

## **Northeast Recycling Council (Massachusetts, Maine, New Hampshire, and Vermont)**

**Program Overview:** The Northeast Recycling Council (NERC) is a non-profit organization that encompasses 10 Northeast states. Its mission is to promote sustainability in solid waste management. NERC received a grant from the U.S. EPA to pilot consumer pharmaceutical take-back programs. This project aimed to develop and implement a replicable pilot for collecting unwanted medications at HHW collections or in rural settings. Pilot activities included writing a guidance document detailing collection methods for these hazardous wastes and developing best management practices (BMPs) for plastic medication associated containers. (These are included in section 3 of this resource kit.) The pilots were designed around three models: retail-based, senior center, and HHW programs. The project focused on Massachusetts, Maine, New Hampshire, and Vermont.

### **Montague, MA—Franklin County**

In December 2004, NERC and the Franklin County Solid Waste Management District (FCSWMD) in Western Massachusetts partnered to carry out a pilot collection and disposal event for unwanted medications. Both entities had received grant funding to explore safe collection and disposal options for unwanted medications. FCSWMD received funding from the USDA, Rural Utilities Service and NERC from the U.S. EPA. Because the collection of pharmaceuticals is relatively unexplored in the United States, staff from FCSWMD and NERC conducted research into the consequences of unsafe disposal of drugs. Research was also conducted on the various options that could be applied to the collection of medications and contacts were made with other agencies (local, state, and federal), as well as commercial and nonprofit agencies around the country. NERC established an advisory board representing interested parties, regulators, government representatives, pharmaceutical representatives, and others.

### **South Hadley, MA**

In June 2005, NERC worked with the South Hadley, Massachusetts Department of Public Works to hold a successful unwanted medication collection in conjunction with the town's annual HHW event. 2,500 estrogen patches were collected at the event. In total, 30 gallons of hazardous waste were shipped for incineration and 0.5 gallons of controlled substances went to the South Hadley Police Department. There were 22 participants. In addition, one Conditionally Exempt Small Quantity Generator (a pharmacy) brought in two boxes of compounding chemicals, for which the pharmacy paid a \$190 disposal fee to the hazardous waste hauler.

### **South Portland, ME**

In February 2005, NERC organized a collection event to test one approach to collecting unwanted medications from the general public—a one-day in-store (pharmacy) collection event. In all, 52 participants contributed 55,342 tablets, 12.2 lbs of fluids, and 199 lbs of hazardous wastes.

For a complete report on the in-store pilot held at CVS Mill Creek, please visit <http://www.nerc.org/adobe/CVSPilotReportFINAL.pdf>.

**Collection Sites:** The following locations served as collection sites for various pilot events:

- Montague, Massachusetts--Franklin County Pilot Unwanted Medications Collection--Montague Senior Center. (This pilot collection specifically targeted senior citizens, as

this population segment has a higher percentage of individuals that utilize prescription drugs.)

- South Hadley, Massachusetts
- South Portland, Maine—CVS Mill Creek Pharmacy
- Wilbraham, Massachusetts

Key Motivation: NERC has identified the following four concerns as the primary drivers of the program:

- Water contamination: drugs have been found in surface and drinking water
- Solid waste: access to drugs in trash; some drugs are hazardous waste
- Homeland security: need to limit access to chemicals (reagents and catalysts)
- Inappropriate use/diversion: improper disposal can lead to poisoning of children and pets and drug theft and other related crimes

Organizing Body:

Montague, MA: This event was the result of efforts from the Franklin Medical Center (local hospital), the Montague Police Department, Montague TRIAD, FCSWMD, and Clean Harbors® Environmental Services (company responsible for transport of hazardous waste).

South Hadley, MA: Cooley Dickinson Hospital in Northhampton, Massachusetts provided the services of a pharmacist at the collection event. The South Hadley Police Department also provided support and assistance. The Western Massachusetts Municipal Recycling Incentive Program Coordinator also assisted with the planning of the event.

South Portland, ME: In order to develop the pilot collection program, NERC worked in cooperation with the following companies and agencies:

- CVS headquarters legal and government relations offices
- South Portland Maine Police Department
- Maine Department of Environmental Protection
- Clean Harbors® Environmental Services
- PharmEcology® Associates, LLC (assists healthcare organizations in minimizing and properly managing pharmaceutical waste)
- Pharmacy Supervisor for CVS Mill Creek, South Portland, Maine

Wilbraham, MA: At this collection event, NERC received the assistance of Baystate Health, who provided a pharmacist as well as funding for tent rental and hazardous waste disposal. In addition, three nurses and individuals from the participating communities volunteered their time. The Wilbraham Police Department also provided essential services and support for the collection.

Partners: At all collections, the required team included a pharmacist, a data entry person, a law enforcement officer, and at least two volunteers.

Level of Implementation: Each of the four pilot collection programs mentioned above was implemented at the community level. However, each of the programs was organized and supported by a regional organization, NERC, which represents 10 Northeast states.

Cost:

Montague, MA: The costs of the pilot collection program were as follows:

- Police officer: \$150
- NERC & FCSWMD Staff:
  - Planning
  - Implementation
  - Analysis
- Hazardous Waste Disposal of Non-controlled substances: \$450
  - Pick-up on a weekday: \$100
  - Staff for pick-up: \$200
  - Disposal for 5-gallon pail: \$150
- Disposal of controlled substances: Free to program through state evidence destruction program
- Advertising

South Hadley, MA: NERC's unwanted medication collection event was funded by the U.S. EPA through an innovative Solid Waste Management Grant. In addition, Franklin County Solid Waste Management District provided support at the event through a grant from the USDA.

South Portland, ME:

NERC's EPA grant of \$6,465 included \$1,000 for advertising, \$315 to reimburse the Police Department for the officers' time, and money for planning, implementation, and analysis by NERC staff (\$4,300) and a consultant (\$850).

CVS's corporate headquarters covered the costs of transportation (\$250) and disposal (\$900) of hazardous waste and paid for additional printing and copying (\$75).

The local CVS store paid for the services of its pharmacist and pharmacy technician (\$600) and took care of disposal of non-hazardous wastes (uncontaminated packaging, etc.)

The county's Solid Waste Management District provided staff services to run the collection and survey participants.

Outcome:

Montague, MA: The following volume of material was received at the collection:

- As shipped—5 gallon bucket of non-controlled substances
- Approximately 0.5 gallons of controlled substances
- 140 medications (25 controlled, 115 non-controlled) were received
- Controlled substances accounted for 18% of total medications
- Estimated retail value of medications received was \$3,753.68
- Estimated "street value" for the controlled substances was \$6,056.25 (at \$7.50 per pill according to the Police Officer)

South Hadley, MA: An overview of the collection event follows:

- 22 participants
- 2,197 items collected
- Average of 100 items per participant
- Shipped 30.5 gallons (30 gallons hazardous waste, ½ gallon controlled)
- Average of 1.4 gallons or 2.7 pounds per participant
- 8 controlled items = .004% of material that came in
- 70% of contributions were prescription medications
- 358 different types of medications were collected

South Portland, ME: The following volumes of materials were collected from the one-day pilot collection:

- Federally controlled substances = 1,305 tablets
- Non-regulated materials = 54,037 tablets
- Ointments = 687.55 grams
- Non-controlled fluids = 6,314 mL

Contacts: Lynn Rubinstein  
Northeast Recycling Council, Inc.  
Brattleboro, Vermont  
[www.nerc.org](http://www.nerc.org)  
Phone: (802) 254-3636  
E-mail: [lynn@nerc.org](mailto:lynn@nerc.org)