Introduction

The WDNR accepted the La Crosse County Solid Waste Department into the Green Tier program on June 1, 2011. Located at 6500 State Hwy. 16, the Department operates a waste disposal complex, which includes a sanitary landfill with a segregated cell for ash disposal; areas for recycling shingles, clean wood, and yard waste; a citizen's drop off site and a Household Hazardous Materials disposal facility. Collaborating with Xcel Energy, solid waste from the communities in the service area is processed into refuse derived fuel and used to generate enough electricity to power 10,000 homes.

In early 2012, the La Crosse County Landfill and Gundersen Lutheran Healthcare completed a joint project where the County delivers landfill gas to the Gundersen Health Systems Onalaska Campus. A generator uses landfill gas as fuel to produce enough electricity and heat to supply 100% of the campus's energy needs. EPA’s Landfill Methane Outreach Program named this project the Project of the Year in 2012.

Environmental Management System (EMS)

In 2012, the La Crosse County Solid Waste Department completed an EMS that was determined to meet the Green Tier functionally equivalency requirements of Wisconsin Stats. 299.83(1)(dg).

Environmental Objectives and Targets

Environmental objectives and targets provide a framework for continual environmental improvement. Following the identification of its environmental aspects and impacts the La Crosse County Solid Waste Department approved the following objectives and targets for 2013.

2013 Environmental Objectives and Targets

La Crosse County Solid Waste Department

OBJECTIVE: Reduce air emissions from the landfill operation.
TARGET: Operate the landfill at/or below air emission standards set by WDNR.
1) Surface Air Emissions – WDNR 500 PPM – LAX 300 PPM
2) Non Operation of Landfill Gas Collection system – WDNR 5 days – LAX 3 days
3) Below surface migration – WDNR Methane 25% of the LEL - LAX Methane 0% of the LEL
4) Methane collection in place – WDNR 5 years – LAX 3 years

Met all applicable operational goals in 2013.
TARGET: Continuously review special wastes and their handling procedures to minimize excessively dusty loads.

**Reviewed all special wastes; changing on-site handling procedures. Set maximum wind criteria for accepting dusty waste loads.**

TARGET: Maintain landfill roads in a manner that minimizes fugitive dust.

**Immediate maintenance reduced fugitive dust. Experimented with applying calcium chloride as a dust suppressant.**

OBJECTIVE: Measure the exposure to hazardous chemicals in the HHM facility.

TARGET: Maintain and operate facility ventilation systems according to manufactures’ specifications.

**Developed preventive maintenance schedule. HVAC contractor conducts annual maintenance.**

TARGET: Develop a program for monitoring exposure to specific chemicals, which are likely to be emitted by operations at the HHM facility.

**Because of improvements to facility ventilation, additional monitoring deemed unnecessary.**

TARGET: Periodically review training and standard operating procedures to facilitate continuous improvement in the operation of HHM.

**Reviewed and revised procedures. Moved one vent to an area where most needed.**

OBJECTIVE: Increase the diversion rate of waste in the La Crosse Disposal System.

TARGET: Increase the diversion rate by 5% in calendar year CY 2013 vs.CY 2012.

**The diversion rate decreased by 9.9%. See discussion in the Environmental Performance section.**

The annual review of the Departments environmental aspects and impacts are an important part of the Departments EMS and critical to continual improvement of environmental performance. Based on the most recent review, new objectives and targets were set for 2014. These targets are posted on the Department’s website and will be discussed in the 2014 report.

http://www.co.la-crosse.wi.us/SolidWaste/index.asp

**Internal EMS Audit**

Because of an EMS internal audit, conducted in December of 2013, several elements of the EMS are being targeted for improvement in 2014. These include:

- Maintaining records and other documents in a more centralized location.
- Reviewing and updating Program Summaries, at a minimum each quarterly.
- Increase the frequency and consistency of communicating with department personnel regarding Green Tier and the EMS.
• Consider more integration between the Department's Sustainability goals and the environmental goals resulting from the EMS.

Environmental Performance

Waste Diversion

The overall waste diversion rate for the La Crosse Disposal System decreased from 45.2% to 35.3%. Much of the decrease in the diversion rate was a result of process changes at the Xcel RDF facility. During most of 2013, La Crosse County and Xcel were in the process of negotiating changes to the contract between the county and the utility. During the negotiations, process changes at Xcel reduced the percentage of waste converted to fuel, thus decreasing the amount of waste delivered to the boilers by nearly 8%. When negotiations resulted in a new agreement in January of 2014, Xcel resumed processing a higher percentage of waste to fuel. During the first four months of 2014, the diversion rate at Xcel exceeds 63%.

Recycling of shingles, concrete and asphalt fluctuates based on the construction activity in the area. Because these are heavy materials, changes in their volume can cause a significant variation in the landfills diversion rate.

For the first time the diversion at the Household Hazardous Materials (HHM) program was included in the diverted materials report. In 2013 diversion rate at HHM was 66%.

The chart below shows the waste diversion for the last five years, including the percentage and totals tons of waste diverted.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Waste</th>
<th>Waste Diverted at Xcel</th>
<th>Waste to Energy</th>
<th>Diverted at the Landfill</th>
<th>Waste That is Landfilled</th>
<th>Total Waste Diverted at the Landfill &amp; Xcel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tons</td>
<td>Tons</td>
<td>%</td>
<td>Tons</td>
<td>%</td>
<td>Tons</td>
</tr>
<tr>
<td>2013</td>
<td>162,922</td>
<td>43,357</td>
<td>55.86%</td>
<td>13,835</td>
<td>11.62%</td>
<td>105,411</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>57,511 35.30%</td>
</tr>
<tr>
<td>2012</td>
<td>138,408</td>
<td>48,473</td>
<td>63.66%</td>
<td>14,046</td>
<td>15.62%</td>
<td>75,889</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62,519 45.17%</td>
</tr>
<tr>
<td>2011</td>
<td>155,737</td>
<td>44,816</td>
<td>59.28%</td>
<td>22,377</td>
<td>20.17%</td>
<td>88,544</td>
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<td></td>
<td></td>
<td></td>
<td>67,193 43.15%</td>
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<tr>
<td>2010</td>
<td>128,137</td>
<td>42,022</td>
<td>56.35%</td>
<td>13,040</td>
<td>15.14%</td>
<td>73,075</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55,062 42.97%</td>
</tr>
<tr>
<td>2009</td>
<td>140,654</td>
<td>66,923</td>
<td>59.77%</td>
<td>16,180</td>
<td>16.07%</td>
<td>84,476</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56,177 39.94%</td>
</tr>
<tr>
<td>2008</td>
<td>151,767</td>
<td>73,785</td>
<td>54.99%</td>
<td>12,447</td>
<td>11.19%</td>
<td>98,744</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53,023 34.94%</td>
</tr>
<tr>
<td>2007</td>
<td>157,485</td>
<td>80,240</td>
<td>53.10%</td>
<td>16,755</td>
<td>14.59%</td>
<td>98,119</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td>59,366 37.70%</td>
</tr>
</tbody>
</table>

*In 2011, severe storm damage in La Crosse resulted in the diversion for recycling, of an additional 9,000 tons of shingles.
Other Environmental Performance Indicators - Household Hazardous Materials Facility

La Crosse County Solid Waste Department operates a permanent, year round household hazardous and VSQG waste facility. The following chart shows the number of VSQG and household users and the pounds of waste collected from each.

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VSQG (Small Business) Users</td>
<td>465</td>
<td>341</td>
<td>391</td>
<td>524</td>
<td>612</td>
</tr>
<tr>
<td>VSQG (Small Business) Waste (lbs)</td>
<td>164,899</td>
<td>105,644</td>
<td>111,690</td>
<td>185,119</td>
<td>191,525</td>
</tr>
<tr>
<td>Household Users</td>
<td>10,265</td>
<td>9,915</td>
<td>6,454</td>
<td>6,398</td>
<td>6,082</td>
</tr>
<tr>
<td>Household Waste (lbs)</td>
<td>711,377</td>
<td>708,753</td>
<td>436,572</td>
<td>365,316</td>
<td>371,008</td>
</tr>
</tbody>
</table>

The Household Hazardous Materials Program conducts cleans sweeps in 6-8 neighboring counties each year. In 2013, clean sweep events served 1,800 users and collected over 55,000 pounds of household and agricultural hazardous wastes.

Environmental Improvement Activities in 2013

- Land use planning and management activates on the landfill property:
  - Started a partnership with a local non-profit, Outdoor Recreational Alliance to develop walking trails on landfill property that eventually will connect to other area trails. Specific planning has taken place to locate the trails and construction has begun on a small section in the community forest.
  - Worked with the City of La Crosse and have completed construction of the first phase of a walking trail using a recycled asphalt shingle paving mix with reprocessed asphalt and concrete base.
  - Conducted a twenty acre controlled burn to facilitate natural restoration of grassland and prairie plant species.
  - Started using a local farmer to bale grass from the landfill instead of mowing. The landfill contractor uses some of this hay as mulch for seeding. The rest the farmer uses for cattle feed.
  - Working with local Boy Scouts to enhance wildlife habitat including elimination of invasive species, cleaning up a farmstead dumping site and removing old farm fencing.
  - The sustainable harvest of the community forest was completed, logging trails were groomed and seeded within the forest

- Community outreach and educational activities:
  - Conducting tours and educational programs for community leaders, area groups and the public. Over 760 people toured the landfill in 2013, and over 730 received presentations by Solid Waste Dept staff.
  - Conducting an open house and customer appreciation event each year.
  - Hosted a Boy Scout Camporee on the landfill site. Over 120 scouts and leaders from around the region attended and camped for two nights on site. Staff provided educational programs including Household Hazardous
Materials disposal, landfill operations and the gas to energy project. Scouts participated in service projects during the event.

- Participating in the Empire Screen Printing Stakeholders Group and sharing information regarding developing an EMS. Empire Screen Printing is a local manufacturer that has applied for the Green Tier program.
- Collaborating with the La Crosse County Prevention Network (LCPN) and local law enforcement agencies to increase the availability of collections of unwanted medications.

- Activities by the La Crosse County Sustainability Coordinator:
  - Participating as a board member of the Western Sustainability Institute and Coulee Partners for Sustainability and as staff to the La Crosse Sustainability Commission, a joint organization between the County and the City of La Crosse.
  - Facilitating the updating of county department’s sustainability goals as well as giving an annual report to the County board on accomplishments by departments.
  - Partnering with Western Technical College to develop business sustainability programs.
  - Working with the universities on educational opportunities to use the landfill complex as a living lab.
  - Coordinating with science teacher’s in the public schools to use the landfill complex as a teaching tool for students.

Stakeholder Involvement

Because the La Crosse County Solid Waste Department is a public entity, there is a high level of transparency with the public and the Department’s stakeholders. The La Crosse County, the Public Works and Infrastructure Committee has oversight authority over the Solid Waste Department. This committee meets monthly and these meetings are open to the public. The committee’s agenda and meeting minutes are posted on the County’s website and the local media covers its activities.

The La Crosse Disposal System has a Solid Waste Policy Board that provides representation to all member communities in the Disposal System and advises the Solid Waste Department on policy matters. This Board meets four times per year and is informed of all matters relevant to stakeholders including the Departments EMS and Green Tier activities. The Solid Waste Department considered pursuing Green Tier status based on the recommendation of the Policy Board.

The La Crosse Disposal System Annual Meeting and quarterly meetings with the haulers also serve as opportunities for stakeholders to provide feedback to the Solid Waste Department.
Compliance

The WDNR conducted solid waste and air inspections in 2013. No issues were found.

Relationship with the WDNR

The La Crosse County Solid Waste Department had a positive working relationship with the WDNR prior to entering into the Green Tier Program. Participation in the Green Tier program has enhanced this relationship.

Since 2009, the two parties have met annually in December to review the results of the current year and to discuss plans for the upcoming year. The Solid Waste Department is looking forward to increased collaboration with the WDNR, especially with activities relating to its Master Land Use Plan.

Looking to the Future

The La Crosse County Solid Waste Department continued discussions with the WDNR regarding a Tier 2 contract. To date these discussions have not produced an agreement that is beneficial to La Crosse County and the WDNR. Most recent discussions have centered around the Solid Waste Department and the WDNR working on selected issues outside of the Green Tier process.

La Crosse County would like to increase collaboration with the WDNR in land management activities including wetland restoration, habitat management and invasive species control.

The Green Tier program has proven valuable to the La Crosse County Solid Waste Department; who looks forward to continuing in this relationship regardless of whether the County pursues Tier 2 status.