



# Using Mandatory Recycling to Reduce Disposal Costs

## Introduction

MassDEP Municipal Waste Reduction Toolkit



In the *Beyond 2000 Plan*, MassDEP established a goal of reducing waste by 70% through waste reduction and recycling efforts. MassDEP remains committed to this aggressive waste reduction goal by working in partnership with cities and towns to enhance recycling.

One action that cities and towns may choose to reach these goals is to establish and implement a mandatory recycling initiative at the local level. Many cities and towns have found that these initiatives are not only effective at increasing recycling, but also result in financial savings through avoided disposal costs and recycling revenues.

Several communities across the Commonwealth have already begun enforcing local recycling bylaws and mandates with great success. Examples include North Andover, Chelmsford, Saugus and Tyngsborough, all of which have seen sustained decreases in waste disposed and increases in recycling. These reductions have translated into significant financial savings. The success of these initiatives relied not only on local enforcement, but extensive education on the benefits of increased recycling in the community. Through clear and effective communication, most of the communities have achieved great success without significant actual enforcement and little or no financial penalties.

The materials in this module have been provided by communities already implementing successful programs and are designed to help you start a similar initiative in your community.

MassDEP supports a community's decision to enact mandatory recycling and efforts to enforce local recycling ordinances. In doing so, MassDEP has developed case studies and collected various guidance and model requirements.

- MassDEP's Department Approved Recycling Program (DARP) recognizes the efforts of communities that enforce local recycling ordinances by giving credit to those communities that implement enforcement programs.
- MassDEP is actively enforcing the waste bans at disposal facilities and pursuing enforcement against haulers and generators that dispose of banned materials.
- MassDEP offers technical and financial assistance to communities to help implement initiatives that result in increased community recycling.





# Using Mandatory Recycling to Reduce Disposal Costs

## Table of Contents

MassDEP Municipal Waste Reduction Toolkit



Below is a list of the items contained within this module. Please note that these materials are provided in an electronic modifiable version. You are encouraged to customize any of these items to best meet the needs of your community.

There are many types of local enforcement initiatives your community may wish to implement – whether it's a disposal ban on any visible recyclables, cardboard, or bulky items, or enforcing mandatory recycling, this guide provides municipal recycling coordinators with easy-to-use how-to information to get started.

### Planning Tools:

- ⇒ Benefits of Mandatory Recycling
- ⇒ Getting Started – Step by Step Guide to Enforcement
- ⇒ Massachusetts Waste Ban Definitions
- ⇒ Fact Sheet: Your Municipality and Waste Ban Compliance

### Education and Publicity Materials:

- ⇒ Hauler Guidance
- ⇒ Sample “Sorry” sticker
- ⇒ Sample brochure for educating residents

*The above three items were produced by the North Andover Solid Waste Advisory Committee.*

- ⇒ “Friendly Reminder” Mandatory Recycling Doorhangers

### Case Studies and Supporting Documentation:

- ⇒ Chelmsford – includes sample mandatory bylaw
- ⇒ North Andover – includes sample mandatory bylaw
- ⇒ Saugus
- ⇒ Tyngsborough





# Using Mandatory Recycling to Reduce Disposal Costs

## *Benefits of Mandatory Recycling*

MassDEP Municipal Waste *Reduction Toolkit*



### Financial

Massachusetts communities pay some of the highest disposal fees in the country. Averaging between \$60-\$80 a ton, communities are literally throwing away millions of dollars annually to dispose of materials that should be recycled.

Communities across the state are realizing the potential savings from enforcing local waste bans:

- In one year, the Town of North Andover saved \$180,000 on disposal costs and has saved \$250,000 to date.
- In the first year of the program, the Town of Chelmsford saved over \$99,000 in disposal fees and is recycling considerably more and throwing less in the trash.
- Saugus has saved more than \$60,000 in disposal costs since the inception of its program in FY06
- Tyngsborough found that 85% of previously non-recycling households were recycling after the onset of mandatory recycling.

### DARP

MassDEP's Department Approved Recycling Program (DARP) recognizes the efforts of communities that enforce local recycling ordinances by giving credit to those communities that implement enforcement programs. DARP status reflects a municipality's commitment to providing access to recycling and composting programs and to educating residents about waste reduction.

DARP status exempts municipal solid waste loads from comprehensive inspections for "waste ban" materials (paper; glass, metal and plastic containers; leaves and yard waste) at solid waste disposal facilities. Waste loads from DARP communities are still inspected for the presence of white goods, lead-acid batteries, cathode ray tubes (CRTs), or whole tires.

### MassDEP Assistance

- MassDEP is actively enforcing the waste bans at disposal facilities and pursuing enforcement against haulers and generators that dispose of banned materials.
- MassDEP offers technical and financial assistance to communities to help implement initiatives that result in increased community recycling.
- MassDEP will work with interested non-DARP cities and towns to improve their recycling and composting programs and obtain DARP status.





# Using Mandatory Recycling to Reduce Disposal Costs

## Getting Started

MassDEP Municipal Waste Reduction Toolkit



### Step-by-Step How To Guide

Whatever your community's reason for pursuing enforcement of mandatory recycling, the benefits are undeniable. Less waste means less disposal costs and for some communities more material recycled translates into more revenue from the sale of those recyclables.

While it may take some time to get started, the return on investment is quickly realized. These "how-to's" are suggested steps for implementation, all of which may not apply to your town/city. Use your discretion to determine which of these measures best fit the needs of your community, or contact your MAC (MassDEP Municipal Assistance Coordinator) to further discuss.

### Planning Phase

**Political climate:** It's important to have the backing of your community leaders when pursuing this type of program. It may require passing an ordinance, adopting a bylaw, town meeting or it may be something as simple as your officials deciding that your community should pursue.

**Determine program specifics.** Before you can communicate with your hauler and residents, you'll need to determine what kind of enforcement program you'll have.

Things to consider:

- What materials are you prohibiting from disposal? All visible recyclables? Cardboard?
- What action will be taken against those violating the disposal prohibition?
- Will you implement fines on those non-compliant households?
- Will there be a grace-period of "friendly reminders" before fines go into effect?
- Will you include businesses? Will it include municipal buildings and schools?
- Will you hire an enforcement coordinator? Look for a free intern?
- Is there any funding or assistance available from MassDEP for implementation?

**Determine point of contact:** No matter how effectively you've communicated with residents, there will be those who have questions, and you'll need to designate a point of contact to handle them. This person is recommended to be listed on all correspondence related to enforcement. If you are uncertain who that will be, or expect the role may change, be sure to include a phone number to a real person at the very least who will be able to connect residents to the proper person.

**Determine start date of program:** Once your community has decided to pursue enforcement, allow several months to create outreach materials and hire an enforcement person;

Consider your start date – while the first of the year may seem like a good time to begin implementation, starting this type of program during the cold winter months can make for an unpleasant experience. Starting in the spring or summer is a good time because the weather is nice, and by the time the cold winter months roll in, your residents will be seasoned veterans and your enforcement officer and haulers won't be spending as much time outside stickering and leaving notices for residents.



Meet with your hauler to discuss their role. Your hauler is critical to making this enforcement program work. It's a good idea to have a training (see North Andover training guide for haulers) that explicitly outlines your community's expectations of what is and isn't acceptable for disposal (i.e. will cardboard need to be cut down to 2x2? 3x3?) as well as what's expected of the haulers (leave materials on the curb that aren't properly prepared for recycling? Sticker those items? What do they do if they receive complaints from residents?)

Determine baseline trash and recycling figures before start of program to monitor progress.

Staffing Reinforcements: Experience has shown that the most effective methods of enforcement have included additional staff to help get the ball rolling at the onset of this type of program. It's key to have staff on the ground following the routes, monitoring noncompliant households, and to be available to follow-up with those residents to ensure that they don't become repeat offenders. They're also responsible for monitoring your hauler along the route to make sure they are complying with the town's program. MassDEP has determined (and so have the communities already implementing enforcement campaigns) that additional staff resources are crucial for this to be effective.

Whether that means assigning existing staff to dedicate a portion of their time on enforcement, utilizing volunteers or interns, or hiring additional staff is dependent on many factors, and can only be determined on a community by community basis. Some communities, like North Andover, utilized their volunteer recycling committee in their enforcement. Tyngsborough hired a part-time intern, and Saugus hired a part-time enforcement officer which was so effective, they increased his time in the field to ¾ time position. Either way, communities that have utilized additional staff to actively enforce, have found that it's more than paid for itself in reduced disposal costs and produces a very high return on their investment.

Depending on the size of your community, and the recycling climate that already exists, you may only need someone for the first few months of the program to get it off the ground. In other instances, getting your residents to recycling anything may be a challenge, in which case you may want to consider someone on a more permanent basis.

## Education and Outreach Phase

Develop messaging: Is the program offering new options? Is your focus on the money the town will save? Determine your message and how you want to convey this new information to your residents.

Develop outreach plan: There are many different kinds of low or no cost outreach that you have been used successfully: bill inserts (tax, water), articles in newspapers, messaging on local cable access, information on town website, notices sent home to parents through the schools, banners and sandwich boards in high traffic areas and while more costly, direct mail to residents. Multiple avenues of outreach should be used to be effective.

Communication is key: You will want to be clear and concise but also convey as much information about the changes as you can. It may include newly passed bylaw/ordinance (if applicable). Reiterate current recycling options and outline new recycling options (if applicable, i.e. is there a new drop-off location for cardboard?)

Be sure to give residents plenty of advance warning of the changes in enforcement. It's recommended to start outreach 2-3 months in advance and offer contact information where residents can find out more about the program.

## Enforcement Phase

Hauler Buy-In: It is critical that your hauler be on board and clearly understands what it is your community is doing (i.e. – sticker banned materials, leaving notices, etc.) Haulers are the first point of contact with your residents and their trash, and need to make sure that not only are the residents adhering to the program, but that they are too. If your residents have been sufficiently notified of the program, and do not comply, but your hauler simply goes about collecting all materials as business as usual, residents may not believe the town is really serious about enforcing against waste ban offenders.



*Train the enforcement officer* as to their role (will they be following the trash and/or recycling trucks? Will they be ahead of the trucks? Will they take note of non-complying households to send a notice later or will they approach at the time of discovery?) The enforcement officer is often the point of contact with residents as to why their materials weren't collected. They may approach the residents or be approached directly and the enforcement officer must know the ins-and-outs of your program and be able to clearly communicate these with residents.

*Must be consistent.* Consistency is so important. If you are telling residents that cardboard must be cut down into 2x2 squares, then make sure the hauler leaves anything bigger and that they are collecting the materials that are cut to spec. You don't want one week for properly prepared cardboard to be left, and then improperly cut cardboard picked up the next. You also want to make sure that all offenders are noted and that if one person is notified of their non-compliance, all non-compliers must be notified.

*Follow-up is Strongly Recommended* with non-complying households. They may need more information about the new rules, or they may simply not want to adhere to the new guidelines. In the latter case, you may want to consider higher levels of enforcement, such as fines for egregious, blatant non-compliers.

*Document Progress:* You will want to make sure you have your baseline figures established prior to the onset of the program so you can monitor your success. This is important for several reasons: 1) It will demonstrate exactly how much money your community is saving and how much material is now being diverted from disposal. 2) It will also assist in building the case for continued enforcement as well as potential staffing increases. As Saugus was able to demonstrate, the enforcement officer more than paid for himself.

*Promote your Success:* It's important to keep your residents informed about how their effort has paid off for the town and the great work they're doing in helping produce less waste. Some suggestions would be to post the disposal tonnage, recycling tonnage and cost savings on the town website or issue press releases to the local paper.





# Using Mandatory Recycling to Reduce Disposal Costs

## *Waste Ban Definitions*

MassDEP Municipal Waste *Reduction Toolkit*



In accordance with the provisions and the timetable set forth in MassDEP's General Requirements, Procedures and Permits for Solid Waste Management Facilities, 310 CMR 19.000, acceptance for the purpose of disposal or transfer for disposal of the following materials is prohibited (except for de minimis quantities of certain materials) at Massachusetts solid waste transfer stations, landfills, combustors, and construction and demolition debris processing facilities:

- ⇒ Asphalt pavement, brick and concrete
- ⇒ Cathode ray tubes
- ⇒ Glass containers
- ⇒ Lead batteries
- ⇒ Leaves and yard waste
- ⇒ Metal
- ⇒ Metal containers
- ⇒ Recyclable paper
- ⇒ Single polymer plastics
- ⇒ Tires
- ⇒ White goods
- ⇒ Wood

These materials may, however, be transferred for further processing, reuse or recycling. The waste bans on wood and whole tires do not apply to combustion facilities.

### DEFINITIONS OF MATERIALS BANNED BY 310 CMR 19.017

**Asphalt Pavement, Brick, and Concrete:** asphalt pavement, brick and concrete from construction activities and demolition of buildings, roads and bridges and similar sources.

**Cathode Ray Tubes:** any intact, broken, or processed glass tube used to provide the visual display in televisions, computer monitors and certain scientific instruments such as oscilloscopes.

**Glass Containers:** glass bottles and jars (soda-lime glass) but excluding light bulbs, Pyrex cookware, plate glass, drinking glasses, windows, windshields and ceramics.

**Lead Batteries:** lead-acid batteries used in motor vehicles or stationary applications.

**Leaves:** deciduous and coniferous leaf deposition.

**Metal:** ferrous and non-ferrous metals derived from used appliances, building materials, industrial equipment, transportation vehicles, and manufacturing processes.

**Metal Containers:** aluminum, steel or bi-metal beverage and food containers.

**Recyclable Paper:** all paper, corrugated cardboard, and paperboard products, except tissue paper, toweling, paper plates and cups, wax-coated corrugated cardboard, and other low-grade paper products.





**Single Polymer Plastics:** all narrow-neck plastic containers where the diameter of the mouth of the container is less than the diameter of the body of the container. This includes single polymer plastic containers labeled 1 – 6.

**Tires:** a continuous solid or pneumatic rubber covering intended for use on a motor vehicle.<sup>1</sup>

**White Goods:** appliances employing electricity, oil, natural gas or liquefied petroleum gas to preserve or cook food; wash or dry clothing, cooking or kitchen utensils or related items; or to cool or to heat air or water.

For purposes of the waste bans, white goods include, but are not limited to, refrigerators, freezers, air conditioners, water coolers, dishwashers, clothes washers, clothes dryers, gas or electric ovens and ranges, and hot water heaters. White goods do not include microwave ovens.

**Wood:** treated and untreated wood, including wood waste.<sup>2</sup>

**Yard Waste:** deciduous and coniferous seasonal depositions (e.g., leaves), grass clippings, weeds, hedge clippings, garden materials, and brush 1 (one) inch or less in diameter (excluding diseased plants).

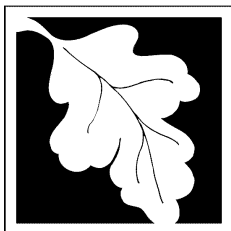
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<sup>1</sup> Shredded tires, defined as tires that have been cut, sliced or ground into four or more pieces such that the circular form of the tire has been eliminated, can be landfilled.

<sup>2</sup> “Wood waste” is defined in the solid waste regulations as follows: Wood waste means discarded material consisting of trees, stumps, and brush, including but not limited to sawdust, chips, shavings and bark. Wood waste does not include new or used lumber or wood from construction and demolition waste and does not include wood pieces or particles containing or likely to contain asbestos, chemical preservatives such as creosote or pentachlorophenol, or paints, stains or other coatings.







Massachusetts  
Department  
of  
ENVIRONMENTAL  
PROTECTION

## Summary

**Waste Ban Regulations:**  
310CMR19.017

### **Prohibited Recyclable Materials:**

Glass, metal and plastic containers; paper, including cardboard; leaf and yard waste;

**As of 7/1/06:** asphalt pavement, brick, concrete, metal and wood

### **Prohibited “zero-tolerance” materials:**

Batteries, whole tires, white goods (large appliances), cathode ray tubes (TVs and computer monitors)

### **Why waste bans?**

- Capture more recyclables
- Conserve disposal capacity
- Keep hazards out of the environment

## f a c t s h e e t

# Your Municipality and Waste Ban Compliance

### What is the purpose of the waste bans?

Waste bans are prohibitions on the disposal and transfer for disposal of certain toxic and/or recyclable items (see “Summary” sidebar and reverse). Waste bans are intended to encourage reuse and/or recycling of certain waste materials, conserve disposal capacity, and reduce adverse environmental impacts from waste materials containing toxic substances.

### What is DEP’s waste ban compliance strategy?

MassDEP has an equitable two-pronged approach to compliance and enforcement of the waste bans. This strategy holds all parties responsible for waste ban compliance, including solid waste facility operators, haulers and generators of solid waste. Where necessary, MassDEP pursues enforcement actions against facilities, haulers and waste generators that violate waste bans.

- MassDEP reviews and approves solid waste facility waste ban compliance plans and inspects solid waste facilities to ensure they are in compliance with monitoring, inspections, record-keeping, signage, and other facility waste ban requirements.
- MassDEP conducts inspections at solid waste facilities to identify haulers and generators (businesses, institutions, municipalities, etc.) that dispose of banned materials.



### What Do Municipalities Need to Know?

- **As solid waste facility operators**, municipalities that operate landfills and transfer stations must maintain and comply with their waste ban plan.
- **As service providers to residents**, municipalities that collect solid waste and/or contract for collection service, must also comply with waste bans. Municipalities can demonstrate compliance with the waste bans by complying with Department Approved Recycling Program (DARP). However, cities and towns with DARP status that repeatedly dispose of excessive amounts of banned materials may lose their DARP status and be at risk of enforcement. MassDEP will work with interested non-DARP cities and towns to improve their recycling and composting programs and obtain DARP status.
- **As generators of solid waste**, municipalities need to ensure that banned materials are separated from trash at their municipal offices and facilities, including schools, town halls, and parks departments.
- **As recycling program managers**, municipal recycling officials can use waste ban enforcement to strengthen local recycling requirements and hold haulers responsible for recycling service.

Massachusetts Department of  
Environmental Protection  
One Winter Street  
Boston, MA 02108-4746

Commonwealth of  
Massachusetts  
Mitt Romney, Governor

Executive Office of  
Environmental Affairs  
Stephen Pritchard, Secretary

Department of  
Environmental Protection  
Robert W. Gollidge, Jr.  
Commissioner

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This information is available in  
alternate format by calling our  
ADA Coordinator at  
(617) 574-6872.



## Information on Waste Bans

- **Current Materials Prohibited from disposal by 310 CMR 19.017**

**Glass Containers:** glass bottles and jars (soda-lime glass) but excluding light bulbs, Pyrex cookware, plate glass, drinking glasses, windows, windshields and ceramics.

**Metal Containers:** aluminum, steel or bi-metal beverage and food containers.

**Single Polymer Plastics:** all narrow-neck plastic containers.

**Recyclable Paper:** all paper, cardboard, and paperboard products excluding tissue paper, toweling, paper plates and cups, wax-coated cardboard, and other low-grade paper products, which become unusable to paper mills as a result of normal intended use.

**Yard Waste:** grass clippings, weeds, garden materials, shrub trimmings, and brush 1" or less in diameter (excluding diseased plants).

**Leaves:** deciduous and coniferous leaf deposition. **Batteries:** lead-acid batteries used in motor vehicles or stationary applications.

**White Goods:** appliances employing electricity, oil, natural gas or liquefied petroleum gas to preserve or cook food; wash or dry clothing, cooking or kitchen utensils or related items. These typically include refrigerators, freezers, dishwashers, clothes washers, clothes dryers, gas or electric ovens and ranges, and hot water heaters.

**Whole Tires:** motor vehicle tires of all types. Whole tires may be disposed at combustion facilities. Shredded tires (a tire which has been cut, sliced or ground into four or more pieces such that the circular form of the tire has been eliminated) are not prohibited.

**Cathode Ray Tubes:** any intact, broken, or processed glass tube used to provide the visual display in televisions, computer monitors and certain scientific instruments such as oscilloscopes.

- **Additional Restricted Materials as of July 1, 2006**

The following construction and demolition debris materials are prohibited from disposal:

- **Asphalt Pavement, Brick and Concrete:** asphalt pavement, brick and concrete from construction activities and demolition of buildings and similar sources.
- **Metal**
- **Wood:** Treated and untreated wood, including wood waste. Wood may be disposed at combustion facilities.

## Resources on Waste Bans

Waste ban information can be found on MassDEP's web site at:  
[www.mass.gov/dep/recycle/solid/regs0201.htm](http://www.mass.gov/dep/recycle/solid/regs0201.htm), or contact the commercial waste reduction hotline: 617-348-4002.

# TEMPLATE INSTRUCTIONS for

## “Friendly Reminder” Mandatory Recycling Doorhangers

“Friendly Reminder” Mandatory Recycling Doorhangers are designed to be customized for your community. Follow the instructions below to properly customize your communities doorhangers:

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1. Open the file called “Doorhanger TEMPLATE” This file has four text boxes for you to format. Type in your municipality name in the top two boxes, and your municipality website and/or phone number in the bottom two boxes. After you fill in the four text boxes, PRINT the template.

2. Next, place the unseparated door hanger sheets in the copier tray. The direction you put them in will vary from copier to copier so test out the correct way to place the sheets in your machine. Put the printed template on the copier and make one copy onto the door hanger sheet. Check the door hangers to see if the Municipality Name & Website/Phone # lined up correctly.

Extra copies of the door hanger have been provided in each shipment to allow for trial and error in the customization process.

\*\*\*Please be advised, although the door hangers were designed and cut to facilitate this type of multiple reproduction – THIS PROCESS MAY NOT WORK IN ALL MODELS OF COPIERS OR PRINTERS.\*\*\*

**DON'T FORGET!!!**  
**Recycling is mandatory in**

INSERT TOWN NAME HERE

**We noticed the following recyclables in your trash:**

- ☐ Paper/Newspaper
- ☐ Cardboard
- ☐ Bottles & Cans
- ☐ Plastics
- ☐ Other: \_\_\_\_\_

**Why recycle?**

- It saves your community **MONEY!!**
- It reduces greenhouse gases that contribute to climate change.
- It saves energy and natural resources.

**For more information on your town's recycling program, please visit:**

INSERT TOWN WEBSITE/AND OR PHONE NUMBER

3. Once customized for your community, these doorhangers are to be sent along with your mandatory recycling enforcement officer. When a residence is failing to recycle, the items of noncompliance (Paper/Newspaper, Cardboard, Bottles & Cans etc.) can then be checked off and the doorhanger attached to the violator's door.

*If you have questions regarding the template or the formatting of your doorhanger, please contact Regan Clover, (617)292-5707 or [regan.clover@state.ma.us](mailto:regan.clover@state.ma.us)*

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your town's recycling  
program, please visit:



# PLEASE RECYCLE

Did you know?

Massachusetts prohibits the disposal of the following:

- PAPER
- CARDBOARD
- PLASTIC
- GLASS
- METAL
- ALUMINUM
- WHITE GOODS
- TIRES
- YARD WASTE
- CATHODE RAY TUBES

Do your part by recycling all that you can!



Printed on 100% post consumer recycled paper



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- CATHODE RAY TUBES

Do your part by recycling all that you can!



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INSERT TOWN NAME  
HERE

INSERT TOWN NAME  
HERE

INSERT TOWN WEBSITE  
AND/OR PHONE # HERE

INSERT TOWN WEBSITE  
AND/OR PHONE # HERE



## Town of North Andover Mandatory Recycling Case Study



MassDEP Municipal Waste Reduction Toolkit

### Town Statistics:

Population: 27,202

Households: 9,943

Median Income: \$72,728

**Overview/Introduction:** In April 2003, the Board of Selectmen (BOS) charged the Solid Waste Advisory Committee (SWAC) with developing “*recommendations to the Selectmen that would result in cost savings to the Town either through a reduction in trash being generated ... and/or through an increase in the rate of recycling of waste material, provided, however, that no such recommendation will result in the imposition of a trash fee.*”

After several months of discussion between the SWAC and BOS, the town decided to put to town meeting a warrant article that would update the town’s existing waste ban bylaw to include narrow neck plastics, paper and CRTs and included language that directed its contracted waste hauler or any party responsible for municipal waste pickup not to pick up visible recycling curbside.

The town passed the amended bylaw in May 2004 to take effect January 31, 2005.

### Outreach:

- In June 2004, while awaiting AG’s approval of amended bylaw, SWAC began development of educational materials including a tri-fold brochure, “One Person’s Trash”, program budget and a “sorry” sticker to be used by hauler;
- In September, Selectmen confirmed the implementation plan and start date of changes;
- Brochure was inserted into water bills (October – December 2004) and in December tax bill;
- Town created a “training guide” for haulers – a pictorial/power point presentation to trash and recycling haulers providing them real life examples of what was and wasn’t acceptable for collection. The training took place prior to start date in January 2005 and included a quiz for the haulers.
- Other outreach:
  - Changes made to the web site;
  - Large magnetic signs placed on the back of both recycling trucks;
  - Banner placed in prominent intersection of town.
  - “Did you See?” flyer out to all school kids (5900 copies)

### Implementation and Enforcement:

- One week prior to program start – DPW person drove trash routes and left “Please Remember” flyers. Approximately 350 distributed
- January 31, 2005 – PROGRAM LAUNCH – SWAC members drove around following the routes, taking pictures and noting situations. Couple of in-route corrections made.
- February 3, 2005 – Drove route again
- Stopped logging calls after the first week, because there was really no increase in call volume. As of mid-February, no known littering or dumping problems.
- As of March 3, 2005 Waste Management had stickered over 3000 items to be left on the curb.

### Results:

- North Andover saved over \$160,000 in the first 10 months of the program.
- Between February 2005 and January 2007, the Town has saved nearly \$250,000 in avoided disposal costs.

### Lessons Learned:

- Get the strongest stickers possible, there is a specific adhesive for the cold weather
- Recycling guy should not remove any stickers left by hauler
- Understand what is happening with public housing



## **North Andover Bylaw Development**

The following pages trace the legal path of authority for the regulation of solid waste and recycling from State law (Mass. General Laws, Chapter 16, Section 20) through State agency regulations (the Mass. Department of Environmental Protection's "Waste Ban" regulations at 310 CMR 19.017 of the General Requirements), to the North Andover General Bylaws and the North Andover DPW's recycling information.

It is important to note that State law and regulations take precedence over Town Bylaws and practices. Bylaws may provide for additional local regulation but may not reduce or alter State law and regulations. All the bans on what may be put in the trash have been State law for over a decade and have applied with full force to North Andover, regardless of the fact that our local bylaws were just brought into compliance in May of this year.

Further, all 3 levels of the above solid waste laws and regulations "are restrictions on the disposal and transfer for disposal of certain hazardous and recyclable items at solid waste facilities in Massachusetts", not requirements on what people must do with their recyclable materials. To put a banned item into the trash is implicitly banned by the State and explicitly by the Town bylaws. Neither of those, however, tell you what you must do with those banned materials. Some options are:

- Turn them in at the market for the deposit (beverage containers)
- Sell them to a recycler (they pay for most bulk metals (copper, iron, etc.))
- Recycle them yourself (melt aluminum and mould your own yard ornaments)
- Save them in your garage
- Mail them back to the manufacturer (smoke detectors, printer cartridges, etc.)
- Take them to a retailer who provides recycling (Radio Shack recycles batteries)
- Donate certain recyclable items to your church or school (used ink jet cartridges)
- If accepted, put into the Town's recycling service

I can find no law, regulation, or bylaw that supports the assertion that "recycling is mandatory", what is mandatory is that you not dispose of banned materials in the trash.

Each law or regulation or bylaw or informational document that I reference is available through the Internet, and I have provided links to all. I have checked those links as of the date of this document and they are accurate.

# Waste Bans and Recycling

The Mass. General Laws, Chapter 16, Section 20 ([www.state.ma.us/legis/laws/mgl/16-20.htm](http://www.state.ma.us/legis/laws/mgl/16-20.htm)) empowers the Mass. Department of Environmental Protection to “promulgate rules and regulations relating to the storage, collection, transfer, and disposal of solid waste”.


The Mass. Department of Environmental Protection, at its web site at [www.state.ma.us/dep/bwp/dswm/files/310cmr19.htm#017](http://www.state.ma.us/dep/bwp/dswm/files/310cmr19.htm#017), shows the legal language of the various types of restrictions and their effective dates, “No person shall dispose, transfer for disposal, or contract for disposal of the restricted material ...” as trash, and, at .../[wbgidy2k.doc](#), has a ‘Frequently Asked Questions’ section that fully explains the Waste Bans in plain English as follows:

This document summarizes the Department of Environmental Protection’s (DEP) “waste ban” regulations at 310 CMR 19.017 of the General Requirements, ...

## QUESTIONS AND ANSWERS

### Q. What are the “Waste Bans”?

A. The “Waste Bans” are restrictions on the disposal and transfer for disposal of certain hazardous and recyclable items at solid waste facilities in Massachusetts. The bans are located in the state’s solid waste facility management regulations, 310 CMR 19.017. Listed below are the restricted materials and their definitions.

MATERIAL	MATERIAL DEFINITION	
Recyclable Paper Effective date 12/31/94	All paper, cardboard, and paperboard products excluding tissue paper, toweling, paper plates, cups, and other low-grade paper products which become unusable to paper mills as a result of normal intended use (e.g., office paper, newspapers, unwaxed cardboard and cereal boxes, but not used paper towels).	
Metal Containers Effective date 4/1/93	Aluminum, steel or bi-metal beverage and food containers.	
Glass Containers Effective date 4/1/93	Glass bottles and jars excluding light bulbs, plate glass, ceramics, Pyrex cookware, drinking glasses, windows, and windshields.	
Single Resin Narrow-necked Plastics Effective date 12/31/94	All narrow-necked plastic containers of any resin type. In narrow-necked containers the diameter of the opening is smaller than the diameter of the base (e.g., a soda bottle is “narrow-necked”, but a yogurt container is not).	
Lead-acid Batteries Effective date 12/31/90	Lead-acid batteries used in motor vehicles or stationary applications.	
Leaves and Yard Waste Effective date 12/31/91	Deciduous and coniferous leaves, grass clippings, garden materials, shrub trimmings, and brush up to one inch in diameter.	
Whole Tires (landfills only) Effective date 12/31/91	Whole car and truck tires of all types. A tire can be landfilled only if it has been shredded or ground into at least four pieces so that it no longer has a circular shape. Combustion facilities and transfer stations can accept whole tires.	
White Goods Effective date 12/31/91	An appliance employing electricity, oil, natural gas or liquefied petroleum gas to preserve or cook food, to wash or dry clothing, cooking or kitchen utensils or related items, or to cool or heat air or water. These include refrigerators, freezers, dish washers, clothes washers, clothes dryers, gas or electric ovens and ranges, and hot water heaters.(310 CMR 19.006)	
Cathode Ray Tubes (CRTs) Effective date 4/1/00	Any intact, broken, or processed glass tube used to provide the visual display in televisions, computer monitors and certain scientific instruments such as oscilloscopes. (310 CMR 19.006)	

Note: Other state and federal regulations limit and/or ban the disposal of additional materials at solid waste combustion facilities, landfills and transfer stations. Examples of these materials include hazardous wastes (as defined in 310 CMR 30), and infectious wastes (as defined in 105 CMR 480). ...

At <http://www.townofnorthandover.com/towndocs.html> the North Andover General Bylaws, as updated by Article 32 of the May 10, 2004 Annual Town Meeting ([townofnorthandover.com/MAY%2010%202004%20ANNUAL%20TOWN%20MEETING%20MINUTES-JAB.pdf](http://townofnorthandover.com/MAY%2010%202004%20ANNUAL%20TOWN%20MEETING%20MINUTES-JAB.pdf)), provide:

## **TOWN OF NORTH ANDOVER – GENERAL BYLAWS**

### **DIVISION 1 - TOWN MEETINGS ENACTMENTS**

#### **Chapter 115**

#### **GARBAGE, RUBBISH AND REFUSE**

[HISTORY: Adopted by the Town of North Andover 11-24-80 Special Town Meeting, Article 1. Amendments noted where applicable.]

##### **§ 115-1 Weekly Collection**

##### **§ 115-2 Placement of Refuse for Pickup**

##### **§ 115-3 Commercial, Business or Industrial Complex**

##### **§ 115-4 Responsibility of Building Owners**

##### **§ 115-5 Refuse Restricted Activity**

##### **§ 115-6 Penalties**

##### **§ Weekly Collection.**

[Amended: Annual Town Meeting May 9, 1990, Article 27] [Amended Article 22 2001 Annual Town Meeting. Approved by Attorney General September 12, 2001]

The Division of Public Works shall each week collect the refuse and trash of:

- A.** Each detached single-family residence and each multiple dwelling that:
  - 1.** Contains fewer than nine (9) living units; and
  - 2.** Is not part of any apartment or condominium complex containing nine (9) living units or more.
  - 3.** Notwithstanding the foregoing, the Town will provide customary residential trash pick-up for the residential units of Village Green at North Andover Condominium Trust, which are located on duly excepted public ways. Notwithstanding the foregoing, the Town will provide customary residential trash pick up for the owner occupied Town House Homes of Andrew Circle. Townhouse Homes is a non-profit organization of 8 residential units per building (3 buildings total).
- B.** Each building used for commercial, business or industrial purposes where the amount of refuse produced is no more than eight (8) thirty gallon barrels per week and the building is not commercial, business or industrial complex.

##### **§115-2 Placement of Refuse for Pickup**

Service will be provided only if the refuse and trash is placed on the side of the highway in front of said residence or multiple dwelling or building.

##### **§115-3 Commercial, Business or Industrial Complex**

Any building or aggregation of buildings (such as a shopping mall, industrial park, office complex or other like development) containing four (4) or more businesses, industries or commercial enterprises shall be deemed to constitute a commercial, business or industrial complex for purposes of this chapter if legal title to the building or aggregation of buildings is in single, joint or common ownership.

##### **§115-4 Responsibility of Building Owners.**

It shall be the duty of each owner of a multiple-dwelling building or apartment or condominium complex containing nine (9) living units or more and each owner of a building utilized for commercial, business or industrial purposes which does not qualify for trash pickup under the criteria set forth in Section 115-B to cause to be removed at his own cost and expense all refuse and trash produced therein.

### **§115-5 Refuse Restricted Activity**

[Amended: Annual Town Meeting May 3, 1993, Article 42]

[Amended: Annual Town Meeting May 10, 2004, Article 37]

To maintain compliance with the State solid waste facility regulation 310 CMR 19.017 the Town of North Andover enacts a mandatory bylaw which states that the following will not be allowed in the garbage, rubbish and refuse/trash and the Town of North Andover directs its contracted waste hauler or any party responsible for municipal waste pickup not to pick up visible recycling at curbside, and these items will include the items in the following paragraphs:

**Glass Containers:** Glass bottles and jars (soda-lime glass) but excluding light bulbs, Pyrex cookware, plate glass, drinking glasses, windows, windshields and ceramics.

**Metal Containers:** Aluminum steel or bi-metal beverage and food containers, including scrap metal.

**Yard Waste:** Grass clippings, weeds, garden materials, shrub trimmings, and brush 1" or less in diameter (excluding diseased plants);

**Leaves:** Deciduous and coniferous leaf deposition;

**Lead Acid/Batteries:** Lead-acid batteries used in motor vehicles or stationary applications;

**White Goods:** Large appliances including: refrigerators, freezers, dish washers, clothes dryers, gas or electric ovens and rangers, and hot water heaters;

**Whole Tires:** Unshredded motor vehicle tires of all types. (A shredded tire is a tire which has been cut, sliced, or ground into four or more pieces such that the circular form of the tire has been eliminated.)

**Single Resin Narrow necked plastic** – All narrow-necked plastic containers of any resin type. In narrow-necked containers the diameter of the opening is smaller than the diameter of the base (e.g., a soda bottle is "narrow-necked", but a yogurt container is not).

**Recyclable Paper** – all paper, cardboard, and paperboard products (e.g office paper, newspaper, unwaxed cardboard and cereal boxes) excluding tissue paper, toweling, paper plates, cups, and other low-grade paper products which become unusable to paper mills as a result of normal intended use. (e.g. used paper towels).

**Cathode Ray Tubes (CRT's)** – Any intact, broken, or processed glass tube used to provide the visual display in televisions, computer monitors and certain scientific instruments such as oscilloscopes. (310 CMR 19.006)

### **§115-6 Penalties**

[Amended ATM 5-3-93, Article 42]

Any or all of the items in 115-5 commingled with garbage, rubbish, or refuse will be reason for the Division of Public Works or its agents to refuse to pick up such commingled items from that dwelling. [end of Chapter 115]

...

### ***Chapter 147*** **RECYCLING**

[HISTORY: Adopted by the Town of North Andover as Chapter 5, Section 5.5 of the General Bylaws. Amendments noted where applicable.]

### **§ 147-1 Unauthorized Removal of Materials to be Recycled Prohibited**

#### **GENERAL REFERENCES**

**Garbage, rubbish and refuse - See Chapter 115.**

### **§147-1 Unauthorized Removal of Materials to be Recycled Prohibited.**

The removal from a public sidewalk, way or any usual point of residential rubbish pickup, of any material specifically set apart from ordinary household rubbish for the purpose of being recycled, under the recycling program of the town, by any persons other than those properly authorized to pick up such material, is hereby expressly prohibited.

[end of Chapter 147] ... [end of bylaws]

At <http://www.northandoverwaterdept.com/recycle%20&%20solid%20waste.htm> the North Andover Division of Public Works describes our recycling program. That same information is printed and distributed to all residences once a year in the Warrant booklet (<http://townofnorthandover.com/05.10tmwarrant.pdf>, pages labeled 32-33 and 63):

## 2004 CURBSIDE RECYCLING CALENDAR

JANUARY 2004							FEBRUARY 2004							MARCH 2004							APRIL 2004						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
					1	2	1	2	3	4	5	6	7		1	2	3	4	5	6					1	2	3
4	5	6	7	8	9	10	8	9	10	11	12	13	14	7	8	9	10	11	12	13	4	5	6	7	8	9	10
11	12	13	14	15	16	17	15	16	17	18	19	20	21	14	15	16	17	18	19	20	11	12	13	14	15	16	17
18	19	20	21	22	23	24	22	23	24	25	26	27	28	21	22	23	24	25	26	27	18	19	20	21	22	23	24
25	26	27	28	29	30	31	29							28	29	30	31				25	26	27	28	29	30	
MAY 2004							JUNE 2004							JULY 2004							AUGUST 2004						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
						1			1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31	29	30	31				
30	31																										
SEPTEMBER 2004							OCTOBER 2004							NOVEMBER 2004							DECEMBER 2004						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
				1	2	3						1	2		1	2	3	4	5	6				1	2	3	4
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31	
							31																				

[ ] = WHITE WEEK      [ ] = BLUE WEEK      [ ] OR [ ] = SAT. WORK DAY      [ ] = HOLIDAY

To find out when your recycling day is, look at [www.northandoverwaterdept.com/Calendar.htm](http://www.northandoverwaterdept.com/Calendar.htm) or call the DPW at 978-688-9570

## CURBSIDE RECYCLING WITH RED BIN ONLY

Bins can be purchased at the DPW Monday - Friday, 8:30 AM to 4:00 PM for a \$3.00 deposit.

WHAT	YES	NO	HOW	WHERE & WHEN
PLASTIC	<ul style="list-style-type: none"> <li>All # 1 &amp; #2 Plastic containers with recycle symbol.</li> </ul>	<ul style="list-style-type: none"> <li>No other plastic containers</li> <li>No other symbols or numbers on bottom</li> <li>No plastic bags</li> <li>No caps</li> </ul>	<ul style="list-style-type: none"> <li>Rinse clean</li> <li>Collapse or string together</li> <li>Labels OK</li> </ul>	<ul style="list-style-type: none"> <li>All recycling must be curbside by 7:30 A.M.</li> <li>Recycling is Mandatory.</li> <li>Curbside pickup on your recycling week</li> <li>Please refer to recycle calendar distributed with red bin.</li> <li>If using another container with red bin other container must be sorted</li> </ul>
STEEL "TIN" CANS	<ul style="list-style-type: none"> <li>Magnetic cans only</li> <li>Fully opened at one end</li> </ul>	<ul style="list-style-type: none"> <li>No aerosol cans</li> <li>No other metal objects</li> </ul>	<ul style="list-style-type: none"> <li>Rinse clean</li> <li>If possible remove lids and flatten.</li> <li>Labels OK</li> </ul>	
GLASS	<ul style="list-style-type: none"> <li>Clear, green and brown glass</li> <li>Bottles and jars</li> </ul>	<ul style="list-style-type: none"> <li>No other glass items</li> <li>No broken glass</li> </ul>	<ul style="list-style-type: none"> <li>Rinse clean</li> <li>Labels OK</li> <li>Remove lids</li> </ul>	
PAPER, ETC.	<ul style="list-style-type: none"> <li>Newspapers with inserts</li> <li>Junk mail, magazines &amp; phone books</li> <li>Corrugated cardboard in newspaper size bundle</li> </ul>	<ul style="list-style-type: none"> <li>No soiled paper</li> <li>No other paper</li> <li>No plastic bags</li> </ul>	<ul style="list-style-type: none"> <li>Place in paper bags</li> <li>or tie in bundles no larger than 18"X18"X6" high</li> </ul>	
ALUMINUM CANS	<ul style="list-style-type: none"> <li>Non-magnetic</li> <li>Deposit &amp; non-deposit cans</li> </ul>	<ul style="list-style-type: none"> <li>No bottle or jar lids</li> <li>No pie plates or foil</li> </ul>	<ul style="list-style-type: none"> <li>Rinse clean</li> </ul>	

All the above items and large cardboard can be brought to the drop-off center at the DPW garage

**OTHER RECYCLING**

WHAT	ALLOWED	NOT ALLOWED	HOW	WHERE & WHEN
<b>YARD WASTE</b>	<ul style="list-style-type: none"> <li>Leaves, wood chips, grass clippings, peat, sod, soil, shrub pruning, earth fill, loam, gravel, street sweepings</li> </ul>	<ul style="list-style-type: none"> <li>Stumps</li> <li>Household trash</li> <li>Lumber</li> <li>Construction material</li> <li>Logs over 3' long</li> </ul>	<ul style="list-style-type: none"> <li>Permits are required for any yard material other than 100% grass and leaves</li> <li>\$7/season for auto trunk</li> <li>\$5/load for level pick-up</li> <li>\$30/load for large pick-up or 6 wheel dump truck</li> </ul>	<ul style="list-style-type: none"> <li>Leaves picked-up once in the fall - watch for announcement</li> <li>Bring to Cyr Recycling Center on Sharpners Pond Road</li> <li>Open April 1 to mid Dec. Tues., Thurs. &amp; Sat. 8 to 3</li> </ul>
<b>COMPOST BINS CAN BE PURCHASED AT THE DPW GARAGE 8:30 - 4:30 FOR \$20.00</b>				
<b>CHRISTMAS TREES</b>	<ul style="list-style-type: none"> <li>Real trees only</li> <li>Remove all decorations</li> </ul>	<ul style="list-style-type: none"> <li>No artificial trees</li> <li>No wreath on wire</li> </ul>	<ul style="list-style-type: none"> <li>Curbside</li> </ul>	<ul style="list-style-type: none"> <li>First two weeks of January</li> </ul>
<b>WOOD CHIPS AND COMPOST AVAILABLE TO NORTH ANDOVER RESIDENTS AT THE CYR RECYCLE CENTER</b>				
<b>APPLIANCES</b>	<ul style="list-style-type: none"> <li>Stoves, refrigerators, etc.</li> </ul>	<ul style="list-style-type: none"> <li>No doors on refrigerators, you must remove</li> </ul>	<ul style="list-style-type: none"> <li>Call DPW to arrange for pick-up.</li> <li>\$25/appliance</li> <li>\$30/appliance with freon (Refrig., Freezer, A/C)</li> </ul>	<ul style="list-style-type: none"> <li>Picked-up curbside at time set up with DPW</li> </ul>
<b>USED MOTOR OIL OR USED OIL FILTERS</b>	<ul style="list-style-type: none"> <li>Only used motor oil</li> <li>Only used filters</li> </ul>	<ul style="list-style-type: none"> <li>No gasoline or other hazardous chemicals</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW garage</li> </ul>	<ul style="list-style-type: none"> <li>First and third Saturday of every month 9-12 noon</li> <li>Oil is .50 cents per gallon</li> </ul>
<b>LATEX AND OIL PAINT</b>		<ul style="list-style-type: none"> <li>No other hazardous chemicals</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW garage</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon Cost \$3 per gallon</li> </ul>
<b>CRTs</b>	<ul style="list-style-type: none"> <li>TV, VCR, monitor, keyboards</li> </ul>	<ul style="list-style-type: none"> <li>Do not break picture tube</li> <li>Keep all parts intact</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW garage</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon</li> <li>\$5 per unit /\$15 for unit greater than 13"</li> </ul>
<b>FLORESCENT LIGHT BULBS</b>	<ul style="list-style-type: none"> <li>All fluorescent bulbs</li> </ul>	<ul style="list-style-type: none"> <li>Do not break</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW garage</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon</li> <li>4' bulbs: 50¢/bulb</li> <li>8' bulbs: \$1/ bulb</li> </ul>
<b>BALLASTS</b>	<ul style="list-style-type: none"> <li>All ballasts</li> </ul>	<ul style="list-style-type: none"> <li>Keep all parts intact</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon</li> <li>\$1.50 / ballast</li> </ul>
<b>PROPANE TANKS</b>	<ul style="list-style-type: none"> <li>Propane tanks only</li> </ul>	<ul style="list-style-type: none"> <li>No other fuel tanks</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon</li> <li>\$2 per tank.</li> </ul>
<b>AUTO BATTERIES</b>		<ul style="list-style-type: none"> <li>No household batteries</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon</li> <li>Cost \$2 per battery</li> </ul>
<b>NICKEL CADMIUM BATTERIES</b>	<ul style="list-style-type: none"> <li>From power tools.</li> </ul>	<ul style="list-style-type: none"> <li>No household batteries</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW</li> </ul>	<ul style="list-style-type: none"> <li>Mon - Fri 9:00 to 4:00</li> <li>Third Sat of month 9-12 noon</li> </ul>
<b>CLOTHING</b>	<ul style="list-style-type: none"> <li>Re-usable clothing</li> </ul>	<ul style="list-style-type: none"> <li>No household items</li> <li>No trash or toys.</li> </ul>	<ul style="list-style-type: none"> <li>Bring to drop off center at DPW</li> </ul>	<ul style="list-style-type: none"> <li>Mon - Fri 8:00 to 3:00</li> </ul>
<b>MERCURY THERMOMETERS &amp; THERMOSTATS</b>	<ul style="list-style-type: none"> <li>Mercury containing thermometers &amp; thermostats</li> </ul>	<ul style="list-style-type: none"> <li>No broken units</li> </ul>	<ul style="list-style-type: none"> <li>Bring to DPW office</li> </ul>	<ul style="list-style-type: none"> <li>Mon - Fri 9:00 to 4:00</li> <li>Third Saturday of month 9-12 noon</li> </ul>
<b>SOFT AND HARD COVER BOOKS</b>	<ul style="list-style-type: none"> <li>All soft and hard cover books</li> </ul>	<ul style="list-style-type: none"> <li>Must be placed in cardboard boxes</li> <li>Must be kept dry.</li> </ul>	<ul style="list-style-type: none"> <li>Bring to DPW garage</li> </ul>	<ul style="list-style-type: none"> <li>Third Saturday of month 9-12 noon or by appointment.</li> </ul>

**HOUSEHOLD HAZARDOUS WASTE DAYS WILL BE APRIL 17, 2004 AND OCTOBER 14, 2004**

**VISIT OUR WEB SITE AT [www.northandoverwaterdept.com](http://www.northandoverwaterdept.com)**

The above two pages are what was most recently distributed to all residences. Since then some changes have taken place in what can be accepted (e.g., all plastics #1-7), fees charged (fluorescent bulbs may now be dropped off for free), etc. Some of those recent changes are reflected on the DPW's web site and some are not (as of today, October 20, 2004; cf. [www.northandoverwaterdept.com/recycle%20&%20solid%20waste.htm](http://www.northandoverwaterdept.com/recycle%20&%20solid%20waste.htm)).



Beyond all of the above, the Town of North Andover has voluntarily agreed to participate in certain State programs, for which participation they receive certain benefits in return, and has voluntarily entered into legally binding contracts with certain private corporations wherein each party agrees to obey all applicable laws and regulations.

One State program the Town participates in is the “DEP-Approved Recycling Program (DARP)” (<http://www.mass.gov/dep/recycle/files/darpltr.doc>). This program has certain requirements which require certain things of the Town as long as it is a participant in the program and continues to receive the benefits accruing therefrom.

The Town has written contracts with its trash hauler, Waste Management, Inc., and the incinerator at which it disposes of its trash, Wheelabrator North Andover, Inc. The Town has contracted with each of those corporations for them to provide certain services as agents of the Town in return for payments and other consideration from the Town. Each of those contracts includes similar provisions relative to solid waste, that no (or minimal) banned items will be collected, transferred, or brought to the incinerator.

The End.





**This document provided by:  
Town of North Andover Solid Waste Advisory Committee**

**Hauler Guidance**

The North Andover SWAC assembled a number of pictures of Banned materials commingled with trash and compiled suggestions as to what Waste Management, Inc. should do in each case under the current laws and rules. The laws and rules are as stated in the attached document (pages 13 and on) and can be summarized as follows:

- 1) Certain solid waste (hazardous, bulky metal, white goods, etc.) may not be taken curbside by WMI under any circumstances.
- 2) 'Banned' items (mainly recyclables such as cardboard, plastics, etc.) may not be put in the trash. If Banned items are put in with trash then the Town will have reason to refuse to pick up such 'commingled' trash and recyclables (per our Trash bylaw attached).
- 3) Certain Banned recyclable paper becomes trash if it is soiled or contaminated "as a result of normal intended use" (common examples are greasy pizza boxes, dirty paper plates, or used Kleenex); those items must be properly disposed of in the trash. Otherwise recyclable items soiled on purpose, not as a result of normal intended use, are still Banned and should be stickered.
- 4) If a homeowner wants to dispose of Banned items properly using the Town recycling service then they must prepare their materials as described in the Town recycling instructions and either leave them curbside with a red recycling bin or bring them to a designated recycling drop-off area.

On the following pages are various pictures of mixed trash and Banned items. The situation in each picture is described and one or more actions are recommended based on the Rules proposed.

It is important to note that the overall goal is to help people, the Town, and their agents to follow the letter and the spirit of the law and to divert most Banned material to recycling, thereby saving the Town money. At the same time, practicality, efficiency, and reasonableness are also considerations.

Here is a situation where someone has put out a not-flattened cardboard box and some plastics between their trashcan and their red recycling bin. Under the old system WMI would pick up the trash in the can and also pick up the plastic and cardboard. When the homeowner came home at the end of the day, the trash and the recycling were both gone. They may think, incorrectly, that they have done everything right, not knowing that WMI took some of their recyclables instead of the recycling collector.



One rule of system design is "Make it harder to do it wrong than to do it right." Recycling does require some effort to 'do it right', and most people see that that effort is justified by the cumulative positive benefits to their community. If we allow people to openly and visibly flout the law and take the easy way out by not recycling properly, it makes it harder for the rest of the Town but it provides a positive incentive to the individual to continue to flout the law. If instead we leave improperly prepared trash or recyclables with instructions on how to 'do it right', then that person has not made it easier for themselves by disobeying the law, they have made it harder on themselves because now they have to handle the materials a second time (collect them from curbside and store them) and a third time (to prepare and dispose of them properly).

The main reasons to ‘Sticker and Leave’ recyclables are (1) to help people understand how to recycle and (2) so they are not rewarded for disobeying the law, or (3) so they are not fooled into thinking they are recycling when they are not, as in the situation pictured above.

Following is a list of the proposed General Rules of Trash Collecting in North Andover.

These are based on the laws and goals stated or referenced above (legality mixed with practicality).

These were proposals, not legal opinion.

#### Definitions:

- Hazardous Waste: biohazard or medical waste, solvents, liquid paint, etc. See [List](#) on page 33.
- Banned = 310 CMR 19.017 and/or North Andover Bylaws list as illegal to put in the trash (complete lists pages 15 & 17); in most cases, Banned = Recyclable.
- Bulky Metal (not Banned, metal items > 60 pounds or takes 2 people to handle; example: big metal desk)
- Other Bulky (not Banned, non-metal items > 60 pounds or takes 2 people to handle; examples sofa, mattress, wood desk, box spring, etc.)
- Non-Trash = Hazardous, Banned, Bulky Metal, or Appliances (‘White Goods’)
- Trash = Solid waste that is large enough to handle by itself or in a container that is not Non-Trash.
- Commingled = Non-Trash closely mixed with Trash.
- Trivial: there is no trivial amount of Hazardous or Bulky material; a ‘trivial’ amount of Banned material is one relatively small item in one household’s trash.
- Stickered: any material with a ‘Sorry’ sticker on it or any similar material accompanying a Stickered item (it is only necessary to put one sticker on a bunch of non-compliant items to make the whole bunch ‘Stickered’).

This example sticker below, used by North Andover, is included in a modifiable format for you to customize for your community and provided in this toolkit.

**Sample  
“Sticker”  
left by  
North  
Andover  
haulers on  
improperly  
prepared  
materials.**

## Sorry, we are unable to pick up this item with your trash.

State and local laws ban recyclable materials such as this from the trash, and forbid us from picking them up with your trash.

Clean Cardboard can be disposed of in two ways:

1. Flatten and either fold or cut to a size not larger than 30” by 30”. While bundling or bagging your cardboard is preferred for ease of pickup, flattened boxes may also be placed under your recycling bin, or standing up in or between recycling bins – OR –
2. Flatten and take to the Recycling Drop-off Center behind the DPW.

For instructions on how to dispose of other items properly, please see the North Andover DPW’s recycling handout, a copy of which is available at the DPW’s website or at the DPW (below).

Trash costs much more to dispose of than do recycled materials.  
Recycling saves your tax dollars and your environment.

North Andover Division of Public Works – 384 Osgood Street  
(978)685-0950                      NorthAndoverRecycles.com

These following rules for Trash Collectors and Recycling Collectors were developed by North Andover for its haulers. Please note, these rules are specific to North Andover, and are meant to serve as guidance and reference as your community develops its own program.

**General Rules should be as easy to apply in the field as possible.**

<b>R u l e</b>	<b>General Rules for Trash Collectors, in order of priority:</b>	<b>Apply Green 'Banned' Sticker</b>	<b>Disposition</b>
T-1	All Hazardous Waste		Leave it
T-2	Any Metal Bulky - or - Any Bulky items beyond the limit of 1 per week per household		Leave it
T-3	In the case of unusual safety, unusual weather, or unusual littering concerns, use your own good judgment about taking more or less commingled items than	<u>Unusual</u> safety, weather, or littering: use your good judgement	
T-4	Any pizza box placed with trash or not properly prepared and placed with other paper or cardboard		Assume to be contaminated - Take it as trash
T-5	Any pizza box properly prepared and placed with other recyclable paper or cardboard		Assume to be recyclable Leave it - for recycling
T-6	Stickered recyclable materials, or materials left for recycling.		Leave it
T-7	Accessible Trash clearly separated (in a trash bag or trash can) from other items, or large enough to be handled by itself		Take it as trash
T-8	Trash commingled with only a trivial amount (1 small piece) of Banned material		Take it all as trash, even the trivial commingled Banned item
T-9	Banned items commingled (mixed) with trash	X	Leave all commingled trash and Banned materials

**Sample rules  
checklist for  
North  
Andover  
Trash  
Collectors**

	<b>General Rules for Recycling Collectors, in order of priority:</b>	<b>Apply Green 'Banned' Sticker</b>	<b>Disposition</b>
R-1	All Hazardous Waste		Leave it
R-2	Recyclables left with trash	X	Leave it
R-3	All <u>properly prepared</u> and left recyclables, with or without a sticker		Take it as recyclable
R-4	Improperly prepared recyclable with a sticker		Leave it
R-5	Improperly prepared recyclables	X	Leave it

**Sample rules  
checklist for  
North  
Andover  
Recycling  
Collectors**

**These are examples of scenarios a trash or recycling collector may encounter on the route and recommendations on how to proceed.**



**Situation A:** a huge pile of cardboard boxes, probably with some intermixed trash, but no trash cans and no red bins.

**Recommendation to Trash Collector:** T-9 'Banned' Sticker and Leave it all

**Recommendation to Recycling Collector:** R-5 'Banned' Sticker and Leave it all

**Observation:** Once a sticker is issued, the person who put out the materials has been informed of the situation and is responsible for taking further appropriate action. If they do not then at some point it becomes a case of littering. I suggest that the Police and DPW workers be on the lookout for stickered materials that are not removed from curbside within a reasonable amount of time. Citizens could be enlisted in this effort if there were an e-mail address to send observations to.



**Situation B&C:** a lot of cardboard, not broken down, with possible intermixed trash, beside one or more full trash cans of trash.

**Recommendation to Trash Collector:** T-7 Take trash in cans only & T-9 Banned Sticker on box

**Recommendation to Recycling Collector:** R-5 Banned Sticker and Leave it all





**Situation D:** 2 trash cans, 3 empty but not-flattened cardboard boxes by trash, not by recycling.

**Recommendation to Trash Collector:** T-7 Take trash in cans & T-9 Banned Sticker on a box

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin & R-5 Banned Sticker on box

**Situation:** same as above except assume cardboard boxes contain loose gooey garbage.

**Recommendation to Trash Collector:** T-7 Take it all (but eventually we'll need a way to educate homeowners not to contaminate recyclable cardboard by using it for gooey garbage).

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin

**Situation:** same as above, assume cardboard boxes contain trash in plastic bags

**Recommendation to Trash Collector:** T-7 Take trash in cans and in bags & T-9 Banned on a box

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin & R-5 Banned Sticker on box



**Situation E:** Recycling has already been taken; not-flattened cardboard beer boxes left beside trash can, pizza boxes in trash can, trash bags lying around.

**Recommendation to Trash Collector:** T-4 Take assumed-contaminated pizza boxes as trash, T-7 Take trash in cans and bags & T-9 Banned Sticker on a beer box

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin & R-5 Banned Sticker on a beer box

Observation: In this instance I think the recycler might have stomped on and taken the beer boxes. If we're paying \$70/ton to incinerate trash (after the rates drop to their lowest) then diverting a ton or two of recyclables pays for the recycling person for the whole day.



**Situation F:** 2 full recycling bins beside empty but not-flattened Pampers cardboard box with pizza box protruding, and one trash can.

**Recommendation to Trash Collector:** T-4 Take pizza box & T-7 Take trash in can & T-9 Banned Sticker on Pampers box

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin & R-5 Banned Sticker on Pampers box





**Situation G:** red bin already emptied, full trash can with a cardboard box with a visible #2 water bottle.

**Recommendation to Trash Collector:** T-7 Take trash in can & T-9 Banned Sticker on box

**Recommendation to Recycling Collector:** R-3 Take stuff from red bin & T-9 Banned Sticker on box  
In this instance the recycling collector might take the #2 but should certainly sticker the box.



**Situation H:** trash can with one small piece of cardboard protruding (this may or may not be true in this picture, I see the tan cardboard flap in the front and there may be a tall white cardboard box in the rear; but for the sake of the discussion, assume the only Banned item is the tan cardboard piece), but no other Banned materials.

**Recommendation to Trash Collector:** T-8 Take all as trash

**Recommendation to Recycling Collector:** no red recycling bin – no need to stop  
The Rug Pad counts as the 1-a-Week non-Metal Bulky item.





**Situation I:** fluorescent light left with the trash

**Recommendation to Trash Collector:** T-1 Leave the fluorescent bulb (Hazardous Waste), T-7 Take the rest as trash



**Situation J:** a whole auto tire left with trash in bags; loose trash and bags in a cardboard box.

**Recommendation to Trash Collector:** T-9 Banned Sticker on the tire, IF the cardboard box is contaminated (Trash): T-7 Take all the rest as trash – OR – If the box looks recyclable then T-7 Take the trash bags out and T-9 leave any other loose stuff in the box (and it may make sense to put a Banned sticker on the box too, considering how far it is from the tire. In any case, take the hose as trash.





**Situation K:** a trash can full of sticks (Banned) with a bag of trash on top

**Recommendation to Trash Collector:** T-7 take the trash bag, T-9 Banned Sticker on the sticks

**Quiz A: What to do in this case:**



**Answer:** Take the green thingie as the 1-a-week bulky item, move the 2 cardboard boxes down from on top of the trash cans, leave all the cardboard boxes with a Banned Sticker, and take the rest as trash.

**Quiz B:** A cardboard box which was stickered is placed with a trash can the next week with a new smear of lard – in other words, the person appears to be trying to circumvent the spirit of the law by trying to make a recyclable into trash.

**Quiz C:** An unflattened cardboard box of less than or equal to 30”x30”x30” full of flattened cardboard boxes.

**Quiz D:** A cardboard box is full of packing peanuts.

**Quiz E:** A cardboard box contains Styrofoam corner blocks and a flat plastic bag.

**Quiz F:** The wind is blowing hard and there’s a partly-open cardboard box full of Styrofoam peanuts left by the trash can.

**Quiz G:** A sealed black plastic bag contains just cardboard boxes (square, light).

**Quiz H:** An open black plastic bag contains just cardboard boxes (square, visible).

**Quiz I:** A sealed clear plastic bag contains empty cardboard boxes (light, visible).

**Quiz J:** A sealed black plastic bag contains all aluminum cans (light, sound, etc.).

**Quiz K:** A paperboard box with a plastic window (dolls, cars, etc.).

**Quiz L:** A covered trash can, when the cover is taken off, reveals several recyclables commingled with loose trash.

### **Where/how should the trash collector leave stickered items?**

Some prioritized rules on this are:

- 1) Leave the stickered recyclables in such a way that they will not be spread around the yard or street (in a trash can, in a cardboard box, etc.)
- 2) Be sure the ‘Sorry’ sticker is visible.
- 3) The less movement the better, leave it as much as possible like the owner left it.

See the attached leaflet for an example:

(this is the only ‘staged’ picture in this document!)



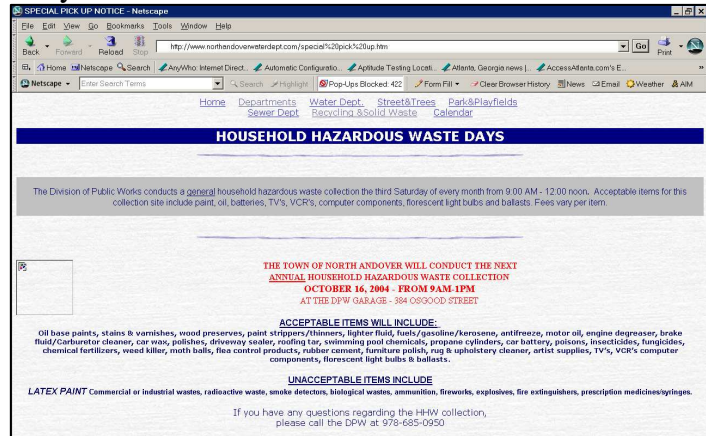
## **List of Hazardous Wastes that are not to be picked up with trash:**

### **A. Items accepted at Household Hazardous Waste Days:**

- 1. Oil Based Paints**
- 2. Stains & varnishes**
- 3. Wood Preservatives**
- 4. Paint**  
Strippers/thinners
- 5. Lighter fluid**
- 6. Fuels/ gasoline/**  
kerosene
- 7. Antifreeze**
- 8. Motor Oil**
- 9. Engine Degreaser**
- 10. Brake Fluid/**  
Carburetor Cleaner
- 11. Car wax**
- 12. Car & Nail Polishes**
- 13. Driveway Sealer**
- 14. Roofing tar**
- 15. Swimming pool**  
chemicals
- 16. Propane cylinders**
- 17. Car batteries**
- 18. Poisons**
- 19. Insecticides**
- 20. Fungicides**
- 21. Chemical fertilizers**
- 22. Weed killer**
- 23. Moth balls**
- 24. Flea control products**
- 25. Rubber cement**
- 26. Furniture polish**
- 27. Rug & upholstery**  
cleaner
- 28. Artist supplies**

**B. Items not accepted at Household Hazardous Waste Days:**

1. Liquid latex paint (just let it dry out thoroughly and then dispose of in trash)
2. Commercial or industrial wastes
3. radioactive waste
4. smoke detectors
5. biological wastes
6. ammunition
7. fireworks
8. explosives
9. fire extinguishers
10. prescription medicines/syringes



**C. <http://www.mass.gov/dep/recycle/hazards/hhwhome.htm>**

1. Asbestos
2. Certain batteries
3. Some photo chemicals
4. Muriatic Acid
5. Full or partially full aerosol containers
6. Pesticides

Items which are only accepted at the DPW drop-off on the 3<sup>rd</sup> Saturday of each month:

1. TVs & CRTs
2. VCRs
3. Computer components
4. Florescent light bulbs & ballasts

**D. Waste Bans list at <http://www.state.ma.us/dep/bwp/dswm/files/wbgidy2k.doc> includes:**

1. "Other hazardous wastes as defined in 310 CMR 30": the Commonwealth provides a 14 page list of specific hazardous wastes and the methods and procedures for determining whether other materials are hazardous at <http://www.mass.gov/dep/bwp/dhm/files/regs/310cmr30.pdf>.
2. "Infectious wastes as defined in 105 CMR 480", The Commonwealth's *Storage and Disposal of Infectious or Physically Dangerous Medical or Biological Waste State Sanitary Code Chapter VII* document at <http://www.mass.gov/dph/dcs/105cmr480.pdf> states that it shall "apply to all generators of infectious or physically dangerous medical or biological waste except for private residence

Using 8.5 x 11 sticker stock,  
4 stickers per page,  
.25" border all around printing on each sticker,  
'Sticker' below is actual size.

The stickers can be any bright color but I've chosen a pastel for easy proofing.  
I'd recommend a light fluorescent green, I think that red or orange is a 'bad' or 'danger' color, whereas green is a 'good' color, but noticeable.

Remember, this sticker is to be stuck to the recyclable item, so "recyclable materials such as this" refers to the banned item to which it is stuck.

## **Sorry, we are unable to pick up this item with your trash.**

State and local laws ban recyclable materials such as this from the trash, and forbid us from picking them up with your trash.

Clean Cardboard can be disposed of in two ways:

1. Flatten and either fold or cut to a size not larger than 30" by 30". While Bundling or bagging your cardboard is preferred for ease of pickup, flattened boxes may also be placed under your recycling bin, or standing up between recycling bins -OR-
2. Flatten and take to drop-off **[if applicable to your town]**

For instructions on how to dispose of other items properly, please see **[your town's webpage, recycling guide, brochure, etc.]**

Trash costs much more to dispose of than to recycle. Recycling saves your tax dollars and the environment.

**[YOUR TOWN CONTACT INFORMATION]**



**If you leave recyclables  
with your trash:**



## **Sorry, we are unable to pick up this item with your trash.**

State and local laws ban recyclable materials such as this from the trash, and forbid us from picking them up with your trash.

Clean Cardboard can be disposed of in two ways:

1. Flatten and either fold or cut to a size not larger than 30" by 30". While bundling or bagging your cardboard is preferred for ease of pickup, flattened boxes may also be placed under your recycling bin, or standing up between recycling bins -OR-
2. Flatten and take to drop-off [if applicable to your town]

For instructions on how to dispose of other items properly, please see [your town's webpage, recycling guide, brochure, etc.]

Trash costs much more to dispose of than to recycle. Recycling saves your tax dollars and the environment.

**[YOUR TOWN CONTACT INFORMATION]**



**they will be stickered and left to be recycled.**



Please

# Don't Forget!

The **[YOUR TOWN HERE]**, in compliance with State and local laws, instructs its trash collectors not to pick up recyclables with the trash. Instead, any such recyclables will be left at your trash pickup area with a sticker which explains why the recyclables were not taken and how to dispose of them properly.

**Please help our Town to save money and comply with the law by recycling as much as possible.**

If you have any questions on this, please contact your Division of Public Works as shown on the sticker or e-mail to **[YOUR MUNI CONTACT HERE]**

**Thank you!**

## **Sorry, we are unable to pick up this item with your trash.**

State and local laws ban recyclable materials such as this from the trash, and forbid us from picking them up with your trash.

Clean Cardboard can be disposed of in two ways:

1. Flatten and either fold or cut to a size not larger than 30" by 30". While Bundling or bagging your cardboard is preferred for ease of pickup, flattened boxes may also be placed under your recycling bin, or standing up between recycling bins -OR-
2. Flatten and take to drop-off **[if applicable to your town]**

For instructions on how to dispose of other items properly, please see **[your town's webpage, recycling guide, brochure, etc.]**

Trash costs much more to dispose of than to recycle. Recycling saves your tax dollars and the environment.

**[YOUR TOWN CONTACT INFORMATION]**



## Town of Chelmsford *Mandatory Recycling Case Study*

MassDEP Municipal Waste *Reduction Toolkit*



### **Town Statistics:**

Population: 32,967  
Households: 12,900  
Median Income: \$82,676

**Overview/Introduction:** In 2005, with trash disposal at an all time high – 16,000 tons of trash incinerated at \$67.50/ton and a recycling rate of 16% - the Town of Chelmsford adopted a bylaw prohibiting the disposal of recyclable materials in the trash. This bylaw went into effect on January 30, 2006 and was applicable to all households, including apartments and condominiums, municipal and school properties.

### **Outreach:**

- Direct outreach to building and property managers;
- Insert in tax bills to all residents;
- Town Manager notified all municipal department heads and employees that EVERYONE must recycle;
- Articles ran on the front page of the local newspaper;
- Created information for town web page, including information on where to get a recycling bin, resulting in more bins being distributed than ever had been before.
- Worked with hauler to create stickers and enforcement procedures.

### **Enforcement Implementation:**

- Hauler instructed to leave cardboard behind unless it was prepared for recycling;
- Hauler would place informational sticker on offending item so resident would know why it was left and what to do;
- All visible recyclables, fluorescent bulbs, TV's, and computer monitors were also left behind and stickered;
- Town recycling coordinator followed recycling/trash route behind the recycling truck noting how recycling was prepared and picked up by hauler;
- Coordinator found that hauler was initially leaving correctly prepared cardboard for recycling on the curb for the trash truck to collect, which led to the town fining the hauler;
- Monitoring by coordinator continued for a period of 2 months, but after 1<sup>st</sup> week, most households were properly recycling their cardboard;
- Town added a 3<sup>rd</sup> dumpster behind town hall for residential drop-off cardboard.

### **Results:**

- The bylaw went into effect on January 30, 2006. In February 2006, the town generated 93 fewer tons of trash than in February 2005.
- Trash tonnage continued to decline in March/April by 279 tons compared to the previous April.
- Even with the flooding in May 2005 and the large amounts of trash generated as a result, the town managed to produce less trash than in May 2005.
- The first three months under the bylaw the town recycled 570 tons of paper, 255 tons of containers, and 40 tons of cardboard.
- Overall, Chelmsford residents recycled 160 tons more during the first three months than during those same months the previous year, an average increase of 23%.
- By reducing trash tonnage, the town saved \$35,000 in disposal costs compared to the same period last year in the first 6 months alone.
- For calendar year 2006 the Town of Chelmsford reduced their trash tonnage by over 1400 tons compared to CY 2005, this is after many years of steadily increasing trash tonnages.
- In the first year of the program, the town has saved over \$99,000 in disposal fees and is recycling considerably more and throwing less in the trash.



## Town of Saugus Mandatory Recycling Case Study

MassDEP Municipal Waste Reduction Toolkit



### Town Statistics:

Population: 26,078

Households: 9,975

Median Income: The median income for a household in the town was \$55,301, and the median income for a family was \$65,782.

**Overview/Introduction:** In fiscal year 2006, the town of Saugus was facing increasing trash tonnages and mounting disposal costs in an already tight budget. In an attempt to control these rising expenses, Saugus began enforcing the state's waste bans by stipulating that it would not longer pick-up visible recyclables with refuse and imposed a 5 trash bag/per pickup limit on residents.

### Outreach:

- Prior to the enforcement, the recycling coordinator followed the truck routes and took pictures to document the trash problems and presented these to the town boards, making a case to move forward with this type of program.
- In September, to aid in the enforcement process, the town hired a Solid Waste Enforcement Officer for 19 hours a week.

### Enforcement Implementation:

- The role of the Enforcement Officer was to follow behind the trucks on both trash and recycling routes and leave "friendly enforcement" reminders for residents on materials that were left behind.
- The Enforcement Officer's hours were increased to 30 hours after savings were realized and there was potential for more.
- The town files all "friendly reminders" and is planning on instituting fines against egregious violators and repeat offenders.

### Results:

- By the end of fiscal year 2006, the town had reduced its disposal tonnage by 610 tons (5%) for a savings of \$43,869.51 in avoided disposal costs.
- The net benefit to the town after paying for the enforcement officer was \$30,797.51 – the officer had more than paid for himself.
- Starting in FY07, the enforcement officer's hours were increased to 30 hours a week and the town set a monthly tonnage target at 800 tons or less than \$60,000/month for trash disposal costs. The FY06 monthly average was 913 tons.
- To date, the town has reduced its tonnage 340 tons over the previous year – which were months that also saw enforcement actions, so this is over the already reduced tonnage amounts of the previous year.
- So far in FY07, the town has saved \$24,692.02 in avoided disposal costs and net benefit after payroll of \$16,532.02
- Interestingly enough, recycling tonnage was unchanged in FY06. To date in FY07, recycling has increased 4%. The town does not pay for its recycling, therefore the recycling benefit is in avoided disposal costs assumed in trash tonnage decrease.

### Lessons Learned:

- A good inspector more than pays for themselves. The town's net savings over the last 16 months was more than \$47,000.
- Having an enforcement officer reinforces and supports the haulers to do the right thing
- Provides control and consistency
- Education is often one person/household at a time, so it may take some time to see results, as is the case with recycling.



# Town of Tyngsborough

## Mandatory Recycling Case Study

MassDEP Municipal Waste Reduction Toolkit



### Town Statistics:

Population: 11,081  
Households: 4,000  
Median Income: \$69,818

**Overview/Introduction:** The Town of Tyngsborough voted to implement a Mandatory Recycling By-Law at its special town meeting on October 11, 2005. The town received an FY06 technical assistance grant from MassDEP to educate residents about, and assure town-wide compliance with, the Mandatory Recycling By-Law through an outreach campaign. The Town had charged the Tyngsborough Recycling Committee with developing this campaign. The town also hired an intern for 6 months to conduct enforcement activities for the Mandatory Recycling By-law.

The goal of the grant was to reduce the amount of recyclables going into the trash, thereby saving the town disposal costs and increase revenue through the paper recycling.

### History and Outreach:

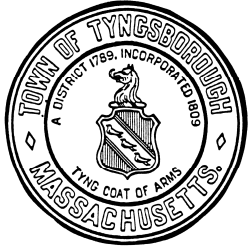
- Recycling committee developed an outreach plan to community regarding Mandatory Recycling By-law;
- Recycling committee met with BFI to review outreach plan and hauler guidance;
- Developed a cable television campaign to inform residents about the new by-law and the Town's recycling progress;
- Purchased banners and sandwich boards to place around the Town informing residents of the new by-law.
- Developed a laminated quick reference for recycling information that was mailed to all residents;
- Developed information for town's existing website to provide information to residents on where they can bring their unwanted items for recycling or reuse.

### Enforcement Implementation:

- Town hired an intern to coordinate with the Town's trash and recycling hauler to enforce by-law. The intern worked for 6 months.
- The intern traveled the streets during trash day and noted the households who did not comply with the mandatory recycling policy. The intern also noted that the hauler was failing to sticker banned items.
- Those households found to be out of compliance with bylaw received friendly reminder postcards noting lack of recycling out on trash day. 878 households received friendly reminder postcards as the first warning.
- If households are found to out of compliance a second time, they received a personalized letter.

### Results:

- The intern has found many residents not following the mandatory recycling policy, as well as the hauler not leaving waste or stickers. But by her presence, notations and of course digital pictures the hauler began taking more notice and households changed their recycling habits.
- Of the 95 letters mailed in early May 2006, 72 households started recycling.
- Approximately 753 residents started recycling after receiving either the postcard or the letter. This is over 85% success rate with the program.
- *From the Recycling Committee Chair:*  
"The grant provided us with a much-needed opportunity to be able to actually monitor what was really happening in town. The intern brought to light issues with the waste company and provided us with an opportunity to educate residents. My perspective is that the majority of residents are trying, though probably not recycling enough of their waste – which is why our percentage isn't higher. Those who aren't recycling after receiving the letter simply aren't going to comply (in my opinion) without the by-law being amended to include a penalty phase..."
- *From the Intern:*  
"I have seen a difference between rentals and homeowner, the friendly reminders had less of an impact on renters than did the homeowners. After 6 week's some sections of town started to change. After 11 week's, I have been noting drastic changes from the residents and from our hauler..."



*TYNGSBOROUGH RECYCLING  
COMMITTEE  
A BOARD OF HEALTH SUBCOMMITTEE  
25 BRYANTS LANE*

**TYNGSBOROUGH, MA 01879**



June 28, 2006

Dear Tyngsborough Resident:

On behalf of the Tyngsborough Recycling Committee, please accept this laminated recycling guide as our “thank-you” for your recycling efforts.

After sending you information about the town’s mandatory recycling by-law, we noticed that you did begin recycling, and want to make sure that you know that your efforts do not go unnoticed. Recycling is so important to our environment, but in these tough fiscal times, paper recycling is particularly important where the town earns cash back for every ton of paper recycled.

If you have further questions about recycling, please visit our comprehensive recycling web page at [www.tyngsboroughma.gov](http://www.tyngsboroughma.gov), or call the Board of Health office at 978-649-2300 x118.

Thank you – and keep up the great work!

Respectfully yours,

Tyngsborough Recycling Committee