

WEST MIDLANDS REGIONAL ASSEMBLY

Assembly Board of Directors

17 March 2010

RSS Phase Three Interim Policy Statements

Sub-Regional Apportionment of Aggregates: 2005 - 2020

1. Purpose of Report

1.1 The purpose of this report is to:

- (a) Provide advice on options for the sub-regional apportionment of aggregates.
- (b) Seek agreement on a regional solution to the apportionment of aggregates.
- (c) Provide draft Interim Policy Statements for consideration and comment – the sub-regional apportionment option which is agreed by the Regional Assembly will determine which Interim Policy Statement is submitted - Appendix A, B or C.

2. Recommendations

2.1 That the Assembly Board:

- (a) Considers the advantages and disadvantages of the apportionment options (outlined in **Section 5** of this report) and professional advice from the following groups in reaching a regional solution to the apportionment of aggregates:
 - (i) The Regional Aggregates Working Party (WMRAWP) - outlined in **Section 6**,
 - (ii) Assembly Secretariat - outlined in **Section 7**, and
 - (iii) RSS Coordination Group - outlined in **Section 8**
- (b) Agrees a preferred option (1C, F or Refined F) for the sub-regional apportionment of aggregates to 2020.
- (c) Considers and approves the appropriate Draft Interim Policy Statement (in one of its alternative forms) related to the sub-regional apportionment of aggregates (as outlined in Appendices A – C).
- (d) Delegates responsibility to the Assembly Chief Executive, in consultation with the Chair of the Assembly Board, to agree any minor refinements

to the Interim Policy Statement after the Assembly Board has made a decision on the apportionment figures, prior to its submission to GOWM before the 31st March deadline.

- (e) Forward the approved Interim Policy Statement to the Joint Strategy & Investment Board (JSIB) to take forward as part of the general process of informing JSIB about the RSS policy package which it is inheriting in respect of the new Regional Strategy.

3. Background

- 3.1 In June 2009 the Government issued revised national and regional guidelines for the provision of aggregates for the period 2005-2020. The new guidelines replace the June 2003 guidelines.
- 3.2 The revised regional guideline total provision for the West Midlands is 370 million tonnes of materials to be provided over the next 16 years and comprises the following requirements and assumptions:-
- 165 million tonnes of sand and gravel
 - 82 million tonnes of crushed rock
 - 100 million tonnes of alternate materials (secondary and recycled aggregates)
 - 23 million tonnes of imports, principally from Wales.
- 3.3 The apportionment of the regional guidelines is the responsibility of the WMRA (as the Regional Planning Body), taking into account advice from the Mineral Planning Authorities (MPAs) and the West Midlands Regional Aggregates Working Party (WMRAWP).
- 3.4 The Government requested that the apportionment be completed and submitted to the Department of Communities and Local Government (DCLG) by the end of December 2009. At the WMRA's request, this deadline was extended for the West Midlands to the end of March 2010.
- 3.5 When the sub-regional apportionment is completed, the apportionment becomes a material consideration in decision making by the Regional Planning Body (and subsequently the responsible regional authorities, ie West Midlands Leaders Board and Advantage West Midlands) and by the MPAs.
- 3.6 The regional guideline and apportionment will also form the basis of an Interim Policy Statement. Three versions of the Interim Policy Statement are attached for comment as Appendices A, B and C, Each Interim Policy Statement relates to an apportionment option – Appendix A relates to Option "1C", Appendix B to Option "F", and Appendix C to Option "Refined F". The final Interim Policy Statement will be related to whichever sub-regional apportionment was agreed by the Assembly Board.

4. Process Towards Developing Sub-Regional Apportionment Options

- 4.1 The WMRA is considering a number of technical options for the sub-regional apportionment of aggregates. This technical work has been carried out over an intensive period from November 2009 to March 2010.
- 4.2 Options based on past sales trends were prepared by the WMRAWP Technical Secretariat. In recognition of the fact that these apportionment options essentially reflect "historical shares" or trends in past sales (rather than an appraisal of future needs), the WMRA also commissioned consultants (LUC) to develop "alternative" apportionment options which seek to address a change in policy direction, by taking account of the likely availability of materials, future patterns of development, environmental and other considerations.
- 4.3 Between 18th December 2009 and 22nd January 2010 the WMRA undertook a technical consultation with WMRAWP members on eleven options for the sub-regional apportionment of aggregates.
- 4.4 The technical consultation with WMRAWP did not produce a consensus view on a preferred option. There was a polarisation of views, with particularly marked differences of opinion between Staffordshire and Stoke favouring an option based on the LUC methodology and the other MPAs and industry representatives favouring an option based on past sales trends prepared by the WMRAWP.
- 4.5 The Assembly Board on 15th January 2010 noted that technical work on the apportionment options was still in progress, including a technical consultation with the WMRAWP. The Assembly Board resolved to seek a common solution by the end of March 2010. The Assembly Board also noted the strong opinions expressed by Staffordshire that the current apportionment for sand and gravel (65% of the regional total) placed an undue burden on that County area.
- 4.6 The RSS Coordination Group, at its meeting on 3rd February, agreed that the way forward would be to present the RPEE and Assembly Board with apportionment options based on both the WMRAWP scenarios and the LUC methodology. The intention was that the RPEE should consider the options prior to a decision being taken by the Assembly Board on 17th March 2010.
- 4.7 At its meeting on 9th February 2010 the majority of WMRAWP members agreed (Staffordshire and Stoke on Trent strongly disagreeing) to recommend that the Regional Assembly consider **Option 1c (10 year average)** as one of the options for determining the apportionment for both sand and gravel and crushed rock. The WMRAWP agreed that, if the Assembly was minded to use an alternative apportionment methodology based on that developed by LUC, then two new options should be subject to a further limited consultation with WMRAWP members from 17th -26th February 2010. The WMRA therefore invited views and evidence from WMRAWP members on:
 - **Option F** – based 70% on past sales and 30% other factors, and
 - **Refined Option F** - which introduces a phased change – 100% on past sales initially, reducing to 90%, and then 70% over time.

- 4.8 The sub-regional apportionment for sand & gravel and crushed rock for the period 2005 – 2020 by sub-region based on Options 1C, F and Refined F are outlined in their alternative forms in Appendices A, B, and C respectively.
- 4.9 The apportionment needs to be accompanied by a Sustainability Appraisal (SA) incorporating strategic environmental assessment and a Habitats Regulation Assessment (HRA). An Interim SA and HRA of the options are attached as Appendices D and E.
- 4.10 The RPEE on 23rd February considered the three sub-regional apportionment Options (1C, F and Refined F) but were asked not to agree an option because technical consultation was still on-going. There was considerable discussion about the merits of the three Options at the meeting without any clear consensus on a preferred option. Some Members felt that existing apportionment patterns had delivered in the past and therefore felt that Option 1C was sustainable. Others considered that perpetuating past trends placed an unfair burden on Staffordshire and that this was not sustainable. Those Members that favoured Option F recognised that it would necessitate an increase in sand & gravel extraction across other MPAs unless there was an early review (and decrease) in the regional guideline figures. Those Members who favoured the new Options supported Option F rather than Refined F.

5. Advantages and Disadvantages of the Proposed Sub-Regional Apportionment Options

- 5.1 The advantages and disadvantages of the approaches in Options 1C, F and Refined F are summarized below.

Option 1C

- 5.2 This Option is supported by the majority of WMRAWP representatives. The advantages of Option 1C are that:

- The approach of extrapolating past trends is a tried and tested method of apportioning aggregates
- It leads to an apportionment that maintains existing supply patterns in the region

- 5.3 The disadvantages of Option 1C are that the extrapolation of past trends:

- Takes no account of mineral resource quality or depletion
- Takes no account of changing demand resulting from RSS Phase Two development requirements
- Takes no account of environmental constraints
- Ignores the outcome of the RSS Phase 3 Options consultation in which the majority of respondents who expressed a view favoured an alternative method of apportionment to provide a sustainable supply of aggregates.

Option F

- 5.4 This Option reflects the majority view from the RSS Phase 3 Options consultation responses which favoured an alternative method of apportionment. The advantages of Option F are that:
- It takes account of the likely availability of materials
 - It takes account of future patterns of development arising in RSS Phase Two
 - It takes account of environmental constraints
 - The methodology was tried and tested at the South East of England RSS Examination in Public
 - The methodology has been flexible enough to incorporate factors important to West Midlands circumstances
 - The methodology can be updated to reflect future changes to data or policy objectives / priorities
- 5.5 The disadvantage of Option F is that:
- It is not supported by the majority of WMRAWP because in their opinion the evidence base was not sufficiently robust to justify the proposed redistribution of sand and gravel provision across the region

Option Refined F

- 5.6 This Option represents a compromise approach of moving towards an alternative approach, but more gradually. The advantage of Option Refined F are that it:
- Includes **all** the advantages of Option F
- 5.7 In spite of it being a compromise approach, the disadvantages of Refined F are that:
- It is not the first choice of any members of WMRAWP (including Staffordshire and Stoke) or RPEE.
 - It introduces arbitrary phases not linked to phasing policies in RSS Phase Two.
 - Due to lead-in times for bringing sites forward and plan preparation, the phasing targets would be difficult to enforce and would require regular review and monitoring throughout the period of the guidelines.

6. Views of The WMRAWP

- 6.1 The WMRAWP met on 3rd March 2010 to consider the LUC options Option F and Refined Option F. Having considered the information and comments to the technical consultation at the meeting the WMRAWP concluded that:

"it was not in principle against looking at alternative methodologies for the sub-regional apportionment of aggregates but at this time there was no basis for change irrespective of which of the two options [F or Refined F] may be chosen because:

- *the LUC methodology was not robust*

- *the quality of the data used in the methodology was not good enough*
- *there was not sufficient evidence to support Staffordshire's contention that change was needed and*
- *The proposed redistribution of the aggregates apportionment was not deliverable."*

6.2 The WMRAWP also agreed that *"if the LUC options are taken forward then the calculation for the apportionment should be based on a 10 year average and that the evidence submitted by Worcestershire County Council (MoHLG letter of 30th September 1953) was sufficient to exclude the Malvern Hills resource from the crushed rock calculations. The WMRAWP also concluded that there was no evidence to suggest that the West Midlands could meet an additional 10% of its aggregates requirements from alternative materials and even if there was evidence it was not an option which could be considered further by the Assembly."*

7. Views of the Assembly Secretariat Including Its Minerals Policy Lead Officer

- 7.1 The Assembly Secretariat has sought to take account of the comparisons between Options 1C, F and Refined F (see Section 5 above), advice from the WMRAWP (see Section 6 above) and the apportionments for each sub-region (outlined in Appendices A, B, and C) in reaching a view on the sub-regional apportionment of aggregates.
- 7.2 The Assembly Secretariat notes that Options 1C, F and Refined F would lead to very similar apportionment patterns for crushed rock. It would appear that an apportionment option for crushed rock based on either Option 1C, F or Refined F could therefore be supported regionally.
- 7.3 There is, however, no consensus on the apportionment of sand and gravel to 2020 using the LUC methodology even though it was used to support Options F and Refined for crushed rock.
- 7.4 The Assembly Secretariat notes that the majority of WMRAWP agree (with the exception of Staffordshire and Stoke who strongly disagree) that their preferred option is 1C.
- 7.5 Whilst the apportionment of aggregates based on an arithmetic extrapolation of past sales trends has been used in the past, the Assembly Secretariat considers that an approach which takes no account of the Regional Spatial Strategy, no account of the availability of unsterilized resource and no account of environmental constraints does not provide a sustainable basis to plan for the future.
- 7.6 Option 1C does not appear to reflect Government guidance in Minerals Planning Statement 1 (MPS1) which says that an integrated policy approach to minerals planning should be adopted based on consideration of social, environmental and economic factors. This is because it relies on the economic factor of 100% past sales. The recently published final version of the Government's Policy Statement on Regional Strategies says at paragraph 3.4 that "Regional Strategies should focus on the key priorities

for the region, considering them in an integrated way, rather than as separate unrelated issues.”

- 7.7 Option 1C also does not reflect responses to the RSS Phase Three Options consultation which indicated the need for a more sustainable approach to the apportionment of aggregates.
- 7.8 Option F is not supported by the majority of WMRAWP but does take on board a substantial element of past sales (70%). It also takes account of the availability of unsterilized resource, future patterns of demand arising from proposed growth in the RSS and environmental constraints and therefore appears to deliver a more integrated policy approach in the West Midlands. Contrary to criticisms by some WMRAWP representatives, the LUC methodology has been tested at the South East RSS EiP and has incorporated the best and most up-to-date data currently available for the Region. The methodology has been flexible enough to reflect West Midlands circumstances and can be updated to reflect future changes to data or policy objectives / priorities.
- 7.9 Option Refined F is not the preferred option of any WMRAWP members (including Staffordshire and Stoke) or the RPEE but would offer a regional compromise and could establish the principle that factors other than just past sales are relevant in apportioning aggregates provision.
- 7.10 Clearly the views on this issue are contested and there is merit in all the options depending on where you are located in the region. Weight ought to be given to the views of WMRAWP and the MPAs in terms of deliverability and it is considered that the Option F approach goes some way to doing this by giving priority to 70% of past sales whilst giving lesser priority to other aspects of RSS policy.
- 7.11 Therefore, after very carefully balancing all of the above factors the Assembly Secretariat (including its Minerals Policy Lead Officer) considers Option F to be the most appropriate regional solution as the basis for the apportionment of aggregates in the West Midlands to 2020.

8. Views of The RSS Coordination Group

- 8.1 The RSS Coordination Group considered the sub-regional apportionment of aggregates at its meeting on 8th March 2010. Whilst the apportionment Options F and Refined F do not propose a radical redistribution in aggregates across the MPAs, the views of the RSS Coordination Group were strongly divided on this matter.
- 8.2 The majority of MPAs at the RSS Coordination Group favoured Option 1C. Shropshire, Telford & Wrekin, Warwickshire, Worcestershire and Herefordshire favoured 1C, whilst Staffordshire, Staffordshire Districts and Stoke favoured Option F as a clear statement of intent to change the approach to apportionment.
- 8.3 The RSS Coordination Group therefore agreed on 8th March that all three options should be presented to the Assembly Board on 17th March, together

with the views of the WMRAWP, the Assembly Secretariat (including its Minerals Policy Lead Officer) and the RSS Coordination Group.

- 8.4 The RSS Coordination Group also noted that if there was an early review of the Government's regional guideline then there may be an opportunity to revise whatever sub-regional apportionment that is agreed during the preparation of the Strategy for the West Midlands in terms of further refining the methodology and data used. Officers across all authorities indicated a willingness to consider a new approach to apportioning aggregates (ie an approach not based solely on past sales trends) albeit for the majority of MPAs now was not the time to change
- 8.5 The RSS Coordination Group recognised there were good planning arguments for both Options 1C and F but also recognised that the Board's decision on the most appropriate regional solution would be a matter of political judgement based on the professional advice received.

9. Final Comments

- 9.1 A decision needs to be made by the Assembly Board at its meeting if a regional solution is to be given to the Government Office before the 31st March deadline. Without a regional-led agreement on sub-regional targets there is a risk that the West Midlands may face the imposition of centrally determined targets and an increase in the number of planning permissions granted on appeal.
- 9.2 When the Interim Policy Statement has been approved by the Assembly Board it will be forwarded to the Joint Strategy and Investment Board (JSIB) for ratification at their 23rd March meeting. This is simply for ratification and information as the JSIB takes on its new Regional Strategy role on behalf of the two responsible regional authorities viz WMLB and AWM.

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Interim Policy Statement for Construction Aggregates

3rd Draft Option 1c

Policy Objective

1. To produce new sub-regional apportionments for construction aggregates for the West Midlands for the period 2005 – 2020 and to provide advice to MPAs on extending those apportionments up to 2026.
2. Construction aggregates (sand and gravel and crushed rock) are essential to built development, other construction and maintenance of infrastructure (e.g. roads, flood defences) and are therefore essential to deliver growth, create and maintain sustainable communities and to sustain Urban and Rural Renaissance in the West Midlands.

Key Messages from the Phase Three Option Consultation

3. The suggested aggregates apportionment is not considered realistic. There was a considerable body of opinion which felt that the apportionment is too high for Staffordshire, and some were of the view that it is too high for the region as a whole. Most of those responding supported an apportionment using different sub-regions and methods, although there is some resistance to using the sub-regions proposed by the Section 4(4) authorities.

Background

4. In order to maintain adequate and steady supplies of materials on the one hand, and protect valuable landscapes and communities on the other, a national managed aggregates supply system operates providing guidelines for regional provision.
5. The Government determines the future national requirements for aggregates and apportions it between the regions based on past production, regional shares, future levels of construction activity and growth to give a regional requirement. (National and Regional Guidelines for Aggregates Provision in England: 2005-2020) (June 2009)
6. The current regional provision based on the 2003 guidelines was apportioned sub-regionally by the Regional Planning Body following advice from the West Midlands Regional Aggregates Working Party and incorporated into the West Midlands Regional Spatial Strategy (June 2004) as Policy M2. The 2003 national and regional guidelines and sub-regional apportionment set out in Policy M2 cover the period up to 2016. The figures need to be reviewed and projected forward to cover the period up to 2020 to ensure supplies are available to meet future needs.
7. Across the country there are geographical imbalances between the supply of, and demand for, aggregates at national level and therefore a mixture of sites is needed to contribute to meeting local, regional or national demands. This imbalance is reflected in the West Midlands region by the relationship between consumption in urban areas and the provision of supplies of primary aggregates from mainly rural areas particularly from Staffordshire for sand and gravel and Shropshire for crushed rock.
8. However not all the material produced and sold in the region is consumed in the West Midlands region. Based on the most recent information (AM2005 Collation) 87% of the sales were consumed in the West Midlands. As a whole the West Midlands consumed 17,827million tonnes of aggregates in

2005 of which 33% were imports. Of that 33% ninety three percent was crushed rock imported from other regions and Wales.

9. The draft revision to the WMRSS Phase 2 (covering the period up to 2026) proposes major new housing development across the region, additional employment sites and the development of a better transport system.

10. This level of future growth may require additional materials to be found by defining areas for new minerals extraction. However, demand for resources could be reduced by reducing the quantity of material used in new construction, and maximising the use of alternative materials in construction projects wherever possible.

Policy Position

11. The Government has published a new regional guideline for the West Midlands which requires 370 million tonnes of aggregates and alternate materials to be provided over the period 2005-2020 (June 2009)

12. This comprises the production of 247 million tonnes of primary aggregates (165 million tonnes of sand and gravel and 82 million tonnes of crushed rock), and assumes that 100 million tonnes of alternate materials will become available and 23 million tonnes of materials will come from imports outside the region during the 16 year period of the guidelines

13. In the absence of mechanisms to apportion the alternate materials requirements amongst the various Mineral Planning Authorities in the region the figure of 247 million tonnes for primary aggregates has been used to carry out the sub regional apportionment.

14. The West Midlands Regional Assembly carried out two technical consultations with WMRAWP members on eleven options ,six derived from the RAWP based on past sales, increased proportions of recycled aggregates and substitutions between mineral types and five alternative options produced by consultants.

15. In response to comments made during the first consultation the consultants produced two further refined options which were considered by the RAWP and the Regional Assembly.

16. The Regional Assembly took into account the information and evidence from the consultations, the technical advice from the RAWP and the results of the Habitats Regulations Assessment and the Sustainability Appraisal and agreed that the regional guidelines could be met at an acceptable environmental cost. They also agreed that the apportionment methodology which represented the most practicable .realistic and sustainable option capable of being delivered was Option 1c (past trends -10 year average) for both sand and gravel and crushed rock.

17. For the purposes of carrying out the apportionment the 10 year period for calculating the average would be 1998 -2007.

18. Table 1 is the sub-regional apportionment up to 2020 agreed by the Regional Assembly following technical advice from the WMRAWP and the constituent Mineral Planning Authorities.

Table 1: Apportionment of the Regional Guidelines 2005-2020 (million tonnes) provision by existing sub-regions

	Annual Provision	Annual Provision
	Sand & Gravel	Crushed Rock
Herefordshire	0.27	0.49*
Worcestershire	0.88	*
Shropshire	0.86	2.72
Staffordshire	6.71	1.91 #
Warwickshire	1.04	#
West Midlands County	0.55	0

Regional - Annual Total	10.31	5.12
Regional Total 2005-2020	165	82

- + West Midlands County Apportionment redistributed between the other counties in 2006.
- * Herefordshire and Worcestershire figures combined for confidentiality reasons
- # Staffordshire and Warwickshire figures combined for confidentiality reasons.

19. In determining the requirements beyond 2020 the MPAs will have to project the agreed figures at a constant value for a further period of 6 years up to 2026. This is based on advice from CLG when determining the likely sub-regional apportionment for the period 2016-2021 (which was the end date of the current WMRSS) from the previous National and Regional Guidelines (June 2003)

20. Mineral Planning Authorities (MPAs) will need to plan to maintain appropriate landbanks for sand and gravel and for crushed rock, which is sufficient to deliver 10.31 million tonnes and 5.12 million tonnes per annum respectively across the region.

21. Mineral Development Plan Documents (DPDs) should include policies that reflect the sub regional provisions for sand and gravel and crushed rock. MPAs in collaboration with local planning authorities and the minerals industry should ensure that economically important aggregate mineral resources in the region are safeguarded and that aggregates and aggregates related infrastructure are safeguarded particularly existing and planned rail depots in order to meet future demands.

22. It will be essential to ensure that production is maintained from existing and planned aggregates sites and aggregates and aggregates related infrastructure by limiting encroachment from non mineral development through applying buffers or consultation zones.

23. The sub regional provisions for both sand and gravel and crushed rock should be subject to testing of practicality and environmental acceptability in the preparation of mineral DPDs including through sustainability appraisal. Mineral DPDs must consider the potential adverse effects of aggregates extraction, processing and transportation on the integrity of European nature conservation sites and adopt measures to avoid those adverse effects.

24. The regional guideline will be reviewed annually and revised when necessary according to Mineral Policy Statement No1 (annex 1 paragraph 5.1). The delivery of the sub regional provision will need to be monitored on an annual basis and reviewed before 2015 or as part of the preparation and approval of the regional strategy.

Contribution of Alternative Materials to Future Supply

25. The Government's regional provision includes a requirement to provide 100 million tonnes of alternative materials over the period 2005-2020. This is an increase in the contribution towards total aggregates provision from 24% to 27% and an increase of 17.5% for the annual requirement – 5.5 million to 6.66 million tonnes.

26. The quality of the available data is not sufficiently robust to determine reliable geographical area based local apportionments for alternate materials. However, Policy W9 in the revised draft WMRSS (Phase 2) requires new sites for facilities to store, treat and recycle soils and construction and demolition waste to be provided and for more recycling through on site activities and purpose built facilities in urban areas.

27. MPAs in their LDFs will need to consider if there sufficient capacity to deliver the increase level of recycling now required. They will also need to consider what other measures they can take to maximise the use of alternative materials in local construction projects.

28. The delivery of this increase in use of alternative materials will require better collection of data (e.g. through regular WMRAWP surveys of secondary aggregates, waste management capacity monitoring, and monitoring of on-site recycling through the development management process) and greater emphasis being placed on the reuse and recycling of on site materials particularly in the Major Urban Areas subject to environmental considerations being met.

Paul Wilcox

Policy Lead for Minerals

25th February 2010.

Interim Policy Statement for Construction Aggregates

3rd Draft Option F

Policy Objective

1. To produce new sub-regional apportionments for construction aggregates for the West Midlands for the period 2005 – 2020 and to provide advice to MPAs on extending those apportionments up to 2026.
2. Construction aggregates (sand and gravel and crushed rock) are essential to built development, other construction and maintenance of infrastructure (e.g. roads, flood defences) and are therefore essential to deliver growth, create and maintain sustainable communities and to sustain Urban and Rural Renaissance in the West Midlands.

Key Messages from the Phase Three Option Consultation

3. The suggested aggregates apportionment is not considered realistic. There was a considerable body of opinion which felt that the apportionment is too high for Staffordshire, and some were of the view that it is too high for the region as a whole. Most of those responding supported an apportionment using different sub-regions and methods, although there is some resistance to using the sub-regions proposed by the Section 4(4) authorities.

Background

4. In order to maintain adequate and steady supplies of materials on the one hand, and protect valuable landscapes and communities on the other, a national managed aggregates supply system operates providing guidelines for regional provision.
5. The Government determines the future national requirements for aggregates and apportions it between the regions based on past production, regional shares, future levels of construction activity and growth to give a regional requirement. (National and Regional Guidelines for Aggregates Provision in England: 2005-2020) (June 2009)
6. The current regional provision based on the 2003 guidelines was apportioned sub-regionally by the Regional Planning Body following advice from the West Midlands Regional Aggregates Working Party and incorporated into the West Midlands Regional Spatial Strategy (June 2004) as Policy M2. The 2003 national and regional guidelines and sub-regional apportionment set out in Policy M2 cover the period up to 2016. The figures need to be reviewed and projected forward to cover the period up to 2020 to ensure supplies are available to meet future needs.
7. Across the country there are geographical imbalances between the supply of, and demand for, aggregates at national level and therefore a mixture of sites is needed to contribute to meeting local, regional or national demands. This imbalance is reflected in the West Midlands region by the relationship between consumption in urban areas and the provision of supplies of primary aggregates from mainly rural areas particularly from Staffordshire for sand and gravel and Shropshire for crushed rock.
8. However not all the material produced and sold in the region is consumed in the West Midlands region. Based on the most recent information (AM2005 Collation) 87% of the sales were consumed in the West Midlands. As a whole the West Midlands consumed 17,827million tonnes of aggregates in 2005 of which 33% were imports. Of that 33% ninety three percent was crushed rock imported from other regions and Wales.

9. The draft revision to the WMRSS Phase 2 (covering the period up to 2026) proposes major new housing development across the region, additional employment sites and the development of a better transport system.

10. This level of future growth may require additional materials to be found by defining areas for new minerals extraction. However, demand for resources could be reduced by reducing the quantity of material used in new construction, and maximising the use of alternative materials in construction projects wherever possible.

Policy Position

11. The Government has published a new regional guideline for the West Midlands which requires 370 million tonnes of aggregates and alternate materials to be provided over the period 2005-2020 (June 2009)

12. This comprises the production of 247 million tonnes of primary aggregates (165 million tonnes of sand and gravel and 82 million tonnes of crushed rock), and assumes that 100 million tonnes of alternate materials will become available and 23 million tonnes of materials will come from imports outside the region during the 16 year period of the guidelines

13. In the absence of mechanisms to apportion the alternate materials requirements amongst the various Mineral Planning Authorities in the region the figure of 247 million tonnes for primary aggregates has been used to carry out the sub regional apportionment.

14. The West Midlands Regional Assembly carried out two technical consultations with WMRAWP members on eleven options ,six derived from the RAWP based on past sales, increased proportions of recycled aggregates and substitutions between mineral types and five alternative options produced by consultants.

15. The methodology developed by the consultants to generate the five options was based on consideration of a range of criteria, including the location of the mineral resources, past sales, potential future demand and environmental constraints. By applying different weightings to the various factors five different/ (extreme) options were produced and they were:-

- Supply led
- growth led
- Environment led
- Equal weighting to all the factors
- Demand and resource

16. In response to comments made during the first consultation about the datasets, weightings and the five options not being considered to be deliverable and sustainable the consultants produced two further refined options based on past sales and phasing. These further two options which considered by the RAWP and the Regional Assembly before a final decision was made.

17. The Regional Assembly took into account the information and evidence from the consultations, the technical advice from the RAWP and the results of the Habitats Regulations Assessment and the Sustainability Appraisal and agreed that the regional guidelines could be met at an acceptable environmental cost. They also agreed that the apportionment methodology which represented the most practicable, realistic and sustainable option capable of being delivered was Option F for both sand and gravel and crushed rock.

18. The adopted method applied is based largely on past sales but taking into account the distribution of demand and the availability of relatively unconstrained sand and gravel and crushed rock resources in the region. For the purposes of carrying out the apportionment of both sand and gravel and crushed rock a 10 year average was chosen to reflect the need for a better indication of trends over time and would be based on the period 1998 -2007.

19. Table 1 is the sub-regional apportionment up to 2020 agreed by the Regional Assembly following technical advice from the WMRAWP and the constituent Mineral Planning Authorities.

Table 1: Apportionment of the Regional Guidelines 2005-2020 (million tonnes) provision by existing sub-regions

	Annual Provision	Annual Provision
	Sand & Gravel	Crushed Rock
Herefordshire	0.462	0.364
Worcestershire	1.009	0.157
Shropshire	1.496	2.647
Staffordshire	5.662	1.210
Warwickshire	1.154	0.745
West Midlands County	0.528	0
Regional - Annual Total	10.31	5.12
Regional Total 2005-2020	165	82

+ West Midlands County Apportionment redistributed between the other counties in 2006.

20 In determining the requirements beyond 2020 the MPAs will have to project the agreed figures at a constant value for a further period of 6 years up to 2026. This is based on advice from CLG when determining the likely sub-regional apportionment for the period 2016-2021 (which was the end date of the current WMRSS) from the previous National and Regional Guidelines (June 2003)

21. Mineral Planning Authorities (MPAs) will need to plan to maintain appropriate landbanks for sand and gravel and for crushed rock, which is sufficient to deliver 10.31 million tonnes and 5.12 million tonnes per annum respectively across the region.

22. Mineral Development Plan Documents (DPDs) should include policies that reflect the new sub regional provisions for sand and gravel and crushed rock following the redistribution of the sand and gravel future provision amongst the various mineral planning authorities as a result of the application of the new sub regional apportionment methodology.

23. MPAs in collaboration with local planning authorities and the minerals industry should ensure that economically important aggregate mineral resources in the region are safeguarded and that aggregates and aggregates related infrastructure are safeguarded particularly existing and planned rail depots in order to meet future demands.

24. It will be essential to ensure that production is maintained from existing and planned aggregates sites and aggregates and aggregates related infrastructure by limiting encroachment from non mineral development through applying buffers or consultation zones.

25. The sub regional provisions for both sand and gravel and crushed rock should be subject to testing of practicality and environmental acceptability in the preparation of mineral DPDs including through sustainability appraisal. Mineral DPDs must consider the potential adverse effects of aggregates extraction, processing and transportation on the integrity of European nature conservation sites and adopt measures to avoid those adverse effects.

26. The regional guideline will be reviewed annually and revised when necessary according to Mineral Policy Statement No1 (annex 1 paragraph 5.1). The delivery of the sub regional provision will need to be monitored on an annual basis and reviewed before 2015 or as part of the preparation and approval of the regional strategy.

Contribution of Alternative Materials to Future Supply

27. The Government's regional provision includes a requirement to provide 100 million tonnes of alternative materials over the period 2005-2020. This is an increase in the contribution towards total

aggregates provision from 24% to 27% and an increase of 17.5% for the annual requirement – 5.5 million to 6.66 million tonnes.

28. The quality of the available data is not sufficiently robust to determine reliable geographical area based local apportionments for alternate materials. However, Policy W9 in the revised draft WMRSS (Phase 2) requires new sites for facilities to store, treat and recycle soils and construction and demolition waste to be provided and for more recycling through on site activities and purpose built facilities in urban areas.

29. MPAs in their LDFs will need to consider if there sufficient capacity to deliver the increase level of recycling now required. They will also need to consider what other measures they can take to maximise the use of alternative materials in local construction projects.

30. The delivery of this increase in use of alternative materials will require better collection of data (e.g. through regular WMRAWP surveys of secondary aggregates, waste management capacity monitoring, and monitoring of on-site recycling through the development management process) and greater emphasis being placed on the reuse and recycling of on site materials particularly in the Major Urban Areas subject to environmental considerations being met.

Paul Wilcox

Policy Lead for Minerals - 26th February 2010

Interim Policy Statement for Construction Aggregates

3rd Draft Refined Option F

Policy Objective

1. To produce new sub-regional apportionments for construction aggregates for the West Midlands for the period 2005 – 2020 and to provide advice to MPAs on extending those apportionments up to 2026.
2. Construction aggregates (sand and gravel and crushed rock) are essential to built development, other construction and maintenance of infrastructure (e.g. roads, flood defences) and are therefore essential to deliver growth, create and maintain sustainable communities and to sustain Urban and Rural Renaissance in the West Midlands.

Key Messages from the Phase Three Option Consultation

3. The suggested aggregates apportionment is not considered realistic. There was a considerable body of opinion which felt that the apportionment is too high for Staffordshire, and some were of the view that it is too high for the region as a whole. Most of those responding supported an apportionment using different sub-regions and methods, although there is some resistance to using the sub-regions proposed by the Section 4(4) authorities.

Background

4. In order to maintain adequate and steady supplies of materials on the one hand, and protect valuable landscapes and communities on the other, a national managed aggregates supply system operates providing guidelines for regional provision.
5. The Government determines the future national requirements for aggregates and apportions it between the regions based on past production, regional shares, future levels of construction activity and growth to give a regional requirement. (National and Regional Guidelines for Aggregates Provision in England: 2005-2020) (June 2009)
6. The current regional provision based on the 2003 guidelines was apportioned sub-regionally by the Regional Planning Body following advice from the West Midlands Regional Aggregates Working Party and incorporated into the West Midlands Regional Spatial Strategy (June 2004) as Policy M2. The 2003 national and regional guidelines and sub-regional apportionment set out in Policy M2 cover the period up to 2016. The figures need to be reviewed and projected forward to cover the period up to 2020 to ensure supplies are available to meet future needs.
7. Across the country there are geographical imbalances between the supply of, and demand for, aggregates at national level and therefore a mixture of sites is needed to contribute to meeting local, regional or national demands. This imbalance is reflected in the West Midlands region by the relationship between consumption in urban areas and the provision of supplies of primary aggregates from mainly rural areas particularly from Staffordshire for sand and gravel and Shropshire for crushed rock.
8. However not all the material produced and sold in the region is consumed in the West Midlands region. Based on the most recent information (AM2005 Collation) 87% of the sales were consumed in the West Midlands. As a whole the West Midlands consumed 17,827million tonnes of aggregates in 2005 of which 33% were imports. Of that 33% ninety three percent was crushed rock imported from other regions and Wales.

9. The draft revision to the WMRSS Phase 2 (covering the period up to 2026) proposes major new housing development across the region, additional employment sites and the development of a better transport system.

10. This level of future growth may require additional materials to be found by defining areas for new minerals extraction. However, demand for resources could be reduced by reducing the quantity of material used in new construction, and maximising the use of alternative materials in construction projects wherever possible.

Policy Position

11. The Government has published a new regional guideline for the West Midlands which requires 370 million tonnes of aggregates and alternate materials to be provided over the period 2005-2020 (June 2009)

12. This comprises the production of 247 million tonnes of primary aggregates (165 million tonnes of sand and gravel and 82 million tonnes of crushed rock), and assumes that 100 million tonnes of alternate materials will become available and 23 million tonnes of materials will come from imports outside the region during the 16 year period of the guidelines

13. In the absence of mechanisms to apportion the alternate materials requirements amongst the various Mineral Planning Authorities in the region the figure of 247 million tonnes for primary aggregates has been used to carry out the sub regional apportionment.

14. The West Midlands Regional Assembly carried out two technical consultations with WMRAWP members on eleven options ,six derived from the RAWP based on past sales, increased proportions of recycled aggregates and substitutions between mineral types and five alternative options produced by consultants.

15. The methodology developed by the consultants to generate the five options was based on consideration of a range of criteria, including the location of the mineral resources, past sales, potential future demand and environmental constraints. By applying different weightings to the various factors five different/ (extreme) options were produced and they were:-

- Supply led
- growth led
- Environment led
- Equal weighting to all the factors
- Demand and resource

16. In response to comments made during the first consultation about the datasets, weightings and the five options not being considered to be deliverable and sustainable the consultants produced two further refined options based on past sales and phasing. These further two options which considered by the RAWP and the Regional Assembly before a final decision was made.

17. The Regional Assembly took into account the information and evidence from the consultations, the technical advice from the RAWP and the results of the Habitats Regulations Assessment and the Sustainability Appraisal and agreed that the regional guidelines could be met at an acceptable environmental cost. They also agreed that the apportionment methodology which represented the most practicable, realistic and sustainable option capable of being delivered was Refined Option F for both sand and gravel and crushed rock. The Assembly were particularly concerned about the potential impact of a change from an apportionment based solely on past sales to one based on a number of new factors and therefore a phased introduction of the new apportionment methodology was felt to be the most appropriate way forward at this time.

18. The adopted method applied is based on a phased third stage reduction of past sales over the remainder of the guideline period (10years) from 100% in 2011 to 70% by the end of the guidelines. It also takes into account the distribution of demand and the availability of relatively unconstrained sand and gravel and crushed rock resources across the region. For the purposes of carrying out the

apportionment of both sand and gravel and crushed rock a 10 year average was chosen to reflect the need for a better indication of trends over time and would be based on the period 1998 -2007.

19. Tables 1 and 2 are the sub-regional apportionments up to 2020 agreed by the Regional Assembly following technical advice from the WMRAWP and the constituent Mineral Planning Authorities.

Table 1: Regional Guidelines 2005-2020 (million tonnes) provision for sand and gravel by existing sub-regions and phasing.

Sub-region	Annual apportionment for 2005-2010	Annual apportionment for 2011-2012	Annual apportionment for 2013-2015	Annual apportionment for 2016-2020
Herefordshire	0.28	0.27	0.33	0.47
Shropshire	0.82	0.87	1.08	1.51
Staffordshire	6.60	6.79	6.43	5.72
Warwickshire	1.04	1.05	1.09	1.17
West Midlands County	0.51	0.56	0.55	0.53
Worcestershire	0.87	0.89	0.94	1.02
West Midlands	10.13	10.43	10.43	10.43

Regional
Total
165

Table 2:
Regi
onal

Guidelines 2005-2020 (million tonnes) provision for crushed rock by existing sub-regions and phasing.

Sub-region	Annual apportionment for 2005-2010	Annual apportionment for 2011-2012	Annual apportionment for 2013-2015	Annual apportionment for 2016-2020
Herefordshire	0.42	0.34	0.34	0.34
Shropshire	2.95	2.39	2.41	2.43
Staffordshire	1.40	1.13	1.13	1.11
Warwickshire	0.88	0.71	0.70	0.69
West Midlands County	0.00	0.00	0.00	0.00
Worcestershire	0.16	0.13	0.14	0.15
West Midlands	5.81	4.71	4.71	4.71

Regional Total

82

+ West Midlands County Apportionment redistributed between the other counties in 2006.

20 In determining the requirements beyond 2020 the MPAs will have to project the agreed figures at a constant value (based on the figures for 2016-2020) for a further period of 6 years up to 2026. This is based on advice from CLG when determining the likely sub-regional apportionment for the period 2016-2021 (which was the end date of the current WMRSS) from the previous National and Regional Guidelines (June 2003)

21. Mineral Planning Authorities (MPAs) will need to plan to maintain appropriate landbanks for sand and gravel and for crushed rock, which is sufficient to deliver 10.31 million tonnes and 5.12 million tonnes per annum respectively across the region.

22. Mineral Development Plan Documents (DPDs) should include policies that reflect the new sub regional provisions for sand and gravel and crushed rock both for the three phases and the redistribution arrangements amongst the various mineral planning authorities as a result of the application of the new sub regional apportionment methodology.

23. MPAs in collaboration with local planning authorities and the minerals industry should ensure that economically important aggregate mineral resources in the region are safeguarded and that aggregates and aggregates related infrastructure are safeguarded particularly existing and planned rail depots in order to meet future demands.

24. It will be essential to ensure that production is maintained from existing and planned aggregates sites and aggregates and aggregates related infrastructure by limiting encroachment from non mineral development through applying buffers or consultation zones.

25. The sub regional provisions for both sand and gravel and crushed rock should be subject to testing of practicality and environmental acceptability in the preparation of mineral DPDs including through sustainability appraisal. Mineral DPDs must consider the potential adverse effects of aggregates extraction, processing and transportation on the integrity of European nature conservation sites and adopt measures to avoid those adverse effects.

26. The regional guideline will be reviewed annually and revised when necessary according to Mineral Policy Statement No1 (annex 1 paragraph 5.1). The delivery of the sub regional provision will need to be monitored on an annual basis and reviewed in 2012 to determine whether the phasing is working and the local policy framework is in place to deliver the remaining phased redistribution of sand and gravel.

Contribution of Alternative Materials to Future Supply

27. The Government's regional provision includes a requirement to provide 100 million tonnes of alternative materials over the period 2005-2020. This is an increase in the contribution towards total aggregates provision from 24% to 27% and an increase of 17.5% for the annual requirement – 5.5 million to 6.66 million tonnes.

28. The quality of the available data is not sufficiently robust to determine reliable geographical area based local apportionments for alternate materials. However, Policy W9 in the revised draft WMRSS (Phase 2) requires new sites for facilities to store, treat and recycle soils and construction and demolition waste to be provided and for more recycling through on site activities and purpose built facilities in urban areas.

29. MPAs in their LDFs will need to consider if there sufficient capacity to deliver the increase level of recycling now required. They will also need to consider what other measures they can take to maximise the use of alternative materials in local construction projects.

30. The delivery of this increase in use of alternative materials will require better collection of data (e.g. through regular WMRAWP surveys of secondary aggregates, waste management capacity monitoring, and monitoring of on-site recycling through the development management process) and greater emphasis being placed on the reuse and recycling of on site materials particularly in the Major Urban Areas subject to environmental considerations being met.

Paul Wilcox

Policy Lead for Minerals - 26th February 2010

West Midlands Regional Assembly

Draft Interim Sustainability Appraisal of the Draft Sub-Regional Minerals Apportionment Options: Option F and Refined Option F

Revised 28th February 2010



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Quality Management

URSUS Consulting Ltd has quality systems which have been assessed and approved to BS EN ISO9001:2000 (certificate number GB2002687).

Creation / Revision History

Issue / revision:	Version 1
Date:	28.02.2010
Prepared by:	Steve Owen and Hilary Livesey
Authorised by:	Steve Owen
Project number:	U.040
File reference:	Minerals Apportionment Options Appraisal – Interim SA Report: Option F and Refined Option F

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ANNEX:

**SUSTAINABILITY APPRAISAL FRAMEWORK
DETAILED APPRAISAL TABLE**

1 REVISED DRAFT INTERIM SUSTAINABILITY APPRAISAL OF OPTION F AND REFINED OPTION F

1.1 INTRODUCTION

1.1.1 This Revised Version of the Draft Interim Sustainability Appraisal of Option F and Refined F

This revised version of the Draft Interim Sustainability Appraisal of Option F and Refined F has been prepared following comments received from WMRAWP representatives on the interpretation of the Regional Sustainable Development Framework (RSDF) Objective 3.7 to Promote Environmental Justice and the amalgamation of RSDF Objectives 3.6 Encourage Local Stewardship and 3.7 in the sustainability appraisal framework contained in the Draft Interim Sustainability Appraisal of Option F and Refined Option F circulated to the WMRAWP on 18th February 2010. In this revised version, the following two changes to the appraisal framework have been made:

- In applying the appraisal criteria based on RSDF Objective 3.7 Environmental Justice, we applied the wording contained in the RSDF which states “Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation”. The Department of Communities and Local Government (CLG) Indices of Deprivation 2007 has been used in assessing how options affect deprived areas and disadvantaged communities – further information is provided below in *Section 1.2.1*.

This approach replaces that used in the Draft Interim Sustainability Appraisal of Option F and Refined Option F circulated to the WMRAWP on 18th February which stated that the RSDF 3.7 objective on Environmental Justice “has been interpreted as seeking to ensure that no sections of society bear a disproportionately high share of the environmental impacts associated with the supply of products or services, the benefits of which are enjoyed more widely across society, and taking into account other factors such as volume of resource. The concept of environmental justice is often applied to avoid placing an inequitably high share of environmental burden on disadvantaged groups (such as ethnic minorities or residents in deprived areas), but the principles behind the objective are also applicable to communities located in particular spatial areas”.

- The second change contained in the appraisal framework is not to amalgamate RSDF Objective 3.6 Encourage Local Stewardship and RSDF 3.7 Environmental Justice (both shown below) in the appraisal framework, but to show them separately.

RSDF Objective 3.6: Encourage local stewardship of local environments, for example by promoting best practice in agricultural management or enabling communities to improve their neighbourhoods.

RSDF Objective 3.7: Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation.

In the light of these changes, the interim sustainability appraisal findings in *Section 1.4* below have been revised.

1.2 SUSTAINABILITY APPRAISAL METHODOLOGY

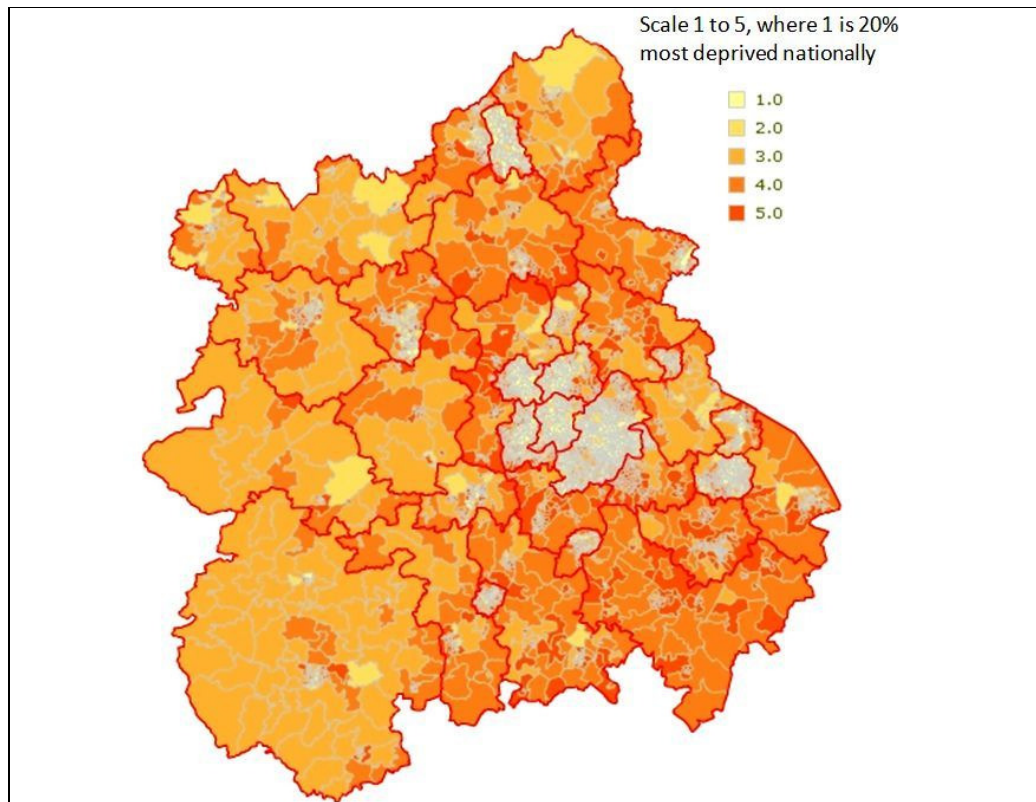
The sustainability appraisal methodology for Option F and Refined Option F is the same as that used in the *Interim Sustainability Appraisal of the Draft Sub-Regional Aggregates Apportionment Options* (January 2010). The appraisal makes use of the Sustainability Appraisal Framework used in appraising the West Midlands Regional Spatial Strategy Phase Three Revisions (as shown in *Table A.1* in the Annex below). The framework is based on 33 sustainable development objectives set out in the Regional Sustainable Development Framework (RSDF).

Further information on the appraisal methodology is provided in the January 2010 Interim Sustainability Appraisal Report. A final and more formal sustainability appraisal document will be prepared later in February / early March to accompany the apportionment options which are submitted to the Regional Assembly Board in March 2010. The final appraisal document will also consider possible effects in relation to minerals plans in other regions.

1.2.1 Assessing the Impact of Options in terms of RSDF Objective 3.7 on promoting environmental justice

The RSDF Objective 3.7 on promoting environmental justice seeks to ensure that deprived areas and disadvantaged communities are not more likely to be affected by environmental damage and degradation. In considering levels of deprivation and disadvantage, the appraisal has used the Department of Communities and Local Government's (CLG) Indices of Deprivation 2007 (released in March 2008) which combines a number of indicators (covering income deprivation, employment deprivation, health deprivation and disability, education, skills and training deprivation, barriers to housing and services, living environment deprivation, and crime) into a single deprivation score (Index of Multiple Deprivation – IMD) for each individual Census super output areas (SOA) in England – as shown in Figure (i) below. .

Figure (i) Indices of Deprivation 2007 – Overall multiple deprivation – by Super Output Area (SOA)



Source: West Midlands Regional Observatory, 2009

CLG has produced summaries of IMD 2007 at the County / Unitary Authority level. These summaries for the West Midlands region are contained in *Table (i)* below, showing the position of individual County and Unitary Authority areas within the national ranking, where 1st is the most deprived area in England and 149th is the least deprived. The County and Unitary Authority summary data of IMD 2007 has been used in this appraisal because it is not possible to predict with confidence the exact location of future minerals workings over the apportionment period 2005-2020.

Table (i) County/Unitary Authority Summary of Index of Multiple Deprivation (IMD) 2007 ranks

County / Unitary Authority per IMD 2007:	IMD Rank of Average Score (where 1 is the most deprived nationally and 149 is the least deprived nationally)
Birmingham	9 th
Sandwell	13 th
Stoke-on-Trent	15 th
Wolverhampton	26 th
Walsall	36 th
Coventry	47 th
Dudley	71 st
Telford and Wrekin	78 th
Herefordshire	101 st
Shropshire	106 th
Staffordshire	107 th
Solihull	109 th
Worcestershire	114 th
Warwickshire	123 rd

Source: CLG, 2007 <http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07>

1.3 DESCRIPTION OF OPTION F AND REFINED OPTION F

Option F and Refined Option F are described in detail in the consultation note prepared by LUC (17th February 2010) and are summarised below.

Option F - Past sales-led option, gives the highest weighting (70%) to past sales (based on the 10 year past sales average), and distributes equal weighting (10% each) to the remaining factors of demand, resource and constraint – as shown in *Table 1* below.

Refined Option F is a Past sales led option, but with phasing. It gives the highest weighting to past sales (based on the 10 year past sales average), with 100% weighting to past sales in the early years of the apportionment period (2011-2012), 90% weighting to past sales in the period 2013-2015, decreasing to 70% in 2016-2020. It therefore involves a gradual move from a 100% weighting on past sales (similar to Option 1c) to the 70% weighting (similar to Option F) by 2016. The highest weighting is given to past sales, and equal weighting is distributed amongst the remaining factors of demand, resource and constraint – as shown in *Table 2* below.

For both Option F and Refined Option F, the resource factors are based on volumes (taking account of thickness) of unsterilised resource outside of international and national designations – see *Table 3* and *Table 4*. The designations excluded for Crush Rock resources include the Malvern Hills Conservators Landholdings. Further information on the options is provided in the LUC Consultation Paper (17th February 2010).

Table 1 Factor Weightings for Option F

Factor		Option F: Past sales-led (weighting per factor)	Option F: Past sales-led (weighting per factor once ratios have been applied)
1: Demand	a: future housing/infrastructure	10%	6%
	1b: current refurbishment and redevelopment)		4%
2: Past sales		70%	70%
3: The resource		10%	10%
4: Constraints		10%	10%

Table 2 Factor Weightings for Refined Option F

Factor	2005-2010	2011-2012	2013-2015	2016-2020
1: Demand (split 60/40 between 1a: future housing/infrastructure and 1b: current refurbishment and redevelopment)	Current apportionment	0%	2%	6%
			1.3%	4%
100%		90%	70%	
0%		3.3%	10%	
0%		3.3%	10%	
2: Past sales				
3: The resource				
4: Constraints				

Table 3 Unsterilised sand and gravel resource outside of International and National Designations

Sub-region	Volume of unsterilised sand and gravel outside of international and national designations (mt)	% of total (volume)
Herefordshire	2,222.68	7.64%
Shropshire	10,176.63	34.97%
Staffordshire	9,312.55	32.00%
Warwickshire	3,491.67	12.00%
West Midlands County	850.98	2.92%
Worcestershire	3,047.46	10.47%
West Midlands	29,101.97	100.00%

Note: West Midlands County resource reduced to just Solihull and Walsall to reflect actual situation.

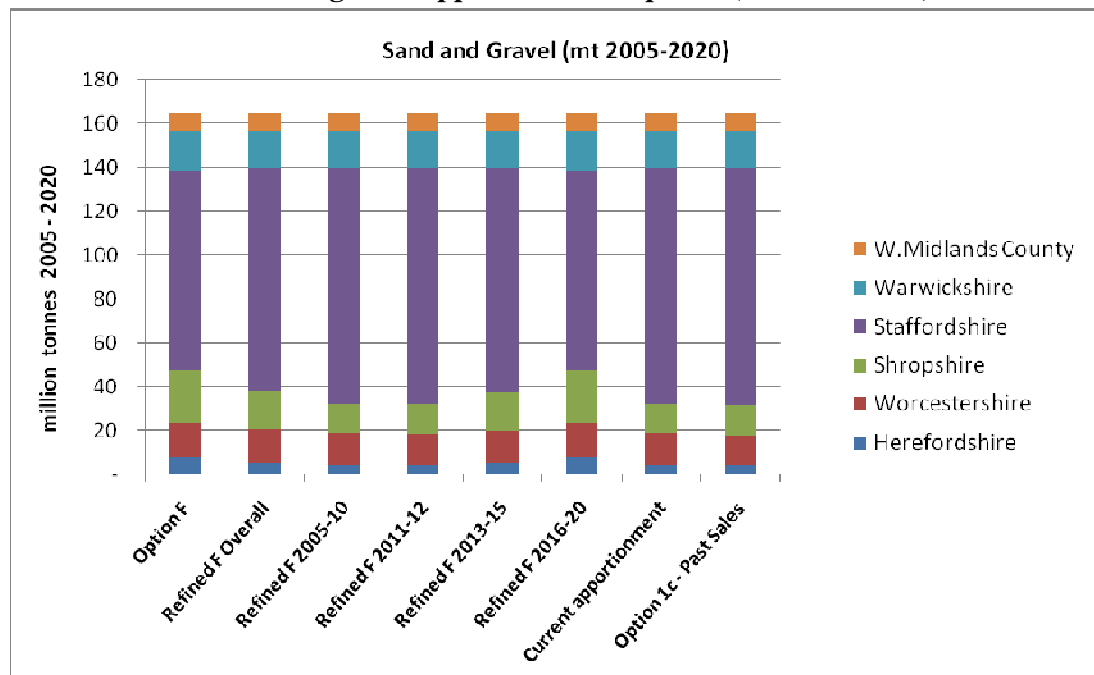
Table 4 Unsterilised crushed rock resource outside of International and National Designations including Malvern Hills Conservators Landholdings

Sub-region	Volume of unsterilised crushed rock outside of international and national designations (mt)	% of total volume	% of total volume (when West Mids County is excluded)
Herefordshire	2,042.49	10.32%	10.34%
Shropshire	12,909.77	65.20%	65.34%
Staffordshire	3,997.16	20.19%	20.23%
Warwickshire	626.14	3.16%	3.17%
<i>West Midlands County*</i>	<i>40.51</i>	<i>0.00</i>	<i>0.00</i>
Worcestershire	183.11	0.92%	0.93%
West Midlands	19,799.19	100.00%	100.00%

* Although BGS data shows 52.18ha of unsterilised crushed rock outside of designations in West Midlands County, the reserves are known to be exhausted and this will be set to zero for the apportionment.

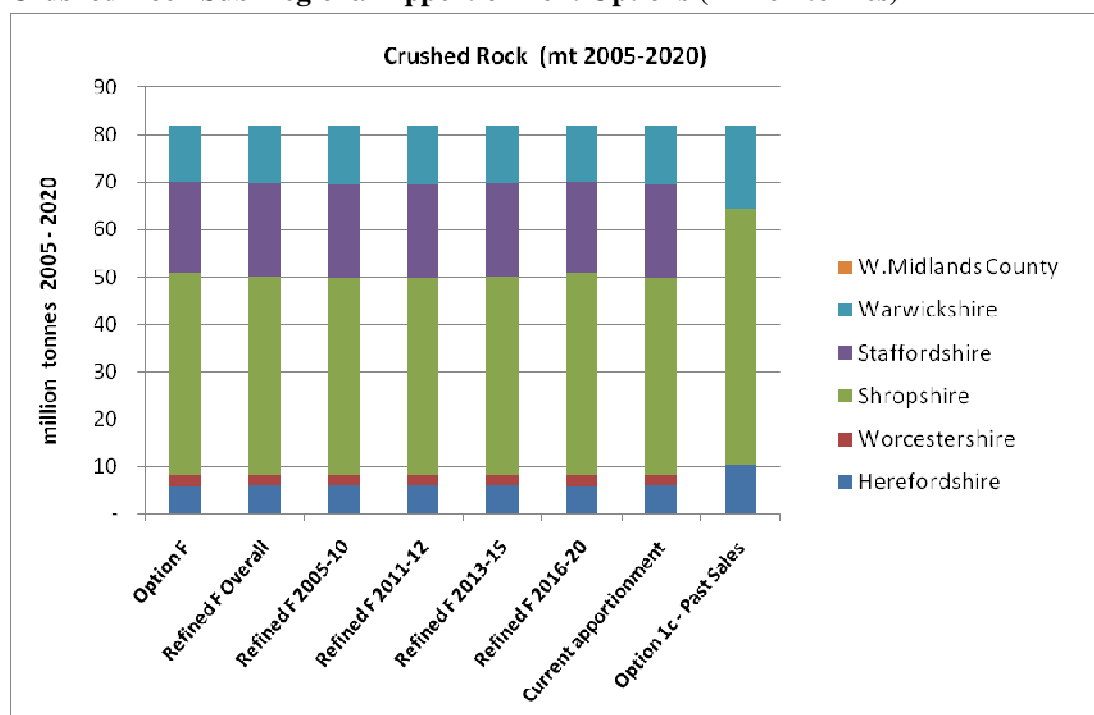
The percentage sub-regional apportionment for sand & gravel and crushed rock resulting from Option F and Refined Option F (including its four phases) are shown in *Figure 1* and *Figure 2*, as well as in *Tables 5 to 8*. Also shown are figures generated under the current apportionment and Option 1c Past Sales (based on the last 10 years). Option 1c was identified by the WMRAWP (on 9th February 2010) as its preferred option amongst the six options developed by the WMRAWP Technical Secretariat previously subject to technical consultation during December 2009 to January 2010.

Figure 1 Sand and Gravel Sub-Regional Apportionment Options (million tonnes)



Note: 10 years sales data is used. The phased nature of Refined Option F is shown in the middle 4 columns in the chart.

Figure 2 Crushed Rock Sub-Regional Apportionment Options (million tonnes)



Notes: 10 years sales data is used.

Under Option 1c, Herefordshire and Worcestershire figures have been amalgamated since 1998 for confidentiality reasons; and Staffordshire figures are included in the total for Warwickshire for confidentiality reasons

Table 5 Sub-Regional Apportionments – Sand and Gravel

Sub-region	Option F: Past sales-led		Refined option F: Phased sales (overall 2005-20) *		Current apportionment		Option 1c Past Sales (based on 10 year average)	
	%	mt	%	mt	%	mt	%	mt
Herefordshire	4.48%	7.40	3.38%	5.57	2.80%	4.61	2.33%	3.840
Shropshire	14.51%	23.95	10.59%	17.47	8.10%	13.36	8.35%	13.760
Staffordshire	54.91%	90.6	61.27%	101.1	65.20%	107.59	65.24%	107.520
Warwickshire	11.19%	18.46	10.59%	17.47	10.30%	17.00	10.10%	16.640
West Midlands County	5.12%	8.45	5.13%	8.46	5.00%	8.25	5.34%	8.800
Worcestershire	9.79%	16.15	9.04%	14.92	8.60%	14.19	8.64%	14.240
West Midlands	100.00%	165	100.00%	165	100.00%	165	100.00%	164.800

***Table 6 Refined Option F, phased implementation - Sand and Gravel**

Sub-region	2005-2010		2011-2012		2013-2015		2016-2020		Overall 2005-2020	
	%	mt	%	mt	%	mt	%	mt	%	mt
Herefordshire	2.80%	1.7	2.57%	0.54	3.21%	1	4.48%	2.34	3.38%	5.57
Shropshire	8.10%	4.92	8.33%	1.74	10.39%	3.25	14.51%	7.56	10.59%	17.47
Staffordshire	65.20%	39.61	65.09%	13.57	61.70%	19.3	54.91%	28.62	61.27%	101.1
Warwickshire	10.30%	6.26	10.10%	2.11	10.46%	3.27	11.19%	5.83	10.59%	17.47
West Midlands County	5.00%	3.04	5.34%	1.11	5.26%	1.65	5.12%	2.67	5.13%	8.46
Worcestershire	8.60%	5.23	8.57%	1.79	8.97%	2.81	9.79%	5.1	9.04%	14.92
West Midlands	100.00%	60.75	100.00%	20.85	100.00%	31.28	100.00%	52.13	100.00%	165

Table 7 Sub-Regional Apportionments –Crushed Rock

Sub-region	Option F: Past sales-led		Refined option F: Phased sales (overall 2005-20)**		Current apportionment		Option 1c Past Sales (based on 10 year average)	
	%	mt	%	mt	%	mt	%	mt
Herefordshire	7.12%	5.84	7.24%	5.93	7.30%	5.98	12.89% @	10.56@
Shropshire	51.66%	42.36	51.06%	41.87	50.75%	41.61	65.63%	53.76
Staffordshire	23.61%	19.36	23.87%	19.57	24.01%	19.69	#	#
Warwickshire	14.54%	11.92	14.93%	12.25	15.14%	12.42	21.48%	17.6
West Midlands County	0.00%	0	0.00%	0	0.00%	0	0.00%	0
Worcestershire	3.08%	2.53	2.90%	2.38	2.81%	2.30	@	@
West Midlands	100.00%	82.00	100.00%	82.00	100.00%	82.00	100.00%	81.92

@ Herefordshire and Worcestershire figures have been amalgamated since 1998 for confidentiality reasons

Staffs figures included in total for Warwickshire for confidentiality reasons

****Table 8 Refined Option F, phased implementation - Crushed Rock**

Sub-region	2005-2010		2011-2012		2013-2015		2016-2020		2005-2020	
	%	mt	%	mt	%	mt	%	mt	%	mt
Herefordshire	7.30%	2.54	7.30%	0.69	7.24%	1.02	7.12%	1.68	7.24%	5.93
Shropshire	50.75%	17.69	50.75%	4.78	51.05%	7.22	51.66%	12.17	51.06%	41.87
Staffordshire	24.01%	8.37	24.01%	2.26	23.87%	3.38	23.61%	5.56	23.87%	19.57
Warwickshire	15.14%	5.28	15.14%	1.43	14.94%	2.11	14.54%	3.43	14.93%	12.25
West Midlands County	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0
Worcestershire	2.81%	0.98	2.81%	0.26	2.90%	0.41	3.08%	0.73	2.90%	2.38
West Midlands	100.00%	34.87	100.00%	9.43	100.00%	14.14	100.00%	23.57	100.00%	82

Table 9 below summarises the appraisal of Option F and Refined Option F and Table A.2 in the Annex shows the detailed appraisal table for these two options – these have been revised to reflect the changes to the appraisal framework relating to RSDF Objective 36 and 3.7 described in Section 1.1.1 above. The main findings are as follows:

- Option F and Refined Option F are sales-led options (70% weighting), with some weighting (30%) equally distributed across the factors of demand, resource and constraint. Compared with the current apportionment methodology, Option F results in a 16% reduction in sand and gravel production in Staffordshire, and increases in other sub-regions, with the largest increase, in terms of tonnages, being in Shropshire. For crushed rock, Option F results in a broadly similar distribution to the current apportionment methodology, but with slight increases in Worcestershire and Shropshire, and slight decreases in Herefordshire, Staffordshire and Warwickshire.

Refined Option F results in a similar pattern, though lower scale of change than under Option F - with a 6% reduction in sand and gravel production in Staffordshire, and increases in other sub-regions (though smaller than under Option F). For crushed rock, it results in slight increases in Worcestershire and Shropshire, and slight decreases in Herefordshire, Staffordshire and Warwickshire (with the increases and decreases compared with the current apportionment again being of a lower scale to those of Option F).

- **Environment and Biodiversity:** Option F and Refined Option F have the potential to bring about both positive and negative environmental and biodiversity impacts. The 16% reduction (Option F) and 6% reduction (Refined Option F) in sand and gravel production in Staffordshire may bring about positive environmental impacts in Staffordshire. However, the increases in production in other sub-regions, such as Shropshire, may bring negative environmental impacts. It should be noted that more information about capacities, locations and environmental constraints for particular aggregates sites would be needed to make a detailed assessment of environmental impacts, including potential impacts in neighbouring regions.
- **RSDF Objective 3.7 on promoting environmental justice** seeks to ensure that deprived areas and disadvantaged communities are not more likely to be affected by environmental damage and degradation. In considering levels of deprivation and disadvantage, the appraisal has used the Department of Communities and Local Government's Index of Multiple Deprivation (IMD) 2007 (released in March 2008) – as described in Section 1.2.1 above. The appraisal has found that Option F and Refined F would not have significant positive or negative impacts in terms of the RSDF objective on promoting environmental justice.
- Option F and Refined Option F would potentially promote the sustainability objective of 'local sourcing', which relates to encouraging local supply of food, goods and materials.
- **Strong and Stable Economy:** Both Option F and Refined Option F will result in sub-regional distributions broadly similar in pattern to the current apportionment. This brings the positive effect of providing a degree of certainty for the aggregates sector, which in turn will help to address the region's housing needs. This positive effect is slightly greater for Refined Option F than Option F because Refined Option F would

result in less change in sub-regional distribution compared with the current apportionment.

- **Transport:** Like the current apportionment, Option F and Refined Option F would result in sub-regional distributions which are reasonably well located relative to the major urban areas of demand.

Table 9 Summary of Appraisal Findings for Option F and Refined Option F

	Option F	Refined Option F	Option 1c: Past Trends
Sustainability Objectives			
SUSTAINABLE CONSUMPTION AND PRODUCTION			
RSDf 1.1: Natural Resource Use – Water, Minerals	0	0	0
RSDf 1.2: High Value, Low Impact Technologies	0	0	0
RSDf 1.3: Sustainable Construction and Design	0	0	0
RSDf 1.4 and 1.5: Transport	✓	✓	✓
RSDf 1.6: Waste Management- incl. recycling	0	0	0
RSDf 1.7: Local Sourcing	✓(slightly greater positive impact than Refined Option F)	✓	0
RSDf 1.8: Alternative & Renewable Resources	n/a	n/a	n/a
RSDf 1.9: Corporate Social Responsibility	n/a	n/a	n/a
RSDf 1.10: Culture of Enterprise and Innovation	n/a	n/a	n/a
RSDf 1.11: Economy and Prosperity	✓	✓(slightly greater positive impact than Option F)	✓
CLIMATE CHANGE AND ENERGY			
RSDf 2.1: Energy Efficiency	n/a	n/a	n/a
RSDf 2.2: Renewable and Low Carbon Energy	n/a	n/a	n/a
RSDf 2.3: Climate Change Mitigation	0	0	0
RSDf 2.4: Climate Change Adaptation	0	0	0
RSDf 2.5: Flood Risk	0	0	0
NATURAL RESOURCE PROTECTION AND ENVIRONMENTAL ENHANCEMENT			
RSDf 3.1: Environmental and Historic Assets	×/✓	×/✓	×/0
RSDf 3.2: Biodiversity	×/✓	×/✓	×/0
RSDf 3.3: Pollution	0	0	0
RSDf 3.4: Use of Previously Dev'd Land and Bldgs	0	0	0
RSDf 3.5: High Quality Built Environments	n/a	n/a	n/a
RSDf 3.6: Local Stewardship	0	0	0
RSDf 3.7: Environmental Justice	0	0	0
SUSTAINABLE COMMUNITIES			
RSDf 4.1: Empowering Communities	n/a	n/a	n/a
RSDf 4.2: Access to Services, Facilities, Opportunities	n/a	n/a	n/a
RSDf 4.3: Poverty and Disadvantage	n/a	n/a	n/a
RSDf 4.4: Health	n/a	n/a	n/a
RSDf 4.5: Meeting Housing Needs	✓	✓	✓
RSDf 4.6: Crime	n/a	n/a	n/a
RSDf 4.7: Cultural, Sporting, Recreational Opportunities	n/a	n/a	n/a
RSDf 4.8: Balanced Dev't, Sust Communities	n/a	n/a	n/a
RSDf 4.9: Skills and the Workforce	n/a	n/a	n/a
RSDf 4.10: Investment in Future Prosperity	n/a	n/a	n/a

Note: Option 1c is shown in the Table at the request of the Assembly as it was identified by the WMRAWP (at the WMRAWP meeting 9th Feb 2010) as their preferred option amongst the Options developed by the WMRAWP Technical Secretariat consulted upon in December 2009 – Jan 2010.

Key:

Symbol:	Impact:	Symbol:	Impact:
✓✓	Significant positive	× ×	Significant negative
✓	Minor positive	?	Uncertain
0	Negligible	×/✓	Mixed negative and positive
×	Minor Negative	n/a	Not relevant

Annex

Table A.1 Sustainability Appraisal Framework

**Table A.2 Detailed Sustainability Appraisal Matrix
for Option F and Refined Option F**

Table A.1 Sustainability Appraisal Framework

RSDF TOPIC/OBJECTIVE	WILL THE OPTION/PROPOSAL...
Sustainable Consumption and Production	
RSDF 1.1: Natural Resource Use – Water and Minerals	<ul style="list-style-type: none"> • Use natural resources such as water and minerals efficiently, including by incorporating efficiency measures into new land use and developments, redevelopment and refurbishment? • Ensure the sustainable use of water resources? • Ensure prudent, efficient and sustainable use of minerals and recycling of materials, thereby minimising the requirement for new primary extraction? • Safeguard mineral resources as far as possible?
RSDF 1.2: High Value and Low Impact Technologies	<ul style="list-style-type: none"> • Promote and support the development of new high value and low impact technologies, especially resource-efficient technologies and environmental technology initiatives?
RSDF 1.3: Sustainable Construction and Design	<ul style="list-style-type: none"> • Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, both new build and existing stock, where possible exceeding the requirements of the Building Regulations?
RSDF 1.4 and 1.5: Transport	<ul style="list-style-type: none"> • Increase use of public transport, cycling and walking as a proportion of total travel in order to reduce road traffic congestion, pollution and accidents, and improve health through increased physical activity? • Ensure development is primarily focused in the major urban areas, and makes efficient use of existing physical infrastructure and reduces need to travel, especially by private car? • ensure that, for development outside the major urban areas, measures are in place to reduce the need to travel by private car and increase the use of public transport, cycling and walking? • reduce the number and length of journeys made by car? • reduce the need to travel, eg through local provision of services? • promote alternative, more sustainable, modes of transport to the car (including walking and cycling) through location of housing, employment sites, services and facilities, and appropriate infrastructure for sustainable modes of transport? • promote a shift of freight from road to rail?
RSDF 1.6: Waste Management	<ul style="list-style-type: none"> • Encourage and enable waste minimisation, reuse, recycling and recovery to divert resources away from the waste stream, including the use of recycled materials where possible? • Prevent or minimise production of mineral waste? • Promote the recycling of suitable materials for aggregate?
RSDF 1.7: Local Sourcing	<ul style="list-style-type: none"> • Encourage local sourcing of food, goods and materials?
RSDF 1.8: Developing Alternative and Renewable Resources	<ul style="list-style-type: none"> • Reward efficient resource use and encourage development of alternative and renewable resources in order to reduce dependence on fossil fuels?
RSDF 1.9: Corporate Social Responsibility	No questions
RSDF 1.10: Supporting a culture of Enterprise and Innovation	No questions

RSDF TOPIC/OBJECTIVE	WILL THE OPTION/PROPOSAL...
RSDF 1.11: Economy and Prosperity	<ul style="list-style-type: none"> • Achieve a strong, stable and sustainable economy and prosperity for the benefit of all the Region's inhabitants? • Support the development of the rural economy? • Support the development of forestry? • Support the development of the energy sector? • Support the development of the cultural, sport and tourism sectors? • Support the development of the environmental economy?
Climate Change and Energy	
RSDF 2.1: Energy Efficiency	<ul style="list-style-type: none"> • Reduce overall energy use through increased energy efficiency?
RSDF 2.2: Renewable and Low Carbon Energy	<ul style="list-style-type: none"> • Increase the proportion of energy generated from renewable and low carbon sources, including by micro-generation, CHP, district heating, and in transportation? • Ensure that 10% of electricity supplies is provided from renewable energy sources by 2010, and 20% by 2020?
RSDF 2.3: Climate Change Mitigation	<ul style="list-style-type: none"> • Minimise the Region's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources?
RSDF 2.4: Climate Change Adaptation	<ul style="list-style-type: none"> • Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in the Region's climate? • promote the adoption of climate change adaptation and climate proofing principles in planning and design?
RSDF 2.5: Flood Risk	<ul style="list-style-type: none"> • Promote land use and development that takes into account predicted changes in the Region's climate including flood risk? • promote land use and development into areas at lowest flood risk? • encourage more strategic management of surface water? • support measure that protect key infrastructure? • encourage resistance and resilience measure in existing properties?
Natural Resource Protection and Environmental Enhancement	
RSDF 3.1: Environmental and Historic Assets	<ul style="list-style-type: none"> • Value, protect, enhance and restore the Region's environmental assets, including the natural, built and historic environment and landscape? • value, enhance and protect the Region's natural environmental assets (eg Green Belt, parks and open spaces, AONBs etc)? • value, enhance and protect the Region's historic environment assets (eg World Heritage Sites, archaeological remains, historic buildings, parks and gardens, and landscapes, and conservation areas, battlefields and other architectural and historically important features and areas, and their settings)? • promote heritage-led regeneration? • promote the repair and reuse of historic buildings? • enhance the amenity value of the countryside, meeting the recreational and leisure needs of communities? • protect, enhance and manage the character and appearance of the region's landscapes and townscapes, maintaining and strengthening local distinctiveness and sense of place?
RSDF 3.2: Biodiversity	<ul style="list-style-type: none"> • Value, maintain, restore and re-create regional biodiversity, where possible using approaches that improve the resilience of

RSDF TOPIC/OBJECTIVE	WILL THE OPTION/PROPOSAL...
	<p>natural systems such as linking fragmented habitats?</p> <ul style="list-style-type: none"> • Ensure that there are no significant adverse effects on International Sites? • value, enhance and protect the Region’s priority habitats and species, and promote the delivery of regional biodiversity targets? • Value and protect the Region’s geodiversity? • Promote the development of new biodiversity assets? • Ensure that biodiversity assets can adapt to expected future climate change?
RSDF 3.3: Pollution	<ul style="list-style-type: none"> • Minimise air, water, soil, light and noise pollution levels and create good quality air, water and soils? • address air quality impacts arising from specific development activities? • protect and enhance the quality of watercourses in the Region? • reduce the quantity of contaminated land in the Region? • prevent noise and light pollution?
RSDF 3.4: Use of Previously Developed Land and Buildings	<ul style="list-style-type: none"> • Encourage land use and development that optimises the use of previously developed land and buildings? • encourage an integrated and strategic approach to brown field development?
RSDF 3.5: High Quality Built Environments	<ul style="list-style-type: none"> • Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place? • increase access to good quality green space (eg increase the number of people in towns and cities with accessible greenspace within 300m of their homes, and within 500m of woodland in excess of 2ha in size)? • support the an integrated approach to development of green space for the provision of multifunctional benefits such as flood risk management, groundwater recharge, pollution control and the provision of space for people and wildlife? • require good urban design to create attractive, high quality environments where people will choose to live, work and invest, in line with CABE Building for Life principles? • encourage the incorporation of geodiversity features where possible thus contributing to local character and distinctiveness and reinforcing a sense of place?
RSDF 3.6: Local Stewardship	<ul style="list-style-type: none"> • Encourage local stewardship of local environments, for example by promoting best practice in agricultural management or enabling communities to improve their neighbourhoods?
RSDF 3.7: Promote environmental justice	<ul style="list-style-type: none"> • Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?
Sustainable Communities	
RSDF 4.1: Empowering Communities	No questions
RSDF 4.2: Access to Services, Facilities and Opportunities	<ul style="list-style-type: none"> • Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning, and that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?

RSDF TOPIC/OBJECTIVE	WILL THE OPTION/PROPOSAL...
	<ul style="list-style-type: none"> • Ensure good accessibility to local facilities, services and opportunities that reduce the need to travel?
RSDF 4.3: Poverty and Disadvantage	<ul style="list-style-type: none"> • Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage?
RSDF 4.4: Health	<ul style="list-style-type: none"> • Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health, as well as providing equitable access to health services? • ensure that infrastructure for healthcare is provided to meet projected future demand and need? • promote healthy lifestyles and opportunities for physical activity? • promote opportunities to participate in sport and recreation?
RSDF 4.5: Meeting Housing Needs	<ul style="list-style-type: none"> • Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs, in clean, safe and pleasant local environments?
RSDF 4.6: Crime	<ul style="list-style-type: none"> • Reduce crime, fear of crime and antisocial behaviour? • encourage the adoption of principles to ‘design out’ crime in housing and employment sites?
RSDF 4.7: Cultural, Sporting and Recreational Opportunities	<ul style="list-style-type: none"> • Improve opportunities to participate in the diverse cultural, sport and recreational opportunities the West Midlands can offer locally and in the wider region? • ensure that facilities and locations for cultural activities are protected, enhanced and provided? • ensure that facilities and locations for sporting activities are protected, enhanced and provided? • protect, enhance and create high quality or valued recreational spaces and avoid erosion of recreational function?
RSDF 4.8: Balanced Development, Sustainable Communities	<ul style="list-style-type: none"> • Encourage physical development with a better balance of jobs, housing, social and cultural services and amenities within each part of the Region in order to meet local needs locally and encourage stable and sustainable communities? • ensure that employment opportunities are accessible to all communities?
RSDF 4.9: Skills and the Workforce	No questions
RSDF 4.10: Investment in Future Prosperity	<ul style="list-style-type: none"> • Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development? • encourage investment to develop deprived areas and focusing resources in areas of greatest need? • ensure that education infrastructure meets projected future demand and need?

Table A.2 Detailed Sustainability Appraisal Table for Option F and Refined Option F

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
RSDF 1.1: Natural Resource Use – Water and Minerals	<ul style="list-style-type: none"> • Use natural resources such as water and minerals efficiently, including by incorporating efficiency measures into new land use and developments, redevelopment and refurbishment? • Ensure the sustainable use of water resources? • Ensure prudent, efficient and sustainable use of minerals and recycling of materials, thereby minimising the requirement for new primary extraction? • Safeguard mineral resources as far as possible? 	0	0				<p>Option F and Refined Option F would not differ significantly from the current sub-regional apportionment in terms of increasing minerals resource use efficiency.</p> <p>It should be noted however that sand and gravel landbanks in Worcestershire, Warwickshire and West Midlands County are low, and under Option F would be used in a slightly shorter time than under the current apportionment. Landbank years for sand and gravel in Shropshire and Herefordshire would also be shorter than under the current apportionment; whilst they would be slightly extended in Staffordshire. The rate of usage of current landbanks would be slower under Refined Option F than under Option F.</p>
RSDF 1.2: High Value and Low Impact Technologies	<ul style="list-style-type: none"> • Promote and support the development of new high value and low impact technologies, especially resource-efficient technologies and environmental technology initiatives? 	0	0				Compared to the current sub-regional apportionment, Option F and Refined Option F would have no significant positive or negative effects in terms of promoting the development of low impact technologies.
RSDF 1.3: Sustainable Construction and Design	<ul style="list-style-type: none"> • Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, both new build and existing stock, where possible exceeding the requirements of the Building Regulations? 	0	0				Compared to the current sub-regional apportionment, Option F and Refined Option F would have no significant positive or negative effects in terms of promoting high standards of sustainable resource efficient buildings.
RSDF 1.4 and 1.5: Transport	<ul style="list-style-type: none"> • Increase use of public transport, cycling and walking as a proportion of total travel in order to reduce road traffic congestion, pollution and accidents, and improve health through increased physical activity? • Ensure development is primarily focused in the major urban areas, and makes efficient use of existing physical infrastructure and reduces need to travel, especially by 	✓	✓	*	All	L	The options would have no significant positive or negative effects in terms of reducing the distances from aggregate source to areas of high demand in the major urban areas. However, as with the existing apportionment, the sub-regional distributions under Option F and Refined Option F are relatively close to the major urban areas of greatest demand.

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
	<p>private car?</p> <ul style="list-style-type: none"> ensure that, for development outside the major urban areas, measures are in place to reduce the need to travel by private car and increase the use of public transport, cycling and walking? reduce the number and length of journeys made by car? reduce the need to travel, eg through local provision of services? promote alternative, more sustainable, modes of transport to the car (including walking and cycling) through location of housing, employment sites, services and facilities, and appropriate infrastructure for sustainable modes of transport? promote a shift of freight from road to rail? 						
RSDF 1.6: Waste Management	<ul style="list-style-type: none"> Encourage and enable waste minimisation, reuse, recycling and recovery to divert resources away from the waste stream, including the use of recycled materials where possible? Prevent or minimise production of mineral waste? Promote the recycling of suitable materials for aggregate? 	0	0				No significant positive or negative impacts compared with the current apportionment.
RSDF 1.7: Local Sourcing	<ul style="list-style-type: none"> Encourage local sourcing of food, goods and materials? 	✓	✓	×	All	L	Option F and Refined Option F would result in a minor positive impact in terms of promoting local sourcing of sand and gravel materials because of increases in aggregate production in sub-regions outside Staffordshire. The positive effect would be greater for Option F than for Refined Option F because the former would distribute sand and gravel more widely across the region.
RSDF 1.8: Developing Alternative and Renewable Resources	<ul style="list-style-type: none"> Reward efficient resource use and encourage development of alternative and renewable resources in order to reduce dependence on fossil fuels? 						Not relevant
RSDF 1.9: Corporate Social	No questions						

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
Responsibility							
RSDF 1.10: A culture of Enterprise and Innovation	No questions						
RSDF 1.11: Economy and Prosperity	<ul style="list-style-type: none"> Achieve a strong, stable and sustainable economy and prosperity for the benefit of all the Region's inhabitants? 	✓	✓	×	S/M	M	Option F and Refined Option F would support the aggregates sector by providing sub-regional apportionments broadly similar to the current situation, and will help to ensure materials are available for the construction required to support regional economic growth. This positive effect is slightly greater for Refined Option F than Option F because Refined Option F would result in less change in sub-regional distribution compared with the current apportionment.
	<ul style="list-style-type: none"> Support the development of the rural economy? 	0	0				Uncertain what impact the options would have on the rural economy, but unlikely to be a significant impact. .
	<ul style="list-style-type: none"> Support the development of forestry? Support the development of the energy sector? 						Not relevant
	<ul style="list-style-type: none"> Support the development of the cultural, sport and tourism sectors? 						Not relevant
	<ul style="list-style-type: none"> Support the development of the environmental economy? 						Not relevant
RSDF 2.1: Energy Efficiency	<ul style="list-style-type: none"> Reduce overall energy use through increased energy efficiency? 						Not relevant
RSDF 2.2: Renewable and Low Carbon Energy	<ul style="list-style-type: none"> Increase the proportion of energy generated from renewable and low carbon sources, including by micro-generation, CHP, district heating, and in transportation? Ensure that 10% of electricity supplies is provided from renewable energy sources by 2010, and 20% by 2020? 						Not relevant
RSDF 2.3: Climate Change Mitigation	<ul style="list-style-type: none"> Minimise the Region's contribution to the causes of climate change by reducing emissions of greenhouse 	0	0				No significant positive or negative impacts compared with the current apportionment.

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
	gases from transport, domestic, commercial and industrial sources?						
RSDF 2.4: Climate Change Adaptation	<ul style="list-style-type: none"> • Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in the Region's climate? • promote the adoption of climate change adaptation and climate proofing principles in planning and design? 	0	0				No significant positive or negative impacts compared with the current apportionment.
RSDF 2.5: Flood Risk	<ul style="list-style-type: none"> • Promote land use and development that takes into account predicted changes in the Region's climate including flood risk? • promote land use and development into areas at lowest flood risk? • encourage more strategic management of surface water? • support measure that protect key infrastructure? • encourage resistance and resilience measure in existing properties? 	0	0				No significant positive or negative impacts compared with the current apportionment.
RSDF 3.1: - Environmental and Historic Assets	<ul style="list-style-type: none"> • Value, protect, enhance and restore the Region's environmental assets, including the natural, built and historic environment and landscape? • value, enhance and protect the Region's natural environmental assets (eg Green Belt, parks and open spaces, AONBs etc)? • value, enhance and protect the Region's historic environment assets (eg World Heritage Sites, archaeological remains, historic buildings, parks and gardens, and landscapes, and conservation areas, battlefields and other architectural and historically important features and areas, and their settings)? • promote heritage-led regeneration? • promote the repair and reuse of historic buildings? • enhance the amenity value of the countryside, meeting the recreational and leisure needs of communities? • protect, enhance and manage the character and appearance 	x/✓	✓	?/x	M, L	M	<p>Potentially positive and negative impacts on environmental assets. The 16% reduction (Option F) and 6% reduction (Refined Option F) in sand and gravel production in Staffordshire may bring some positive environmental impacts; whilst the increases in production in other sub-regions may bring negative environmental impacts.</p> <p>More information about capacities, locations and environmental constraints for particular aggregates sites would be needed to make a detailed assessment of environmental impacts, including potential impacts in neighbouring regions.</p> <p>Although the apportionment calculations for Option F and Refined Option F use resource factors based on the volume of unsterilised resource outside of</p>

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
	of the region's landscapes and townscapes, maintaining and strengthening local distinctiveness and sense of place?						international and national designations, this would not necessarily mean that aggregate workings are not permitted in these areas, which would depend on local planning decisions.
RSDF 3.2: Biodiversity	<ul style="list-style-type: none"> • Value, maintain, restore and re-create regional biodiversity, where possible using approaches that improve the resilience of natural systems such as linking fragmented habitats? • Ensure that there are no significant adverse effects on International Sites? • value, enhance and protect the Region's priority habitats and species, and promote the delivery of regional biodiversity targets? • Value and protect the Region's geodiversity? • Promote the development of new biodiversity assets? • Ensure that biodiversity assets can adapt to expected future climate change? 	x/√	✓	?/x	M, L	M	<p>Potentially positive and negative impacts on biodiversity. The 16% reduction (Option F) and 6% reduction (Refined Option F) in sand and gravel production in Staffordshire may bring some positive biodiversity benefits; whilst the increases in production in other sub-regions may bring some negative biodiversity impacts as new workings are developed.</p> <p>More information about capacities, locations and environmental constraints for particular aggregates sites would be needed to make a detailed assessment of biodiversity impacts, including potential impacts in neighbouring regions.</p> <p>Although the apportionment calculations for Option F and Refined Option F use a resource factor based on the volume of unsterilised resource outside of international and national designations, this would not necessarily mean that aggregate workings are not permitted in these areas, which would depend on local planning decisions.</p>
RSDF 3.3: Pollution	<ul style="list-style-type: none"> • Minimise air, water, soil, light and noise pollution levels and create good quality air, water and soils? • address air quality impacts arising from specific development activities? • protect and enhance the quality of watercourses in the Region? • reduce the quantity of contaminated land in the Region? • prevent noise and light pollution? 	0	0				No significant positive or negative impacts compared with the current apportionment.

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
RSDF 3.4: Use of Previously Developed Land and Buildings	<ul style="list-style-type: none"> • Encourage land use and development that optimises the use of previously developed land and buildings? • encourage an integrated and strategic approach to brown field development? 	0	0				No significant positive or negative impacts compared with the current apportionment.
RSDF 3.5: High Quality Built Environments	<ul style="list-style-type: none"> • Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place? • increase access to good quality green space (eg increase the number of people in towns and cities with accessible greenspace within 300m of their homes, and within 500m of woodland in excess of 2ha in size)? • support the an integrated approach to development of green space for the provision of multifunctional benefits such as flood risk management, groundwater recharge, pollution control and the provision of space for people and wildlife? • require good urban design to create attractive, high quality environments where people will choose to live, work and invest, in line with CABE Building for Life principles? • encourage the incorporation of geodiversity features where possible thus contributing to local character and distinctiveness and reinforcing a sense of place? 						Not relevant
RSDF 3.6: Local Stewardship	<ul style="list-style-type: none"> • Encourage local stewardship of local environments, for example by promoting best practice in agricultural management or enabling communities to improve their neighbourhoods? 	0	0				Option F and refined F would not have significant positive or negative impacts in terms of encouraging local stewardship of local environments.
RSDF 3.7: Promote environmental justice	<ul style="list-style-type: none"> • Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation? 	0	0				Analysis based on the Indices of Deprivation 2007 at the county level finds that Option F and refined F would not have significant positive or negative impacts in terms of promoting 'environmental justice'.
RSDF 4.1:	No questions						

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
Empowering Communities							
RSDF 4.2: Access to Services, Facilities and Opportunities	<ul style="list-style-type: none"> • Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning, and that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location? • Ensure good accessibility to local facilities, services and opportunities that reduce the need to travel? 						Not relevant
RSDF 4.3: Poverty and Disadvantage	<ul style="list-style-type: none"> • Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage? 						Not relevant
RSDF 4.4: Health	<ul style="list-style-type: none"> • Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health, as well as providing equitable access to health services? • ensure that infrastructure for healthcare is provided to meet projected future demand and need? • promote healthy lifestyles and opportunities for physical activity? • promote opportunities to participate in sport and recreation? 						Not relevant
RSDF 4.5: Meeting Housing Needs	<ul style="list-style-type: none"> • Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs, in clean, safe and pleasant local environments? 	✓	✗	✗	S/M	L	Option F and Refined Option F will support provision of aggregates for regional housing needs by providing continuity and certainty for the aggregates sector (with only relatively limited change to the sub-regional distribution of aggregates production).
RSDF 4.6: Crime	<ul style="list-style-type: none"> • Reduce crime, fear of crime and antisocial behaviour? • encourage the adoption of principles to 'design out' crime in housing and employment sites? 						Not relevant
RSDF 4.7: Cultural, Sporting and Recreational	<ul style="list-style-type: none"> • Improve opportunities to participate in the diverse cultural, sport and recreational opportunities the West Midlands can offer locally and in the wider region? 						Not relevant

RSDF Topic/Objective	Will the option/proposal...	Assessment	Direct?	Permanence?	S/M/L Term?	Significance? L=low, M=med. H=high	Option F and Refined Option F Comments
Opportunities	<ul style="list-style-type: none"> ensure that facilities and locations for cultural activities are protected, enhanced and provided? ensure that facilities and locations for sporting activities are protected, enhanced and provided? protect, enhance and create high quality or valued recreational spaces and avoid erosion of recreational function? 						
RSDF 4.8: Balanced Development, Sustainable Communities	<ul style="list-style-type: none"> Encourage physical development with a better balance of jobs, housing, social and cultural services and amenities within each part of the Region in order to meet local needs locally and encourage stable and sustainable communities? ensure that employment opportunities are accessible to all communities? 						Not relevant
RSDF 4.9: Skills and the Workforce	No questions						Not relevant
RSDF 4.10: Investment in Future Prosperity	<ul style="list-style-type: none"> Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development? encourage investment to develop deprived areas and focusing resources in areas of greatest need? ensure that education infrastructure meets projected future demand and need? 						Not relevant

WMRSS Phase Three Workstreams –
Sub-regional aggregates apportionment

Draft Interim HRA Review of Policy Statement

West Midlands Regional Assembly

Issue 1: January 2010

Compiled by

Treweek Environmental Consultants

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2 SUMMARY

This interim HRA report covers two further options on sub-regional apportionment of aggregates issued by the West Midlands Regional Assembly on 8th February 2010. It should be read alongside the interim HRA produced on 4th January 2010 in relation to the previous 11 options and scenarios.

This forms part of the West Midlands RSS Phase 3 Revision process, working towards an Interim Policy Statement that will become a material consideration in minerals planning processes across the region pending the publication of the Regional Strategy.

Assessment has been undertaken of Options F and Refined F in terms of potential implications for European Sites, using previously developed indices of sensitivity of each sub-region to sand and gravel and crushed rock extraction.

The assessment finds that Option F is preferred for both types of aggregate.

For sand and gravel, Option F is also preferred to Option 1c, but has significantly greater implications for European site sensitivity in Staffordshire than Scenario 4, a new option developed in our earlier HRA report.

For crushed rock, Option F cannot be compared against Option 1c at present for lack of data. However it is preferred to Scenario 4 on grounds of reduced pressure on European site sensitivity in Shropshire.

Significant effects on European sites from these policies cannot be ruled out at this stage.

3 INTRODUCTION

The West Midlands Regional Spatial Strategy (WMRSS) Phase 3 Revision is to be taken forward into the new Regional Strategy through Interim Policy Statements that will provide guidance to assist the preparation of Local Development Frameworks and Policy Recommendations. Treweek Environmental Consultants (TEC) was appointed by the West Midlands Regional Assembly to consider the possible implications of these Policy Statements and Policy Recommendations, for European Sites at an early stage in their development. Further iterative review will take place as they are further refined.

This report presents compares two emerging options for sub-regional apportionment of aggregates with regard to possible impacts on the integrity of European sites.

3.1 APPROACH TO REGIONAL PLANNING FOR AGGREGATE PROVISION

On 29th June 2009 the Government issued revised national and regional guidelines for the provision of aggregates for the period 2005-2020. The new guidelines replace the June 2003 guidelines which are incorporated in Policy M2 of the West Midlands Regional Spatial Strategy (WMRSS) which was approved in June 2004. The revised guideline figures show no change to the draft figures consulted upon by Government in April 2008 and which were used in the WMRSS Phase Three Options consultation which was issued for public consultation by the WMRA in summer 2009.

The revised regional guidelines indicate a total aggregates provision in the West Midlands of 370 million tonnes to be provided over the next 16 years. This comprises 165 mt of land-won sand and gravel, 82 mt of land-won crushed rock, 100mt alternative materials and 23 mt of net imported material.

Before the regional guidelines can be used in the preparation of minerals development plans they need to be broken down, as far as possible, to Mineral Planning Authority (MPA) areas.

This apportionment of the regional guidelines is the responsibility of the WMRA (as the Regional Planning Body), taking into account advice from the MPA's and the WMRAWP.

Various options and scenarios have been developed to suggest how this total level of provision might be met, including suggested sub-regional apportionments.

The HRA Screening Report (TEC, 2009) for the WMRSS Phase 3 Revision concluded that options for safeguarding minerals and apportioning future supplies of aggregates could have a range of possible impacts including land take, disturbance, pollution and possibly hydrological change. A previous report (TEC, 2010) considered the implications of the options and scenarios which were initially consulted on for the sites identified in the following Chapter. This report considers the implications of two further options – F and Refined F.

3.2 APPROACH TO HRA

In reviewing the interim policy statements and recommendations, we have considered the conclusions of the HRAs carried out for the WMRSS Phase 2 Preferred Option (TEC, 2007) and the HRA Screening Report produced for the WMRSS Phase 3 (TEC, 2009) and also the results of consultation on these reports.

An iterative process of review has been adopted to allow the WMRA to take account of possible implications for European Sites during development of Policy Statements and Recommendations for minerals in the region. This brief report summarises the results of the first stage of this process, which was a review of alternative options and scenarios issued for consultation on the 18th December.

Relevant information was obtained from previous HRA work undertaken in the region, the JNCC website (<http://www.jncc.gov.uk/>) and other sources in the literature. Preliminary suggestions for avoidance or mitigation of effects on the integrity of any European site are included in the report.

4 EUROPEAN SITES WHICH COULD BE AFFECTED AND POSSIBLE SOURCES OF IMPACT

European Sites considered in the WMRSS Phase 3 Revision Screening process are listed in Table 1. This includes sites in the West Midlands, in neighbouring regions of England and in Wales.

Table 1: European sites considered in the West Midlands RSS Phase 3 HRA screening

SAC	SPA	Ramsar
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<p>Berwyn and South Clwyd Mountains SAC Brecon Beacons SAC Bredon Hill SAC Brown Moss SAC Cannock Chase SAC Cannock Extension Canal SAC Dixton Woods SAC Downton Gorge SAC Elan Valley Woodlands SAC Elenydd SAC Ensor’s Pool SAC Fens Pools SAC Fenn’s, Wixhall, Bettisfield, Wem and Cadney Mosses SAC Llangorse Lake SAC Lyppard Grange Ponds SAC Montgomery Canal SAC Mottey Meadows SAC Pasturefields Saltmarsh SAC Peak District Dales SAC Rhos Goch SAC River Clun SAC River Dee and Bala Lake SAC River Mease SAC River Usk SAC River Wye SAC Severn Estuary SAC South Pennine Moors SAC Sugarloaf Woodlands SAC The Stiperstones and the Hollies SAC West Midlands Mosses SAC Wye Valley and Forest of Dean Bat Sites SAC Wye Valley Woodlands SAC</p>	<p>Elenydd Mallaen SPA Humber Flats, Marshes and Coast (Phase 2) SPA Peak District Moors (South Pennine Moors Phase 1) SPA Severn Estuary SPA South Pennine Moors Phase 2 SPA Walmore Common SPA</p>	<p>Humber Estuary Ramsar Midlands Meres and Mosses Phase 1 Ramsar Midlands Meres and Mosses Phase 2 Ramsar Severn Estuary Ramsar Walmore Common Ramsar</p>
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Based on the results of earlier assessments, the following issues were given particular consideration when reviewing policy:

- Whether any European sites are affected by existing mineral workings which could be expanded.
- Whether the level of regional apportionment might require extraction from new locations where mineral working might give rise to additional effects on European sites.
- The extent to which minerals policies in Phase 3 might cause further air pollution and effect levels of deposition at European Sites.

5 RESULTS AND RECOMMENDATIONS

5.1 SUB-REGIONAL APPORTIONMENT (EMERGING DRAFT POLICY STATEMENT)

5.1.1 Proposed Policy

The policy objective is to produce new sub-regional apportionments for construction aggregates for the West Midlands for the period 2005 – 2020 and to provide advice to MPAs on extending those apportionments up to 2026.

On 18 December 2009 a technical consultation was issued on sub-regional apportionments. This paper included three scenarios (“the WMRAWP scenarios”), based on recent trends, increased substitution with recycled aggregates and increased substitution of crushed rock for sand and gravel or vice-versa. Including the variations on each scenario, this consultation comprised six options in total. A separate paper, prepared by consultants for the Regional Assembly, was distributed simultaneously. This included five further options (“the LUC options”), based on Supply, Growth, Environment, Equal Weighting and Demand/Resource. On 8th February 2010, following a meeting of the WMRAWP, the WMRA issued two further options for consultation:

- Option F – this is Past Sales Led, with 70% of the apportionment according to past sales, 10% demand, 10% resource and 10% constraints.
- Option Refined F – this is as F but with a phased transition from the current sales distribution to the 70:10:10:10 allocation over 5 years.

5.1.2 Possible Implications for European Sites

Previous analysis (TEC,2010) reviewed the implications for European sites of the eleven options put forward in the WMRAWP and LUC papers.

The locations of existing active and inactive sand and gravel, and crushed rock sites have been mapped in GIS, drawing on the information provided in the latest West Midlands Regional Aggregate Working Party Report (2007, published in 2009). 97 such sites were included, as shown in Figure 1. Locations of those sites submitted as candidate strategic sites for Minerals Core Strategies in LDFs, where these are in the public domain, have also been reviewed to inform assessment of the potential effects of sub-regional apportionment options. These sites were available only for Staffordshire and Warwickshire.

A regional policy HRA cannot review precise effects of all minerals extraction sites on all European sites. This analysis has attempted to identify which policy options would be most likely to lead to adverse effects on the integrity of European Sites by considering the extent to which they might give rise to the following types of potentially adverse impact:

- Direct land take within sites
- Habitat fragmentation around and between sites
- Air pollution – eutrophication
- Air pollution – acidification
- Dust pollution
- Deterioration in water quality
- Water abstraction or disruption of hydrological regime at a site

The following European sites are in relatively close proximity to existing minerals sites:

- Wellington South Sand and Gravel, Herefordshire – River Wye SAC
- Rugeley Sand and Gravel, Staffordshire – Cannock Chase SAC
- Wood Lane Quarry Sand and Gravel, Shropshire – Midland Meres and Mosses Phase 1 Ramsar

A separate report (BGS, 2008) suggests that the first two sites actually overlap with the European Sites, making them vulnerable to direct land-take and land use change in supporting habitat if extraction increases. This is not possible to confirm on the basis of existing information, but any proposal to extend these sites would require full consideration of effects on site integrity through HRA. It is assumed that no future planning consent would be granted for aggregate extraction within European sites as the sites in question are already adversely affected by development of surrounding land and are exposed to a range of cumulative impacts which threaten their integrity.

With respect to other potential adverse effects (air pollution, deterioration in water quality or hydrological change) impacts on the integrity of European sites are contingent on the proximity, nature and quantity of the pressure exerted by each mineral site and the sensitivity of the European site to that pressure.

Our analysis has assumed that off-site effects on any European site would operate within a maximum distance of 10 kilometres from a proposed minerals site, though further effects are possible in cases where traffic related to transport of aggregates uses major roads near European sites.

Distances between existing and proposed minerals sites and all European sites in the region or within 10km of its boundary were calculated in GIS. Those European sites located within 10km of one or more extraction sites are listed in Table 2.

Table 2 European sites within 10km of aggregate extraction sites in the West Midlands

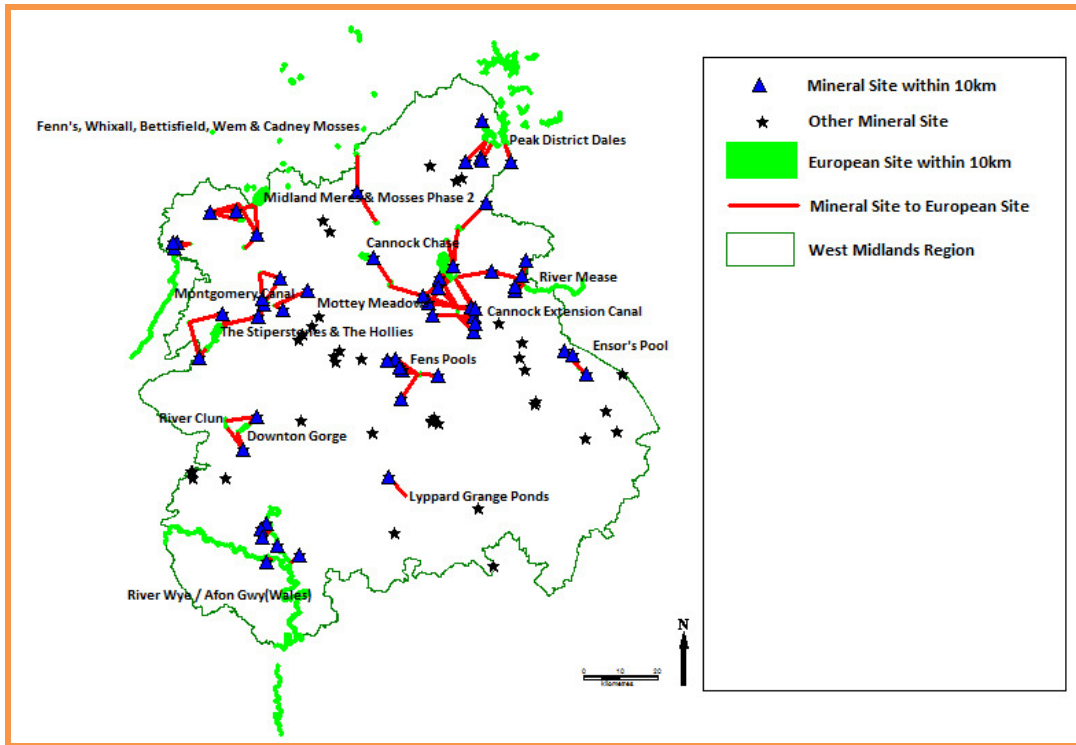
Cannock Chase SAC
Cannock Extension Canal SAC
Downton Gorge SAC
Ensor's Pool SAC
Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC
Fens Pools SAC
Lyppard Grange Ponds SAC
Midland Meres & Mosses - Phase 1 Ramsar
Midland Meres & Mosses Phase 2 Ramsar
Montgomery Canal SAC
Motley Meadows SAC
Pasturefields Salt Marsh SAC
Peak District Dales SAC
River Clun SAC
River Mease SAC
River Wye / Afon Gwy(Wales) SAC
The Stiperstones & The Hollies SAC
West Midlands Mosses SAC

The sensitivities of these 18 European sites to Air Pollution, Dust Pollution, declines in Water Quality and reduced water supply caused by water abstraction or hydrological change were analysed with reference to Natural England source documents (Table 3). Sensitivity to dust pollution was not identified in any of the sites, although all sites will have some sensitivity to dust from nearby sources. Sensitivity to habitat fragmentation is not generally recorded in such sources, and this potential effect requires assessment through other methods. More detailed assessment would be required for any specific proposal.

Table 3 Sites sensitive to impacts associated with mineral extraction

Impact Type	Site
Air pollution - acidification	Cannock Chase SAC Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC Midland Meres & Mosses - Phase 1 Ramsar Midland Meres & Mosses Phase 2 Ramsar Peak District Dales SAC The Stiperstones & The Hollies SAC West Midlands Mosses SAC
Air pollution - eutrophication	Cannock Chase SAC Downton Gorge SAC Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC Midland Meres & Mosses - Phase 1 Ramsar Midland Meres & Mosses Phase 2 Ramsar Peak District Dales SAC River Mease SAC The Stiperstones & The Hollies SAC West Midlands Mosses SAC
Water abstraction/ reduced water supply	Cannock Chase SAC Cannock Extension Canal SAC Ensor's Pool SAC Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC Midland Meres & Mosses Phase 2 Ramsar Montgomery Canal SAC River Mease SAC River Wye / Afon Gwy(Wales) SAC West Midlands Mosses SAC
Reduced water quality	Cannock Chase SAC Cannock Extension Canal SAC Ensor's Pool SAC Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC Fens Pools SAC Lyppard Grange Ponds SAC Midland Meres & Mosses - Phase 1 Ramsar Midland Meres & Mosses Phase 2 Ramsar Montgomery Canal SAC Pasturefields Salt Marsh SAC Peak District Dales SAC River Clun SAC River Wye / Afon Gwy (Wales) SAC

Figure 1 Minerals sites in the West Midlands Region with European sites located within 10km



Based on the available information, and taking account of the proximities shown in Figure 1 and the sensitivities of European Sites shown in Table 2, potential adverse effects cannot be ruled out for:

- Extensions of Minerals Sites in the Staffordshire sub-region on Peak District Dales SAC, Cannock Chase SAC, Cannock Extension Canal SAC, River Mease SAC;
- Extensions of Minerals Sites in the Shropshire sub-region on Midlands Meres and Mosses Phase 2 Ramsar and West Midlands Mosses SAC;
- Extensions of Minerals Sites in the Herefordshire sub-region on River Wye SAC.

5.1.3 Review of sub-regional apportionment options

The apportionment by percentage of sand and gravel to the sub-regions is shown in Figure 2 and the equivalent for crushed rock is shown in Figure 3.

Although not included in the current consultation round, Scenario 1c and Scenario 4 are also shown in these two figures for comparison purposes. We understand that Scenario 1c is to be assessed against whichever is chosen as the preferred option from F and Refined F at the next stage. We include Scenario 4, the option developed in the previous HRA of aggregates iteration, as it may still represent the least damaging option available, at least for sand and gravel. A reminder of the methodology used in the development of Scenario 4 is included below.

The red and green highlighting in Figures 2 and 3 show the change compared with current apportionment – red if more than 10% higher than current, green if more than 10% lower.

Sand & Gravel %	Option F Past sales led	Refined F - Phased sales	Scenario 1c Extraction Trends Last 10 Years	Current	Scenario 4 Resource Close to Demand
Herefordshire	4.33	3.31	2.33	2.8	1.4
Shropshire	14.56	10.87	8.35	8.1	7.56
Staffordshire	55.07	61.02	65.24	65.2	45.06
Warwickshire	11.03	10.49	10.1	10.3	28.89
W.Midlands County	5.39	5.36	5.34	5	8.94
Worcestershire	9.61	8.95	8.64	8.6	8.16
Regional Total	100	100	100	100	100

Figure 2 Options F and Refined F Sand and Gravel

Crushed Rock %	F Past Sales	Refined F Phased Sales	Scenario 1c Extraction Trends Last 10 Years	Current	Scenario 4 Resource close to demand
Herefordshire	5.8	7.1	Not available	7.3	3.7
Shropshire	49.6	51.6		50.7	61.4
Staffordshire	23.4	23.6		24.0	12.0
Warwickshire	16.3	14.5		15.1	16.2
W.Midlands County	0.0	0.0		0.0	2.2
Worcestershire	5.0	3.2		2.8	4.5
Regional Total	100	100		100	100

Figure 3 Options F and Refined F Crushed Rock

Scenario 4 was developed because none of the presented sand and gravel options appeared to be satisfactory with respect to possible implications for European sites. The methodology reflected the distribution of the resource and the principal demand for new development in the West Midlands MUA, and the sustainability preference (for carbon emissions, traffic noise and air quality impact reasons), to reduce the distance travelled by trucks, while recognising that there is a limited resource in the West Midlands County. It therefore used the unsterilised sand and gravel resource within 20km of the West Midlands Conurbation boundary for sand and gravel, and 30km for crushed rock, recognising the relative lack of nearby resource for crushed rock. These distances are substantially less than the 38km used by Land Use Consultants in the development of their options, which we understand is based on current distances travelled. For sand and gravel therefore Scenario 4 could provide up to 50% reduction in heavy truck movements in due course.

5.1.4 Options Comparison

In the previous HRA analysis, indices of sensitivity were developed for each sub-region, based on proximity of minerals sites to European sites and the relationship of transport corridors to sites. These indices are shown in Table 4 and Table 5.

SAND & GRAVEL	Mineral Site - European Site Proximities	Transport Corridor/ Air Pollution Sensitivities	Total	Sensitivity Rank
Staffordshire	20	6	26	1
Shropshire	11	1	12	2
Herefordshire	6	0	6	3
Warwickshire	0	0	0	4=
Worcestershire	0	0	0	4=
W. Midlands County	0	0	0	4=

Table 4 Indices of sensitivity for sand and gravel extraction by sub-region

CRUSHED ROCK	Mineral Site - European Site Proximities	Transport Corridor/ Air Pollution Sensitivities	Total	Sensitivity Rank
Shropshire	9	1	10	1
Staffordshire	3	1	4	2
Warwickshire	3	0	3	3
Herefordshire	2	0	2	4
W. Midlands County	1	0	1	5
Worcestershire	0	0	0	6

Table 5 Indices of sensitivity for extraction of crushed rock by sub-region

Applying these indices to Option F and Refined F generates the following conclusions.

Sand and Gravel

Option F is preferred to Option Refined F, because it reduces the pressure on the county that has by the far the highest sensitivity index – Staffordshire. This is traded off to some extent by more pressure on the second and third most sensitive counties, Shropshire and Herefordshire.

Crushed Rock

Option F is a slight preference to Option Refined F, because there is a small redistribution from Herefordshire to Worcestershire, Herefordshire having a slightly higher sensitivity. However these options appear to have little to choose between them, both representing the status quo in terms of proportions.

Comparison with Option 1c and Scenario 4

Sand and gravel

Option 1c is the least preferred option of those under consideration here, as it places most demand on the most sensitive county, Staffordshire.

Scenario 4 is much more favourable than the other three options here, because of the substantial decrease in pressure on Staffordshire. While the corresponding increase in Warwickshire appears to be a radical change, in HRA terms it is the least damaging because of the scarcity of European sites in Warwickshire. A combination with increased use of recycled

aggregates (original option 2) and perhaps phasing in over 5 years in a transition period (the concept behind Refined F) could make Scenario 4 a clear preferred option.

Crushed rock

It is difficult to assess Option 1c for crushed rock as the data is combined between counties for reasons of confidentiality.

For crushed rock Scenario 4 does not work well, as it generates increased pressure on the most sensitive county, Shropshire.

Preferred Options

It is unclear whether the same scenario must apply to both sand and gravel and crushed rock. If combinations are possible we recommend that Scenario 4 is adopted for Sand and Gravel and Option F for Crushed Rock.

6 CONCLUSIONS AND NEXT STEPS

Table 6 summarises possible impacts associated with the emerging policy recommendations and statements and identifies the sites potentially affected.

Table 6 Phase 3 Policies and European sites affected

Phase 3 Policies	How this could drive adverse changes, based on sensitivities identified in Table 2	European Sites which could be affected
Minerals: sub-regional apportionment	Land take, disturbance, change in water levels and water pollution arising from future workings. Possible air pollution related to transport and local dust deposition.	Possible impacts from extensions of Minerals Sites in: <ul style="list-style-type: none"> • the Staffordshire sub-region on Peak District Dales SAC, Cannock Chase SAC, Cannock Extension Canal SAC, River Mease SAC; • the Shropshire sub-region on Midlands Meres and Mosses Phase 2 Ramsar and West Midlands Mosses SAC; • the Herefordshire sub-region on River Wye SAC.

Further assessment will be required of specific risks to European sites as options and scenarios are refined. The conclusions of this report should be taken into account as part of this process. When preferred options have been identified, it will be necessary to consider possible in combination effects with minerals plans in other regions, as there could be up to 23 mt. of net imports.

Assessment has been undertaken of Options F and Refined F in terms of potential implications for European Sites, using previously developed indices of sensitivity of each sub-region to sand and gravel and crushed rock extraction.

The assessment finds that Option F is preferred for both types of aggregate.

For sand and gravel, Option F is also preferred to Option 1c, but has significantly greater implications for European site sensitivity in Staffordshire than Scenario 4, a new option developed in our earlier HRA report.

For crushed rock, Option F cannot be compared against Option 1c at present for lack of data. However it is preferred to Scenario 4 on grounds of reduced pressure on European site sensitivity in Shropshire.

Significant effects on European sites from these policies cannot be ruled out at this stage.

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