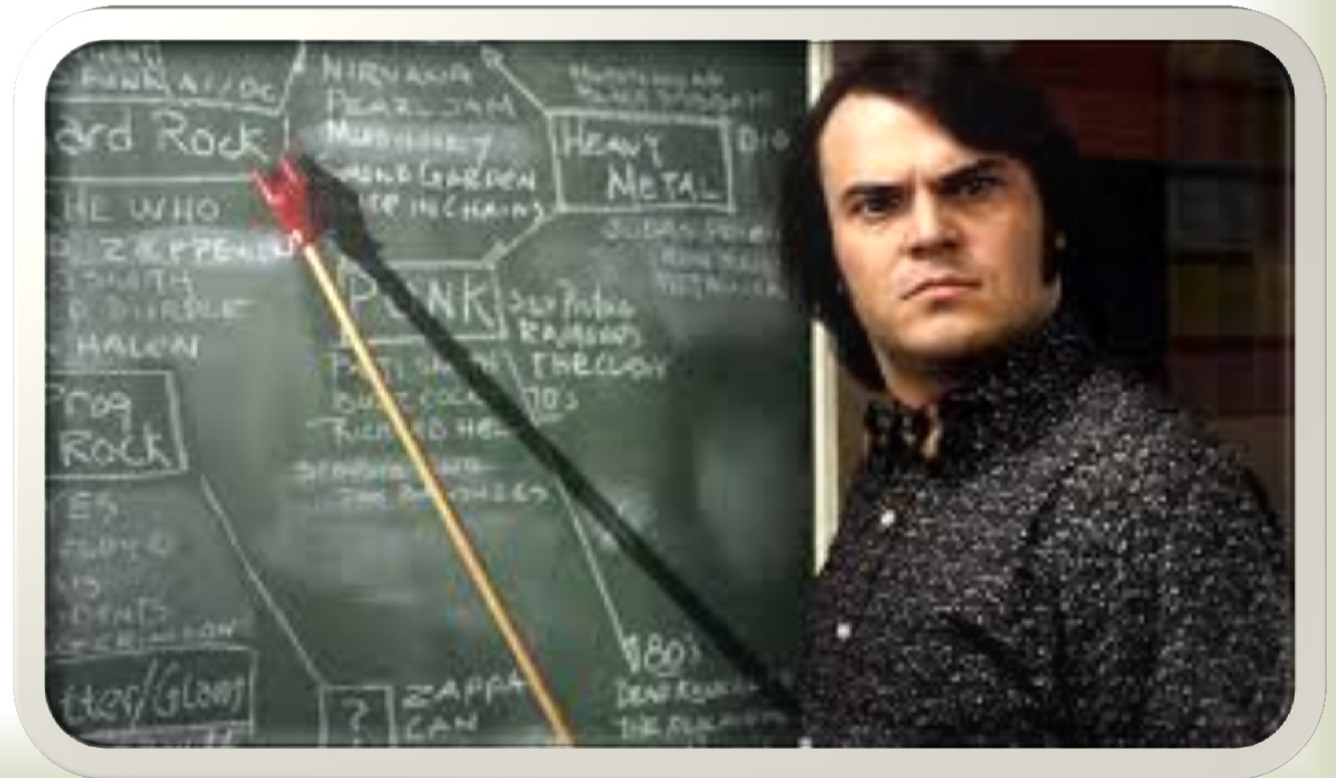
Cover universal waste containers stored outdoors.



Universal Waste Management Standards

- ☞ Train employees on proper handling.
- ☞ In-house training is fine.

- ☞ Teach them:
 - ☞ What is the danger?
 - ☞ How do I handle these wastes?



Universal Waste Management Standards



Do not store for more than ONE YEAR.
Be able to prove you are shipping these off-site.



Help!



☞ Hazardous Waste Hotline

☞ 1-866-HAZWAST

☞ 1-866-429-9278

SUMMARY

HAZARDOUS WASTES

```
graph TD; HW[HAZARDOUS WASTES] --> T[“Typical” Hazardous Wastes]; HW --> UOR[Used Oil Being Recycled]; HW --> UW[Universal Waste];
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“Typical” Hazardous Wastes

Managed under tough rules

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Abandoned Household Hazardous Waste

Dean F. Robinson, Jr., Coordinator
Household Hazardous Waste
Program

What is Household Hazardous Waste?



Unwanted homeowner products that have the same qualities as a hazardous waste

What is Household Hazardous Waste?



- Cleaners
- Paint (solvent based)
- Pesticides
- Lubricants
- Drain Cleaners
- Fertilizers (some)

Business vs. Homes



Businesses are HW generators;
must obey the HW Rules.

They may not throw HW in the
trash.



Homeowners are not covered by
the HW Rules.

It's simply impossible to enforce
disposal laws on 1.2 million people.

The Cold Hard Truth

1. NH does not recognize the EPA's HHW exemption for municipal solid waste facilities
2. If anyone at your facility knowingly accepts HHW, you are the generator of that waste
3. Your facility/site MUST have a HW generator number & training to knowingly accept HHW
4. It is legal for residents to place HHW into the solid waste stream

Why should I do this?



AFTER FLOOD CLEAN UP



What if I have HHW?

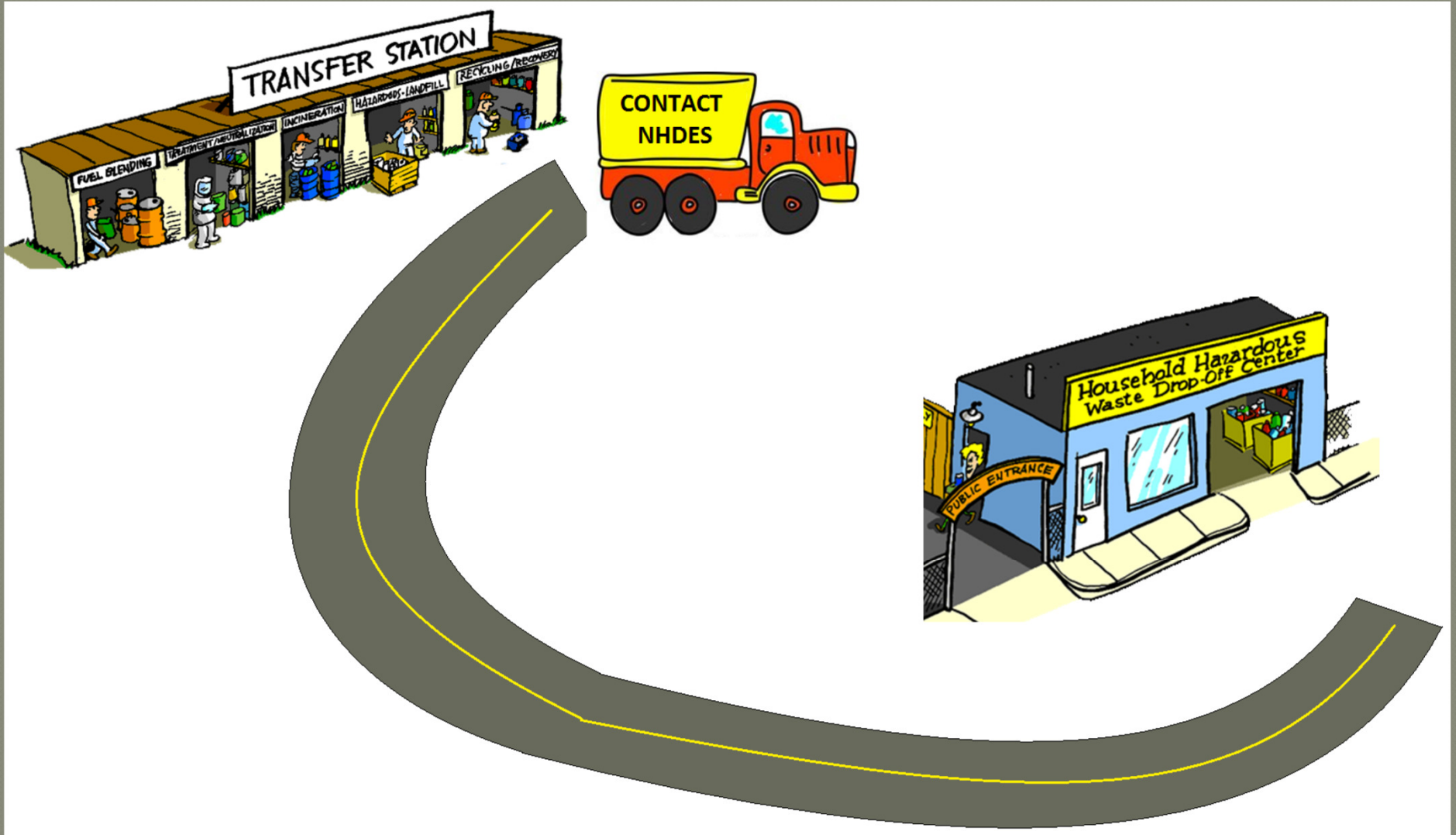
◎ Call DES to get a HW generator number & training

◎ Then:

- Call a hazardous waste hauler to come get it
-or
- Segregate and manage (ICRT) until your HHW collection
-or
- Self transport to another town's HHW collection
-or
- Self transport to a Treatment Storage Disposal Facility (TSDF)

Self Transport

Exemption Env-Hw 507.03 (b) allows self transport of HHW “one time.”



“We Can’t Take That!”



What's the easiest Thing I Can Do?

To prevent this from happening...



What's the #1 Thing?

Give your customers options!

- Hand Outs -
- Signs -
- Links -
- Keep it Local -
- Other?



Local: Batteries

Batteries Plus Bulbs

Manchester, NH
(603) 621-0100

Open until 8:00 PM

Batteries Plus Bulbs

Newington, NH
(603) 433-1677

Open until 8:00 PM

Batteries Plus Bulbs

Nashua, NH
(603) 883-5060

Open until 8:00 PM

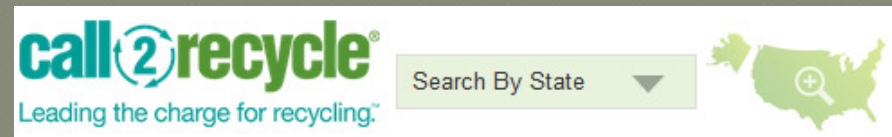
Batteries Plus Bulbs

Salem, NH
(603) 685-0293

Open until 8:00 PM



Local: Batteries



NEARBY	RECYCLE ON THE
<p>4. Alton, NH Town of Alton Transfer Center 1 Monument Square Alton, NH 03809 603-875-5801</p> <p>Accepts Rechargeable Batteries Cellphones ☺</p> <p>About this Location</p> <p>Send To : Email Mobile</p>	
<p>5. Gilford, NH Lowes 1407 Lake Shore Rd Gilford, NH 03249 603-556-6032</p> <p>Accepts Rechargeable Batteries Cellphones ☺</p> <p>About this Location</p> <p>Send To : Email Mobile</p> <p>Website: http://www.lowes.com</p>	
<p>6. Moultonborough, NH Ossipee Mountain Electronics 832 Whittier Hwy Moultonborough, NH 03254</p>	

Local: Bulbs



Some Big Box Stores



Mom & Pop Hardware Stores



**Bulbs
Ballasts
CRT Monitors**

Local: Thermostats



There are 15 drop-off locations in your area!

LOCATION	DISTANCE	MAP	LOCATION TYPE
> Town of Wolfboro PO Box 629 Wolfboro, NH 03894 603-569-4439	2.18 miles	Google Maps	HHW
> Wolfeboro Transfer Station 400 Beech Pond Road Wolfeboro, NH 03894 603-569-4439	2.96 miles	Google Maps	HHW
> Town of Tuffonboro 20 Sargent's Crossing Tuffonboro, NH 03816 603-539-3264	3.37 miles	Google Maps	HHW

www.thermostat-recycle.org

Local: Oil



Local Garages & Transmission Clinics



PUBLIC

GOVERNMENT

BUSINESS

A to Z LIST

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- [A to Z List](#)
- [About DES](#)
- [Media Center](#)
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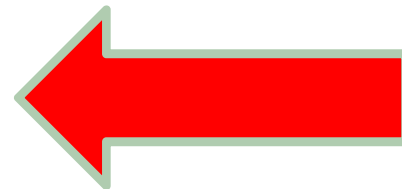
[Office of the Commissioner](#) > [Programs/Bureaus/Units](#) >

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](#)

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Forms/Applications [\(Complete List\)](#)

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- [HHW Collection Guidance](#)
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- [Waste Management Div.](#)
- [Water Division](#)
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DES Calendar

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	



[Beach Advisory](#)
[Drinking Water Advisory](#)



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TOWN	ORGANIZER	RELATED WEB-PAGE	CONTACT	GPS LOCATION	ADDRESS OF COLLECTION
Berlin	Androscogin Valley RRDD	http://www.uvlsrc.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	43.598388,-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
Ashland	Pemi Baker SWD	Unavailable	pemibakerswd@yahoo.com	44.282156,-71.800654	1213 Mt. Eustis Road, Littleton

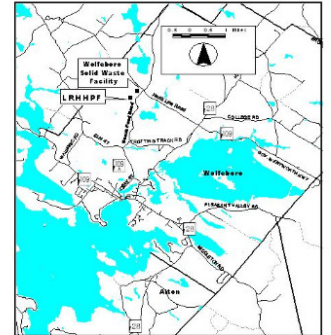
**LAKES REGION
HOUSEHOLD HAZARDOUS
PRODUCT FACILITY**

A Collaborative
Effort of the
TOWN OF WOLFEBORO
Department of Public Works
"Striving for Excellence"
REGION PLANNING COMMISSION
DEPARTMENT OF ENVIRONMENTAL SERVICES

51-753

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

**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**

**CONTRACTORS FOR HOUSEHOLD HAZARDOUS
WASTE COLLECTIONS PROJECTS
2016-2017**

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

Customer Options



Local Resources

NHDES Web Page

LRHHPF

Drop Off Locations

Private Haulers



● STATUTORY BANS

Tara Mae Albert, M.S.

SWOT Coordinator

TOPIC POINTS

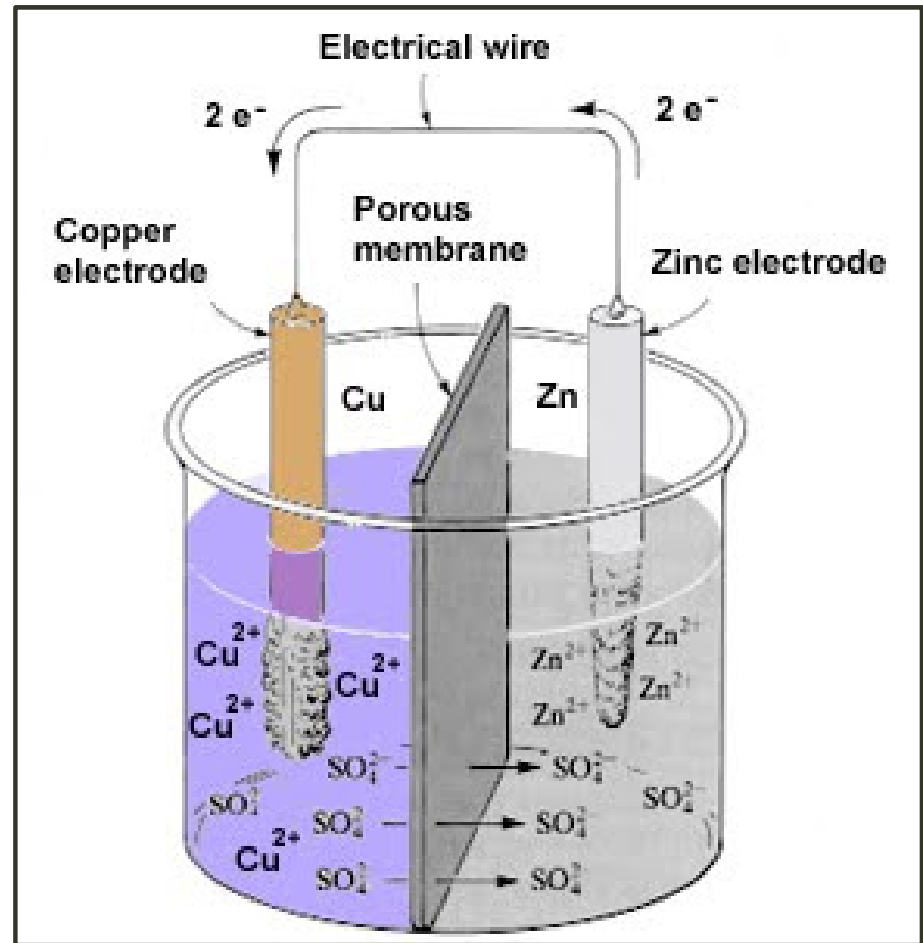
- Identify the banned wastes.
- What are the provisions of the ban?
- Why are these wastes banned?
- What are you required to do at your facility?
- What are some options for customers and residents?



BANNED WASTES

- Wet-Cell Batteries
- Electronic Waste
- Leaf & Yard Waste
- Construction & Demolition Debris (C&D)
- Mercury Items

W. E. L. C. M. ●



W.

Wet-Cell Batteries

WET-CELL BATTERY

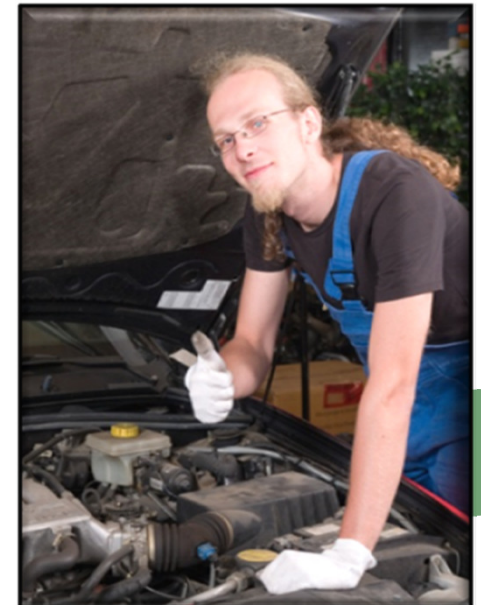
(RSA 149-M:27, II)

- Banned from disposal in landfills, incinerators & compost facilities.
- Wet-Cell Batteries contain sulfuric acid and lead.
- **Fun fact:** One positive outcome of the ban is that it encouraged recycling. In fact, EPA estimates that 99% of all lead-acid batteries are recycled.



OPTIONS FOR WET-CELL MANAGEMENT

- For you:
 - Collect & actively manage them at your facility; then sell them to an authorized facility
- For your customers:
 - Return the old battery when purchasing the new one
 - Scrap Metal Yard
 - Car Repair Shop





E.

Electronic Wastes

ELECTRONIC WASTES

(RSA 149-M:27, IV)

- Some electronic wastes are banned from landfill or incineration.
 - Video display devices
 - Central Processing Unit (CPU)
 - Non-mobile video display media recorder/player
- These devices contain heavy metals such as lead, cadmium and mercury.
- **Fun fact:** Many electronics stores are starting to have take back programs for these items.



FACILITY REQUIREMENTS

- Landfills and incinerators must:
 - Post signs regarding the ban;
 - Provide written notification to the facility customers; or
 - Have agreements with the customers.
- It is the responsibility of SW facilities to ensure that these items are not landfilled or incinerated.



OPTIONS FOR WASTE ELECTRONICS MANAGEMENT

- For you:
 - Household Hazardous Waste Collection Events
 - Long term collection events
- For your customers:
 - Goodwill
 - Take back programs at retailers and manufacturers
 - As Rocky says “Don’t Lose It, Reuse It!”





L.

Leaf & Yard Waste

LEAF & YARD WASTE

(RSA 149-M:27, III)

- Leaf and yard waste are banned from disposal in landfills and incinerators.
- Burning is not consistent with the Waste Hierarchy.
- Landfilling uses space unnecessarily.

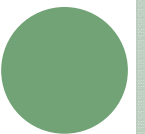


It is easily composted, which allows you to treat the material as a resource rather than a waste.




FACILITY REQUIREMENTS

- Landfills and incinerators must:
 - Post signs regarding the ban;
 - Provide written notification to or agreement with the facility customers; or
 - Implement monitoring procedures at the facility and notify customers that they have delivered leaf & yard waste.
- It is the responsibility of SW facilities to ensure that these items are not landfilled or incinerated.



OPTIONS FOR LEAF & YARD WASTE

- Have a leaf and yard waste collection at your facility for your customers.
 - Have your customers take it home and compost it (have educational materials).
 - Have a list of landscapers, composters, or farms in your area that take it.
 - Town run leaf and yard waste pick up.
- 
- A photograph showing a person in a blue shirt loading a large pile of yard waste into the back of a silver car. The car is parked on a gravel area next to a large pile of leaves and yard waste. In the background, there are trees and a clear blue sky. The image is overlaid with a semi-transparent white box containing the text.



C.

Construction & Demolition Debris

CONSTRUCTION & DEMOLITION

(RSA 125-C:10-c)

- Prohibits the combustion of the wood component of C&D debris
- C&D can contain paint, adhesives and glue that release noxious gases when burned. This ban eliminates a possible source of air pollution.





Examples of some products that contain mercury.

M.

Mercury Containing Devices

MERCURY DISPOSAL BAN (RSA 149-M:58)

- Prohibits the disposal of mercury-added products in landfills, transfer stations and incinerators.
- Mercury is a heavy metal that can cause major human health and environmental damage.
- **Fun Fact:** The term *Mad Hatter* centers around mercury poisoning.

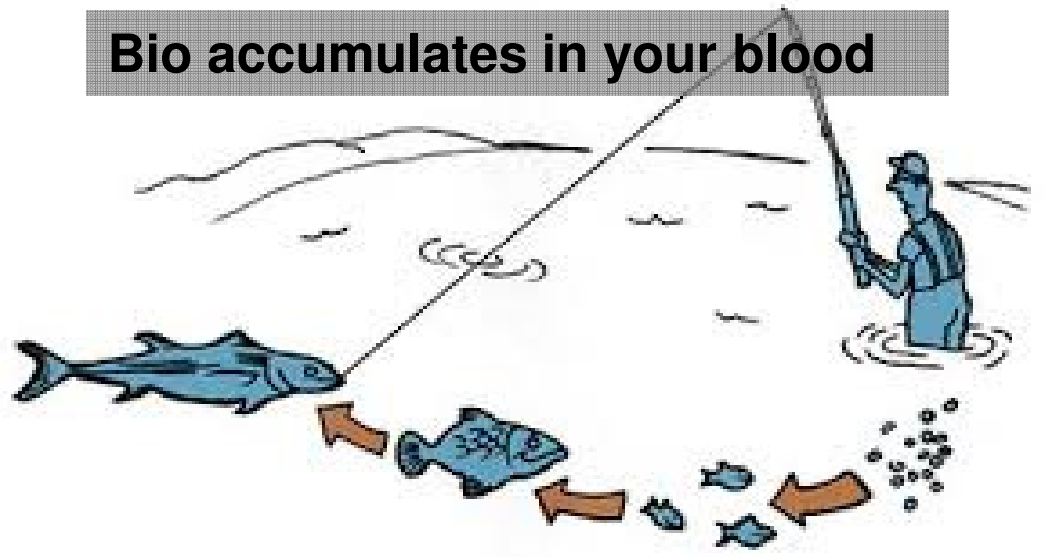


One gram

contaminates lake



Bio accumulates in your blood



WHAT ARE MERCURY-ADDED PRODUCTS?

- A product or product with a component that contains mercury or a mercury compound intentionally added to provide a specific characteristic, appearance, or quality or to perform a specific function or for any other reason.
- Some examples are: Fluorescent lamps, thermometers (silver ones), thermostats, tilt switches, button batteries



FACILITY REQUIREMENTS

- Landfills, transfer stations and incinerators must:
 - Post signs regarding the ban;
 - Provide written notification to or agreement with the facility customers;
 - Implement monitoring procedures to detect and separate out mercury-added devices that have been brought into the facility; and
 - Provide customers with information about collection programs or facilities permitted to accept these items.



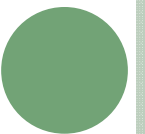
OPTIONS FOR MERCURY MANAGEMENT

- For you:
 - Household Hazardous Waste Collection Events
 - TRC Bins – Thermostats only
 - Recycle as a Universal Waste
- For your customers:
 - Some hardware stores take lamps and thermostats



SUMMARY

- There are types of solid waste banned in NH.
- The items banned are either hazardous, take up precious space or have value.
- Facilities have requirements to meet the Statute.
- Facilities should have options for residents.



Regulating Solid Waste in New Hampshire

Paul M. Gildersleeve, P.E.

Solid Waste Management Bureau
Permitting & Design Review Section

Why is Solid Waste REALLY Regulated?



Regulations Overview

- Statutory Authority:
 - RSA 149-M
- Solid Waste Rules:
 - Env-Sw 100 to
Env-Sw 2000
- Permits:
 - Env-Sw 300



Important Concepts About Permits

Permits are required for a facility engaged in solid waste management.



Solid waste management includes the collection, storage, transfer, processing, treatment, separation, recovery, and disposal of solid waste.



More

Important Concepts About Permits

- A permit is good for the life of the solid waste facility.
- A permit is an enforceable agreement with the State on how you will operate a solid waste facility.
- A permit contains the terms and conditions for constructing, operating, and closing the facility.

Three Categories of Facilities



- Collection/Storage/Transfer
 - Waste In → Waste Out
- Processing/Treatment
 - Waste In → Product and/or Waste Out
- Landfill
 - Waste In → Waste Stays



Permit Types




1. Standard Permit
2. Permit-by-Notification
(most common for transfer stations)
3. Research and Development
4. Emergency Permit

You can also modify your permit!

Elements of a Solid Waste Permit

- Facility Name and Location
- Permittee Name
- Type of Facility
- Authorized and Prohibited Waste
- Operating Requirements
- Closure Requirements
- Financial Assurance



**SOLID WASTE MANAGEMENT FACILITY
STANDARD PERMIT**
as authorized by the
NH Department of Environmental Services, Waste Management Division (Department)
pursuant to RSA 149-M and Part Env-Sw 314 of the New Hampshire Solid Waste Rules (Rules)

I. **PERMIT/FACILITY IDENTIFICATION:**
Permit No.: DES-SW-SP-10-003
Permittee: Waste Management of New Hampshire, Inc.
Facility Name: TRFF Health Care Waste Facility
Facility Location: 189 Turnkey Way, Rochester, New Hampshire 03839
Facility Type: Processing/Treatment facility for Medical Waste
Service Type: Unlimited Service Area/Commercial

II. **FILE REFERENCE/RECORD OF APPLICATION:**
Date(s) Received: May 20, 2009, September 11, 2009, October 16, 2009 and June 16, 2010
WMD Log #(s): 200900073, 200900136, 2009507 and 2010583, respectively

See Example Permit

What is an Operating Plan?

Env-Sw 1105.11

- An Operating Plan is a “how to” manual which is accessible to all operators
- It must provide sufficient, up-to-date detail to allow the operators to operate the facility in conformance with the law, the rules, and the permit without further explanation or guidance
- It lists authorized and prohibited wastes, self inspection procedures, and emergency response procedures

Solid waste inspectors will be looking for this!

What is a Closure Plan?

Env-Sw 1106.04

- The Closure Plan provides the information necessary for a third party to properly close the facility permanently in a manner that protects public health, safety, and the environment
- It must provide sufficient, up-to-date detail to allow a third party to close the facility in compliance with the law, the rules, and the permit without further explanation or guidance
- It lists who should be contacted during closure, where facility records are kept, and the estimated costs for shutting down operations

Solid waste inspectors will also be looking for this!

Reporting Requirements

Env-Sw 1105.07

- Incident Reporting
(refer to *Env-Sw 1005.09*)
- Annual report
- Change of address,
telephone number,
contact person



THIS is an incident!

Regulating Solid Waste in New Hampshire



Questions?

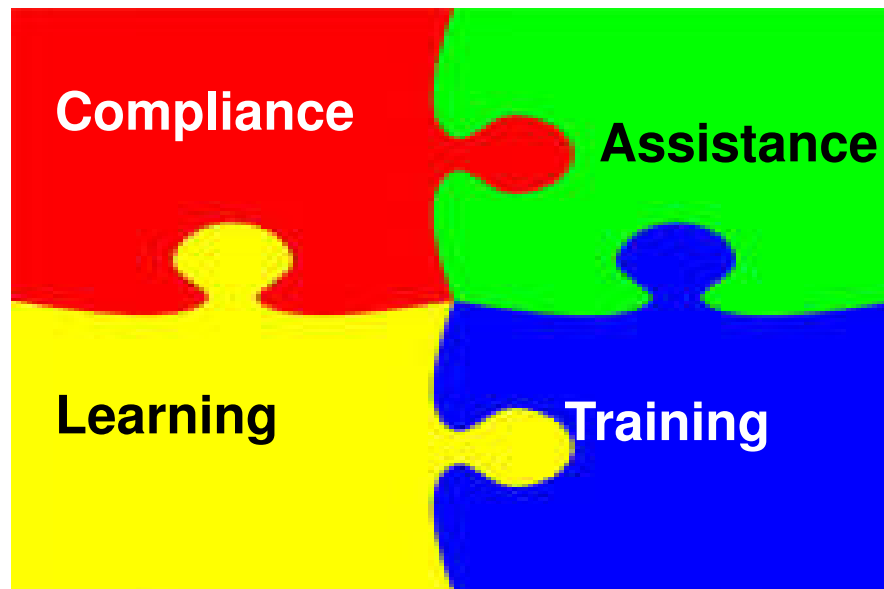
Solid Waste Facility Inspections



Melanie Doiron
Waste Management Specialist
Solid Waste Compliance Assurance Section

Why Do Inspections?

- **Ensures Compliance**
- **Assists with Questions**
- **Learning Tool -How Facility Operates**
- **Targets Training Topics- Is It Working?**



Real Life Situation....



How is an Inspection Conducted?

- The gate (*sign & access*)
- Office visit (*postings & records*)
- Facility tour (*view all areas*)
- Debriefing (*feedback*)
- Surrounding properties (*possibly*)

Take photos, review paperwork, take samples



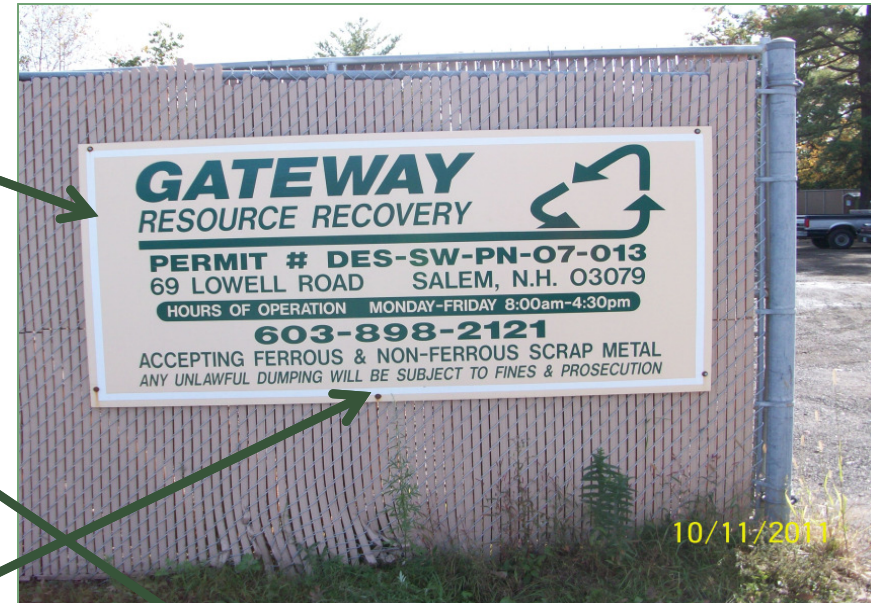
What is in an Inspection Report*?

- **General Information**
- **Operator Requirements/Postings**
- **Reporting/Recordkeeping: Operating Plan, Closure Plan, Files, AFR**
- **Waste Types Managed**
- **Waste Handling and Storage Areas**
- **General Operations**
- **Comments**
- * **Includes Corrective Actions**



Front Gate Sign

- Facility name & permit number
- Permittee name, address and phone number
- Hours & days of operation
- Types of waste accepted
- Unlawful dumping will be subject to fine and prosecution



Front Gate/Access



Where Do I Get Signage?

“New Hampshire the Beautiful” (NHtB) will provide signs for free

- Help purchase recycling equipment such as balers, roll-offs, and bins (flexible)



www.nhthebeautiful.org (603-736-8339)

The Office



Postings and Records

Posted?

- Permit authorization page
- Operator certifications

Accessible and Updated?

- Operating Plan
- Closure Plan
- Operating records (incidents, complaints, tonnages, names of destination(s), AFRs)



Clearly Posted



Operating Plan

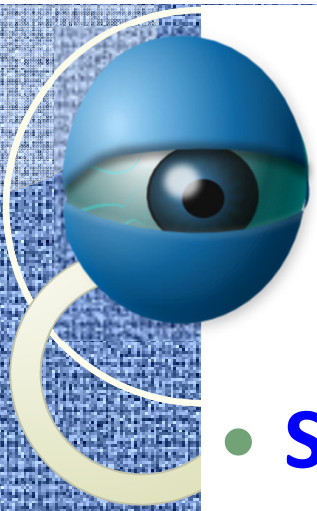
- **“Materials not accepted by the facility which cannot be returned to the responsible party will be held inside the building in an area designated for this purpose.”**
- **“Mercury Items not accepted by the facility which cannot be returned to the resident will be held inside the shed in the 5-gallon bucket designated for this purpose.**

Easy to follow??



Access





Waste Type-Handling/Storage

What are we looking for?

- **Stockpiles, containers, buildings & access ways**
- **Universal waste & used oil management**
- **Are all wastes being actively managed?**
- **Other activities or areas of potential concern (ex. wetlands, abutters)**
- **Vectors, odors, litter, soil staining**
- **Use of signs**
- **Drainage concerns & detention ponds**
- **Landfill specific concerns**

Stockpiles



Proper Waste Management



Scrap Metal Dumpster



Municipal Solid Waste (MSW)



Housekeeping

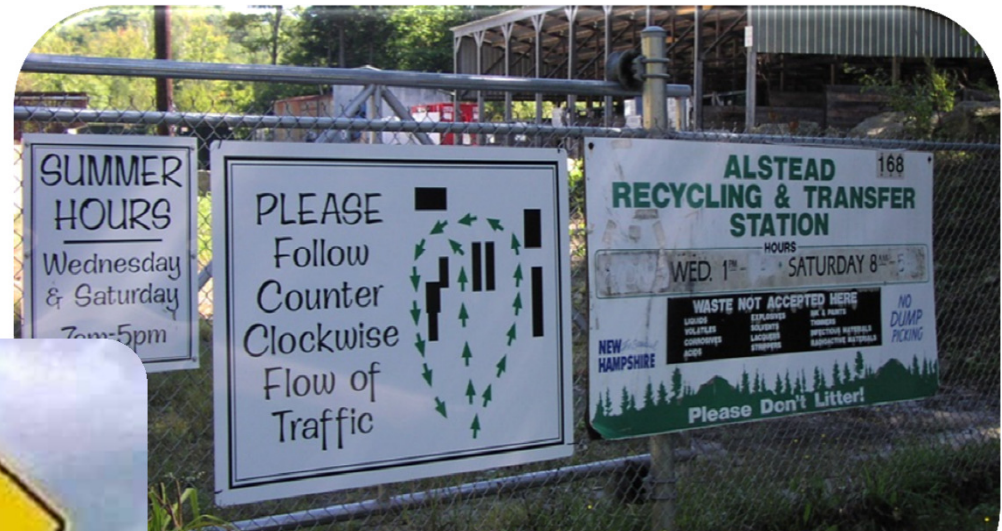


Good Signage

Helps customers & provides direction



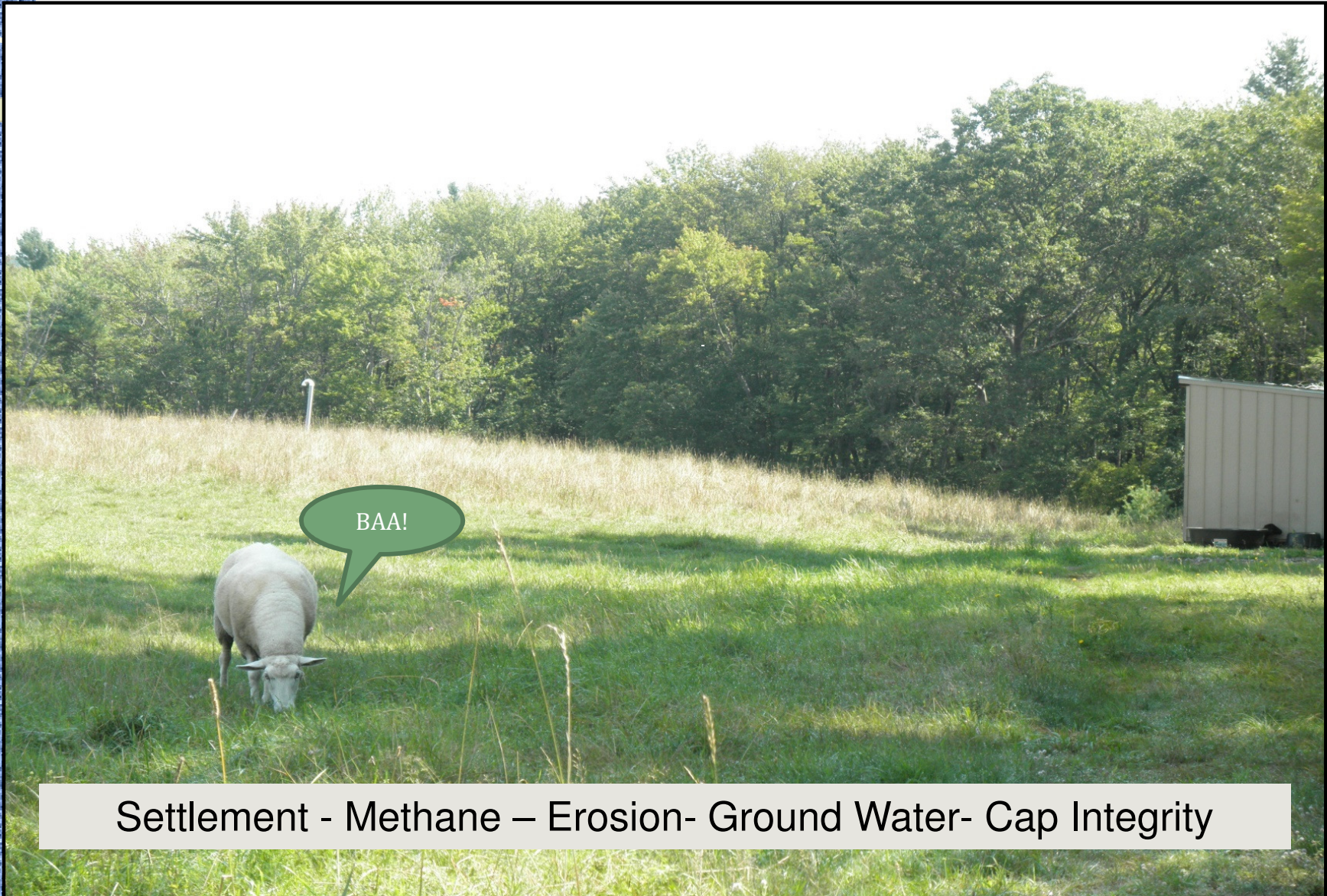
Use of Signs



Drainage concerns and ponds



Landfills- specific concerns



Settlement - Methane – Erosion- Ground Water- Cap Integrity

Debriefing

- **Concerns, if any**
 - **Corrective actions needed**
- **Management**
 - **What you are doing right**
 - **Improvements/Recommendations**



Will you be Prepared 365 Days/Yr?

- **Conduct regular self-inspections**
- **Keep inspection records on-site**
- **Apply Best Management Practices**
- **Train staff**
- **Stay informed**
- **Know your facility**



Doing a Self Inspection?

- **Know your facility, the rules & the BMPs**
- **The Rules don't specify who should inspect**
- **You must regularly inspect your facility -keep records - Env-Sw 1005.01(e)**
- **Operating plan: Include the schedule**

Have a Correction Plan and Schedule!





Introduction to Self-Inspections & BMPs

Melanie Doiron, WM Specialist, SWMB

Tara Mae Albert, SWOT Coordinator, SWMB

Ensuring Compliance with Environmental Regulations

- Education and Training
- Be Vigilant
- Know where to go or who to ask to find answers to regulatory questions
- These all lead to...

Best Management Practices (BMPs)

What is a BMP?

- Method or technique found to be the most effective and practical means in achieving an objective while making the optimum use of the firm's resources.

What EXACTLY does that mean?

- They represent the best way to manage the different types of waste at your facility.

Types of Facilities

- Motor Vehicle Recycling Facilities
- Incinerators
- Compost Facilities
- Scrap Metal Yards
- Landfills
- Transfer Stations
- Waste-to-Energy

...all types of SW facilities **MUST** comply with the same regulations but how you get there might be different

BMPs

Best Management Practices for NH Solid Waste Facilities

N.H. Department of Environmental Services

BMPs for SCRAP TIRE MANAGEMENT

If improperly managed, stockpiles of tires pose a significant fire threat and can trap water, providing breeding sites for mosquitoes. Landfilled tires take up valuable space and can result in an unstable landfill for landfill capping.

Scrap tires are regulated under the *NH Solid Waste Rules*. These rules specify requirements for collecting, storing, transferring, processing, treating and landfilling tires.

Tires that are not considered scrap that are going to be reused or are for sale also should be managed in accordance with the BMPs listed below. Other local, state or federal rules may apply.

Best Management Practices for Scrap Tire Management

- » Collect and store tires in outdoor transfer containers, covered trailers, or in stockpiles on the ground.
- » Do not allow water to collect in tires; water provides breeding areas for disease-carrying mosquitoes.
- » Ship tires off-site as soon as you accumulate a full load (approximately 1,000 to 1,500 tires).
- » Limit the size of tire piles to 25 feet in diameter and 15 feet in height or less, with fire lanes at 25 feet wide around each stockpile. Place a berm no less than 12 inches in height surrounding stockpile to contain the oils or other liquids from firefighting measures.
- » Do not intentionally burn tires.
- » Keep equipment, cover material and other supplies, including water, sufficient to control a fire at the stockpiling facility until the nearest fire company capable of extinguishing the fire arrives.
- » Treat and/or process tires (for example, chip or shred) in a way that limits noise, odor and dust.
- » When landfilling tires, quarter, split or shred them to reduce the potential for the tires to resurface. Landfill tires at authorized facilities only.
- » Dispose of waste tires at facilities authorized to accept them.



DID YOU KNOW ...

- ✓ In 2009, over 300 million scrap tires were generated in the US. Two-thirds were from passenger cars and the remainder came from trucks, heavy equipment, aircraft and off-road vehicles.
- ✓ Scrap tires are difficult to recycle and dispose of because they are heavy, bulky and made from a variety of materials.
- ✓ During a fire, tires can melt into an oily substance. When the fire is doused with water, this oily substance can become run-off and contaminate nearby surface water.

BMP Components

- Why are they regulated?
- What are the hazards?
- How are they regulated?
- How to manage properly?
- Did you know?

Doing it right at your facility.

- **Do** know how to manage and handle wastes - BMPs.
- **Do** regular self inspections at your facility.
- **Do** have a plan to fix it.
- **Do** call DES.





ENFORCEMENT

Lauren Noether, Coordinator of Enforcement
Solid Waste Management Bureau
NHDES

What is Enforcement?

We know it when we see it



We are all enforcers



Why We Have Enforcement

- ▣ To make sure rules are followed



To level the playing field



To discourage bad behavior
that is against the law



To keep people, environment safe



WHO MUST PLAY BY THE RULES?

All of us – the law applies to each

Responsible parties

- Facility owners
- Facility operators
- Landowners
- Interlopers/ trespassers

Tools for Enforcement

These are things that we use as a regulatory agency to inspire folks and facilities to do the right thing and follow the law and be safe

Criminal or Civil Penalties

- ▣ It is a misdemeanor to violate the rules or solid waste law (it is a *felony* for a corporation)
 - Jail time
 - Criminal fines
 - Probation supervision

Civil penalties include a fine of up to \$25,000 per violation, per day

The Court can force you to clean up, follow permit conditions, lose a permit, or face contempt

Summary: Enforcement Tools

- ▣ Letter of Deficiency (LOD)
- ▣ Administrative Order (AO)
- ▣ Administrative Fine (AF)
- ▣ License Action
- ▣ Court – Civil or Criminal

Concord Developer gets year for burying junk

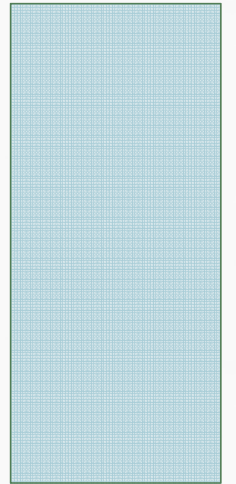
A Concord developer was sentenced yesterday to a year in jail for burying junk on his property ...prosecutors told a judge he had repeatedly flouted environmental laws and deserved a harsh punishment.



*To help sustain a high quality of life
by protecting and restoring the
environment and public health*

WHAT HAPPENS NOW?

LAURA J. FILIAU, PROGRAM SPECIALIST
SOLID WASTE COMPLIANCE ASSURANCE SECTION



TEST

- Testing will be in this room.
- Test is 50 questions:
 - Multiple choice;
 - True or False; and
 - Fill in the blank
- Open book test.
- Ask for help from NHDES staff.
- Take your time.
- Look over your test before handing it in.



DESIGNATIONS

- **Grade exams & assign certification designations:**
 - Assistant Operator - does not take or fails exam
 - Principal Operator - passes exam with a 70% or better
- **Step designations**

CERTIFICATE

- In a few weeks, NHDES will mail a certificate to your home address.
- **POST** your certificate at your workplace.

CERTIFICATE

Operator Name

Be it known that:

JOHN A DOE

Certification
Number

is hereby granted Solid Waste Facility Operator Certification # 00XXXXX pursuant
RSA 149-M and the NH Solid Waste Rules as a

Operator Designation

PRINCIPAL OPERATOR

and is authorized accordingly to work at
New Hampshire solid waste facilities.

Expiration Date

This certification expires on 3/17/2017.



A handwritten signature in black ink, appearing to read "Michael J. Wimsatt". The signature is written in a cursive style and is positioned above a horizontal line.

Michael J. Wimsatt, Director
Waste Management Division

Remember - this is YOUR certification, not your employer's.

MAINTAINING CERTIFICATION

- All operators are required to complete at least 2.5 hours of continuing professional development (CPD) per year.
- Training relevant to waste management and solid waste facility operations.

MAINTAINING CERTIFICATION

- Information on CPD is available on the NHDES website:

<http://des.nh.gov/organization/divisions/waste/swrtas/workshop.htm>



STEP DESIGNATIONS

Step	Total Hours of CPD
1	2.5
2	12.5
3	25
4	37.5
Senior *	50

* Only for Principal Operators

CERTIFICATION RENEWAL

No more than 90 days before expiration, you must submit:

- Renewal application;
 - sent to your home 2-3 months before certification expiration
 - available on NHDES website
- Proof of completing at least 2.5 hours of CPD; and
- \$50 fee



CERTIFICATION RENEWAL

If you are within 90 days late...

- Submit renewal application;
- Proof of CPD; and
- \$75 fee
 - \$50 standard fee
 - \$25 late fee

CERTIFICATION EXPIRATION

If you are more than 90 days late...

- You must reapply, come back to Basic Training, and take the test again.

