Minerals Local Plan Background Document

Worcestershire Local Aggregates Assessment

June 2013

Document Details:
Status: v2.4
Date: 14th May 2013
Document Location: www.worcestershire.gov.uk/mineralsbackground

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Analysis of supply

1.5. The analysis of supply uses the landbank landbank used to refer to the stock of reserves of minerals with planning permission for extraction within a particular area; it can be used as a tool to assess how long supply can be maintained for based on forecasted level of demand. It is expressed in years:

1.6. The current landbank for sand and gravel is **4.49 years** and for crushed rock the last publicly available landbank figure was **3.31 years**.[1]

1.7. The Local Aggregate Assessment assumes that supply from recycled and secondary aggregates, marine aggregates and imports will remain unchanged.

Assessment of the balance between demand and supply

1.8. The National Planning Policy Framework requires mineral planning authorities to maintain a minimum landbank of 7 years for sand and gravel and a minimum landbank of 10 years for crushed rock. This will be used to determine whether there is a shortage or surplus of supply.

1.9. There is currently a shortage of supply for both sand and gravel and crushed rock in Worcestershire.

Action to address the shortage in supply

1.10. The ability to increase the landbank in Worcestershire depends on the industry coming forward with proposals. No permissions for crushed rock workings have been refused by the Council in the last 10 years and there has been no known interest in opening a new crushed rock quarry in the county in over 20 years. 6 out of 8 applications for sand and gravel working were permitted by the Council in the last 5 years and the two refused applications were later permitted on appeal, even so these have

Preferred Areas remaining in the current Minerals Local Plan for sand and gravel.

1.12.

Contents

2.

Section 5: applies this method to sand and gravel, forecasting demand, assessing supply and establishing whether there is a shortage or surplus.
Section 6: does the same for crushed rock.

2.7. A separate report has been prepared to set out how the Council will approach the issue of the steady and adequate supply of industrial and energy minerals.

Next steps

2.8. The Local Aggregate Assessment will be updated annually through the Minerals and Waste Local Development Scheme Annual Monitoring Report (AMR) published by the Council in December each year. The current and previous AMRs are available on www.worcestershire.gov.uk/AMR. If you would like to be notified when new AMRs are published please contact minerals@worcestershire.gov.uk providing your e-mail address.

2.9. This is the council's first Local Aggregate Assessment. It will be updated through the Annual Monitoring report. It will be also be reviewed as other Mineral Planning Authorities in the West Midlands Aggregates Working Party develop and adopt their own Local Aggregate Assessments. Any issues arising will be discussed in line with the *Duty to Cooperate.*

metal. It will usually include crushing and screening. The recycled aggregate is then re-used, usually for a less demanding application.

Recycled aggregates and how they should be managed are considered in the Waste Core Strategy for Worcestershire[4].

Supply of primary aggregates

3.3. Sales data is commonly used when considering the supply of aggregates. This can have weaknesses as sales will vary depending on both supply and demand factors in the market, however it is considered to be the best indicator of the state of the market. It is also national policy to use average sales to derive minimum annual provision requirements for mineral planning authorities.

3.4. This section considers sand and gravel and crushed rock separately. In each case sales trends in Worcestershire and the West Midlands are outlined, followed by an assessment of minimum annual provision requirements and an analysis of the stock of reserves of minerals with planning permission.

Sand and gravel

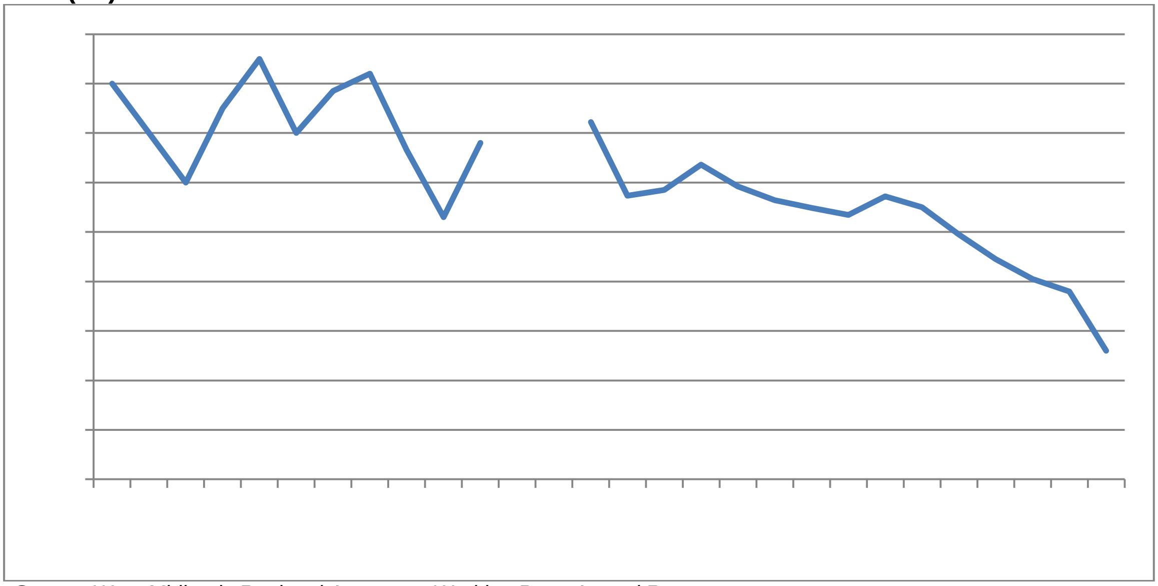
Sales context

3.5. Figure 3.1 shows the levels of sand and gravel sales in Herefordshire and Worcestershire from 1973 to 2010. During much of this period Hereford and Worcester County Council existed as a single minerals planning authority, with the data collated for the entire area. However in 1998 Herefordshire and Worcestershire were split and Table 3.1 gives detail of sales in Worcestershire alone in the last 10 years (the most recent data available is for 2010).

3.6. It is clear that there has been a gradual decline in sales over the last 20 years when considering both data for Herefordshire and Worcestershire combined and that for Worcestershire alone. This gradual decline was followed by a sharp drop in sales following the economic crisis in 2008. This differs from the trends across the West Midlands as a whole where sales remained fairly constant for the 10 years preceding the economic crisis in 2008 and then fell sharply, with only a small recovery in 2010 (shown in Figure 3.2).

[4] The Waste Core Strategy for Worcestershire was adopted in November 2012. The relevant documents are available to view on www.worcestershire.gov.uk/wcs.

Figure 3.1 Historic sand and gravel sales: Herefordshire and Worcestershire 1973 ± 2009 (mt)



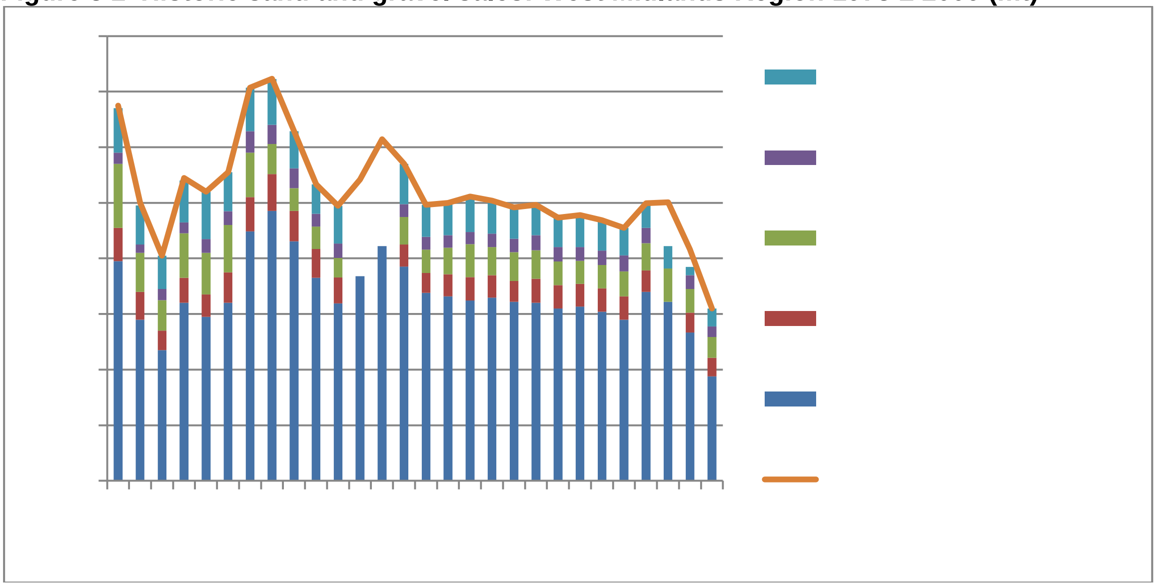
Source: West Midlands Regional Aggregate Working Party Annual Reports
* Figures derived from Office of National Statistics not West Midlands Regional Aggregates Working Party
! Data includes estimates due to difficulties in data collection and error in reports for total regional sales.
^ Missing data (Not available in RAWP report)

Table 3.1 Historic sand and gravel sales: Worcestershire 2000 ± 2010 (mt)

	2000	2001	2002	2003	2004 (est)	2005	2006	2007	2008	2009	2010
Worcestershire	0.84	0.84	0.83	0.89	0.85	0.75	0.7	0.81	0.76	0.52	0.62

Source: West Midlands Regional Aggregate Working Party Annual Reports

Figure 3.2. Historic sand and gravel sales: West Midlands Region 1973 ± 2009 (mt)



Source: West Midlands Regional Aggregate Working Party Annual Reports
* Figures derived from Office of National Statistics not West Midlands Regional Aggregates Working Party
! Data includes estimates due to difficulties in data collection and error in reports for total regional sales.
^ Missing data

Crushed Rock

Sales Context

3.7. Sales data for crushed rock production is not available for Worcestershire due to the long standing confidentially arrangements agreed between the industry and government to protect operators' commercial interests. This means that sales data

Figure 3.4. Historic crushed rock sales: West Midlands Region 1995 ± 2009 (mt)

Source: West Midlands Regional Aggregate Working Party Annual Reports

Secondary and Recycled Aggregates

permission at Hartlebury. This plant is predicted to produce 40,000 tonnes per annum of incinerator bottom ash, which is capable of use as secondary aggregate.

Recycled aggregates

3.15. Recycled aggregates arise from several sources notably from the demolition of buildings or from civil engineering works such as asphalt planings from road resurfacing and railway track ballast. "Recycling" aggregates involves the processing of waste materials to remove unwanted or inappropriate material such as fines, wood, plastic and metal. It will usually include crushing and screening. The recycled aggregate is then re-used, usually for a less demanding application.

3.16. A significant amount of recycled aggregate is produced in the county from the management of construction and demolition waste (C&D waste). In order to ensure that adequate provision was made need for additional capacity to recycle C&D waste of 105,000 tpa in Worcestershire over the period to 2025/26 to meet this.

3.21. This is not a cap on recycling capacity, but gives on indication of proportion of C&D waste which it is realistic to anticipate being recycled. Based on these figures it is likely that the availability of secondary aggregates would be 314,640 - 419,520 tonnes per annum between 2015/6 and 2035/36, depending on whether 75% or 100% of C&D waste is recycled.

3.22. The *Phase 2 Future Capacity Requirements Study* identifies that much, if not all of this capacity could be provided by mobile plant in Worcestershire. The Waste Core Strategy nonetheless makes provision for at least 25% of that capacity to be met from static sites and the land requirement in the Strategy reflects this.

3.23. Static C&D recycling facilities in Worcestershire currently have the capacity to manage about 122,000 tonnes per annum of inert waste. Mobile plants are also known to operate in the county and appear to process significant volumes of material. However it is not possible to assess the tonnage processed or the proportion of this which is used as aggregates at present, particularly as this type of material is often re-used on-site.

Imports and exports of aggregates

3.24. The best source of information about imports and exports is the *Aggregate minerals survey for England and Wales*. This survey is undertaken about every 4 years and one aspect that it considers is the movement of material. It sets out clear information relating to the inter-regional flow of aggregates. These patterns of movement are illustrated on Figure 3.5 and Figure 3.6.

Figure 3.5. Sand and gravel inter-regional flows, 2009

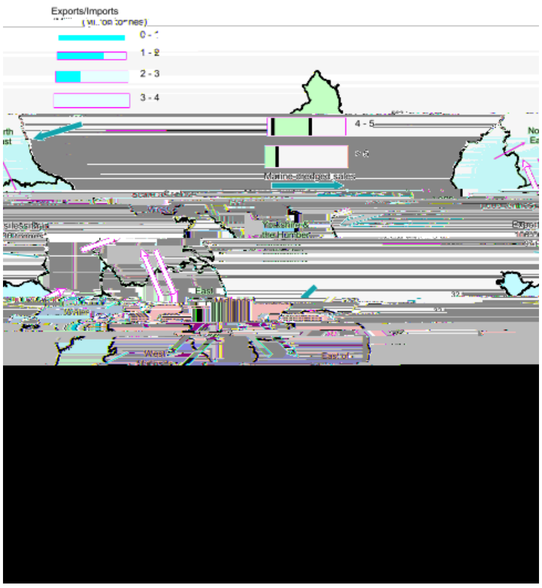
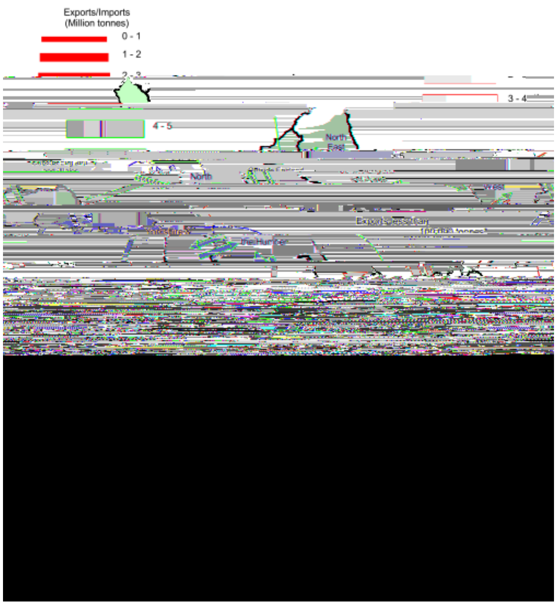


Figure 3.6. Crushed rock inter-regional flows, 2009



3.29. Worcestershire is an inland county and as such has no marine resources.

3.30. Table 3.5 above shows imports of marine sand and gravel in Worcestershire of 13,000 tonnes. Taking into account both land-won and marine sand and gravel, the figures in the Aggregate Minerals Survey 2009 indicate that Worcestershire is a net exporter of sand and gravel.

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Historical context

4.1.

Local Aggregate Assessment method for forecasting primary aggregate demand in Worcestershire

> **Up to and including 2016:** The Council will continue to follow the agreement between West Midlands Mineral Planning Authorities regarding the provision to be made by each authority.
>
> *This agreement does not extend beyond 2016.*
>
> **Beyond 2016:** Annual provision requirements will be calculated from a rolling average of annual sales levels in Worcestershire in the last 10 years.

4.11. Beyond 2016, the rolling 10 years annual sales average will be compared to the *National and Regional Guidelines for Aggregate Provision in England 2005-2020*.

4.12. As the regional apportionment does not vary between 2005 2020, the current sub-regional apportionment will be considered for monitoring purposes. Where there is any significant divergence between the sub-regional apportionment and the rolling 10 years annual sales average, the contributing factors will be assessed. This will allow for a 'sense-check' during the first few years of using the new methodology.

Secondary and recycled aggregates

4.13. The demand for secondary and recycled aggregates also needs to be taken into account.

4.14. Up to and including 2016 the sub-regional apportionment is derived from a projected national demand distributed by region according to the ability of the region to supply aggregates. This projected demand for primary aggregates has been calculated taking into account the contribution of secondary and recycled aggregates to supply, and assumes that approximately 27% of supply will be from alternatives to land-won or marine aggregates. To consider secondary and recycled aggregates further when using this method would risk double counting.

4.15. With regard to demand projection beyond 2016, the Waste Core Strategy estimates of C&D waste recycling will be used as the forecast for demand for recycled aggregates (see above). These forecasts predict that levels of C&D waste recycled will be approximately 383,000 tpa up to 2015 and approximately 315,000 tpa beyond 2015.

4.16. It is assumed that levels of sales of primary aggregates already reflect the supply contribution made by secondary and recycled aggregates. Although there is a small variation in the projected supply of secondary aggregates in the short-term levels are projected to remain constant from 2015 onwards.

4.17. There are no known sources of secondary aggregates in the County.

Method for analysing adequacy of supply in Worcestershire

4.18. landbank
reserves of minerals with planning permission for extraction within a particular area; it can be used as a tool to assess if an adequate and steady supply of aggregates can be maintained and for how long.

4.19. The length of the landbank for a particular mineral is calculated by:

$$\frac{\text{Total permitted tonnage}}{\text{Annual provision requirements}} = \text{Landbank in years}$$

4.20. Where the landbank does not meet minimum requirements set out in the NPPF it will be considered that there is a shortage of supply of aggregates in the County. Where this is the case, the action proposed to address this shortage will be outlined.

4.21. This approach will ensure that Worcestershire is "open for business" and that if the local economy recovers; the council will actively seek to enable the provision of adequate aggregate supply.

5.)RUHFDVWRIGHPDQGDQGDQDO\VLVRIVXSSO\IRUVDQG DQGJUDYHO

Demand forecast

5.1. The demand forecast represents the <u>minimum</u> annual provision which should be made for sand and gravel in Worcestershire. It will be used to assess the adequacy of supply and will inform the Minerals Local Planl in Wo93( )-2(i)-6(n)4(

Year	Sand and Gravel sales (Worcestershire)	
	2000-2009	2001-2010
2000	0.839 mt	-
2001	0.836 mt	0.836 mt
2002	0.833 mt	0.833 mt
2003	0.89 mt	0.89 mt
2004(est)	0.85 mt	0.85 mt
2005	0.75 mt	0.75 mt
2006	0.7 mt	0.7 mt
2007	0.81 mt	0.81 mt
2008	0.758 mt	0.758 mt
2009	0.524 mt	0.524 mt
2010	-	0.618 mt
Average	**0.779 mt**	**0.764 mt**

5.5. As you would expect, although there is some variation between annual sales levels, there is no significant variation in the 10-year averages from year to year. It is therefore possible to say with some certainty that unless there is a significant increase in sales to similar level to those seen in the 1990s, provision requirements beyond 2016 are likely to be at a lower level than the provision requirements up to and including 2016.

5.6. Whilst being notable the difference between the apportionment up to and including 2016 and the average sales data is less than 15% and is not considered to be a matter for concern.

Analysis of Supply

5.7. Table 5.2 shows the trend in the landbank for sand and gravel in Worcestershire in years based on the provision requirement of 0.871 million tonnes. Figure 5.1 shows the level of sand and gravel sales in Worcestershire in comparison to the annual apportionment of 0.871 million tonnes.

Table 5.2 Sand and gravel landbank: Worcestershire 2004-2010 (years)

	2004	2005	2006	2007	2008	2009	2010
Permitted reserves		4.3 mt	3.6 mt	4.1 mt	3.021 mt	5.152 mt	4.490 mt
Landbank (years)	6.4	4.9	4.1	4.7	3.65		

5.8. Two further permissions for sand and gravel working in the County have been granted since 2009, with a combined supply of approximately 1.829 million tonnes. This equates to 2.1 years supply based on the current apportionment. This indicates that the landbank in the County is increasing, however this will not be clear until more up-to-date RAWP figures are published which take into account both new permissions and

5.12. There has been limited interest in working sand and gravel in the County in recent years, however this may be due to the limited number of Preferred Areas remaining in the current Minerals Local Plan. A new Minerals Local Plan is currently being prepared and will seek to enable appropriate minerals development.

6.11. The current sub-regional apportionment for Worcestershire is 0.163 mt per annum. However with limited sales data it is difficult to assess whether Worcestershire has been meeting this apportionment.

6.12. The most recently published landbank figure for crushed rock in Worcestershire was **3.31** years in 2003. Later data cannot be published for the county due to the confidentiality of this information.

Assessment of the balance between demand and supply

6.13. The National Planning Policy Framework requires that Mineral Planning Authorities maintain landbanks of at least 10 years for crushed rock. The landbank in 2003 was only a third of this and since then only one application for crushed rock has been permitted[10]. That permission was to deepen an existing quarry to release approximately 100,000 tonnes of reserves of limestone. The site has now been fully worked and is currently being restored. This means that there are no other permitted crushed rock

provision that will be required to enable an adequate and steady supply of aggregates.

8.9. Preparation of a new Minerals Local Plan is currently underway. Regard will be had to ensuring the adequate competition can be maintained. This will take into account the number of productive units, the phasing of supply and any other relevant issues that are highlighted through consultation.

The published National and Sub National Guidelines on future provision should be used as a guideline when planning for the future demand for and supply of aggregates

Up to and including 2016

9.15. The *National and Regional Guidelines for Aggregate Provision in England 2005-2020* form the starting point for the sub-regional apportionment.

9.16. The method is considered to be compliant with this principle of the NPPF.

Beyond 2016

9.17. The rolling 10 years annual sales average will be compared to the *National and Regional Guidelines for Aggregate Provision in England 2005-2020* until 2020. The regional apportionment does not vary over this period, so the current sub-regional apportionment will be considered for monitoring purposes. Any significant divergence between the two figures will be considered to identify the contributing factors. It is likely that there will be a significant difference in the case of crushed rock due to the quality of the material in the county.

9.18. *The method is considered to be as compliant with this principle of NPPF as is practicable at this stage.*

Mineral Planning Authorities should use landbanks of aggregate minerals as an indicator of the security of supply, making provision for the maintenance of landbanks of at least 7 years for sand and gravel and at least 10 years for crushed rock

Up to and including 2016

9.19. The Local Aggregate Assessment will monitor this annually, using the sub-regional apportionment to calculate the landbank. This may not be possible for crushed rock where data is limited.

9.20. The method is considered to be compliant with this principle of NPPF.

Beyond 2016

9.21. The Local Aggregate Assessment will monitor this annually, using the rolling 10 years sales average to calculate the landbank. This may not be possible for crushed rock where data is limited.

9.22. The method is considered to be compliant with this principle of NPPF.