

**Berkshire Joint Strategic Planning Unit
Joint Minerals and Waste Core Strategy**

Strategic Transport Assessment

June 2007

JMW 205

**Joint Minerals and Waste Core Strategy Preferred Options
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1 Introduction

- 1.1 The purpose of this Strategic Transport Assessment is to assess the potential impact of the Joint Minerals and Waste Core Strategy on the Strategic Road Network i.e the trunk road and motorway network¹. The results of the Assessment will then be used to inform the Minerals and Waste Local Development Framework process.
- 1.2 The Berkshire Joint Strategic Planning Unit (JSPU) is currently producing the Joint Minerals and Waste Local Development Framework (JMWLDF) on behalf of the six Berkshire Unitary Authorities. The Core Strategy Preferred Options document is the second formal step in the preparation of the JMWLDF. The JMWLDF will eventually replace the existing Replacement Minerals Local Plan² and the Waste Local Plan³.
- 1.3 The proposed period, which the JMWLDF will cover, is from 2006 - 2026.

2 Location of Mineral Extraction Sites and Effect on the Strategic Road Network

- 2.1 Minerals can only be extracted where they exist. The main mineral deposits in Berkshire are located along the Kennet Valley and the Colnbrook area of Berkshire. As a result extraction is likely to impact on the M4 Junction 11/12 and the M25/M4 Slough/Colnbrook area.
- 2.2 The Key Diagram in Appendix 1 shows potential mineral and waste areas.

3 Mineral Extraction

- 3.1 Mineral extraction in Berkshire is almost exclusively confined to sand and gravel. Most of this material is used locally and most is transported by road.
- 3.2 The Core Strategy will make provision for an apportionment rate for Berkshire, which has been set at 1.57⁴ million tons per annum. This is a lower rate than that set in the existing plan, which makes provision for an apportionment rate of 2.3 million tons per annum.

¹ M3, M4, M25, M40, A308(M), A404(M), A34 (as confirmed by the Highways Agency May 2007)

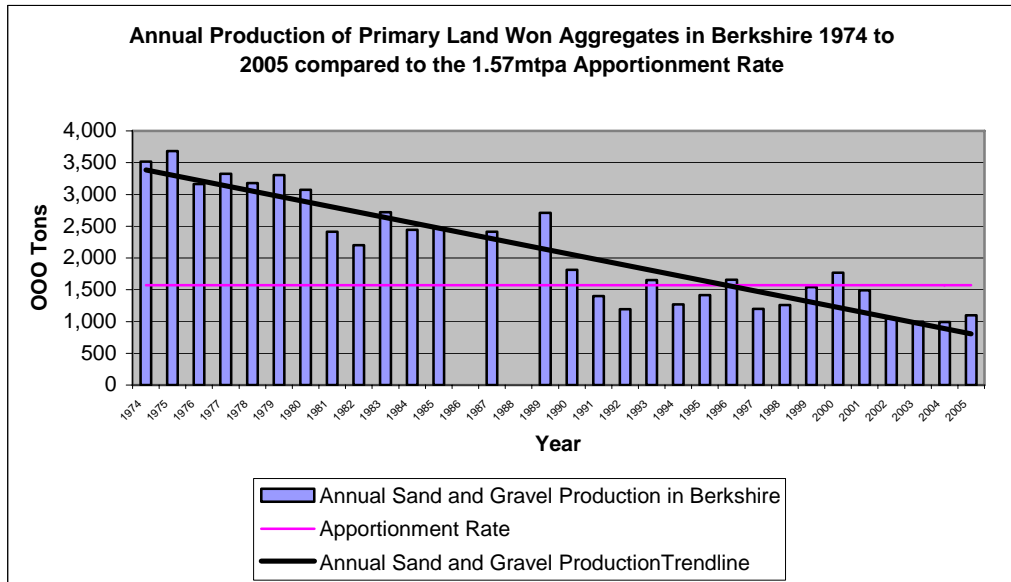
² Replacement Minerals Local Plan for Berkshire Incorporating the Alterations adopted in December 1997 and May 2001. Babbie.

³ Waste Local Plan for Berkshire. Babbie. 1998

⁴ Regional Planning Guidance for The South East. Alterations to Chapter 10 and 11. DCLG. June 2006

3.3 Chart 1 and Table 1 below show the annual production of primary land won aggregates in Berkshire from 1974 compared with the apportionment rate for 2004-2016. The total production of primary land won aggregates during 2004 was 0.99 million tonnes, and during 2005 was 1.1 million tonnes. The chart shows that annual production has fallen short of the new apportionment rate over the last five years due mainly to falling demand for aggregates.

Chart 1



Source: JSPU/SEERA Aggregates Monitoring

Table 1

Annual Production of Primary Land Won Aggregates in Berkshire 1974 - 2005			
Year	000 Tonnes	Year	000 Tonnes
1974	3,517	1991	1,403
1975	3,685	1992	1,194
1976	3,163	1993	1,653
1977	3,323	1994	1,269
1978	3,180	1995	1,414
1979	3,306	1996	1,655
1980	3,073	1997	1,200
1981	2,414	1998	1,257
1982	2,199	1999	1,542
1983	2,722	2000	1,768
1984	2,445	2001	1,493
1985	2,470	2002	1,048
1987	2,412	2003	1,000
1989	2,712	2004	993
1990	1,816	2005	1,100

Source: JSPU/SEERA Aggregates Monitoring

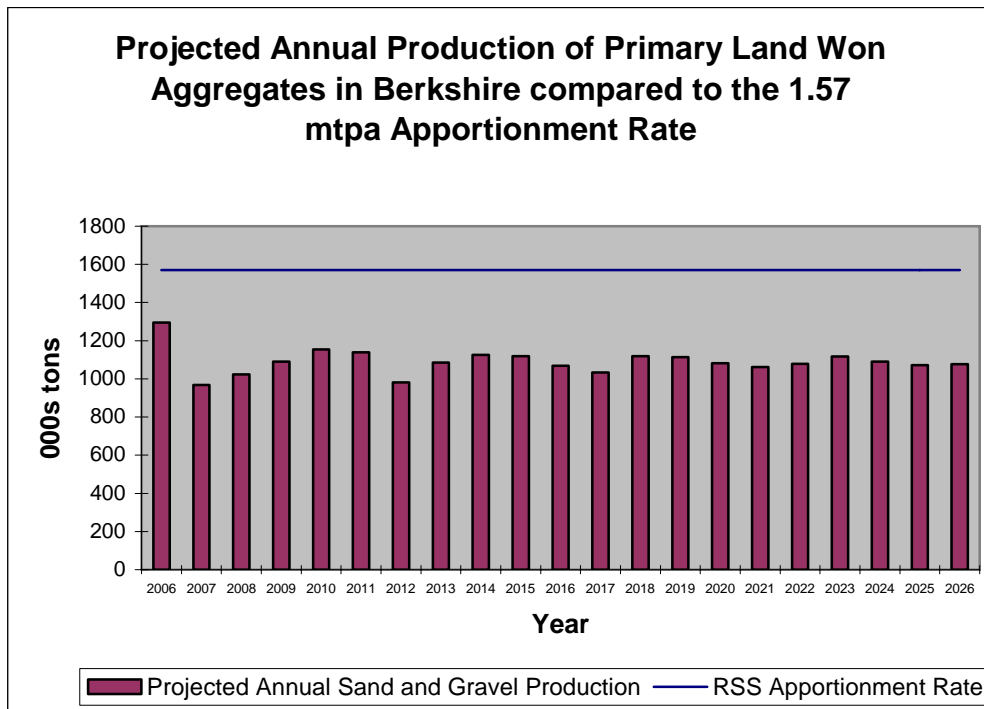
4 Projected Mineral Vehicle Movements

- 4.1 The annual production of minerals is directly linked to the number of mineral vehicle movements. A higher annual production will result in more vehicle movements and a lower production will result in less vehicle movements.
- 4.2 This report uses two alternative projections to estimate the number of lorry movements generated by the Preferred Policy Approaches in the Core Strategy. (It has been assumed a lorry load of aggregates is 18 tonnes).

5 Projection A – 5 Year Historical Trend 2001 – 2005 Projected to 2026

- 5.1 Annual production fluctuated between the periods 1974 and 2005 and also between 2001 and 2005 (see Chart 1). However, an overall declining trend can be identified which is shown on Chart 1. The average annual production during the period 2001 and 2005 was 1.13 million tons per annum, which equates to 62,611 journeys per annum.
- 5.2 If the annual production trend between 2001 and 2005 is projected forward until 2026⁵ (See Chart 2) then this would suggest an average annual production of 1.09 million tons per annum between 2006 and 2026. This would equate to an average of 60,555 journeys per annum. This is 2,056 fewer than the average number of journeys per annum for the period 2001 to 2005.

Chart 2



Source: JSPU/SEERA Aggregates Monitoring

⁵ Using a linear trend by fitting a straight line to the arrays (using method of least squares)

6 Projection B- Extraction at apportionment level

- 6.1 If annual production matched the apportionment rate then this would result in the extraction of 1.57 million tons per annum, which would generate 87,222 journeys per annum. This would be 26,667 more journeys per annum than the amount generated by Projection B (which is a continuation of the trend over the last five years).

7 Summary of Effects of Mineral Extraction Rates

- 7.1 It should be noted that even though the apportionment rate in the current plan is set at 2.3 million tons per annum the actual annual production has been significantly lower than this. In 2005 mineral production was 1.1 million tons per annum. (See Chart 1).
- 7.2 A significant number of existing mineral sites already have the benefit of planning permission (planned for under the old higher apportionment rate). It is, therefore, anticipated that there will be no strategic impact on the Strategic Road Network in the short to medium term (i.e. next ten years) since the level of vehicle movements permitted at these sites corresponds to the higher extraction rate of 2.3 mtpa.
- 7.3 In relation to the medium to long term period (10 – 20 years), as the existing sites are exhausted, the potential cumulative impact of the potential areas of extraction along the A4 on Junction 12 of the M4 will be assessed at the site selection stage and mitigation measures considered if needed. This also applies to the significant number of development proposals put forward south of the M4 between Junctions 11 and 12 of the M4, which also have the potential for mineral extraction.

8 Conclusion

- 8.1 Over the past 20 years the overall amount of vehicle traffic in Berkshire has been slowly increasing each year. However, the amount of vehicle movements generated as a result of sand and gravel extraction has been decreasing both as a percentage of overall traffic and in absolute terms. This trend is likely to continue both as a result of the reduction in the mineral apportionment rate for Berkshire (see Chart 1) and the overall declining trend in annual production (see Chart 2).
- 8.2 As a result of these forecasts, no intensification of use of the Strategic Road Network is predicted due to the Core Strategy's provision for an apportionment rate of 1.57 million tons per annum as required by Regional Spatial Strategy.

9 Distribution of Waste Facilities and effect on the Strategic Road Network

- 9.1 The preferred policy approach is to make provision for centralised facilities in the east of Berkshire and a more extensive pattern of transfer and treatment facilities in the west, in both cases making use of urban or previously developed sites where available.

9.2 The suggested main areas for waste provision will be north of the M4 between Junctions 11 and 12 and Beenham and Colnbrook.

9.3 The Key Diagram in Appendix 1 shows Potential Mineral and Waste Areas.

10 Waste Provision

10.1 The Core Strategy will make provision for waste management capacity equivalent to the amount of waste arising and requiring management within the six Berkshire Unitary Authorities and to make a contribution to meeting the waste management needs of London.

10.2 Table 2 below shows the annual average tonnages of MSW and C&I waste to be managed in Berkshire as set out in revisions to RPG9⁶. This table does not include all waste streams.

Table 2

Annual Average Tonnages to be Managed (Thousand Tonnes) in Berkshire					
	2005-2009	2010-2014	2015-2019	2020-2024	2025
MSW ⁷	363	421	472	518	547
C & I	804	901	985	1050	1082

Source: Regional Planning Guidance for The South East. Alterations to Chapter 10 and 11 Table 3. DCLG. June 2006

11 Projected Waste Vehicle Movements

11.1 In forecasting future vehicle movements which could result from the Preferred Policy Approaches of the Waste Core Strategy account should be taken of the following:

- If present trends continue then waste arisings will increase
- The proportion of waste disposed of to landfill in Berkshire will reduce significantly in the future
- More of Berkshire's waste will be treated in Berkshire
- Major new facilities are being provided for at Slough, Reading and planned for at Padworth Sidings.

12 Conclusion

12.1 It is assumed that these permitted developments will result in no intensification of use of the Trunk Road Network and as the Core Strategy requires a full transport assessment for any strategic development it is assumed that any impact will be mitigated against prior to the facility becoming operational.

⁶ Regional Planning Guidance for The South East. Alterations to Chapter 10 and 11. DCLG. June 2006

⁷ Assumes 125k tonnes per annum exports

13 Non Road Transport

- 13.1 Although, the Core Strategy seeks to encourage the use of mineral and waste movement by rail or water, in reality, it is unlikely that there will be much increase in the proportion of non-road transport.

14 Conclusion

- 14.1 The view of the JSPU is that as a result of the implementation of the Minerals and Waste Core Strategy Preferred Policy Approaches there will be no significant intensification of the use of the Strategic Road Network.
- 14.2 However, potential hotspots: Junctions 11 and 12 of the M4 and the M25/M4 Slough/Colnbrook area will be considered as individual site allocations come forward. The cumulative impact of individual site allocations will also need to be considered.
- 14.3 The transport implications of minerals and waste development on the Strategic Highways Network, will need to be taken into account by developers. Suitable mitigation measures will also need to be taken if required.