Transfer Station Operator Training

October 28, 2022 VT Municipal Day

Project WorkSafe and VT DEC Solid Waste Program

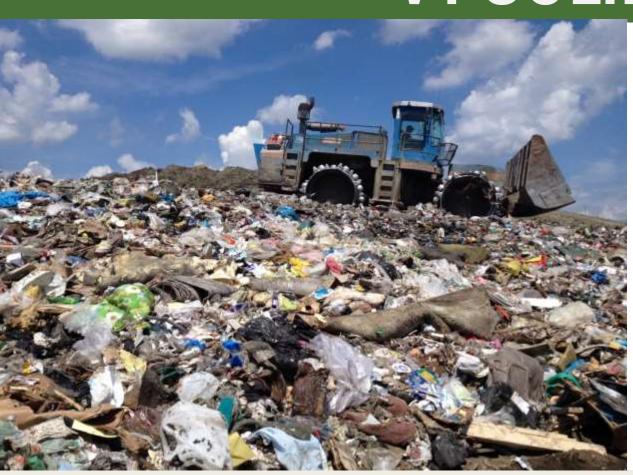


Agenda

- ☐ Solid Waste in VT
- ☐ Facility Certification and Management Plan
- ☐ Landfill Banned Materials
- ☐ Special Recycling(EPR) Programs
- □ Abandoned HHW
- ☐ Inspections/Common issues
- □ Q&A
- ☐ Wrap Up and Resources

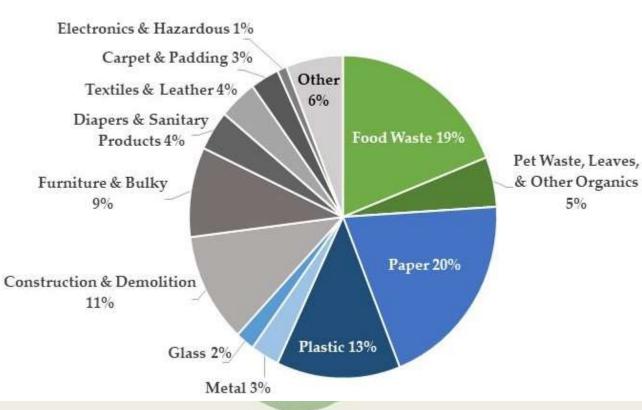


VT SOLID WASTE



Vermont's Trash in 2018

2018 Vermont Waste Characterization Study, DSM Environmental.











Solid Waste Mgmt. Entites

802Recycles.Com





What is a facility certification?

- ☐ Why does it matter?
- Who needs a certification?
- ☐ Who is responsible for adhering to the conditions in the certification?





Vermont Agency of Natural Resources Department of Environmental Conservation Solid Waste Management Program

SOLID WASTE MANAGEMENT FACILITY CERTIFICATION

FACILITY NAME: Addison County Solid Waste Management

District Transfer Facility (Facility)

FACILITY OWNER (PERMITTEE): Addison County Solid Waste Management

District (ACSWMD)

FACILITY OPERATOR (PERMITTEE): ACSWMD

LANDOWNER(PERMITTEE): ACSWMD

PROJECT IDENTIFICATION NUMBER: RU98-0056

SOLID WASTE FACILITY ID NUMBER: AD401

FACILITY LOCATION: 1223 US 7 South, Middlebury, VT

FACILITY PURPOSE/DESCRIPTION:

The continued operation of a collection, storage, and transfer facility that serves commercial solid waste haulers and regional residential customers. The Facility accepts a variety of solid wastes and recyclable materials for reuse, recycling, and transfer. Household Hazardous Wastes (HHW) and Conditionally Exempt Generator (CEG) wastes are also collected at the Facility.

APPLICATION REVIEW:

The application for Certification was received by the Solid Waste Management Program ("Program") on July 24, 2018. It was reviewed in accordance with the Waste Management Act, 10 V.S.A. §§6601 et seq., and the Solid Waste Management Rules, (eff. 3/15/2012) ("Rules"). The Application is on file in the offices of the Program in Montpelier, Vermont.

CERTIFICATION PERIOD: date of signature to September 30, 2028



Facility Management Plans

- ☐ A guide to the layout of the facility
- ☐Emergency Management and Prevention
- □FMP written in a way that a new employee could run the facility
- ☐ Know your facility's operation and all safety practices



FACILITY MANAGEMENT PLAN

ADDISON COUNTY SOLID WASTE
MANAGEMENT DISTRICT
REGIONAL RESIDENTIAL SOLID WASTE
TRANSFER FACILITY
SOLID WASTE ID #____
NEW HAVEN, VERMONT

ADDISON COUNTY SOLID WASTE MANAGEMENT DISTRICT 1223 Route 7 South, Middlebury, Vermont 05753

August 19, 2022



Amendments

- □ If a substantial operational change must occur
- ☐ If tonnage is exceeding the certification limit
- ☐ If the operator changes
- ☐ If the hours of operation change





VERMONT STATE LAW

LANDFILL BANS











Waste Oil & Filters





Plastic #1 and #2

Glass jars,







Recyclables

Aluminum & steel cans, aluminum foil



Cardboard, mixed paper, newspaper

Mercury-Added Products







CFLs, mercury switches, thermostats. lamps, thermometers, etc.

Electronics



Computers and accessories, all phones, televisions, MP3 players, VCRs/DVDs, etc.

Organics (Compostable Materials)



Clean wood, branches, leaf and yard debris, grass olippings, etc.



Food scraps, including coffee grounds, egg shells, etc.

Certain Batteries





Lead-acid Rechargeable

Appliances (White Goods)





Refrigerators, ranges, washers, dryers, dishwashers, freezers, etc.

Dangerous Wastes

These flems are regulated and extremely hazardone to persons handling solid waste:

Explosives, Fireworks, Gasoline, Sharps, Medical Waste, Pool Chemicals, Propane Cylinders. Liquid Waste.

Please use proper disposal methods or keep out of trash.

Keep these items out of the trash!

Ask attendant for details on recycling and alternative disposal options.

Waste Management & Prevention Division









WASTE NOT GUIDE

What to do with Items that are Banned from the Trash

RECYCLE ANYWHERE*: Drop-off or with your hauler







Glass jars bottles



Cans and foil



Cardboard, mixed paper, newspaper

COMPOST: At home, drop-off, or with a hauler



Leaf and vard debris, grass clippings, branches, etc.







Food scraps, coffee grounds. egg shells, etc.

BANNED & SPECIAL RECYCLING: Find collection locations at VTrecycles.com.











Mercury-containing bulbs. thermostats, switches, thermometers, etc.



Paint, stain, thinner



and varnish



Computers and accessories, phones, TVs, MP3 players, VCRs/DVDs, etc.



Lead-acid, rechargeable, and other batteries

3



Vermont Waste Management & Prevention Division (802) 828-1138 | VTrecycles.com

OTHER BANNED OR DANGEROUS ITEMS: Contact your local solid waste entity for guidance—at 802recycles.com.



Large appliances &



Used Oil, filters.



Clean Wood



Asphalt shingles, plywood, OSB, and drywall from large projects within 20 miles of a C&D recycling facility



Explosives, fireworks, gasoline, pesticides, pool chemicals, propane cylinders

auto fluids







Leave 'em out.

These items don't belong in the recycling bin.



NO PLASTIC BAGS

They wrap around sorting equipment & cause shutdowns. Instead: Bring clean, dry, and stretchy bags to a grocery or hardware store for special recycling. Otherwise put in trash.



NO BATTERIES

They are the leading cause of fires at sorting facilities. Instead: Bring to a drop off location for special recycling.



NO STUCK-ON FOOD/DRINK

It's gross—and it reduces the value of other recyclables. Instead: Rinse clean first.



NO SCRAP METAL ITEMS

They can damage equipment.

Instead: Bring to a drop off location for special recycling.



NO CLOTHING

It gets wrapped around equipment and causes shutdowns. Instead: Donate for reuse, or bring to a drop off location for special recycling.



NO ELECTRONICS

They break, damage equipment, and endanger workers. Instead: Bring to a drop off location for special recycling.



NO HAZARDOUS CONTAINERS

They pose a risk to workers, even if empty (there's always residue).

Instead: Take to hazardous waste event or facility, or trash if empty.

This is only a partial list. For more details, visit VTrecycles.com

VERMONT

Vermont's Five EPR Programs

VTrecycles.com 📵

1-855-63-CYCLE

Click "Special Recycling"

















COVERED ELECTRONIC WASTE

- **COMPUTER** (such as desktops, all-in-one computers, laptops, notebooks, netbooks, and tablets)
- **COMPUTER MONITOR** (any type)
- PRINTER (designed to reside on a work surface including multifunctional machines - does not include floor-standing models or printers w/ an optional floor stand)
- TELEVISION (any type)
- **COMPUTER PERIPHERALS** (items sold exclusively for external use that connects to a computer, such as a mouse, keyboard, scanner, external hard drive, etc.)













Who is a... COVERED ENTITY

- VERMONT Households
- Businesses with 10 or fewer employees
- Charities (501c3)
- **School Districts** NO LIMIT- OR

ANYONE dropping off

7 or fewer devices

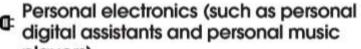
ELECTRONICS DISPOSAL BAN

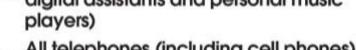


Computers, printers, and computer peripherals



Televisions (all types) and computer monitors





- All telephones (including cell phones), answering and fax machines
- Videocassette recorders (VCRs), digital versatile disc (DVD) players, digital converter boxes and stereo equipment
- Power supply cords (used to charge electronic devices)
- Electronic game consoles











NEED MORE INFORMATION?

1-855-6ecycle Ecycles.Vermont.gov



VT Battery Recycling -What **Batteries can** be Recycled?



Nickel Metal Hydride performs well in high drain devices and can be recharged up to 1,000 times. It's cadmium-free, but can be pricey.

Ni-MH batteries can typically be found in cordless power tools, digital cameras, two-way radios and cordless phones.



Ni-Cd (Nickel Cadmiu



Nickel Cadmium is the least expensive of secondary/rechargeable batteries, and can be recharged up to 1,000 times. Cadmium can be toxic to the environment and should be recycled.



Ni-Cd can typically be found in cordless power tools, digital cameras, two-way radios and cordless phones.



SSLA/Pb (Small Sealed Lead Acid)



Small Sealed Lead Acid (SSLA/Pb) batteries are simple to manufacture and have one of the lowest discharge rates of any rechargeable battery.



SSLA/Pb can typically be found in emergency devices. emergency exit signs, security systems, mobility scooters and UPS back-ups.





Lithium Ion has excellent performance in high drain devices, though it can be considered expensive.



Li-lon can typically be found in cell phones, laptops, two-way radios, and cordless power tools.





Primary/Single-Use batteries cannot be recharged and must be disposed of once they wear out. Alkaline, lithium, silver oxide, zinc-air, zinc-carbon, and zinc-chloride, commonly known as AA, AAA, 9V, D-cell, and button cell are all types of primary batteries.

Primary/Single-Use batteries are most commonly used in lowdrain devices, such as flashlights, clocks, watches, remote controls, and smoke detectors.

Battery Collection & Recycling Options

Battery Collection & Recycling

Ships under U.S. DOT Special Permit 14849 which authorizes Call2Recycle to use its boxes for transporting certain batteries for recycling or disposal.



Nested Battery Recycling
Kit



Large Battery Recycling Kit



Small Battery Recycling Kit



Battery Recycling Kit (Pallet of 50 Flat Boxes)

Proper Handling of Batteries







- Residual Charge. Many batteries hold a residual charge even when they appear dead.
- Battery Terminals MUST be Protected. You must prepare batteries for shipment according to U.S. DOT & Program guidelines.
- Bagging Individual Batteries. The quickest and easiest way to protect battery terminals – ONE battery per bag.
- Taping Battery Terminals. Use tape (i.e., clear packaging tape) to cover the positive terminal (the one with the bump) or charging terminals.

LithiumPrimary(Metal)Batteries





- Increasing Market Share. Lithium primary batteries are growing in sales with consumers. More power over a longer period of time.
- **Sizes Vary.** They *MAY* come in the following sizes: 9v, AA, AAA, C, D, Coin/Button cell
- Unique Identifiers/Markings MAY be there. Lithium primary batteries could be marked - 'Lithium' or 'Lithium cells'; marked as "CR###"
- Recycling Arrows. Recycling arrows are not typically printed on these types of batteries.

Lithium-lon Batteries









- Increasing Market Share. Lithium rechargeable batteries are growing in sales and allow manufacturers to power products they never dreamed could be powered by batteries.
- Sizes & Shapes Vary Greatly. Lithium rechargeable batteries come in all shapes and sizes, i.e., power tool, cell phone, and coin cell batteries.
- Unique Identifiers/Markings *MAY* be there. Lithium rechargeable batteries could be marked "Lithium Ion" or Abbreviation "LI-ION", "Li-ion", "LiPo" (lithium polymer); Button/coin Cell "LIR####"
- Recycling Arrows. Recycling arrows are often printed on these types of batteries.

What Products Use Lithium Batteries?

















 Proper Handling of Batteries – Damaged, Defective, Recalled



- Do NOT place damaged Lithium Ion or Lithium primary batteries in normal collection bins.
- Immediately place in absorbent, non-flammable material (sand or cat litter or CellBlockEX) in a cool, dry area.

Managing Damaged, Defective, Recalled **Batteries at** YOUR **Facility**

Damaged, Defective or Recalled (DDR) Lithium-Ion Battery Management







Medium DDR Li-Ion Battery Recycling Pail



Large DDR Li-lon Battery Recycling Pail



CellSafe DDR Li-Ion Recycling Kit



CellSafe DDR Li-Ion Recycling Kit



55-Gallon DDR Li-Ion Battery Drum

High Energy Batteries

- Growing number of products are being "electrified".
- The batteries powering these devices are often referred to High-Energy Batteries (i.e., lithium-ion batteries over 300 watt-hours).
- Amp-Hours (AH) X Volts (V) = Watt-Hours (Wh).
- Typically, batteries over 300 watt-hours MUST be shipped as "hazardous material".





Safe Collection Of Batteries













PaintCare in VT 2021



76% latex 24% oil-based

86 YEAR-ROUND DROP-OFF SITES





77% Of total latex paint collected was recycled back into paint



Large Volume Pickups in

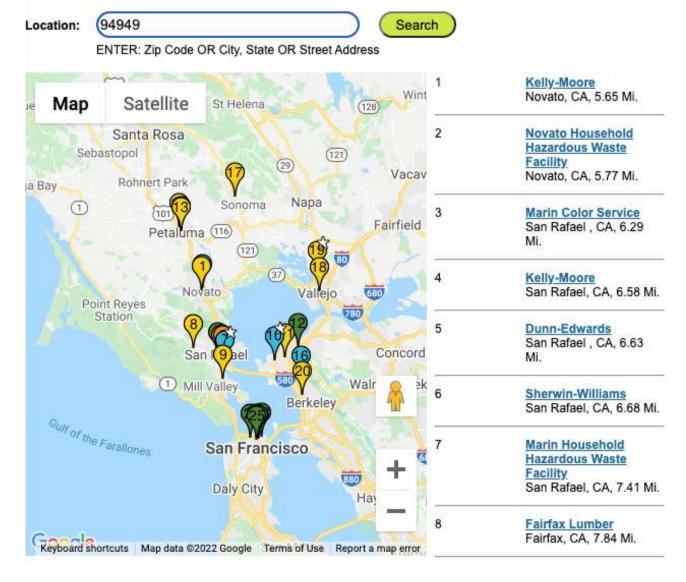
PaintCare Products

Collect the following architectural coatings in 5-gallon containers or less. Must be sealed, original container with original label.

- Interior and exterior architectural paints: latex, acrylic, water-based, alkyd, oil-based, enamel (including textured coatings)
- Deck coatings, floor paints (including elastomeric)
- Primers, sealers, undercoaters
- Stains

- Shellacs, lacquers, varnishes, urethanes (single component)
- Waterproofing concrete/masonry/wood sealers and repellents (not tar or bitumenbased)
- Metal coatings, rust preventatives
- Field and lawn paints

PaintCar 1 org Sito I ocator



How are humans exposed to mercury?



Thermostats & Mercury Bulbs ANYONE







DROP OFF BY CUESTONERST. OLE BACK PROGRAM





Special Recyclin

Manufacturer-Sponsored Batte Electronics, Paint, Mercury Light Bob, and Mercury Thermostat Programs

Find a year-round drop-off lear you:

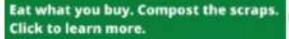
1-855-63-C/CLE

VTrecycles.com (9)



SOLID WASTE AND RECYCLING PROGRAM











Reduce your waste, get connected, and learn more:







PRODUCT STEWARDSHIP





Vermont has special recycling programs for some items that can be recycled, but NOT in the blue bin.



Vermont has special recycling programs for some items that can be recycled, but NOT in the blue bin.

To find the nearest Special Recycling Program drop-off location for Batteries, Electronics, Paint, Fluorescent Lightbulbs, or Mercury Thermostats, select your county from the dropdown list below and click "Search"

Select Your County

Search

RECYCLE LOCATIONS IN WASHINGTON COUNTY

Back to Product Stewardship/Recycling Page

PROGRAM								
B = BATTERY								
E = ELECTRONIC				;	BUSINESS OR FACILITY	ADDRESS	TOWN	PHONE
L = LIGHTBULB								
P = PAINT								
Т	T = THERMOSTAT							
		L	Р		Aubuchon Hardware Store #049	85 S Main Street	Barre	802-476-5400
		L			Barre Electric Supply	856 US Route 302- Berlin 2	Barre	802-476-0280
				-	CED Twin State Electric Supply	413 Industrial Lane	Barre	802-223-2488
	E				Computer Barn	921 Route 302	Barre	802-476-6800
В	Е	L	Р	-	CVSWMD Additional Recycling Center	540 North Main Street	Barre	802-229-9383
				_	F.W. Webb Company	10 Clark Road	Barre	802-479-3373
	Е				Helply	105 N. Main Street, Suite 1	Barre	802-321-2150
В					Kinney Drugs Inc	800 Us Rt. 302-Berlin	Barre	802-476-6659
В		L		T	Nelson Ace Hardware	188 N Main Street, Suite 4	Barre	802-476-5700
			Р		Sherwin-Williams	131 S Main Street	Barre	802-476-3177
В					Staples	168 Ames Drive	Barre	802-476-2788
				Т	The Granite Group	1193 US Route 302	Barre	802-661-3880
В	E				Resource Barre	30 Granite Street	Barre	802-477-7800
				-				

Washington

Search

Contact Karen Knaebel (karen.knaebel@vermont.gov) to request hard copies of the English brochure.



عربي - Arabic

Chinese - 普通话

French - Français

Nepali - नेपाली

Serbo-Croatian

Somali - Soomaali

Spanish - Español

Vietnamese - Tiếng Việt

English (translated version; click HERE to download and print the current English brochure)

Additional Resources and Information:



Outreach and training resources for collectors



What is Product Stewardship?

Product Stewardship is the act of managing a product and its packaging throughout its entire life cycle to both minimize the health, safety, environmental, and social impacts, and maximize economic benefits. While a product's manufacturer has the most control over the product's impact, other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can either be voluntary or required by law.

What is Extended Producer Responsibility?

Extended Producer Responsibility (EPR) is a mandatory type of product stewardship in which the manufacturer is responsible for helping properly manage its products even after they have been sold. Vermont's EPR laws share the cost of recycling and safe materials management between manufacturers and consumers and increase collection and recycling rates of covered products. Vermont's EPR programs are effective thanks to the convenient collection locations throughout the state, efforts by waste districts, towns, and private facilities, and outreach to consumers.

Vermont's Extended Producer Responsibility Laws

The following EPR laws have been passed in Vermont:

- Certain Dry-Cell Batteries: effective 1992
- Lead-acid Batteries: effective 1993
- Automobile Switches: effective 2006
- Mercury Thermostats: effective 2008
- Electronic Waste: effective 2011.
- Mercury Lamps: effective 2011
- Architectural Paint: effective 2013
- · Primary Batteries: effective 2016

EPR PROGRAM OUTREACH AND TRAINING RESOURCES

Batteries

Training Videos: Recycling bateries as risk management

Advertising Videos for TV/YouTube and Social Media Ads:

Material from Call2Recycles

TV Ad: 15-second video

Printable Resources: Quick reference guide for collectors

Primary battery stewardship law summary sheet

Guidance on primary battery stewardship in Vermont: a breakdown

Vehicle battery fact sheet

Lithium-based battery management fact sheet



Training Videos: NEMA mercury-added lamp program
State standards for management of mercury bulbs

Advertising Videos for TV/YouTube: 15-second video

Social Media Ads: LampRecycle Graphic

LampRecycle print ad

Printable Resources: Quick reference guide for collectors

Lamp fact sheet

Electronics

Training Videos: Proper management of electronics

Electronics ReTRAC reporting; setting up an account

Electronics ReTRAC reporting; submitting annual report

Electronics registration: who must register

How to register an event

How to update a registration

E-Cycles Training Questionnaire

Questionnaire with accessible results

Advertising Videos for TV/YouTube: E-Cycles 30-second video

15-second video

Printable Resources: Quick reference guide for collectors

Electronics brochure (contact karen.knaebel@vermont.gov for hard copy trifolds)

Electronics fact sheet

Release plan template (add to Fact Sheet and display at facility)

Posters: (*Required at all E-Cycles collection locations. For hard copies, contact karen,knaebel@vermont.gov)

*Collector location poster

*Data security poster

Disposal ban poster

Retailer poster (required to be posted at all retail locations that sell covered electronic devises)

Labels for Storage of Electronic Waste:

Covered electronic waste

Non-covered electronic waste

and the second of the second of the second of







Abandoned HHW





















November 2021

Abandoned Household Hazardous Waste (HHW) at Transfer Stations & Drop-Offs

As part of a Facility Management Plan, all transfer stations should have a process for dealing with abandoned Household Hazardous Waste (HHW) because a customer might leave a hazardous material at a transfer station without staff knowing. When hazardous or suspected hazardous materials are found, follow the procedures below to ensure safe handling and temporary storage of these materials before they are transferred to a permanent HHW facility for proper disposal as soon as possible.

Please note that HHW <u>should not</u> be accepted from customers unless a transfer station is permitted to do so. Any unpermitted transfer station who collects and stores HHW onsite, is considered out of compliance and could receive a Notice of Alleged Violation (NOAV).



When abandoned Household Hazardous Waste (HHW) is discovered:

- 1. Notify the supervisor and/or trained staff as soon as possible.
- Place the HHW in a secondary containment, like a plastic bin or bucket, and put a lid on it. Do not open or mix materials from separate containers.
- Set the HHW aside, under cover, in a secure, vented area out of the way so it doesn't get knocked over or accidentally disposed with trash. Do not put it in a location where it could be close to heat or someone smoking.
- 4. Take it as soon as possible to a permanent HHW facility.

To avoid this situation in the future, a transfer station should:

 Have signage indicating that HHW is not accepted at the transfer station but is accepted at specific events and year-round permanent HHW facilities - find local information at 802recycles.com.

(Continued on back page)



Compliance Overview

- Inspections
- Compliance
- Enforcement
- Regulation



Frequent violations

- Lamp Storage
- Batteries
- E-Waste
- Oil-Collection

- Reporting
- Application Deadlines
- Food Scrap Storage



Tips for Food Scrap Collection

- High carbon cover material, i.e. sawdust or shavings!
- Limiting contaminants
- Outreach to customers and good signage
- Secure Collection Containers





Food Waste Without Sawdust





What is an NOAV?

- Provides the Permittee notice about non-compliance
- Provides an opportunity for correction
- Provides a timeline to return to compliance
- Offers directives and solutions to non-compliant



Improper Lead-Acid Battery Storage





Plastics in Yard-Waste





Improper Hazardous Waste Storage



Open Used Oil Containers



Improper E-Waste Storage





Mismanaged Mercury Bulb Storage





Bulbs are not labeled or boxed





Paint Stored Without Proper Cover





E-Waste Stored Improperly Without

Cover







QUESTIONS?





MIA ROETHLEIN
802-522-5926
mia.roethlein@Vermont.gov
Batteries/Paint/SWIP



KAREN KNAEBEL
802-522-5736
karen.knaebel@Vermont.gov
Electronics/Bulbs/Thermostats



FRANK ERICKSON
802-461-6116
frank.erickson@Vermont.gov
Solid Waste Compliance



Resources

- Abandoned HHW Guidance for Facilities
- VTRecycles.com- VT DEC Solid Waste and Recycling Program
- 802Recycles.com-Solid Waste Mgmt. Entities
- Free Special Recycling Programs- brochures available for your customers
- VT DEC training videos paint, batteries, mercury containing lamps, universal waste, and more!
- Managing Food Scraps at Facilities
- Bear Proofing Food Scrap Totes
- Flyers for your customers- <u>Waste Not Guide</u>, <u>VTers Guide to Recycling</u>, <u>Compost With Confidence</u>
- Landfill Ban Poster to post at your facility as required by your facility certification
- VOSHA WorkSafe
- VT DEC Hazardous Waste Program
- VT League Of Cities and Towns

