



Waste Arisings and Capacity Requirements

Supplementary Note to Addendum Report

July 2015



| Date | Details | Prepared by | Reviewed and approved by |
|-------------|----------------|--------------------|---------------------------------|
| 09.07.15 | Draft Note | Paul Knott | Carolyn Williams |

CONTEXT

1. In 2013 North Yorkshire County Council (in conjunction with City of York Council and the North Yorkshire Moors and Yorkshire Dales National Park Authorities, hereafter referred to as 'the Council') commissioned Urban Vision and its partner 4Resources Ltd to prepare an assessment of waste arisings and capacity requirements for all controlled wastes created in the North Yorkshire sub-region.
2. The assessment forecast 9 scenarios based on a combination of 3 sets of growth assumptions (No Growth, Growth and Minimised Growth) and 3 sets of assumptions about recycling and landfill diversion rates (Baseline – ie. no change, Maximised Recycling and Median Recycling).
3. Following consultation on the original work the Council received representations suggesting that higher rates of recycling performance and lower rates of waste growth should be taken into account when assessing future waste capacity needs.
4. In Spring 2015 the Council commissioned the consultants to update and revise these estimates. The resulting work was documented in an addendum to the original assessment which was completed in late May and which proposed certain changes to the assumptions used previously. The Council then asked for these matters to be reflected in a revision of the needs assessment forecast model and for the results to be presented in this short supplementary note.
5. The addendum report compared estimated arisings in 2013 (the latest year for which data were available with those estimated by the original report which were projected from estimates in 2011. It concluded that the original forecasts were fairly close to the updated figures in all but one case identified later in this note. Any change in the results is therefore the result of other changes which were:
 - Growth rates for Commercial & Industrial (C&I) rates were reduced from 0.6% to 0% annually for the 'Growth' scenario and from 0% to -1% over the period to 2020 for the 'Minimised Growth' scenarios;
 - Recycling performance for C&I wastes does not stop at 75% by 2020 but continues to rise to 85% by 2030 (with a corresponding reduction in the amount of waste going to energy recovery);
 - Growth rate for Construction, Demolition & Excavation (CD&E) wastes were slightly increased over the period to 2020 but no growth was assumed thereafter to reflect the possible effects of economic recovery being concentrated in the current decade;
 - Recycling performance for CD&E wastes increased from 50% to 60% by 2020 for the 'Median Recycling' scenario only as the assumption for the 'Maximised Recycling' scenario was considered to reflect a realistic maximum rate;
 - Increase in recycling capacity due to the recognition of recycling taking place at transfer which was identified through a brief desk based review of their apparent function¹.
6. No changes were made to assumptions about Local Authority Collected Waste as the revised estimated arisings were very close to the level originally forecast and assumptions about future growth and recycling performance continue to reflect those

¹ Site functions were originally based on the type of Environmental Permit. However this does not always reflect the current activities which may have broadened since the original permit was issued. A number of local waste transfer stations were identified as providing recycling facilities and a further addition to the needs assessment model was made to include a recycling facility at these locations in addition to their function as transfer stations.

in the Joint Municipal Waste Management Strategy. Therefore the forecasts for this stream should not change significantly.

RECYCLING C&I WASTES

7. Information about the size of the C&I stream and how it is managed has been poor historically. The original assessment compared estimates derived from a 2009 regional survey for the North West (in the expectation this would be representative of the situation in North Yorkshire once corrected for differences in demographics and area) and those derived from a 2010 national survey which also provided estimates for the former Yorkshire and Humberside region. The original assessment provided results for North Yorkshire based on both sources which produce substantially different results, with those from the North West source being generally about 10% lower than those from the national source. The assessment below presents the results of assessment extrapolated from the former only as it is considered to be more accurate.
8. Table 1 below compares the revised capacity gaps. Negative figures indicate a capacity surplus.

Table 1: Comparison of Capacity Gaps for Recycling LACW, C&I and Agricultural Wastes²

| BASELINE | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
|-----------------------------|-------------|-------------|-------------|-------------|
| Growth - original | 471,808 | 518,690 | 548,357 | 578,574 |
| Growth - 2015 update | - 26,972 | - 263,483 | - 199,571 | - 140,229 |
| Minimised Growth - original | 447,632 | 469,782 | 474,088 | 478,181 |
| Minimised Growth - update | - 43,858 | - 296,447 | - 236,068 | - 177,249 |
| MAXIMISED RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 548,427 | 679,020 | 716,157 | 754,184 |
| Growth - 2015 update | 56,354 | - 96,831 | - 32,919 | 26,423 |
| Minimised Growth - original | 519,493 | 610,860 | 612,651 | 614,355 |
| Minimised Growth - update | 35,384 | - 145,728 | - 86,858 | - 28,039 |
| MEDIAN RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 522,588 | 625,576 | 660,224 | 695,626 |
| Growth - 2015 update | 31,847 | - 145,846 | - 81,934 | - 22,592 |
| Minimised Growth - original | 495,540 | 563,835 | 566,465 | 568,964 |
| Minimised Growth - update | 12,079 | - 190,058 | - 130,743 | - 71,924 |

[Source: Revised Capacity Assessment model, 2015 – all figures in tonnes]

9. Table 1 shows a very significant shift in requirements across all scenarios with the previously-forecasts gaps replaced by small surpluses (assuming the baseline scenario is the least likely to materialise). Since the addendum revision concluded that the most recent arisings were close to the original forecast these changes must be due to the recognition of recycling taking place at transfer which was identified through a brief desk based review described earlier.

² Note that the management contract for LACW provides sufficient capacity to recycle that stream while the quantity of agricultural waste requiring recycling is extremely small. The title of this table reflects the working of the capacity assessment model but in practice the gaps and surpluses refer to the C&I stream alone.

RECYCLING CD&E WASTES

10. Information about CD&E waste arisings is derived from a database published annually by the Environment Agency. Although some wastes are not reported to this source it represents the single most accurate way of estimating the level of wastes created which will need to be managed in commercially operated waste facilities.
11. Table 2 summarises the site requirements as a result of the changes noted above

Table 2: Comparison of Capacity Gaps for Recycling CD&E Wastes

| BASELINE | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
|-----------------------------|-------------|-------------|-------------|-------------|
| Growth - original | 4,761 | 6,768 | 10,181 | 12,312 |
| Growth - 2015 update | - 157,201 | - 78,488 | - 60,373 | - 58,393 |
| Minimised Growth - original | 2,811 | 2,811 | 4,156 | 4,156 |
| Minimised Growth - update | - 160,690 | - 85,646 | - 69,824 | - 69,810 |
| MAXIMISED RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 129,944 | 264,735 | 275,981 | 286,183 |
| Growth - 2015 update | - 1,348 | 249,119 | 277,177 | 287,680 |
| Minimised Growth - original | 124,305 | 245,799 | 247,144 | 247,144 |
| Minimised Growth - update | - 12,401 | 210,931 | 226,753 | 226,767 |
| MEDIAN RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 88,216 | 178,746 | 187,381 | 194,892 |
| Growth - 2015 update | - 47,187 | 152,764 | 177,898 | 185,894 |
| Minimised Growth - original | 83,807 | 164,803 | 166,148 | 166,148 |
| Minimised Growth - update | - 47,187 | 152,764 | 177,898 | 185,894 |

[Source: Revised Capacity Assessment model, 2015 – all figures in tonnes]

12. The estimates in Table 2 reflect the combination of three factors. First, the Spring 2015 review produced an increased estimate of local arisings of these materials and, second, as noted above the growth rate was modified to assume a faster increase over period to 2020 than that applied previously. Finally, available capacity has been increased as a result of the recognition of recycling taking place at transfer which was identified through a brief desk based review described previously.
13. The results in Table 2 suggest the third of these factors has eliminated the short-term capacity gap. However this has been offset by the assumed increased growth over the rest of this decade so that there a reduced but still substantial gap by 2020 in the two scenarios that model continuing improvement in recycling performance.

LANDFILL REQUIREMENTS

14. The revisions described above have had knock-on effects on landfill requirements for most of the streams. Tables 3, 4 and 5 summarise the revised gap forecasts for the three main facility types at five year intervals.

Table 3: Comparison of Capacity Gaps for Non-Inert Landfill

| BASELINE | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
|-----------------------------|-------------|-------------|-------------|-------------|
| Growth - original | - 103,345 | 60,462 | 96,069 | 113,720 |
| Growth - 2015 update | - 149,784 | 169,516 | 188,263 | 188,263 |
| Minimised Growth - original | - 123,268 | 20,123 | 34,772 | 30,877 |
| Minimised Growth - update | - 160,831 | 147,965 | 164,673 | 164,673 |
| MAXIMISED RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | - 205,504 | - 153,311 | - 127,665 | - 120,505 |
| Growth - 2015 update | - 247,815 | - 26,545 | - 7,798 | - 7,798 |
| Minimised Growth - original | - 219,083 | - 167,982 | - 149,980 | - 150,689 |
| Minimised Growth - update | - 254,057 | - 29,351 | - 10,869 | - 10,869 |
| MEDIAN RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | - 205,504 | - 153,311 | - 127,665 | - 120,505 |
| Growth - 2015 update | - 247,815 | - 26,545 | - 7,798 | - 7,798 |
| Minimised Growth - original | - 219,083 | - 167,982 | - 149,980 | - 150,689 |
| Minimised Growth - update | - 254,057 | - 29,351 | - 10,869 | - 10,869 |

[Source: Revised Capacity Assessment model, 2015 – all figures in tonnes]

Table 4: Comparison of Capacity Gaps for Inert Landfill

| BASELINE | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
|-----------------------------|-------------|-------------|-------------|-------------|
| Growth - original | - 18,553 | 170,670 | 336,030 | 346,791 |
| Growth - 2015 update | - 381 | 163,326 | 338,598 | 362,004 |
| Minimised Growth - original | - 28,390 | 150,698 | 305,614 | 305,614 |
| Minimised Growth - update | - 18,596 | 126,008 | 289,505 | 302,884 |
| MAXIMISED RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | - 143,736 | - 87,297 | 70,230 | 72,920 |
| Growth - 2015 update | - 156,234 | - 164,281 | 1,048 | 15,931 |
| Minimised Growth - original | - 149,884 | - 92,290 | 62,626 | 62,626 |
| Minimised Growth - update | - 166,885 | - 170,569 | - 7,072 | 6,307 |
| MEDIAN RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | - 102,008 | - 1,308 | 158,830 | 164,211 |
| Growth - 2015 update | - 110,395 | - 67,926 | 100,327 | 117,717 |
| Minimised Growth - original | - 109,386 | - 11,294 | 143,622 | 143,622 |
| Minimised Growth - update | - 123,270 | - 83,341 | 80,156 | 93,535 |

[Source: Revised Capacity Assessment model, 2015 – all figures in tonnes]

Table 5: Comparison of Capacity Gaps for Hazardous Landfill

| BASELINE | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
|-----------------------------|-------------|-------------|-------------|-------------|
| Growth - original | 7,405 | 7,593 | 7,786 | 7,985 |
| Growth - 2015 update | 8,427 | 8,683 | 8,946 | 9,217 |
| Minimised Growth - original | 7,216 | 7,216 | 7,216 | 7,216 |
| Minimised Growth - update | 8,170 | 8,170 | 8,170 | 8,170 |
| MAXIMISED RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 7,405 | 7,593 | 7,786 | 7,985 |
| Growth - 2015 update | 8,427 | 8,683 | 8,946 | 9,217 |
| Minimised Growth - original | 7,216 | 7,216 | 7,216 | 7,216 |
| Minimised Growth - update | 8,170 | 8,170 | 8,170 | 8,170 |
| MEDIAN RECYCLING | <i>2015</i> | <i>2020</i> | <i>2025</i> | <i>2030</i> |
| Growth - original | 7,405 | 7,593 | 7,786 | 7,985 |
| Growth - 2015 update | 8,427 | 8,683 | 8,946 | 9,217 |
| Minimised Growth - original | 7,216 | 7,216 | 7,216 | 7,216 |
| Minimised Growth - update | 8,170 | 8,170 | 8,170 | 8,170 |

[Source: Revised Capacity Assessment model, 2015 – all figures in tonnes]

OVERALL CAPACITY REQUIREMENTS

- For completeness, the appendix which follows presents the revised capacity gap summaries for all waste streams and management routes for the nine scenarios defined in the model, but with the revisions to growth and recycling performance assumptions referred to previously.

APPENDIX – REVISED CAPACITY GAPS³

Table A1: Capacity Gap Forecasts – No Growth Scenario; Baseline Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 151,129 | 169,516 | 188,263 | 188,263 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 18,180 | 126,820 | 290,394 | 303,773 |
| Energy from waste | 83,555 | - 481,067 | - 481,067 | - 481,067 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | - 32,082 | - 294,162 | - 240,034 | - 190,034 |
| Recycling (C+D) | - 160,697 | - 85,697 | - 69,892 | - 69,892 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 139,911 | - 239,911 | - 238,885 | - 238,885 |
| Transfer station | - 971,905 | - 1,046,905 | - 963,100 | - 918,100 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

Table A2: Capacity Gap Forecasts – No Growth Scenario; Maximised Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 249,160 | - 26,545 | - 7,798 | - 7,798 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 166,469 | - 169,757 | - 6,183 | 7,196 |
| Energy from waste | 98,260 | - 451,658 | - 451,658 | - 451,658 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 51,244 | - 127,510 | - 73,382 | - 23,382 |
| Recycling (C+D) | - 12,408 | 210,880 | 226,685 | 226,685 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 139,911 | - 239,911 | - 238,885 | - 238,885 |
| Transfer station | - 971,905 | - 1,046,905 | - 963,100 | - 918,100 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

Table A3: Capacity Gap Forecasts – No Growth Scenario; Median Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 249,160 | - 26,545 | - 7,798 | - 7,798 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 122,854 | - 82,529 | 81,045 | 94,424 |
| Energy from waste | 122,767 | - 402,643 | - 402,643 | - 402,643 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 26,737 | - 176,525 | - 122,397 | - 72,397 |
| Recycling (C+D) | - 56,023 | 123,652 | 139,457 | 139,457 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 139,911 | - 239,911 | - 238,885 | - 238,885 |
| Transfer station | - 971,905 | - 1,046,905 | - 963,100 | - 918,100 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

³ All figures in this appendix as expressed in tonnes. Negative figures identify capacity surpluses.

Table B1: Capacity Gap Forecasts – Growth Scenario; Baseline Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 149,784 | 169,516 | 188,263 | 188,263 |
| Landfill (Hazardous) | 8,427 | 8,683 | 8,946 | 9,217 |
| Landfill (C+D) | - 381 | 163,326 | 338,598 | 362,004 |
| Energy from waste | 86,527 | - 456,390 | - 448,676 | - 441,341 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | - 26,972 | - 263,483 | - 199,571 | - 140,229 |
| Recycling (C+D) | - 157,201 | - 78,488 | - 60,373 | - 58,393 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 137,474 | - 234,920 | - 232,248 | - 230,813 |
| Transfer station | - 971,865 | - 1,046,825 | - 962,980 | - 917,940 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

Table B2: Capacity Gap Forecasts – Growth Scenario; Maximised Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 247,815 | - 26,545 | - 7,798 | - 7,798 |
| Landfill (Hazardous) | 8,427 | 8,683 | 8,946 | 9,217 |
| Landfill (C+D) | - 156,234 | - 164,281 | 1,048 | 15,931 |
| Energy from waste | 101,232 | - 426,981 | - 419,267 | - 411,932 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 56,354 | - 96,831 | - 32,919 | 26,423 |
| Recycling (C+D) | - 1,348 | 249,119 | 277,177 | 287,680 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 137,474 | - 234,920 | - 232,248 | - 230,813 |
| Transfer station | - 971,865 | - 1,046,825 | - 962,980 | - 917,940 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

Table B3: Capacity Gap Forecasts – Growth Scenario; Median Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 247,815 | - 26,545 | - 7,798 | - 7,798 |
| Landfill (Hazardous) | 8,427 | 8,683 | 8,946 | 9,217 |
| Landfill (C+D) | - 110,395 | - 67,926 | 100,327 | 117,717 |
| Energy from waste | 125,739 | - 377,966 | - 370,252 | - 362,917 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 31,847 | - 145,846 | - 81,934 | - 22,592 |
| Recycling (C+D) | - 47,187 | 152,764 | 177,898 | 185,894 |
| Composting | - 84,055 | - 84,055 | - 69,055 | - 55,719 |
| Treatment plant | - 137,474 | - 234,920 | - 232,248 | - 230,813 |
| Transfer station | - 971,865 | - 1,046,825 | - 962,980 | - 917,940 |
| Land recovery | 14,847 | 14,847 | 14,847 | 14,847 |
| Not in model | 85,588 | 85,588 | 85,588 | 85,588 |

Table C1: Capacity Gap Forecasts – Minimised Growth Scenario; Baseline Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 160,831 | 147,965 | 164,673 | 164,673 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 18,596 | 126,008 | 289,505 | 302,884 |
| Energy from waste | 84,633 | - 460,088 | - 452,737 | - 445,417 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | - 43,858 | - 296,447 | - 236,068 | - 177,249 |
| Recycling (C+D) | - 160,690 | - 85,646 | - 69,824 | - 69,810 |
| Composting | - 84,438 | - 84,799 | - 69,870 | - 56,534 |
| Treatment plant | - 141,629 | - 243,262 | - 242,553 | - 242,553 |
| Transfer station | - 972,225 | - 1,047,530 | - 963,784 | - 918,784 |
| Land recovery | 14,118 | 13,428 | 13,294 | 13,294 |
| Not in model | 81,392 | 77,404 | 76,629 | 76,629 |

Table C2: Capacity Gap Forecasts – Minimised Growth Scenario; Maximised Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 254,057 | - 29,351 | - 10,869 | - 10,869 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 166,885 | - 170,569 | - 7,072 | 6,307 |
| Energy from waste | 98,617 | - 433,491 | - 426,405 | - 419,085 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 35,384 | - 145,728 | - 86,858 | - 28,039 |
| Recycling (C+D) | - 12,401 | 210,931 | 226,753 | 226,767 |
| Composting | - 84,438 | - 84,799 | - 69,870 | - 56,534 |
| Treatment plant | - 141,629 | - 243,262 | - 242,553 | - 242,553 |
| Transfer station | - 972,225 | - 1,047,530 | - 963,784 | - 918,784 |
| Land recovery | 14,118 | 13,428 | 13,294 | 13,294 |
| Not in model | 81,392 | 77,404 | 76,629 | 76,629 |

Table C3: Capacity Gap Forecasts – Minimised Growth Scenario; Median Recycling

| Stream and function | Gap2015 | Gap2020 | Gap2025 | Gap2030 |
|-------------------------------|-----------|-------------|-----------|-----------|
| Landfill (C+I, LACW, Agri) | - 254,057 | - 29,351 | - 10,869 | - 10,869 |
| Landfill (Hazardous) | 8,170 | 8,170 | 8,170 | 8,170 |
| Landfill (C+D) | - 123,270 | - 83,341 | 80,156 | 93,535 |
| Energy from waste | 121,922 | - 389,161 | - 382,520 | - 375,200 |
| High temperature incineration | 13,632 | 13,632 | 13,632 | 13,632 |
| Recycling (C+I, LACW, Agri) | 12,079 | - 190,058 | - 130,743 | - 71,924 |
| Recycling (C+D) | - 56,016 | 123,703 | 139,525 | 139,539 |
| Composting | - 84,438 | - 84,799 | - 69,870 | - 56,534 |
| Treatment plant | - 141,629 | - 243,262 | - 242,553 | - 242,553 |
| Transfer station | - 972,225 | - 1,047,530 | - 963,784 | - 918,784 |
| Land recovery | 14,118 | 13,428 | 13,294 | 13,294 |
| Not in model | 81,392 | 77,404 | 76,629 | 76,629 |