# Improving Safety & Reducing Waste at Rural Transfer Stations

Jennifer Griffith & Rachel Smith
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North Country Council
Littleton, NH



#### What is **NEWMOA?**

Northeast Waste Management Officials' Association

- Non-profit, non-partisan interstate association
- Solid waste, hazardous waste, waste site cleanup,
   & pollution prevention programs
- CT, ME, MA, NH, NJ, NY, RI, & VT
- Formally recognized by EPA in 1986
- www.newmoa.org



Leading the Northeast to a Sustainable, Waste-Free Future

# Improving Safety & Reducing Waste at Rural Transfer Stations

## Funded by USDA Rural Utilities Services Solid Waste Management Grant

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#### **Partners**

- New Hampshire
  - North Country Council
  - Department of Environmental Services
- Vermont
  - Northeast Kingdom Waste Management District
  - Department of Environmental Conservation









#### **Project Activities**

- Consumer Handouts
  - Reducing Your Waste
  - ❖ The Benefits of Reuse...
  - ❖ WHY Recycle...
  - \* Recycle Right!
  - ❖ Don't Trash That!
- Posters
- Workshops
- Project Webpage www.newmoa.org/solidwaste/projects/transferstations/

#### Today's Workshop

- Short Introduction
  - ❖ Jennifer Griffith, NEWMOA
- Quick "before" survey
- Improving Safety at Transfer Stations
  - ❖ Dave Witham, Primex
- Break refreshments
- Reducing Waste Disposal
  - \* Rachel Smith & Jennifer Griffith, NEWMOA
- Quick "after" survey







### Some Things We'll Be Discussing...

- Machinery & Equipment Hazards
- Walking & Working Surfaces
- Personal Protective Equipment (PPE)
- The Physical Plant
- Storage and Hazardous Materials
- Emergency Planning
- Fire Safety

**Primex** 



























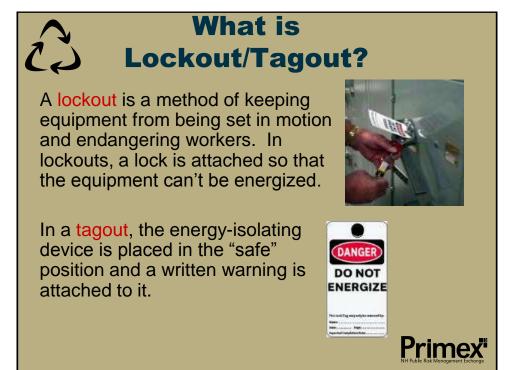




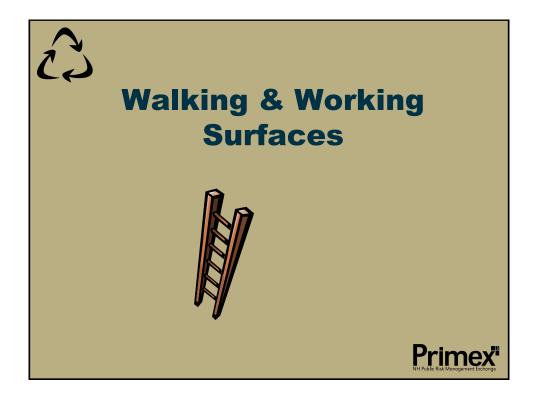














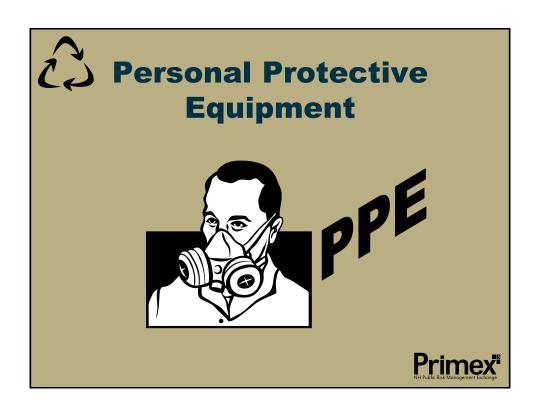


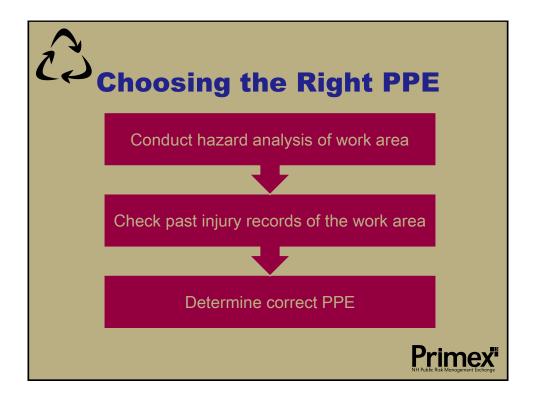














#### **Types of PPE**

Varies depending on the job...



- Head Protection
- Hearing Protection
- Eye Protection
- Hand Protection
- Foot Protection
- Visibility (Vest)



# Factors that deter us from wearing PPE

- Fits poorly
- · It's too hot
- · It looks unattractive

#### What needs to be done?

- > Choose the right fit or make adjustments
- > Take breaks outside work area and remove PPE if too hot
- > PPE doesn't always look great, but keep in mind that it prevents us from injury

Primex<sup>®</sup>

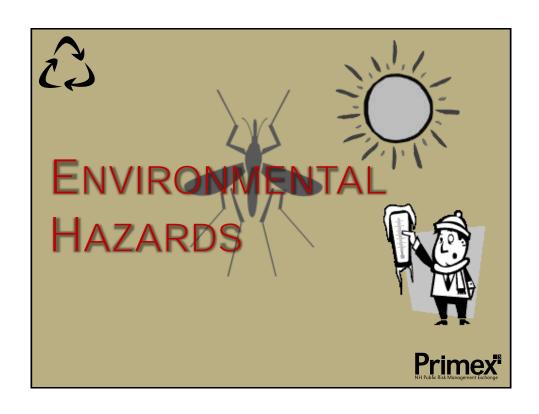


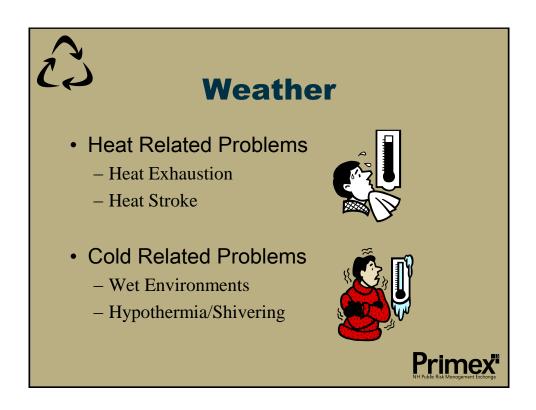


### **Keys to PPE Effectiveness**

- Choosing the right type for the job
- Proper fitting
- · Proper storage and maintenance
- Getting over the "deterring factors"









## Heat Exhaustion

- Fatigue
- Weakness
- Collapse due to inadequate intake of water to compensate for loss of fluids through sweating
- NORMAL BODY TEMPERATURE
- Can occur in an inside environment!

DRINK - DRINK - DRINK Break - Break - Break **Primex**\*



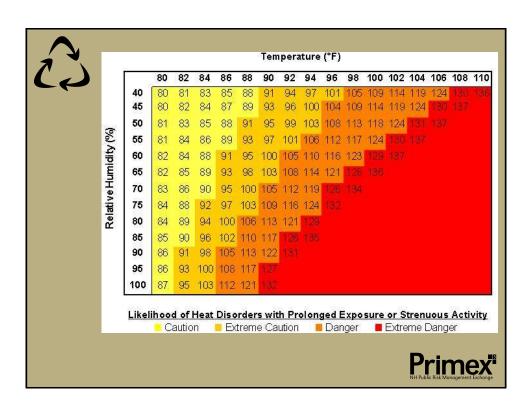
#### **Heat Stroke**

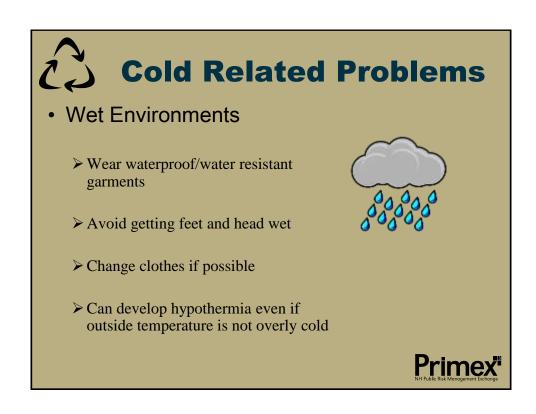
- SERIOUS MEDICAL EMERGENCY
- HIGH Body Temperature
- · Hot, Red, Dry Skin
- Unconsciousness likely



Cool, Cool, Cool - Try to lower body temperature with cool water, fans, cold packs.









### **Cold Related Problems**

- Cold Environments
  - Wear warm, dry clothing
  - · Protect head, hands and feet
  - Drink warm/hot fluids
  - Watch for shivering –first sign of danger
- Hypothermia:
  - Incoherent talk
  - Shivering excessively or not at all despite the conditions
  - Transport to medical facility

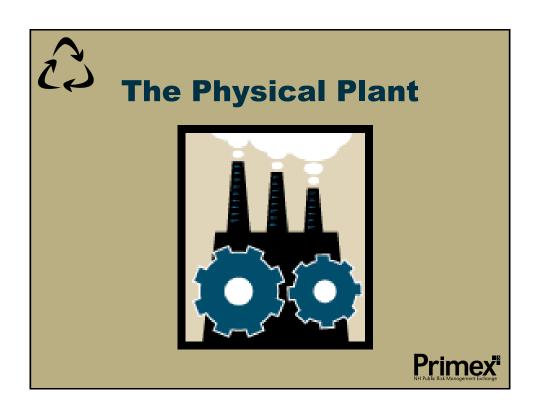




#### **Frostbite**

- Caused by reduced blood flow
- Numbness
- Aching & tingling
- · Blush, pale, waxy skin











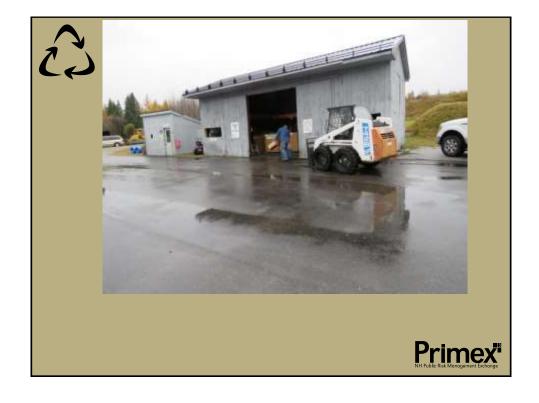




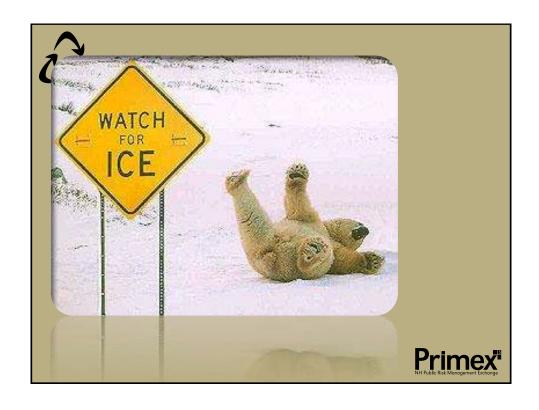


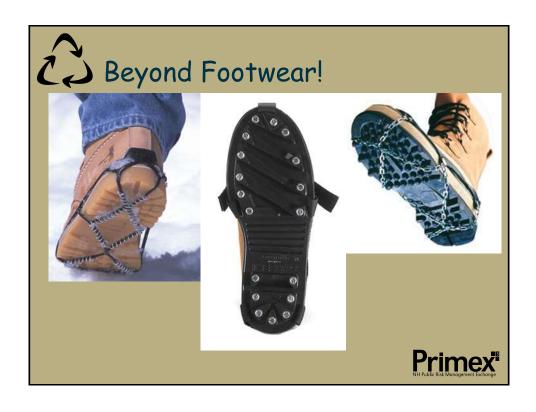


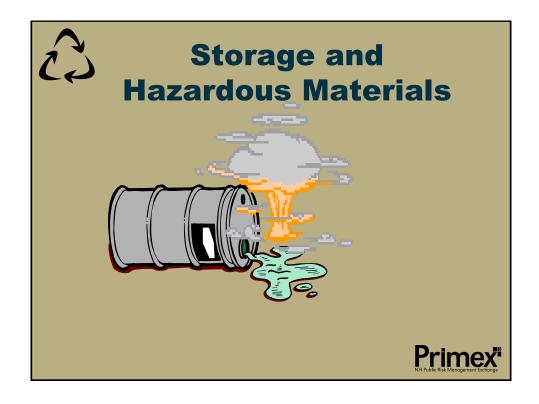


















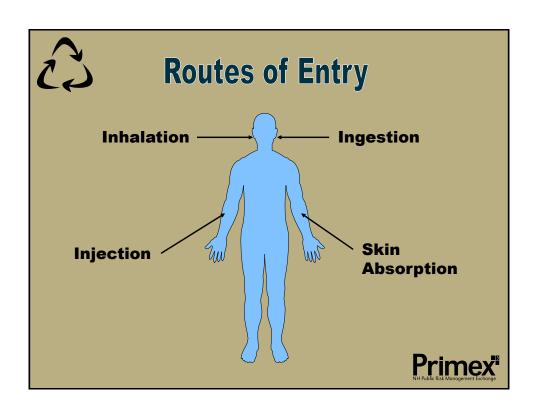














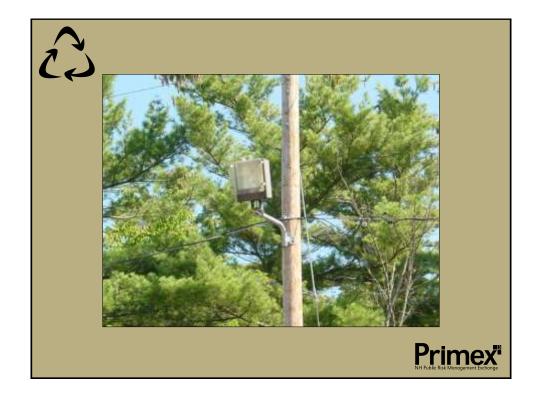


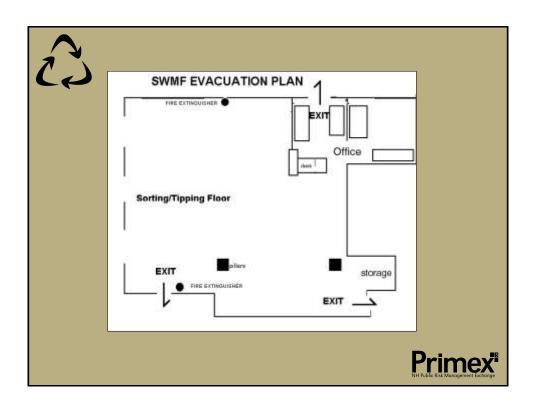
















## **Emergency Procedures**

- 9-1-1 Access?
- Fire Extinguishers
  - Location (consider mobile equipment as well)
  - Types/Size
    - Are they proper for the hazard?
  - Inspected
    - Annual Service
    - Routine Inspection for pressure, etc.
- Procedures for Handling







## **Let's Not Overlook The Obvious**

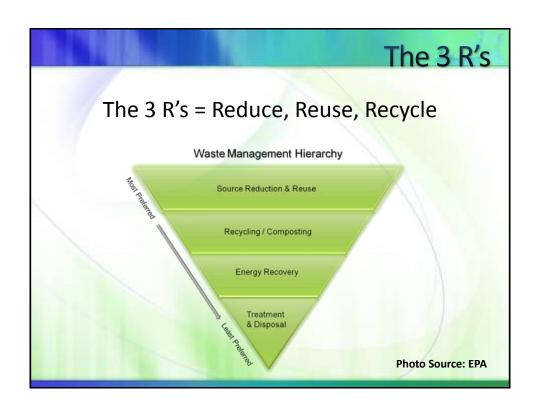
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## **Today's Objectives**

### Offer Strategies to Communicate on

- Recycling for people who don't recycle (or don't recycle much)
- Reusing & Reducing for supporters of recycling (and everyone else too!)

## **Definitions**

- Reduce Cutting back on the amount of items we purchase, use, & dispose of
- Reuse Finding a new way to use the item; it is kept whole & may be sold or donated for use again
- Recycle Using all or part of the item, separated into its individual components so that it can be used to create new products



## **Communication Tips - General**

### Focus on positive messaging

- Saves money on landfill disposal & transport to the landfill
  - Lowers town expenses; helps keep taxes from increasing
- Conserves natural resources, energy, & raw materials
- Returns products & materials back into the economy & creates jobs

### Communication Tips – General

Make sure that recycling program is as convenient & easy to understand as possible:

- Label drop-off areas clearly
- Publicize program:
  - Distribute outreach materials regularly
  - Make sure the information is sent to new residents
  - Get the word out about changes in service/s

## **General Communication Tips**

- Actions are easy to understand
  - Drop-off areas are clearly labeled
  - Examples of labeled & segregated collection signage



**Lancaster Transfer Station** 



Littleton Transfer Station

## **General Communication Tips**

# Regular communications with the public

- Distribute educational materials once a year
  - Increases understanding about what is & is not accepted
  - Reduces contamination
- Send material to new residents when they move in
- Make sure to publicize program changes before & after they happen

## **General Communication Tips**

Tailor your messaging to these two separate audiences/constituents

- People that already recycle
- People that do not recycle



## **Communication Tips - Recyclers**

- Thank them for doing a good job
- Even the best recyclers can make mistakes
- Focus on what to recycle & where
  - Provide clear instructions
  - "Dos & Don'ts" can help
    - Message: when things that can't be recycled are added or recyclables are put in the wrong place, a worker needs to remove them, which requires labor & can be dangerous
- When recycling is done right, the town generates materials that producers want to buy
  - Generates revenue & keeps recycling viable



## Non-Recyclers

### **Discussion Questions**

- Do people throw away things that could easily be recycled at your facility?
  - What types of recyclables do you see thrown away?
  - Have you talked to them about recycling?
  - If so, what's their response?
- Are there people who only bring trash & no recycling?
  - Have you asked them why they don't recycle?
  - What other arguments do they make?
  - What works?

### **Communication Tips**

### Non-recyclers

- Tend to not believe the benefits of recycling outweigh the effort to do it
- Don't always listen to "authority" working at the transfer station
  - Hearing from a different voice can be influential
- Tend not to respond to facts about the benefits of recycling
  - Need to focus on the direct impact to them and their community

### **Engage Different Voices**

Ask for town support for the message that recycling is a priority:

- Ask elected officials to visibly demonstrate support for recycling, including:
  - Asking religious leaders, community groups, & local businesses to help get the message out
  - Provide funding for outreach materials & actions
    - Promote recycling on municipal trucks & other town vehicles – serves as a reminder that recycling is available
- Highlight "top notch" recyclers in the local newspaper, website, or newsletter (individual &/or community group)

### **Communication Message**

Emphasize Cost Savings - Anything that is put in the trash that could be recycled wastes \$\$

- Directly from their wallet if town has PAYT
- Indirectly through town expenses:
  - Recycling lowers town's disposal costs & can help keep taxes from increasing
    - Disposal costs are accrued by weight so more trash (& heavier trash) costs more
    - Transporting to disposal is costly the greater the volume of trash, the more often it needs to be transported

### **Communications Message**

### It's Not That Hard to Do

- Find a corner of kitchen area, covered porch or garage for recyclables collection
- Use a cardboard box or plastic tub to collect metal, glass, & plastic containers
  - Rinse before to keep area clean
- Use smaller boxes/tubs or paper bags for paper
- Easy to put in car
- Clear instructions & friendly people in recycling center
  - May get good stuff free from the swap area

## Message - Recycling Isn't Hard

They're probably already doing some recycling – give positive feedback

- Most transfer stations have containers for scrap metal recycling
- Free to drop-off



**Photo: Dalton Transfer Station** 

### **Communications Message**

### **Contribute to the Community**

- Good to not be wasteful & to conserve resources
- Help the town save money
- Return products & materials back into the economy & create jobs

### May be Mandatory

Some towns have ordinances that require recycling





## Other Recycling Resources

- FYI for single-stream systems:
  - MA Dept. of Environmental Protection
    - Recycle IQ Kit: www.mass.gov/eea/agencies/massdep/recycle/grants/recycling-iq-kit.html
  - Environmental Protection Agency
    - Municipal Government Toolkit: <a href="https://archive.epa.gov/region4/rcra/mgtoolkit/web/html/improving.html#remind">https://archive.epa.gov/region4/rcra/mgtoolkit/web/html/improving.html#remind</a>
  - NC Division of Environmental Assistance
    - RE3.org Campaign: http://www.re3.org
  - SC Dept. of Health & Environmental Control
    - Recycle Guys: http://www.recycleguys.org



### **Communicating About Reuse**

- Do people throw away things that are in good shape & could be reused?
  - What types of good stuff do you see thrown away?
- What reuse options are there?
  - Do you have a reuse area at your facility?
  - Do you know of charitable options?
  - Do you have a way to share options with residents?

### **Communicating About Reuse**

### Benefits:

- Saves money on landfill disposal & transport to the landfill
- Conserves natural resources, energy, & raw materials
- Returns products & materials back into the economy & helps create jobs
- Helps people in the community who need these items but cannot afford to buy them new

## **Challenge: Space Limitations**

#### Reuse at the transfer station

- Need a covered or sheltered location
- Need to manage items that are not picked up
- Often limited to smaller items



Ad Hoc Swapping at Dalton Transfer Station

## **Challenge: Staff Limitations**

- There is only one transfer station attendant & they are helping someone else
- The resident quickly dumps the items in the trash compactor, before the attendant can get to them
- The resident doesn't even realize their mistake
   therefore, they are apt to do it again

## Challenge: Convenience

- The resident has already packed up the materials & driven to the transfer station
- Even if they are made aware of other options (donation centers) – they may be unwilling to make another stop



Vehicle Drop-off Areas at Barnet Transfer Station in Vermont

### **Communications – Reuse**

- Need to educate residents <u>before</u> they bring reusable items to the transfer station
  - What types of items are appropriate for reuse
  - Avoid damage during transport (&/or storage)
  - Identify easiest reuse options
- Post information at transfer station &/or have a handout available

### **Communications – Reuse**

- Donate
  - Charitable organizations:
    - ✓ Pemi-Valley Habitat for Humanity ReStore in Plymouth
    - ✓ Littleton FreeCycle Group (online)
- Sell
  - Consignment shops
  - Online resources:
    - ✓ Northern NH, VT, & ME Swap N Trade Facebook Group
    - ✓ Northern NH Buying & Selling Facebook Group
    - √ NH Craig's List

## **Communication Strategies: Reuse**

## Provide Information on Reuse Opportunities

- Post signs & notices with information on <u>local</u> reuse options & donation centers
- Partner with local groups or businesses
- Distribute the information to people early & often



FCSWMD - Massachusetts

### **Communications – Reuse**

#### **Handout**

- Include in regular town mailings, such as tax bills, utility bills, & other communications
- Distribute at HHW collections & other community events
- Post on local community bulletin boards
- Post on town's website, Facebook page, & other social media platforms
- Send the information out to people regularly



Includes local options on back

### Other Reuse Ideas

### **Repurposing & Repair of Items**

- Partner with local boy/girl scout troops, veterans organizations, or small businesses to host a "fix-it clinic" or "repair cafe"
- Encourage people to explore Do-It-Yourself (DIY) tutorials online



**Photo Source: Pinterest** 

### Other Reuse Ideas

### **Promote Swapping at the Transfer Station**

- Need a covered or sheltered location
- Or host a one-day event in the summer





Photos: Various Swap Shops at Transfer Stations in Massachusetts

### **Other Reuse Ideas**

### **Community One-day Swap Event**

- Need to manage items that are not picked-up
  - Coordinate with community organizations to take high quality items for donation
  - Recycle items, if feasible & dispose of the rest



Recycling Rally in Northampton, Massachusetts



## **Communications – Reduce**

- Do you see the same people throwing out a large amount of trash each week?
- What are they throwing away a lot of?
  - Take-out containers
  - Food waste
  - One-time disposables, such as napkins/paper towels/paper plates/plastic ware
  - Small trinkets & other cheap plastic items
  - Furniture & other large items
- Have you ever talked to them about it?

### Communications – Reduce Messages

### Reducing Purchasing = Reducing Waste

### Focus on direct benefits:

- Saves \$\$\$
  - By buying less & buying carefully
- Reduces clutter home & yard
- Reduces waste that needs managing
  - If there is PAYT, direct savings
  - Lowers town's waste transport & disposal costs

### **Communications – Reduce**

## Bring up "consider before buying" with residents:

- Think about whether they really need the item
- Can they borrow it from someone or buy it second-hand?
- Is it well-made & fixable so it can be given to someone else when they are done with it?
- Can it be recycled? If not, it will be trash
- Is it made with recycled content?
  - Helps close the loop & boost market demand for materials the transfer station collects for recycling

## **Benefits of Reducing**

- Conserves natural resources, energy, & raw materials
  - Best way to prevent pollution & waste & save \$\$ is to not purchase to begin with or purchase reusable items instead of disposables
  - Recycling is better than disposal, but still uses resources to move items; reduction avoids those impacts

## Reduce Through Reuse

### Messages:

- Shop at yard sales & secondhand stores
- Avoid using single-use disposable items
  - Drink cups & food take-out containers
    - Bring reusable containers to manage leftovers
    - Use containers that can be recycled at the recycling center
  - Use washable cloth versions of paper napkins, towels, & tissues
  - Pack lunch in reusable bags & containers
  - Use washable plates/cups/silverware at parties & buy them second-hand



## **Communications – Reduce Messages**

### **Food Waste**

- Heavy & expensive to dispose of
- Contains valuable nutrients for gardens/farms
- Reduce food waste
  - Eating leftovers before they go bad
  - Plan meals prior to shopping (saves \$\$ too)
  - Check out www.epa.gov/recycle/reducing-wasted-food-home
- Compost at home
  - Avoids transporting & reduces "yuck" factor
  - Check out NH DES "how to" flyer www.des.nh.gov/organization/divisions/waste/swrtas/documents/compo st\_flier.pdf

## **Communications – Composting**

- Many transfer stations are collecting for composting
  - Mandatory in Vermont
  - Use sawdust after depositing controls vector problems
  - Work with local farm to manage containers



Photo: Sheffield-Wheelock Transfer Station in Vermont



### Summary

#### **Reduce Waste**

- Reducing Purchasing = Reducing Waste
  - Saves \$\$\$ & reduces clutter
- Encourage people to "think before they buy"
  - Buy less
  - Borrow or buy secondhand (helps keep reuse viable)
  - Purchase quality items that are durable & repairable
  - Buy recycled (helps keep recycling viable)
- Encourage small daily changes
  - Purchase reusable items rather than disposables
  - See handouts for other ideas

### **Summary**

### Reuse

- Proactive outreach needed
  - Signs & handouts
- Promote existing donation options
  - Helps people in the community who need these items but cannot afford to buy them new
- Promote reuse/refurbish/repurpose ideas
- Support swapping to greatest extent feasible
- If really motivated, help organize:
  - One-day reuse swap event
  - Fix-it clinic

### Summary

### Recycle

- Needs to be easy to understand
  - Clear signage & instructions at facility
  - Regular communication on program
- Messages:
  - Recycling saves \$\$\$
    - · Directly if town has PAYT
    - · Reduced waste transport & disposal costs to town
  - Recycling isn't hard to do
- Encourage people to buy recycled
  - Helps keep recycling program viable

# Spose: some things

**Dispose:** some things ultimately have to go in the trash

- Provide information on proper disposal of items that should not go in the regular trash
  - Household hazardous waste (HHW)
  - Universal wastes
  - Ammunition/flares
  - Metal objects
  - Liquids
  - Ideally: recyclables & food waste



## **Community Based Social Marketing**

An approach to achieving sustainable behavior in communities through:

- 1. Selecting which behavior to promote
- 2. Identifying the barriers & benefits
- 3. Developing strategies to overcome the barriers
- 4. Piloting the program
- 5. Evaluating the program once its implemented



Source: www.cbsm.com

## **Questions?**

Jennifer Griffith jgriffith@newmoa.org (617) 367-8558, ext. 303

Rachel Smith <a href="mailto:rsmith@newmoa.org">rsmith@newmoa.org</a> (617) 367-8558, ext. 304

NEWMOA 89 South Street, Suite 600 Boston, MA 02111 www.newmoa.org