Survey of Landfill Capacity in the West Midlands

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DATA SOURCES

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Parameter	Base Year	Source	Comment
Municipal Waste	2007/08	EA & DEFRA	2007 showed decrease in growth but too early to confirm trend
C & I Waste	2006/07	ADAS C&I Study 2009	Provides more recent base but further work needed on forward growth predictions
Hazardous Waste	2007	EA – Haz. Waste Interrogator	New base year
C&D Waste	2005	Symonds/ODPM report	No current predictions – using previous indicators
Permitted Landfill	Jan 2009	EA RATs – verified by interpolation	Provides new base
‘Planned’ Landfill	Feb 2009	MPA data – verified by interpolation	Data used after verification with operators
Capacity Indications	Feb 2009	EA permits and operator information	Data a mix of maximum permitted or operator indication
Growth Predictions	2007	See above sources	Realigned model with actual

MODELING SCENARIOS

BASE CASE

BASIS

- MSW linked to housing
- C&I based on WS 2000 review published in 2006
- Other wastes closely link to WS 2007

RSS DIVERSION

- Based on WS 2000 targets
- Composting – incremental increase to 30% 2010, 100% biodegradable
- Recycling – incremental increase to 30% 2010, 50% biodegradable
- R&C targets after 2010 – incremental increases as above to meet 2000 targets

ADJUSTMENTS

- Base years realigned with the latest data set

SCENARIO 1 – WMRSS Adjusted For Economy

RSS GROWTH PROJECTIONS

- C&I, CD&E and Hazardous predictions adjusted in line with Budget 2009
- Commercial growth +0.7% 2008, -3.5% 2009 and +1.25% 2010
- Industrial growth -2.75% 2008, -12.5% 2009 and +0.5% 2010
- No change to MSW – may be downward trend commencing but too early to confirm

RSS DIVERSION

- No change
- C&I, CD&E and hazardous landfill inputs reduced by approx 2.1% pa to reflect impact of LFT (ref Eunomia Study)

SCENARIO 2 – WS2007 Adjusted For Economy

Scott Wilson

GROWTH PROJECTIONS

- MSW not changed – WMRSS produced similar results to 0.75% pa growth scenario in WS2007.
- C&I, CD&E and Hazardous predictions adjusted in line with Budget 2009
- Commercial growth +0.7% 2008, -3.5% 2009 and +1.25% 2010
- Industrial growth -2.75% 2008, -12.5% 2009 and +0.5% 2010
- C&I growth rates changed to reflect the WS 2007 rates

DIVERSION

- Only MSW changed – achievement of diversion targets moved back 1 year to mirror WS2007 scenario of 1 year delay in delivery of new infrastructure.
- Diversion targets for MSW still set at WS2000 levels
- C&I, CD&E and hazardous landfill inputs reduced by approx 2.1% pa to reflect impact of LFT (ref Eunomia Study)

SCENARIO 3 – ADAS C&I Adjusted For Economy

GROWTH PROJECTIONS

- No change to MSW, CD & E or hazardous growth – same basis as WS2007
- C&I, CD&E and Hazardous predictions adjusted in line with Budget 2009
- Commercial growth +0.7% 2008, -3.5% 2009 and +1.25% 2010
- Industrial growth -2.75% 2008, -12.5% 2009 and +0.5% 2010
- C&I forward growth projections set based on ADAS study – from 2011 – 2020 used +1.06% pa increase for commercial and a -1.09% decrease for industrial. Assumed to be static from 2020.

DIVERSION

- MSW diversion targets changed to match WS2007
- C&I, CD&E and hazardous landfill inputs reduced by approx 2.1% pa to reflect impact of LFT (ref Eunomia Study)

CAPACITY INDICATIONS

SURVEY SITE NUMBERS

RATS 2007 + operator comment	Operational	Pre-Op/Non-Op
INERT	12	4
NON-HAZARDOUS	24	5
HAZARDOUS	1	0
RESTRICTED (HAZ & NON-HAZ)	6	1
	Permitted	Planned
Total No of Sites	43	10
Operational Permitted Capacity (m3)	48,311,400	
Non-Op Permitted Capacity (m3)	13,635,000	
Planned Capacity (m3)	23,100,000	

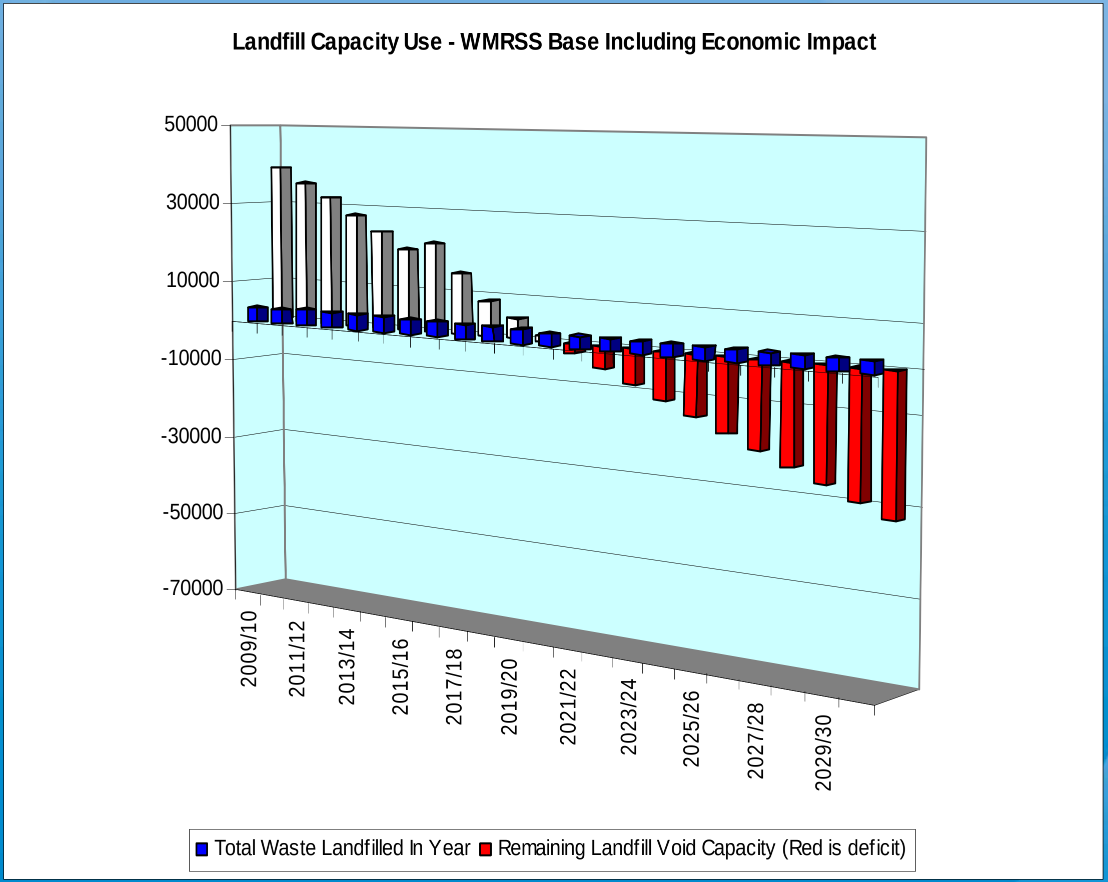
CAPACITY IMPLICATIONS

HEADLINE SUMMARY

- Overall capacity has decreased from 72 million cubic metres to 64.1 million cubic metres.
- Above capacity includes 13.6 million cubic metres non-operational capacity that will be released at operators discretion
- Planning obligated capacity can be split into 8 million cubic metres pre-2035 and 15 million cubic metres post-2035.
- Indications are that release of planning obligated capacity is delayed by at least 5 years. Latest mineral applications are not proposing to restore by material impact so this may not be a long term back-up for new capacity

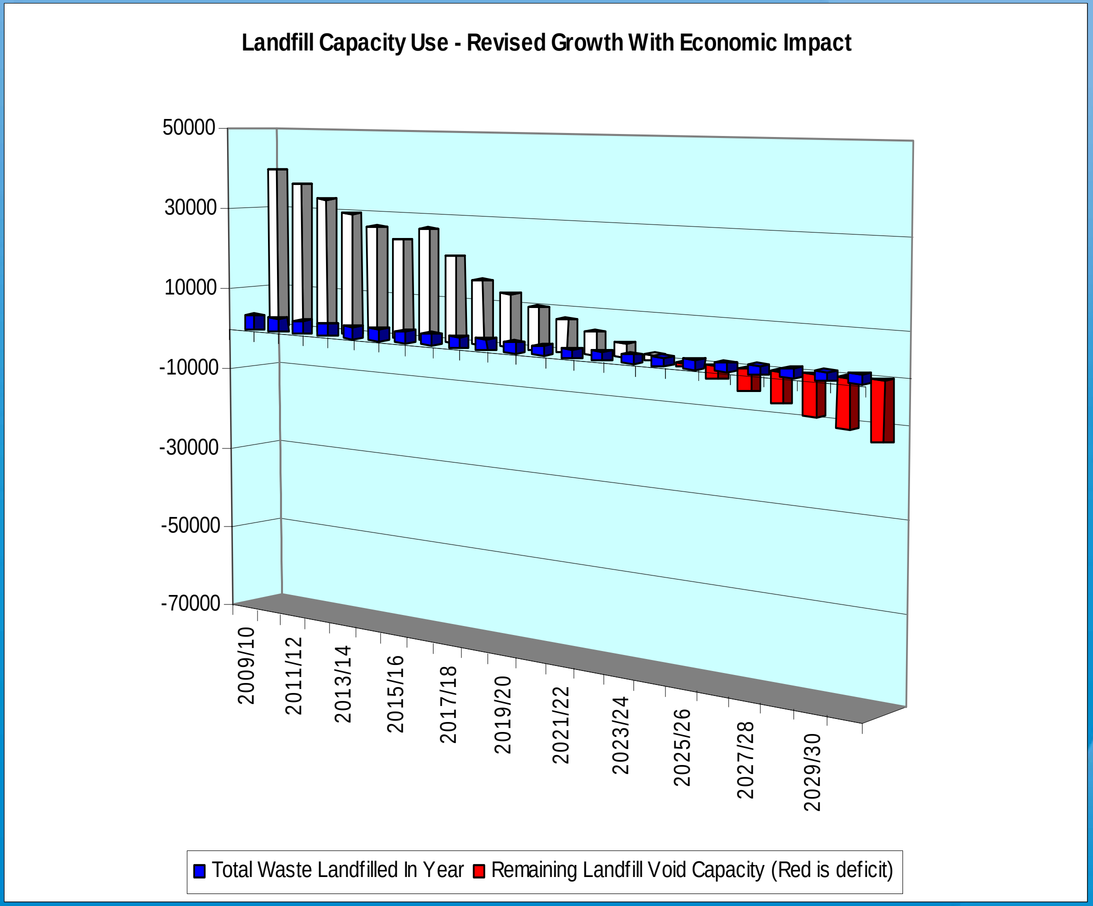
Capacity Implications – Scenario 1

- WMRSS adjusted for economic impact
- Permitted capacity only
- Inert capacity expires 2017/18
- Non-haz capacity expires 2020/21
- Overall capacity expires 2019/20



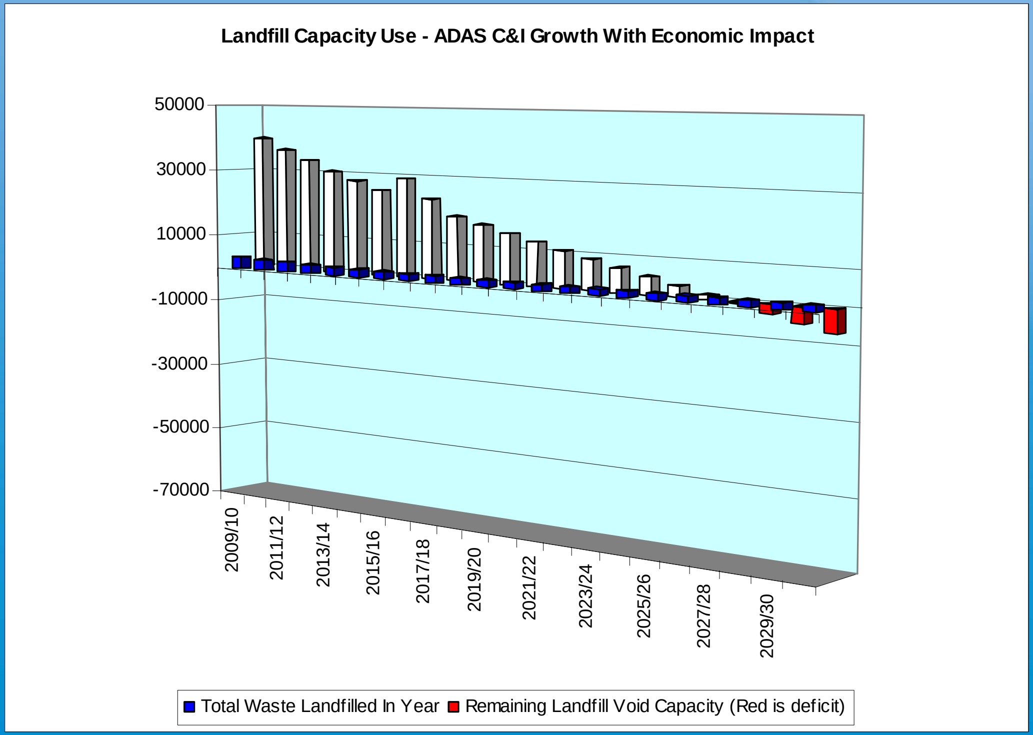
Capacity Implications – Scenario 2

- WS2007 adjusted for economic impact
- Permitted capacity only
- Inert capacity expires 2023/24
- Non-haz capacity expires 2024/25
- Overall capacity expires 2024/25



Capacity Implications – Scenario 3

- ADAS C&I adjusted for economic impact
- Permitted capacity only
- Inert capacity expires 2023/24
- Non-haz capacity expires 2028/29
- Overall capacity expires 2028/29



CONCLUSIONS

PROVISION OF NEW CAPACITY

- **Based on Scenario 1 (WMRSS) new capacity will be required by 2019/20**

- **Allowing a lead in time – should look to start the process of releasing the capacity by 2014/15**

- **Need to monitor with operators – economic impact could bring this forward or could help push this back**

- **Realisation of the benefits of scenario 2 or 3 will require focussed effort on delivery of new alternative infrastruture.**

POLICY CONSIDERATIONS

- Self-Sufficiency
  - Strong case for adopting policy of ‘net self-sufficiency’
  - Providing for the management in-region of an amount of waste equivalent to that exported to other regions for landfill disposal.
- New Diversion Targets
  - Other WMRA supported schemes should assist delivery of the new infrastructure
  - Region may wish to review its current targets in line with WS2007 or at least give a commitment to an early review.
  - To support target review it is recommended that the region aims to establish a firmer base for C&I and CD&E wastes before committing to a target revision.
- Pro-active Engagement
  - It is important to continue to build on existing dialogue with both mineral and waste operators.

STUDY UPDATES

- There is still data quality considerations, namely:
  - MSW growth was down in 2007 which could indicate the start of a trend – this needs to be verified.
  - C&I growth prediction from ADAS highlighted concerns on the information used to predict forward – need to look at improving this for the region.
  - CD&E waste basis is poor – need to look at improving the quality of information here
  - Final full impact of the current economic situation should be assessed in terms of waste production and capacity delivery.
- It is recommended that the model continues to be updated to reflect the release of more recent data sets and changes to regional policy.