Waste Management in Minnesota Correctional Facilities

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Agency Background

Minnesota Dept. of Corrections

• 10 facilities throughout Minnesota
• Employ, house, feed provide medical care, oversee rehabilitation programs to offenders
• 42% recycling rate
Incentives to Change

• Executive Order 17-12
  • State agencies must “Reduce Solid Waste: 75% combined recycling and composting rate of Solid Waste by 2030

• Resource Savings
• Environmental Stewardship
Approach 1: Increase Recycling Rate at MCF-Lino Lakes

• Determine where waste is generated and how it moves through the facility
• Develop targeted recommendations for high-impact waste streams
• Offender yard crews collect waste bags put outside on curbs each morning
• B-Building compactors contain waste from most of the facility
• Each compactor has a 7 ton capacity and is emptied weekly
MCF Lino Lake Facility Waste 2018

- **Landfill**: 57%
- **Kitchen Scrap/Organics**: 29%
- **Single Stream (including bottles, cans, paper)**: 9%
- **Paper**: 2%
- **Mattresses**: 2%
- **E-Waste**: 1%
MCF-Lino Lakes Landfill Waste 2018

- Recycled, 43%
- Kitchen Landfill, 33%
- South Landfill, 5%
- B-Building Landfill, 19%
Current Recommendations

1. Re-design offender tray line in dining hall
2. Introduce standardized recycling bins
3. Reduce Compactor Pickups
4. Introduce plastic film collection
5. Switch to bulk milk
6. Eliminate small liners in offender cells
7. Account for un-recorded waste streams
Recycled, 43%

Kitchen Landfill, 33%

B-Building Landfill, 19%

South Landfill, 5%

- 86% Post-Consumption Organics
- 10% Paper
- 4% plastics
Post-Consumption Organics Recovery

• Co-mingling prevents recovery
• Limited dish room space
• Fast paced tray return
Post-Consumption Organics

• Separate waste before trays are returned to prevent co-mingling
• Test run showed low co-mingling after sorting
• **Canteen** (plastic film, paper receipts)
• **Property** (textiles, plastic film)
• **Health Services** (hazardous waste, plastic packaging, paper)
• **Administration and Programming** (paper)
Standardizing Waste Bins

• Based on Capitol Complex Recycling
  • Color coded
  • Signage modified for specialized DOC and Canteen items

• Funded through Anoka County
  • $20,000 grant for new bins and signage
Approach 2: Develop Waste Management Toolkit for All DOC Facilities

Tools

• **DOC Toolkit**
  • Outlines likely waste streams within different facility departments and ways to best manage them, possible resources, funding.
  • I-Share Materials
  • Online Training

Connections

• **Inter-Facility knowledge sharing**
  • Hotline newsletter to exchange success stories and tips between facilities
Approach 2: Develop Waste Management Toolkit for All DOC Facilities

1. Standardize bins
2. Bale recyclables
3. Recover post-consumption organics
Lessons Learned

1. Unique requirements of corrections facilities
2. How facilities can learn from each other
3. Locating information across different agencies, states, vendors
<table>
<thead>
<tr>
<th>Current Recommendations</th>
<th>Annual reduction</th>
<th>Total cost</th>
<th>Annual savings</th>
<th>Payback period</th>
<th>Status</th>
<th>Recycling Rate Increase</th>
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<tbody>
<tr>
<td>Re-Design Offender Tray Line</td>
<td>400,000lbs</td>
<td>0</td>
<td>$6,500</td>
<td>Immediate</td>
<td>In Progress</td>
<td>30%</td>
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<td>Standardize Recycling Bins</td>
<td>TBD</td>
<td>$20,000</td>
<td>TBD</td>
<td>TBD</td>
<td>In Progress</td>
<td>7-9%</td>
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<tr>
<td>Account for un-recorded waste streams</td>
<td>33,000 lbs</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>Implementing</td>
<td>~2%</td>
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<tr>
<td>Reduce Compactor Pick-ups</td>
<td>n/a</td>
<td>0</td>
<td>$14,500</td>
<td>Immediate</td>
<td>Implementing</td>
<td>n/a</td>
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<td>Introduce Plastic Film Collection</td>
<td>300 lbs</td>
<td>0</td>
<td>$350</td>
<td>Immediate</td>
<td>Implementing</td>
<td>1%</td>
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<td>Eliminate Liners from Offender Cells</td>
<td>n/a</td>
<td>0</td>
<td>$7,400</td>
<td>Immediate</td>
<td>Investigating</td>
<td>&lt;1%</td>
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<td>Switch to Bulk Milk</td>
<td>18,000 lbs</td>
<td>$3,000</td>
<td>$28,000</td>
<td>1.5 months</td>
<td>Investigating</td>
<td>4%</td>
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