Solid Waste Management Annual Report
Environmental Review Commission
June 11, 2007

Paul Crissman, Chief
Solid Waste Section
Division of Waste Management
Department of Environment and Natural Resources
Tons of Solid Waste Disposed of by North Carolina

Fiscal Year


Tons

0 2,000,000 4,000,000 6,000,000 8,000,000 10,000,000 12,000,000

DENR/DWM/SWS
North Carolina Solid Waste Disposal 20-Year Forecast

Straight line Population and Straight line Disposal

Population / Tons Disposed

ACTUAL

FORECAST

18,098,667
1.58 per capita

11,710,026
1.36 per capita

14,447,527
1.45 per capita

2015

DENR/DWM/SWS
Wasteflows in North Carolina > 500 Tons
FY 2005 - 2006

Tons
- 502 - 3127
- 3128 - 12795
- 12796 - 29598
- 29599 - 62731
- 62732 - 859588

Map Produced March 1st, 2007 by Garrett Davis
Municipal Solid Waste Flow FY 1990-1991

- Solid Waste Facilities
- County Centers

Waste Flow:
- <1,000
- 1,000 to 70,000
- 70,000 to 280,000
- >280,000
Wasteflows to Regional Landfills in North Carolina
For FY 2005-2006

Regional Wasteflows to MSWLF's

- WI-SAMPSON COUNTY DISPOSAL INC
- UWHARRIE ENV. REG. LANDFILL
- UPPER PIEDMONT REG LANDFILL
- Foothills Environmental Landfill
- EAST CAROLINA REG LANDFILL
- CRSWMA - LONG TERM REGIONAL LANDFILL
- CHAMBERS DEVELOPMENT MSWLF
- BFI-CHARLOTTE MTR SPEEDWAY LANDFILL V

Created - 1-08-07
Data - North Carolina Division of Solid Waste Database
Map by - Garrett Davis and Environmental Finance Center - UNC Chapel Hill
Funding by - NCDENR
State-wide Municipal Solid Waste Landfills (MSWLF)

40 MSW Landfills currently operating
Average facility size: 316.92 acres
Average waste footprint: 76.48 acres
Average “tip” fee: $33.89
Average utilization factor: 0.58 tons/cubic yard
Average years in operation: 10.15 years

<table>
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<th></th>
<th>Average</th>
<th>FY2005-2006</th>
<th>Total</th>
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<tbody>
<tr>
<td>MSW Disposed (tons)</td>
<td>6,608,556.96</td>
<td>7,910,640.27</td>
<td>67,076,853.11</td>
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<td>Volume (yd³)</td>
<td>110,647,868.6</td>
<td>143,447,772</td>
<td>372,022,542</td>
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<td>Remaining Volume</td>
<td>32,799,903.4</td>
<td>261,374,673.4</td>
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<tr>
<td>Remaining Capacity</td>
<td></td>
<td></td>
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<tr>
<td>Tons of Waste</td>
<td>19,023,943.97</td>
<td>151,597,310.6</td>
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<td>Years (average)</td>
<td>2.89</td>
<td>22.94</td>
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<tr>
<td>Years (FY05-06)</td>
<td>2.40</td>
<td>19.16</td>
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Proposed Landfills in Eastern North Carolina

1. Black Bear, LLC
   Waste Industries (MSW Landfill)

2. Alligator River, LLC
   (C&D Landfill)

3. North Carolina Resource Conservation, LLC
   Sims Group USA Corp.
   formerly HugoNEU
   (Autofluff Recycler)

4. Riegel Ridge, LLC
   Waste Management, Inc.
   (MSW Landfill)
Forecast Imports / Exports

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<tr>
<th>Fiscal Year</th>
<th>Imports</th>
<th>Exports</th>
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<tr>
<td>FY 1997-1998</td>
<td>87,393</td>
<td>629,415</td>
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<td>FY 1998-1999</td>
<td>74,185</td>
<td>1,166,875</td>
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<td>FY 1999-2000</td>
<td>41,840</td>
<td>1,106,897</td>
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<td>FY 2000-2001</td>
<td>21,614</td>
<td>900,743</td>
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<td>FY 2001-2002</td>
<td>117,981</td>
<td>882,247</td>
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<td>FY 2002-2003</td>
<td>144,116</td>
<td>971,286</td>
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<td>FY 2003-2004</td>
<td>108,803</td>
<td>1,048,111</td>
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<td>FY 2004-2005</td>
<td>119,202</td>
<td>1,161,926</td>
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<tr>
<td>FY 2005-2006</td>
<td>137,307</td>
<td>1,234,307</td>
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<tr>
<td>Proposed</td>
<td>4,000,000</td>
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Clay County, 1988
STATUS OF MSWLFS IN NORTH CAROLINA

![Graph showing the status of MSWLFS in North Carolina from 1990 to 2005. The graph compares unlined and lined MSWLFS, with a significant decline in unlined MSWLFS starting from 1993. The graph also indicates the effective date of SUB 'D' regulation, 10/9/93.](image-url)
State lined landfill requirements (the 98 rule)

Federal Sub-title D Landfill requirements (RCRA)
Solid Waste Management Act of 1989

Established:

- Reporting requirements
- Planning requirements
- Landfill bans
- New programs
- Set goals and policies
Summary

Issue Identification

- Increasing amount of waste
- Use of new/different facilities
- State regulatory staffing reductions
- Mobility of waste/inter-state movement
- Large in-state regional facilities
- Landfill ownership transfer
- Capacity (distribution & lack of acceptance)
- New landfills proposed for primarily out-of state waste
- Landfills proposed in areas not previously anticipated
- Legacy of old landfills
Proposed legislation for 2007

1. Strengthen financial/environmental qualifications review
2. Strengthen financial assurance associated with landfill ownership
3. Clarify landfill owner definition and ownership transfer notification
4. Strengthen state enforcement measures
5. Improve/strengthen landfill requirements for the next generation of landfills
6. Improve/strengthen performance of current landfills
7. Require environmental studies for large facilities
8. Fund state regulatory staff expansion through permit fee
9. Fund clean up of orphan landfills through fee on solid waste disposal

*Landfill requirements based on: experience in North Carolina, new technologies, need to provide improved protections to the public
Solid Waste in North Carolina
The Future:

More of the Same
(Probably continue to have more and more waste)

Yet Very Different
(Probably become one of the nation’s leading importers of waste)
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