



Massachusetts  
Department  
of  
ENVIRONMENTAL  
PROTECTION

## c a s e s t u d y

# Resource Management (RM) Contracting At the Lemuel Shattuck Hospital, Boston

This case study describes the results of the first year of the Lemuel Shattuck Hospital's Resource Management (RM) Contract. RM contracts benefit both the waste generator and solid waste service provider by increasing recycling and reducing disposal costs through contract incentives. Whereas most haulers make more money by hauling more trash, RM is a waste reduction service for managing resources in economically and environmentally responsible ways.

**Shattuck Hospital has saved roughly \$11,000 in its first year of RM.**

### Summary

**Cost Savings  
For Year 1:**  
\$11,000

**Industry:**  
Health Care -  
Hospital

**Facility Size:**  
278 beds

**Waste Collection  
and Disposal  
Contract:**  
\$552,000 over 3  
years

**Total Waste  
Reduction:**

- 11% decrease in trash to landfill.
- Recycling tripled from 14 tons to 58 tons.

**New Materials  
Recycled:**

- Cardboard
- Leaf and yard debris
- Pallets
- Electronics
- Metal

### **Description of Hospital:**

The Lemuel Shattuck Hospital (Shattuck) is the primary provider of outpatient and inpatient services for the MA Department of Public Health in the Metropolitan Boston area. Shattuck is a fully accredited teaching facility, providing a wide array of mental health, substance abuse, and human services. Shattuck has 278 inpatient beds.

Shattuck, with assistance from the Tellus Institute and funding from MA Department of Environmental Protection (DEP), developed an RM Request For Proposals to manage all the waste at the hospital.

### **Waste Management Before RM:**

The hospital disposed of an estimated 813 tons of material (including medical wastes) from May 2001 to April 2002, as stated in the request for proposals. Each operating unit at Shattuck consolidated its trash in one of several central areas throughout the hospital. Trash was collected daily by the custodial/environmental staff, and transported to one of the two vendor-leased containers.

The paper recycling program used a system of slotted lock-top bins placed throughout the hospital, which were collected by hospital facilities staff as needed and brought to a secure area before pick-up by the paper vendor. This system accommodated both confidential and general paper recyclables.

### **Waste Management After RM:**

Shattuck awarded the contract to Save That Stuff (STS), a recycling service provider, in June of 2003. STS subcontracted trash disposal for the hospital. As of June 2004, STS and Shattuck have successfully reduced solid waste management costs by \$11,000. These savings are being used to offset landfill disposal costs for the remaining waste.

Changes made to the waste management program included:

- Replaced 35 yd. compactor with 40 yd. compactor. Reduced service level from 3x to 2x per week resulting in \$400/month savings.
- Eliminated 40 yd. dumpster for bulk debris resulting in savings from dumpster rental (approximately \$100/month), hauling and disposal costs. A temporary dumpster is rented as needed.
- Added recycling programs: cardboard, organics, scrap metal, pallets and electronics.

**Program Results to Date (all values in tons):**

Material	Pre RM (July '02 - June '03)	After RM (July '03 - June '04)	Changes Made to Service Levels
Trash	807.3	715.7	11.3% disposal decrease. Service levels reduced from 3x weekly to 2x weekly.
<b>Recycling Totals</b>	<b>14.0</b>	<b>57.5*</b>	<b>Recycling tonnage tripled. Overall recycling rate increased from &lt;2% to 7.5 %</b>
Mixed and confidential paper	13.3	19.8	48.4% recycling increase. On call pickup with an average of 1.5 tons/month.
Electronics	0.7	3.7	Greater than 4 fold increase in recycling. On call pickup with an average of 0.6 tons/pickup.
Cardboard (new service)	0	1.5 (3 months)	New compactor installed in April 04. Number reflects first 3 months during startup. Anticipate 2 tons/month for 05.
Organics (new service)	0	10.5	On call pick up with an average of 1 ton/pickup. Sent to a local composting facility.
Wood pallets (new service)	0	3.6	On call pick up with an average of 0.7 tons per pickup.
Scrap metal (new service)	0	18.4	On call pick up with an average of 2.5 tons per pickup.

*\* Note: the data for June '03 to June '04 does not capture a full year for recycling tonnage due to program startup delays. It is estimated that recycling will increase from 58 tons to at least 82 tons (42% increase) in the next year.*

**Keys to Success:**

- Program success has been in controlling costs through better management of recycling and trash system.
- STS provides more transparent billing. Waste and recycling tonnage and costs are broken down by material stream and quarterly reports are provided documenting waste minimization/recycling progress, performance, and costs/savings.
- Shattuck established a cross-functional “Green Team” that provided a forum for dialogue among STS and staff. This forum identified continuous RM improvements. The Green Team also ensured accountability and follow-up on those improvements at Shattuck.
- The Facilities Manager at Shattuck now manages one contractor for recycling and trash saving him time and resources.

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**Additional Internet Resources:**

- DEP: [www.mass.gov/dep/recycle/files/rm/rmcontr.htm](http://www.mass.gov/dep/recycle/files/rm/rmcontr.htm)
- US EPA's WasteWise Program: [www.epa.gov/wastewise/wrr/rm.htm](http://www.epa.gov/wastewise/wrr/rm.htm)

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