

better to new grave locations. The Melvin Memorial continued to be monitored daily with maintenance activities performed including annual review and treatment of the slate tablets and rifle inserts.

In the ninth year of a multi-phase monument restoration program in the older cemeteries, preservation consultants continued a third year of assessment and physical conservation efforts at Old Hill Cemetery in Concord Center restoring approximately 30 headstones and gravesites.

## RECYCLING AND WASTE MANAGEMENT PROGRAM

Rod Robison,  
Curbside Collection, Disposal, and Processing

The municipal curbside collection program provided trash and recycling services to 3,407 households. Subscribers to the municipal collection program set out 1,211 tons of mixed paper, 599 tons of commingled containers, and 2,426 tons of trash for collection. The average subscriber to the Town program recycled .53 tons of materials and threw away .71 tons of trash.

### SUBSCRIBERS (AS OF JUNE 30)

Year	Subscribers	Recyclables tons collected	Trash tons collected	Recycling Rate
FY98	2,518	1,264	2,351	35%
FY06	3,224	1,986	2,552	44%
FY07	3,184	1,982	2,559	44%
FY08	3,305	2,025	2,467	45%
FY09	3,323	1,864	2,387	44%
FY10	3,407	1,810	2,426	43%

(FY = July 1 through June 30)

### Curbside Recycling Rate

Residents using Concord's municipal curbside collection program recycled 43% of the materials they set at the curb. This figure does not include yard waste, which residents manage at home or drop off at the Composting Site on Saturdays, April through November. It also does not include the tons of materials collected for recycling at the semi-annual DropOff-SwapOff days nor does it include information on the more than 1,000 households that contract with private haulers for the collection of their trash and recyclable materials.

### Recycling Savings Exceed \$1.6 M

The recycling program received revenue of \$20,220

for paper and avoided \$93,247 in disposal costs by not disposing of paper as trash. Since July 1998, when the Town began receiving revenue for recycled paper, recycled paper revenue has totaled \$420,602 and avoided disposal costs have totaled \$1,214,568, for an overall savings of \$1,635,170. The Municipal Collection Program received an average of \$16.69 per ton for recycled paper collected at the curb.



The October DropOff event had record attendance

Year	Disposal cost	Paper revenue	Avoided disposal cost
FY98	\$110,564	(\$8,061)	\$38,798
FY10	\$186,786	20,220	\$93,247
FY09	\$194,254	\$25,833	\$93,282
FY08	\$194,254	\$58,188	\$116,818
FY07	\$195,783	\$35,302	\$119,898

(FY = July 1 through June 30)



Judy Hill, REUSIT member, enthusiastically helps out with the October DropOff SwapOff event.



*Waste Management Contract / BigBelly Solar Compactors*

The Town signed a three-year contract extension with Waste Management in July. The contract includes a minimal 1.7% increase for the first year; two BigBelly Solar Trash Compactors were provided to the Town by Waste Management at no cost, per the terms of the contract. These units have been placed on Thoreau Street and at Junction Park in West Concord.

The BigBellies are “wrapped” with Concord-specific scenes. These easy to use solar compactors are completely self-powered, using only solar power for trash compaction. The capacity of these units is five times greater than regular trash receptacles of similar size. These innovative solar compactors reduce collection trips and fuel use, and are said to cut greenhouse gas emissions by up to 80%.

*Reuse and Recycling DropOff & SwapOff Events Achieved Record Attendance*

The Spring DropOff & SwapOff event attracted 931 households. The Fall DropOff & SwapOff event was also a great success with 989 households participating (this was the largest event to date). Both events went smoothly, thanks to the volunteers that make these events possible.

Year	DropOff SwapOff Participants	
	May	October
1999	521	430
2010	931	989
2009	889	981
2008	974	918
2007	908	840

*Unwanted Medication & SHARPS Collection / Grant*  
 Unwanted medication & SHARPS were collected at the DropOff events. Between the two events, fourteen boxes of unwanted medication and eleven boxes of SHARPS were collected. The Town received a grant of \$2,000 from the Sudbury, Assabet and Concord Wild and Scenic River Stewardship Council, for the October unwanted medication & SHARPS collection.

*Hazardous Products Collection*

Concord Public Works hosted a pilot satellite hazardous waste collection under the Minute Man Household Hazardous Products program on June 2 that was attended by 163 residents. This is more than twice the number of residents that typically attend the eight hazardous waste collection events at the Minute Man site in Lexington each year.

*Composting Site Turns Yard Waste into Garden Gold*

From April through December, residents made more than 6,400 visits to the Compost Site, dropping off leaves, grass clippings and brush, while 252 residents dropped off paint at the paint shed and 156 residents picked up paint. At the Compost Site, 947 Christmas trees were recycled and 84 large bags of Styrofoam were collected for recycling.

Year	Visits to the Composting Site			
	Leaves & grass	Brush	Paint Drop-off	Paint Pickup
2006	6,651	615	298	158
2007	7,880	697	296	171
2008	8,093	508	222	138
2009	6,723	667	210	145
2010	6,470	587	252	156

*Keeping Mercury Out of the Environment*

Concord Public Works collected 11,676 linear feet of fluorescent light bulbs and 245 lbs. of nickel cadmium, lithium, and lead acid batteries from residents and municipal facilities, for recycling and proper disposal. This

is in addition to 60,484 lbs. of computers, TV's, and other electronics that were collected at the two DropOff events. Another 6,604 linear feet of fluorescent bulbs and 13,301 lbs of computers and electronics were collected from businesses at the April and October business recycling events.

#### *Underground Storage Tank Removals*

Three underground storage tanks at the McGrath and Marshall farms (Town-owned conservation land) were excavated and removed. The project went smoothly. There was no leakage or contamination.

#### *Annual Right-to-Know & Hazardous Waste training*

Annual Right-to-Know & Hazardous Waste training was conducted for CPW employees. The RTK training is required by the Mass. Division of Occupational Safety (DOS), and Hazardous Waste training is mandated by the EPA and MA DEP.

#### *SPCC Training*

Annual SPCC (Spill Prevention Control & Countermeasure) training was conducted for Highway and Water and Sewer crews. The training covered oil spill prevention and countermeasure protocol, including a review of CPW's SPCC plan. This annual training is required by the EPA.

#### *DEP Sustainable Materials Recovery Program Grant*

CPW submitted a grant application and was awarded a "reimbursement" grant of \$1,250 for the purchase of seven new wire-frame recycling bins, under the DEP's Sustainable Materials Recovery Grant Program

## **WATER AND SEWER DIVISION**

Alan Cathcart,  
Superintendent

In 1974 and 1976, Annual Town Meeting established separate Water and Sewer Enterprise Funds to ensure that the operation, maintenance and capital improvement of the water and sewer systems would be financially viable. Expenses incurred for each system are covered entirely by revenues generated by the activity. The Water and Sewer Division of Concord Public Works is responsible for managing the day-to-day operations of the water and sewer infrastructure. The total assets for each system are 18.5 million and 27.3 million dollars, respectively.

## **WATER SYSTEM**

Concord was provided with legislative authority to establish a public water system in 1872. In 1874, water from Sandy Pond, Lincoln, began flowing through the original network of water mains to Concord Center. Today, the water system has grown to include both groundwater and surface water sources, a total of seven pumping stations, two treatment facilities, and a high pressure water main network of over 130 miles of pipe. Two covered storage reservoirs, located at Annursnac Hill and at Pine Hill in Lincoln provide total reserve capacity of 7.5 million gallons. There are presently 5,437 customers receiving potable water service and fire protection from this supply. This represents approximately 95% of Concord residents and businesses, together with a small number of Acton properties along Route 2A.

#### *Water Use and Demand Management*

The total water production used to meet residential, commercial, institutional and municipal needs was approximately 748 million gallons with an average daily demand of 2.12 million gallons. The peak day water demand occurred on July 6, registering 4.63 million gallons.

A simple comparison of total rainfall (54.81 inches) versus the mean annual rainfall measured over a period of 120 years (41.78) would not accurately capture the year we experienced. 2010 was a year of extremes with record flooding in March (16 inches of rain) followed by an unusually extended period of hot, dry weather. Even the most casual observers would marvel at the swelling of local rivers which overtopped their banks, inundating neighboring roadways and properties. No one could have imagined that by mid-August, the Massachusetts Drought Management Task Force would be issuing a drought advisory within the same impacted area, throughout the Northeastern and Central Regions of the State.

After several months of less than average rainfall, Concord's system experienced an unusually sudden spike in seasonal water demand. At the end of the long July 4 weekend, the Public Works Commission declared a State of Water Supply Conservation. In keeping with prior declarations, this was done because of mechanical/operational issues which resulted in a reduction in