ED8: Supporting Document on Minerals for Sites and Policies Plan (Updated version, September 2015)

Summary

1.0 This document is an update of the original version which supported the Consultation Draft Sites and Policies Plan (SAPP) of February 2013 concerning its minerals policies and proposals.

1.1 It particularly set out the justification for the proposed continued allocation of land at The Spinney, south of Stancombe Quarry, as a preferred area for mineral working, in policy DW17 of the Consultation Draft SAPP (which subsequently became policy DM16 of the Sites and Policies Plan Part 1 Development Management Policies Publication Version, February 2015) .

1.2 The Spinney is currently allocated as a preferred area for mineral working in the adopted Mineral Working in Avon Local Plan (MWIALP) but the Sites and Policies Plan will eventually replace the MWIALP when it is adopted.

1.3 This updated version of the supporting document on minerals is very similar to the original. The main changes are the addition of tables 2b and 2c towards the end of the main text.

1.4 The council undertook work, including a sustainability appraisal exercise, which suggested that allocation of land at The Spinney is an appropriate means of helping to facilitate provision of sufficient readily available reserves to meet the apportionment for crushed rock set out in the Core Strategy.

1.5 It was also found that working of The Spinney would be a means of addressing constraints affecting existing permitted reserves at Stancombe Quarry and thus helping to ensure that productive capacity there can be maintained. This is important as the quarry makes the largest contribution towards the calculated apportionment for crushed rock in North Somerset each year. A significant reduction or loss of that contribution at Stancombe, due to constraints, would be unlikely to be compensated for by production at other active quarries in the district in the plan period. It is unlikely that introducing a new quarry would have the sustainability benefits which would result from overcoming the constraints by working The Spinney.

1.6 It was found that allocation of The Spinney would potentially mean that enough crushed rock could be made available to meet needs in the district to 2026 and beyond, so other allocations would not be needed. Therefore it was proposed that the other existing Preferred Area in North Somerset in the MWIALP which has yet to be granted consent, (land at Hyattswood Farm) be not carried over into the SAPP. However it was proposed that that area be safeguarded as part of a Minerals Safeguarding Area in the SAPP. (See paragraphs 17.12 and 18.0-18.4 below)

Detail

The value of minerals for sustainable economic growth and quality of life

2.0 The National Planning Policy Framework (NPPF) paragraph 142 states that "minerals are essential to support sustainable economic growth and our quality of life", and refers to the importance of having a sufficient supply. It adds that minerals are a finite resource, and can only be worked where they are found, and it is important to make best use of them to secure their long term conservation.

Mineral Resources in North Somerset

3.0 North Somerset primarily contributes to minerals supply by the winning and working of carboniferous limestone, producing aggregate (crushed rock) used for producing asphalt, road building and making concrete. Provision of crushed rock aggregate is the only currently active minerals industry in the district.

3.1 The coal industry is inactive. While the Coal Authority has identified some "Surface Coal Resource Areas" which they feel comprise coal resources which may be capable of being mined from the surface, it is thought that coal has not been mined in North Somerset for over a hundred years, and there is little sign of any commercial interest.

3.2 A Mineral Resources Map produced by the British Geological Survey (BGS) and ODPM shows a wide distribution of limestone resource in North Somerset, but only some of that is shown as "high purity" and much is affected by proximity of development and by environmental designations.

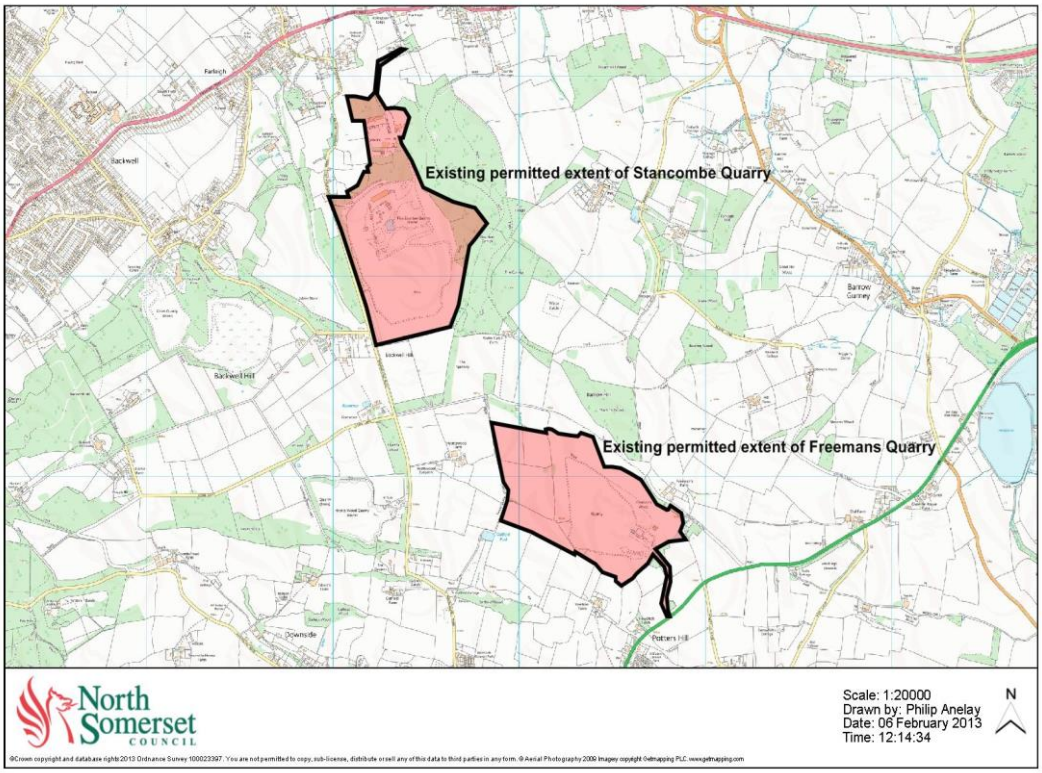
Quarries in North Somerset

4.0 Quarries in North Somerset and South Gloucestershire have historically together provided crushed rock aggregate to meet requirements in West of England (the former Avon area). Bristol City and Bath and North East Somerset (BANES) make a negligible contribution.

4.1 The former Avon area has been the second highest producer of crushed rock aggregates in the South West region (after Somerset County) from since the early 1990s; (source South West Aggregate Working Party (SWAWP) annual reports.)

4.2 Currently there are three active quarries producing primary crushed rock limestone aggregate in North Somerset: Stancombe Quarry, near Backwell, operated by LafargeTarmac Ltd, Freemans Farm Quarry, lying south east of Stancombe Quarry, near Bristol Airport, operated by CEMEX, and Durnford Quarry near Long Ashton, operated by LafargeTarmac Ltd. All are in close proximity to Bristol, an important area of demand for aggregate.

4.3 As at February 2013 the permitted extents of these three quarries was as shown below.


Existing permitted extent of Stancombe Quarry
Existing permitted extent of Freemans Quarry
Backwell
Backwell Hill
Barrow Gurney
Downside
Potters Hill
North Somerset COUNCIL
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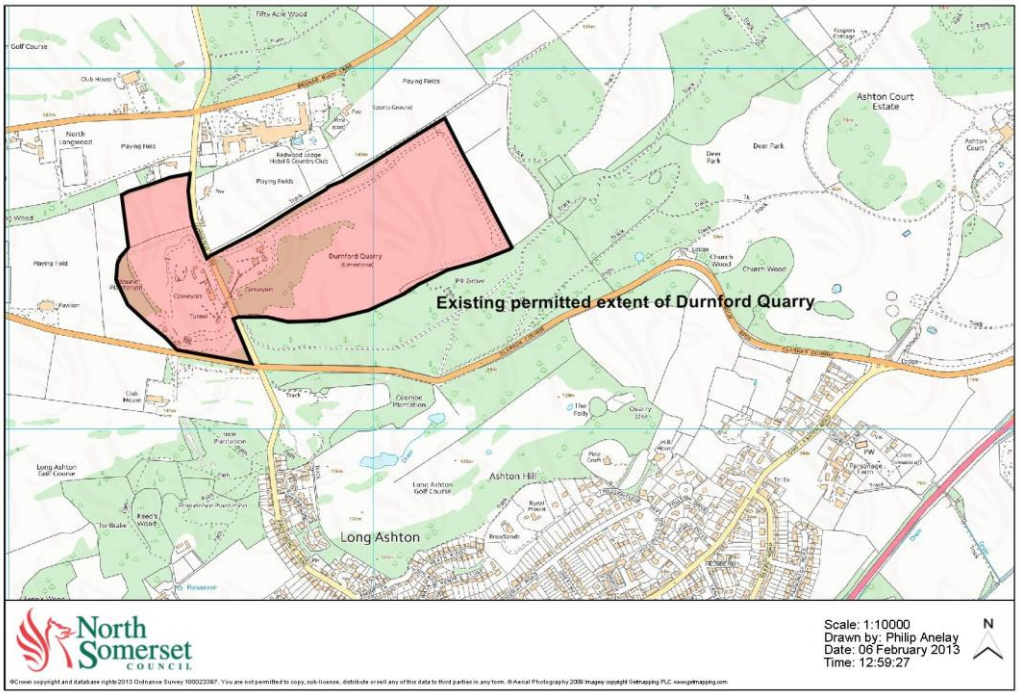
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Ashton Court Estate
Deer Park
Church Wood
Ashton Hill
Long Ashton
Long Ashton Golf Course
North Somerset COUNCIL
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Planning histories and other information on Stancombe, Freemans and Durnford Quarries

Stancombe Quarry

5.0 Mineral extraction began at the site in the 1940s.Tarmac has been involved in operating the quarry since 1995 when the quarrying operations of Wimpey Ltd were merged with those of Tarmac.

5.1 In August 2000 an extension to the quarry was approved (application 95/1918).

5.2 The proposal referred to the proposed continuation of a long established quarry in order to extract 37.5mt of limestone aggregate from the quarry.

5.3 The permission was subject to numerous conditions and to a section 106 agreement, requiring mineral extraction to cease by 31 Dec 2023, and restoration of the quarry site within two years of that.

5.4 The conditions included requirements that, unless otherwise approved by the mineral planning authority:
- the amount of quarried and processed materials leaving the quarry shall not exceed 1.5m tonnes per annum in total;
-not more than 40 HGV loads of materials arising from the quarry per day shall leave the quarry via the Backwell Hill Road access Mon-Fri inclusive, and not more than 20 HGV loads via that route on Saturdays; and
-submission of a scheme of highway works for the Stancombe Lane/A370 junction and completion of the approved scheme within a set timescale.

5.5 Tarmac stated that the existing quarry contains a large aggregate processing plant, two asphalt plants, a ready mixed concrete batching plant and a concrete block factory. The quarry extends to about 69 ha and supplies about 1mt of crushed rock aggregate each year for local construction use including asphalt products for road surfacing, concrete blocks and ready mixed concrete for construction works. The quarry is the largest supplier of construction aggregates within North Somerset. The regional offices for Tarmac are located at the Quarry and over 270 people are employed directly or indirectly by Tarmac at Stancombe.[1]

5.6 Tarmac considered that working the Spinney would enable constraints affecting the previously permitted reserves at the quarry to be overcome, so those reserves would be eventually won. In December 2011 Tarmac submitted a Scoping Request for a EIA from the council (reference 11/P/2333/EIA2), for a southern extension to the quarry on land called The Spinney, comprising 11 ha of pasture land. The submission included information on the constraints, which the council have drawn upon in producing this report. The council responded to the Request specifying the scope and level of detail of information that the EIA should include.

5.7 In June 2014 Lafarge Tarmac submitted a planning application and EIA, ref 14/P/1179/F2, for the extension of Stancombe Quary into the Spinney and increase in the end date and all quarrying activities and operations to 31

[1] EIA Request to Council from Tarmac, reference 11/P/2333/EIA2

December 2043, with landscaping and restoration. The application was approved in May 2015.

Freemans Farm Quarry

6.0 Planning consent was granted for a new quarry at Freemans Farm to produce limestone aggregate in March 1996 by Avon County Council (application 1996/92). It was to replace the former Coles Quarry at Backwell which was due to cease quarrying at the end of March 1999. An Environmental Impact Assessment (EIA) was included with the application. The report to committee concluded that there was a need for the quarry to sustain the local market and enable the closure of Coles Quarry.

6.1 The permission requires all mineral extraction at Freemans Quarry to cease on or before 31 March 2026, and the site to be finally restored within 2 years of that cessation. The site covers 46 ha, west of the A38 at Potters Hill, Barrow Gurney. At the time of the application the quarry was intended to extract 25 million tonnes (mt) of reserves over 30 years.

6.2 There were 46 planning conditions to control duration, days and hours of working, access, environmental issues like noise, blasting, dust, oil, pollution, restoration/after use, protected species, listed building protection (Freemans Farmhouse), etc. A section 106 Agreement covered closure of Coles Quarry, a restoration bond, water resource and quality monitoring, long term maintenance and highways provisions/routing arrangements.

Durnford Quarry

7.0 Planning consent was granted for winning and working of minerals from the site in 1962 (application 61249).

7.1 In September 1997 consent was granted for continued mineral operations and eastward extension of the quarry, including translocation of grassland turves and soils within the application site; (application 95/2062).

7.2 Tarmac have operated the quarry since 2000 when they took over from Hanson. Activities at Durnford have included extracting and processing limestone to provide crushed limestone, concrete and coated roadstone (asphalt), and production of recycled aggregate from crushing and remixing of imported demolition material and road planings. [2]

7.3 In August 2007 consent was granted for continued mineral operations and associated activities, but extending the period of time to extract the remaining reserves to the end of 2012, and to replace the static dry stone processing plant and equipment with in-quarry mobile crushing and screening equipment, (ref 06/P/2672/F2). Conditions limited the permitted output (sales) of extracted and processed stone from the quarry to not exceed 1mt per annum, and the daily number of lorry loads of quarried stone and processed material leaving the quarry to not exceed 320.

7.4 Also in August 2007 consent was granted for continued temporary siting of mobile plant for crushing and re-mixing materials but increasing the amount of

[2] EIA Scoping Request to Council from Tarmac, ref 09/P/0341/EIA) .

imported material for recycling (demolition and construction waste) from 600 tonnes per week to 1500 tonnes per week, and to extend the duration of permission for recycling operations to the end of 2012; (application 06/P/2609/F).

7.5 Conditions required output of recycled aggregates together with extracted and processed stone to not exceed 1mt per annum, and the combined number of daily lorry loads for quarried stone, processed material and recycled aggregate leaving the quarry to not exceed 320.

7.6 Together with Churngold Recycling Ltd, Tarmac formed Tarmac and Churngold Recycled Aggregates (TCRA) Ltd. In 2009 they submitted a request for a scoping opinion from the council for proposals to extend the quarry working life and a restoration scheme to include the importation of inert infilling materials; (ref 09/P/0341/EIA). At that time levels of production at the quarry were at around 234,000tpa. [3]

7.7 In December 2012 LafargeTarmac applied for planning consent for an extension of time for the extraction of minerals at Durnford together with an aggregates recycling operation, aggregates merchanting and a revision to the restoration scheme involving the importation of inert infill material. The application (ref 12/P/2223/F).was approved in August 2014, including a condition that extraction of limestone and all mineral processing shall cease no later than 31December 2022, and all restoration works including the importation of infill material together with aggregates recycling shall be completed within 10 years following the permanent cessation of mineral extraction within 6 months of December 2032, unless as may be agreed otherwise by the local planning authority.

Existing minerals allocations ("Preferred Mineral Extraction Areas") in the Mineral Working in Avon Local Plan

8.0 The Mineral Working in Avon Local Plan ,(MWIALP) adopted in 1993 is still in force but will effectively be replaced by the emerging Sites and Policies Plan (SAPP) when the latter is adopted, since it will be the more up to date plan.

8.1 The MWIALP allocates three Preferred Areas for mineral working in North Somerset, shown on the two maps below. One is at Durford Quarry, one on the south side of Stancombe Quarry and one further south of that quarry, at Hyattswood Farm. The council had regard to these allocations and the need to review them in preparing the SAPP.

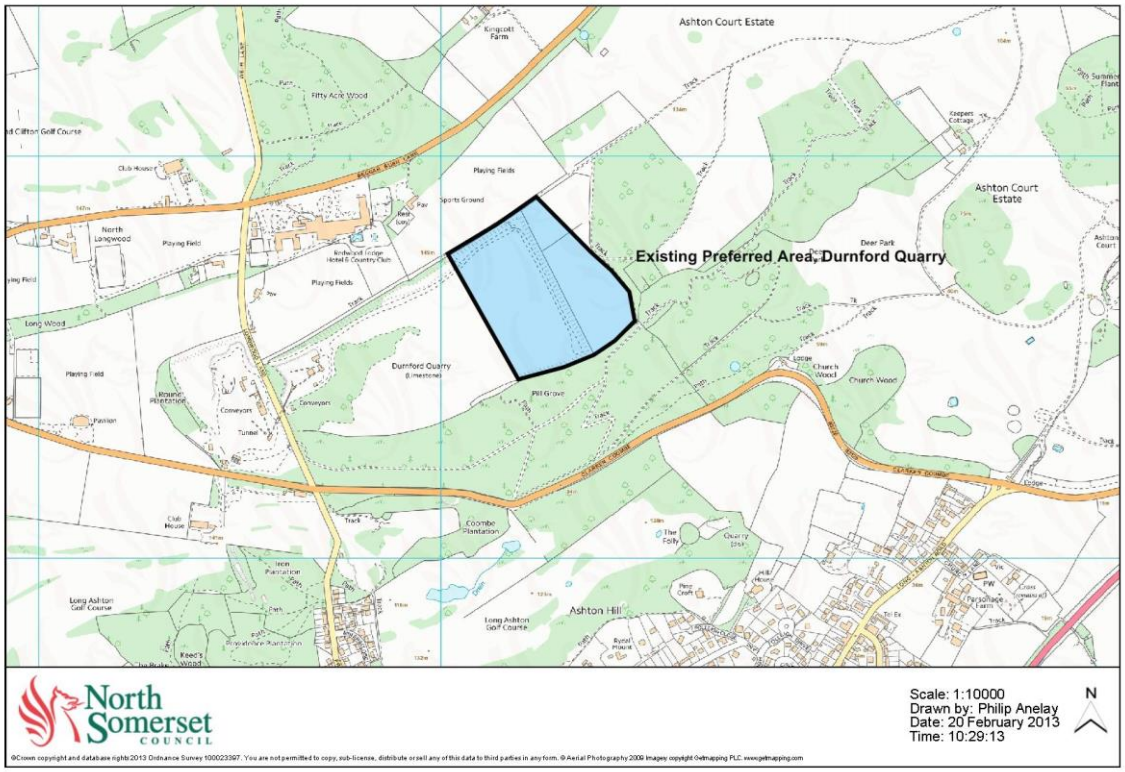
8.2 At Durnford the permissions granted, outlined above, have included the entire Preferred Area, much of which has been worked .

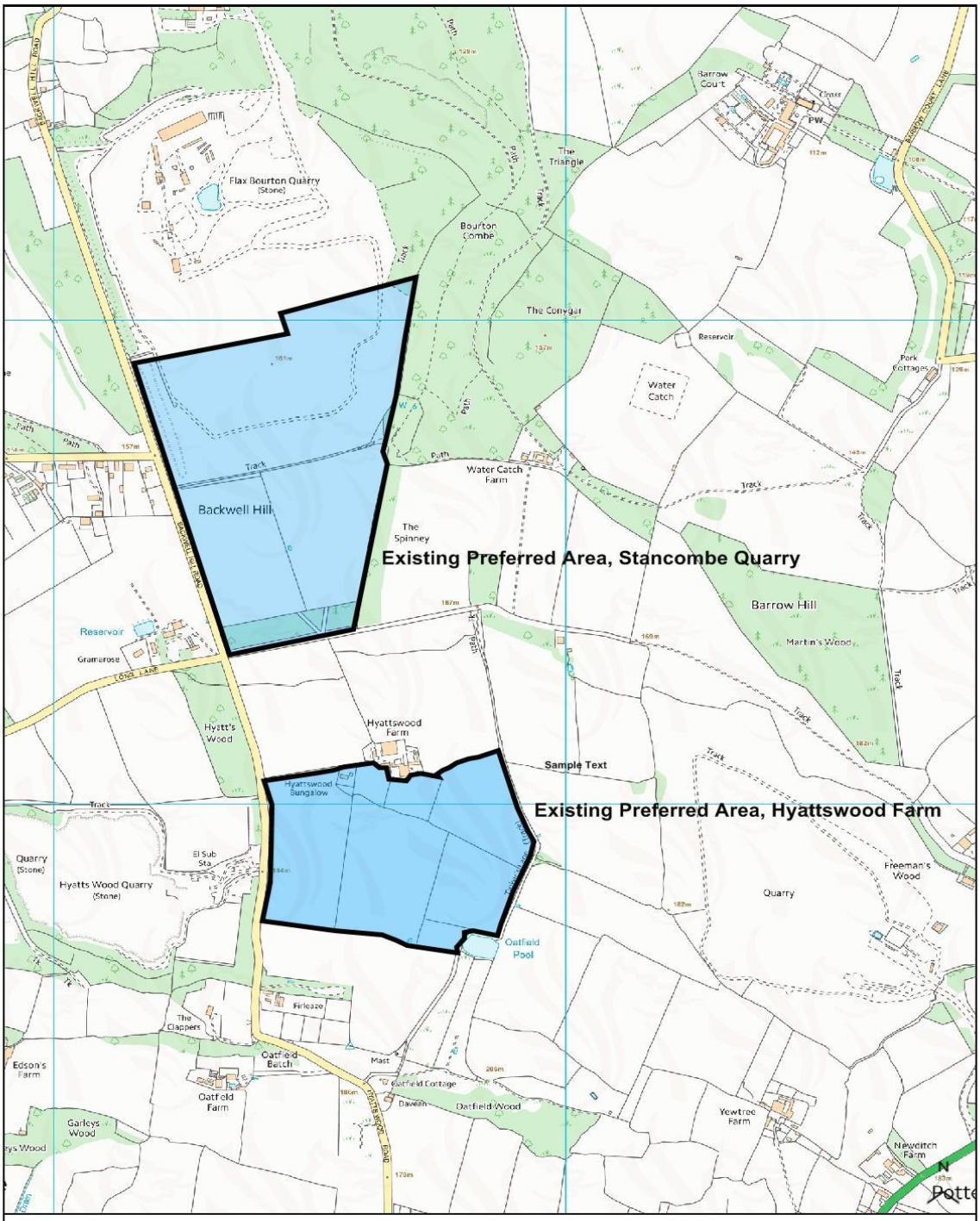
8.3 When the original version of this document was being prepared in 2013, the extension to Stancombe quarry approved in August 2000, (application 95/1918) took up the northern part of the Preferred Area, and had partly been worked. However the southern part (the area known as the Spinney) had not been granted consent for mineral working.

8.4 The Preferred Area at Hyattswood Farm had also not been granted consent for mineral working.

[3] EIA Scoping Request to Council from Tarmac, ref 09/P/0341/EIA

8.5 Because of this, the existing preferred areas at The Spinney and at Hyattswood Farm were further considered in identification of options for minerals allocations for the SAPP, as described under paragraph 12.0 below.





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Data on aggregates production and restrictions on publication of data due to commercial confidentiality

9.0 Due to the fact that in recent years there have only been three active crushed rock quarries in North Somerset, run by just two operators, the council has had to have very careful regard for commercial confidentiality, regarding publication of figures in this report.

9.1 The council has tried as far as possible to use figures already published in existing reports or in the public domain on web sites, such as planning applications, requests for EIA Scoping Opinions from the council, and reports of the South West Aggregates Working Party (SWAWP), (formerly called the South West Regional Aggregates Working Party (SWRAWP)).

9.2 Unfortunately there is very limited published data on aggregates production in North Somerset as opposed to in the West of England as a whole. For most years since 2001, largely to maintain commercial confidentiality, South West Regional Aggregates Working Party (SWRAWP) reports have provided figures for permitted reserves and production for the West of England area,(South Gloucestershire district) and North Somerset combined) rather than the individual districts. (See Table 1 below).

9.3 An exception is the 2008 SWRAWP report, which includes a permitted reserves figure for North Somerset as at the end of 2008 of 47.63 million tonnes (mt). Hence that figure has been used in calculations, although it is some years ago.

9.4 Table 1 below shows that from 2001-2013 inclusive there are only four years in which separate production figures for the two districts were published in SWRAWP reports, 2001-3 inclusive and 2005. The average for production in North Somerset over those 4 years was 2mt per year. Production declined in North Somerset from 2001-2003, and was slightly lower still in 2005.

9.5 From 2006-2013 inclusive there were no published production figures for North Somerset alone in SWRAWP reports. However over that period, with the exception of a slight rise in 2007 and 2008, the combined figures (North Somerset with South Glos) suggest a general continuation of a trend for a decline in production (sales).The figures show a particularly marked fall from 2008-2009. Liaison with operators in North Somerset suggests that this largely reflects the recession reducing demand for aggregates.

Table 1: Crushed Rock production in the West of England 2001 - 2010

Year	West of England (South Glos and North Somerset combined) (mt)	South Gloucestershire (mt)	North Somerset (mt)	SGC : NSC % Ratio
2001	5.55	3.08	2.47	55:45
2002	4.76	2.68	2.08	56:44
2003	4.57	2.82	1.75	62:38
2004	4.40	n/a	n/a	n/a
2005	4.08	2.35	1.73	58:42
2006	3.63	n/a	n/a	n/a
2007	4.06	n/a	n/a	n/a
2008	4.32	n/a	n/a	n/a
2009	3.37	1.75	1.62	52:48
2010	3.22	n/a	n/a	n/a
2011	3.1	n/a	n/a	n/a
2012	2.89	n/a	n/a	n/a
2013	2.66	n/a	n/a	n/a
10 year average 2004 - 2013	3.57	n/a	n/a	n/a

Source: SWRAWP Annual Reports

Making provision for a steady and adequate supply of land-won aggregates

10.0 The National Planning Policy Framework (NPPF), March 2012, paragraph 145, states that mineral planning authorities (MPAs) should plan for a steady and adequate supply of aggregates by various measures, including:

- Preparing an annual Local Aggregate Assessment (LAA), either individually or jointly by agreement with another or other mineral planning authorities, based on a rolling average of 10 years sales data and other relevant information, and an assessment of all supply options, including marine dredged, secondary and recycled sources.

- Making provision for the land won and other elements of the LAA in their mineral plans taking account of the advice of the Aggregate Working Parties and the National Aggregate Coordinating Group as appropriate. Such provision should take the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate.

- Taking account of published National and Sub National Guidelines on future provision which should be used as a guideline when planning for the demand for and supply of aggregates.

10.1 The council, together with the other unitary authorities in the West of England (WoE), produced a Joint LAA for the WoE in 2014, using data on crushed rock production up to and including 2013. The LAA indicates that the 10 year average of crushed rock sales in the West of England between 2004 and 2013 was 3.57million tonnes.

10.2 However both South Gloucestershire and North Somerset Councils in their Core Strategies have identified crushed rock requirements, based on 2009 National and Regional guidelines which were subject to sub regional apportionment. As indicated in Appendix A, the councils took the sub-regional apportionment figure for the former Avon area (WoE) of 79.10 million tonnes for the period 2005 – 2020, and extrapolated it to 2026. Annualised, this sub-regional apportionment is 4.94 million tonnes per annum (mtpa), so is 1.37mtpa higher than the 10 year sales average of 3.57mtpa.

10.3 As indicated in Appendix A, the sub-regional apportionment figure has historically been split 60:40 between North Somerset and South Gloucestershire, to broadly reflect past sales, with South Gloucestershire taking the higher percentage. This split has been endorsed in the respective Core Strategies. For North Somerset, this results in a calculated apportionment of 36.9mt for 2009-2026 inclusive, reflected in policy CS8 of the Core Strategy, which annualised amounts to 2.05mtpa.

10.4 Because it is the adopted Core Strategy, the Council considers that the apportionment in policy CS8 will remain relevant until such time as the Core Strategy, including that policy, is reviewed.

10.5 Nevertheless the Council considered that it would be prudent to also have regard to the likely implications of a theoretical lower apportionment for North Somerset based on the LAA 10 year sales average figure, compared with the higher Core Strategy apportionment.

10.6 If one assumes that a theoretical lower “apportionment” figure for North Somerset would be 40% of the **3.57mtpa** LAA figure (l0 year average) for West of England, (**1.43**mtpa), multiplied by 18 to reflect the 18 years from 2009-2026 inclusive , that gives a figure of 25.7mt. That is 11.2mt less than the 36.9mt sub regional apportionment for North Somerset referred to in the Core Strategy.

10.7 Core Strategy Policy CS8 specifically requires the council to test the 36 9 mt apportionment in the Core Strategy, so that was carried out, as indicated

below. However in doing so the likely implications of a lower theoretical LAA-based apportionment for North Somerset (25.7mt) were also noted.

Testing of the calculated apportionment for North Somerset

11.0 Testing involved investigating whether it is likely that the apportionment for North Somerset can be met in terms of practicality and environmental acceptability. It involved liaison with the local minerals industry and other stakeholders. It involved consideration of whether, having regard to existing permitted reserves, there is a need/scope to allocate further land for mineral working to meet the calculated apportionment , and if so, consideration of options and selection of a preferred option.

11.1 As at the end of 2008 remaining total permitted reserves for limestone in North Somerset totalled 47.63 million tonnes(mt). On paper that is sufficient to meet the 36.9mt apportionment for North Somerset to 2026. However one needs to consider whether the reserves are readily available or affected by constraints.

11.2 When the original version of this document was being prepared. liaison with the quarry operators (Tarmac and CEMEX) suggested that the remaining permitted reserves at Durnford and Freeman's Farm quarries could be assumed to be readily available. The operators did not identify significant constraints affecting those reserves.

11.3 Conversely Tarmac claimed that there were significant constraints affecting the permitted reserves at Stancombe quarry, and their case is summarised below. Note: The figures from Tarmac in paragraph 11.4 below (on remaining consented reserves at Stancombe as at the end of 2011, and on constraints) have been in the public domain for some time, They were on the council's website in the planning application search section in 2011, regarding Tarmac's request for a Scoping Opinion for a southern extension to the quarry, ref 11/P/2333/EIA2.

11.4 In 11/P/2333/EIA2. Tarmac stated that the remaining consented reserves of limestone at Stancombe Quarry amounted to 23.6 million tonnes as at 31 December 2010, but of these, due to constraints, only 4.0 million tonnes of reserves were readily available, sufficient for only 4 years production at current rates. Tarmac stated that the various constraints which restrict the working of the other 19.6 million tonnes (mt) are as follows:

1.1 mt comprises conglomerate (which, though notionally classified as mineral reserve, is only saleable as a low grade fill due to high mudstone content, restricting end use as limestone)
5.4 mt of limestone is constrained by the conglomerate as it lies beneath it.
2.3 mt of limestone is constrained in geotechnical terms, being within the "south wall" of the quarry. As a consequence of working from north to south it has been necessary to provide increased bench widths to ensure a safe working environment with sufficiently shallow "pit profile", (shallow enough to avoid major bench failure) and compliance with quarrying regulations due to the dipping strata. Increasing bench widths means limestone must be left unworked.
8.0 mt of limestone lies beneath the fixed processing plant and water table.
2.8 mt of limestone lies beneath the stockyard and water table.

11.5 In 11/P/2333/EIA2. Tarmac stated that on average about 1 million tpa (tonnes per annum) of crushed rock aggregate was being produced at Stancombe [4] Therefore, assuming that Stancombe produced about that much in 2009 and 2010 (totalling 2mt) one can assume that the permitted reserve there at the end of 2008 amounted to about 25.6mt; (the 23.6mt remaining permitted reserve there as at the end of 2010 plus 2mt). If that 25.6mt is deducted from the total permitted reserves in North Somerset at the end of 2008 of 47.63mt, one can assume that the result (22.03mt) was about the level of permitted reserves at the other active quarries in North Somerset at that time.

11.6 If, due to constraints, only 4mt can be regarded as readily available at Stancombe at the end of 2010, if we add in the 2mt which we are assuming were delivered there in 2009 and 2010, we can assume that the readily available reserve at Stancombe as at the end of 2008 was 6mt. Adding the 6mt to the assumed total permitted reserves at the other active quarries in North Somerset at that time (22.03mt) gives an assumed total readily available reserve of 28.03 mt of Carboniferous Limestone in North Somerset as at the end of 2008. That is insufficient to meet the 36.9mt apportionment for North Somerset to 2026, and amounts to a calculated deficiency of about -9mt.

11.7 On paper the 28.03mt would be enough to meet the lower theoretical "apportionment", based on the latest LAA, of 25.7mt to 2026. However, it was noted that, unless further reserves were permitted at Stancombe, based on the information Tarmac have provided, it is likely that production there would have to reduce significantly, or possibly cease, well before 2026. This would be a potential significant reduction of productive capacity in North Somerset. More information on the issue of productive capacity is provided in paragraph 16.0.

11.8 The council liaised with Tarmac as to whether the constraints at Stancombe can be overcome, perhaps by moving and tipping or selling the conglomerate, and moving the processing plant and stockyard. Their response, in summary, points to the following difficulties.

11.9 The conglomerate, a low grade fill, has very unpredictable sales. Sales at present are only 50,000 tonnes per year (so on that basis 1.1mt would take 22 years to sell) and there are no large contracts locally which would take greater volumes. However it is expected that large fill contracts can be secured over a prolonged period of time.

11.10 Tipping the conglomerate inside the quarry would either sterilise further material or incur enormous costs and tipping outside the quarry is cost prohibitive.

11.11 The limestone beneath the fixed processing plant can only be extracted by developing 4 more quarry benches below the level of the plant. The plant was designed in its existing location to provide the maximum productivity in terms of processing stone and loading vehicles. The processing plant is in good condition and will be able to process stone effectively and efficiently for many more years. The 2 adjacent asphalt plants would also need to be moved.

[4] EIA Request to Council from Tarmac, reference 11/P/2333/EIA2

These plants are not mobile and would need to be dismantled and relocated or replaced which would be unnecessary, costly and disruptive.

11.12 The existing plant site amounts to 4ha in extent and to replace the plant would require at least the same amount of space. Such an area is simply not available within the quarry.

11.13 Extraction of the lowest 3 quarry benches would be below the water table. The quarry would need to be dewatered to allow the final reserves of stone to be worked. The considerable volumes of water that would need to be discharged from site would need to be managed before being pumped off site. There is insufficient space within the quarry at the present time to develop a water management area.

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11.14 The stockyard amounts to approx 3 ha in extent and similar issues exist for the stone beneath the stock yard as that beneath the processing plant. There is limited space within the quarry to relocate the stockyard. Any relocation would interfere with the continued extraction of stone.[5]

Identification of options.

12.0 Given the above, in preparing the original version of this document, it was evident that the constraints at Stancombe would mean that there would be a calculated shortfall in readily accessible reserves in North Somerset, based on the apportionment in the Core Strategy, of about -9mt in the period to 2026. However it was recognised this is not a relatively high figure and could be met by an extension to an existing quarry. The council considered options to address this, including the existing active quarries in the district (Stancombe, Freemans Farm and Durnford,).

12.1 In identifying options, and testing the apportionment, the council also considered the environmental acceptability of the three quarries, and their scope for extension. This was partly done through the Sustainability Appraisal matrix in Appendix B3 (which includes a column on the “existing situation” and refers to the existing quarries). The findings of this assessment did not suggest that the quarries are environmentally unacceptable.

12.2 Also over the years many conditions have been imposed relating to the planning permissions which have been granted at the quarries, helping to promote environmental acceptability; (eg. conditions on permission 95/1918 granted August 2000). The conditions have covered many diverse issues, including days and hours of operations, lorry movements, controls against pollution of groundwater, requirement for groundwater compensation ponds, controls against dust, noise and vibration, recording and recovery of archaeological finds, and mitigation measures regarding potential effects on biodiversity. A number of measures relating to such conditions are detailed in the SA matrix.

12.3 The council also had regard to the views of the quarry operators in identifying potential options. Tarmac and CEMEX advocated continued production at Stancombe and Freemans quarries throughout the plan period to 2026 and beyond. However, while Tarmac foresaw a need to extend Stancombe Quarry within the plan period, CEMEX stated that it is unlikely that they will need to

[5] EIA Request to Council from Tarmac, reference 11/P/2333/EIA2

do so at Freemans quarry, due to a significant amount of remaining permitted reserves there.

12.4 Regarding Durnford, Tarmac, did not express a need or desire to laterally extend that quarry, but just to have more time to work the remining reserves there, reflected in the recently approved planning application 12/P/2223/F.

12.5 The council could also see potential disadvantages/difficulties with lateral extension of Durnford Quarry. It is bounded by Wildlife Sites (notably woodland immediately to the west, and more open land immediately to the east), further woodland on land designated as a Geological Site to the south, and uses such as playing fields, hotel/country club etc. to the north. Much of this surrounding land is also part of the Ashton Park Registered Historic Park or Garden. These designations are subject to protective policies in the North Somerset Replacement Local Plan.

12.6 Therefore the council focussed on exploring the potential to extend Stancombe Quarry, in seeking options to address the 9mt shortfall. The 2005 Mineral Resources Map by the British Geological Survey was examined. The existing quarry /permitted area was shown to be mainly within an area of high purity limestone except for a small area in its SW corner (which discussions with Tarmac suggested was dolomitic conglomerate.) The high purity limestone adjoins the quarry to the east and south.

12.7 It was found that the BGS map suggests that there is not high purity limestone to the north of Stancombe quarry, an area already partly occupied by buildings associated with the quarry. Potential for an eastern extension is constrained, by woodland designated as a Wildlife Site. Land to the west also comprises woodland and is separated from the quarry by Backwell Hill Road. There appeared to be greater potential for contiguous extension to the south (into The Spinney), although this would cross a public right of way along the south boundary of the quarry. Tarmac had suggested that the quarry be extended into the Spinney. It was also (at the time) the remaining unpermitted southern part an existing preferred area in the Mineral Working in Avon Local Plan (MWIALP), as described under paragraph 8 above.

12.8 It was noted that further south is land at Hyattswood Farm, which includes high purity limestone and again is a preferred area in the MWIALP.

<u>The options identified</u>

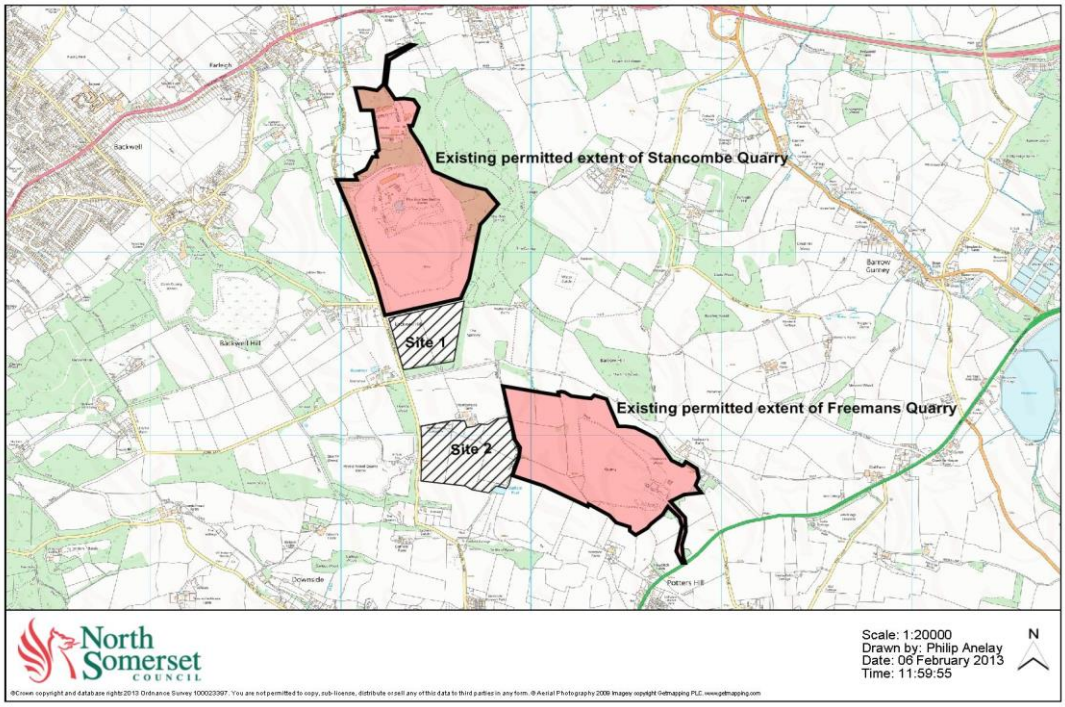
13.0 The final options identified for appraisal were therefore as follows.

1) Land at The Spinney immediately south of the then existing permitted mineral working area at Stancombe Quarry, comprising two fields in control of Tarmac, a potential contiguous lateral extension to the quarry. (Site 1 on the map below).

2) Land at Hyattswood Farm, comprising fields about 140m south of The Spinney, but separated from it by Long Lane and an intervening field. (Site 2 on the map below). It is in control of Tarmac but extends eastwards as far as the western extent of Freemans Farm Quarry. This site therefore has the potential to be either a non contiguous extension to Stancombe Quarry, or (subject to agreement between the operators and landowner) a western extension to Freemans Farm Quarry. The field immediately to the north of the

site is not thought to contain high quality limestone at upper levels, so is less commercially attractive.

3) For completeness a "no allocations" option was also considered, one which assumed no allocations for minerals working would be made, and that all existing Preferred Areas in the Mineral Working in Avon Local Plan (MWIALP) have been deleted.



Appraisal of the Options

14.0 It was realised that the entire SAPP should be subject to full Sustainability Appraisal (SA), designed to meet the requirements of the Strategic Environmental Assessment (SEA) Directive. The SA exercise appraising the minerals options would inform that wider SA. It was carried out at an appropriate level of detail for a DPD.

14.1 The exercise used an SA framework (matrix) which only includes criteria relevant to minerals issues. The way the SA framework was devised is set out in Appendix B2.

14.2 The results of the SA exercise are shown in Appendix B3, with the existing situation (based on the existing quarries) covered in the 4th column.

14.3 In carrying out the SA the council had regard to further information provided by Tarmac, as follows:

14.4 Tarmac stated that a number of the constraints at Stancombe Quarry could be reduced or overcome by mineral working of the Spinney (site 1) which contains about 9mt of limestone, sufficient for approximately 9 years

production, and 1.35mt of conglomerate. They listed the benefits of working the Spinney as follows:

1. Improved geotechnical stability of all the quarry faces by working south to north which is a safer way of working the quarry. It would allow the 2.3 mt of limestone with geotechnical constraints in the existing quarry south wall to be extracted.

2. Provision of an extra 9 years of limestone production during which time the conglomerate from the existing quarry and from the Spinney area can be sold if possible.

3. If substantial sales of conglomerate do not arise over the next 9 years the Spinney provides sufficient space to tip the conglomerate without sterilising any stone or requiring multiple movements of material. The quarry benches within the Spinney would be widely spaced due to the relatively shallow depth of the limestone which would allow the full extent of the working to be developed relatively quickly, and provide worked out areas of the quarry to tip conglomerate.

4. Working the Spinney delays the disruption and costs of relocating the fixed plant and stockyard areas.

5. All extraction in the Spinney would be above the water table so no additional water management area or off site dewatering in respect of that area would be required.

6. Working the Spinney provides additional space which aids overall management of the quarry including water management issues.

14.5 Tarmac stated that if they were able to work site 1, site 2 (Hyattswood Farm) would be unlikely to be needed (so far as they were concerned), in the plan period to 2026.

Summary of the SA findings

15.0 The SA matrix in Appendix B3 provides a full picture. In summary the appraisal indicated that against some SA objectives, for all three options, it would be likely that strong existing and proposed development management policies should help to prevent significant adverse effects. Examples include landscape, biodiversity, water, air pollution and access/traffic issues, although appropriate mitigation measures would be likely to be necessary which could be required by conditions on planning permissions. Eg. Provision of appropriate landscaping/bunding.

15.1 The exercise predicted more certainty regarding likely effects from sites 1 and 2 than the third (no allocations) option, since with the latter it was uncertain where minerals development might occur.

15.2 Site 1 scored relatively well compared to the other options on SA objective Soc2 “minimise risk to health and safety”, notably in allowing rock at Stancombe to be worked from the south northwards, rather than southwards towards the northward sloping bedding planes.

15.3 It was found that working either of sites 1 or 2 would be likely to help to maintain relatively high productivity at Stancombe by providing relatively unconstrained rock and/or a means to overcome existing constraints. This would potentially help to maintain employment levels at the quarry, so options 1 and 2 scored relatively well against SA objective Econ 1 on employment. Conversely option 3, which assumed deletion of those sites as existing Preferred Areas, and did not offer a means of overcoming constraints at Stancombe, did not.

15.4 However it was found that site 1 was potentially more advantageous than site 2. For instance, it scored in terms of prudent use of resources (SA objective E9) because working of The Spinney would potentially release constrained permitted reserves rock beneath the conglomerate and south wall at Stancombe. Also site 1 would potentially involve transport of material over a shorter distance than site 2, (concerning SA objective E1). Therefore site 1 was considered to be the best performing option in terms of the SA exercise.

Issue of productive capacity

16.0 NPPF paragraph 145 indicates the importance of the productive capacity of permitted sites and of planning for a steady and adequate supply of aggregates. Tarmac stated that the constraints at Stancombe would potentially significantly reduce or in the worst case scenario, could cause total loss of productive capacity there. This would have potentially serious implications since Stancombe is the largest producer of crushed rock in the district and makes the greatest contribution towards the 2.05 mt annualised apportionment for North Somerset each year. (This point would also apply to the annualised theoretical lower apportionment of 1.43mtpa).

16.1 It was considered unlikely that reduced productive capacity at Stancombe could be made up for by production at the Freemans and Durnford quarries. Freemans quarry only has a permitted capacity of 0.8mt pa, and in recent years it has only been producing a fraction of that, although there are significant unconstrained permitted reserves remaining there. While Durnford quarry has a permitted capacity of 1mt per annum there are relatively little remaining permitted reserves (just under 3mt as at the end of 2012, according to application 12/P/2223/F) and it has historically produced significantly less crushed rock than Freemans Farm quarry.

Conclusion

17.0 Consideration of the apportionment, options, including the sustainability appraisal exercise, and other issues suggested that it was appropriate to continue to allocate land at The Spinney as a preferred area.

17.1 The following analysis was made:
We have seen that assuming no working of the Spinney, the readily available reserves at Stancombe as at the end of 2008 can be assumed to be about 6mt, which means that the readily available reserves in North Somerset at that time can be assumed to be 28.03 mt. (See paragraph 11.6) That would be insufficient to meet the calculated apportionment of 36.9mt for 2009-2026,

While on paper it would be enough to meet the lower theoretical "apportionment", based on the latest LAA, of 25.7mt to 2026, we have seen that there would potentially be a significant adverse impact on production at Stancombe, possibly requiring early closure of the quarry, and hence potential significant reduction of productive capacity in North Somerset.

17.2 If working of The Spinney was permitted, the following additional amount of reserves would be readily available at Stancombe, in the medium term, even without going beneath the plant and stockyard:

- 7.7mt beneath the conglomerate and south wall
- about 9mt of new reserves at the Spinney itself

17.3 That amounts to about 16.7mt. If that is added to the 28.03mt, that implies that 44.73mt of reserves could be assumed to be readily available in North Somerset (as at the end of 2008) which would meet the 36.9 mt apportionment.

17.4 The situation is summarised in Table 2a below. It shows that, if in the longer term a further 10.8mt reserves under the stockyard and plant are released the resulting readily available reserves in North Somerset would be further increased to 55.53mt.

17.5 There is a further table (2b) which summarises the implications if the theoretical lower apportionment is assumed. The beneficial effects of releasing land at The Spinney are again shown, with a higher calculated surplus over the apportionment, since the apportionment is lower.

17.6 In addition, Table 2c adds the implications for the landbank. (Here there is no difference in implications between the higher and lower apportionments, since the lower rate of production of 1.43mtpa has to be applied for calculating the landbank, in line with national guidance).

17.7 On this basis, without releasing land at The Spinney, the readily deliverable reserves in North Somerset of 28.03mt as at the end of 2008 would provide a calculated landbank of under 20 years, which would be expected to last only until halfway through 2027. This suggests that a 10 year landbank would only be maintained till 2017, at the assumed level of production, unless further reserves are permitted. That is well before the end of the plan period of the Core Strategy and the emerging Sites and Policies Plan, which is 2026.

17.8 Conversely, releasing land at The Spinney, (even without using the rock beneath the stockyard and plant), would raise the readily deliverable permitted reserves to the 44.73mt as at the end of 2008, and provide a calculated landbank of over 31 years. That would be expected to last until 2039, and suggest that a 10 year landbank would be maintained till 2029, at the assumed level of production.

17.9 Assuming the 10.8mt beneath the stockyard and plant,was also eventually released, the readily deliverable permitted reserves as at the end of 2008 could be assumed to be 55.53mt, and provide a calculated landbank of over 38years, That would be expected to last till after 2046, so a 10 year landbank would be expected to be maintained till 2036 at the assumed level of production.

17.10 It was concluded that continued allocation of The Spinney would also be appropriate because of the potential to address constraints and to help maintain the productive capacity of Stancombe Quarry in the plan period to

2026, thus helping promote the steady and adequate supply of aggregates in North Somerset, consistent with the NPPF.

17.11 For these reasons allocation of The Spinney was proposed in policy DM17 of the Consultation Draft Sites and Policies Plan (SAPP).

17.12 It was felt that it would not be appropriate to continue to allocate the other site considered, (Hyattswood Farm), as a preferred area in the SAPP. It would not be a contiguous extension to Stancombe Quarry, unlike The Spinney, and does not perform as well in terms of sustainability. Also allocation of The Spinney would mean that the Hyattswood Farm site is not needed within the plan period to 2026. However, it was included in the proposed Minerals Safeguarding Area for Carboniferous Limestone in the SAPP. (See under paragraph 18 below)

Table 2a

Table showing potential implications of release of land at The Spinney based on the calculated apportionment figure in the Core Strategy.

Total apportionment for crushed rock in North Somerset between 1st January 2009 and 31st December 2026 (in Core Strategy)	36.96 mt, or 2.05mtpa annualised over the 18 year period
Permitted reserves in North Somerset on paper as at 31st December 2008. (This does not consider impact of constraints at Stancombe Quarry on deliverability. No working of the Spinney assumed)	47.63mt
Calculated surplus/shortfall over total apportionment, (not allowing for constraints at Stancombe Quarry)	47.63-36.96=surplus of 10.67mt
Readily available permitted reserves at North Somerset at 31st December 2008 , taking account of constraints at Stancombe Quarry. No working of the Spinney assumed.	28.03mt
Calculated surplus/shortfall over the total apportionment, taking account of constraints at Stancombe Quarry	28.03-36.96=shortfall of -8.93mt
Reserves in North Somerset assumed to be made readily available as from end of 2008, if land at The Spinney is permitted (adding 9mt of limestone at The Spinney itself plus 5.4mt beneath conglomerate and 2.3mt in existing south wall of quarry at Stancombe, totalling 16.7mt). (Note: This does not assume use of the further 10.8mt beneath the stockyard and plant.)	28.03mt+16.7mt =44.73mt
Calculated surplus/shortfall over the total apportionment, assuming the above occurs	44.73-36.96=surplus of 7.77mt

MT=million tonnes

Table 2b

Table showing potential implications of release of land at The Spinney **based on the theoretical lower apportionment figure**

Theoretical lower apportionment for crushed rock in North Somerset between 1st January 2009 and 31st December 2026 (based on 40% of 10 year average sales figure of **3.57**mtpa	**25.7 mt, or 1.428mtpa** annualised over the 18 year period
Permitted reserves in North Somerset on paper as at 31st December 2008 (This does not consider impact of constraints at Stancombe Quarry on deliverability. No working of the Spinney assumed)	47.63mt
Calculated surplus/shortfall over theoretical lower apportionment, (not allowing for constraints at Stancombe Quarry)	47.63-**25.7**=surplus of **21.93**mt
Readily available permitted reserves at North Somerset at 31st December 2008 , taking account of constraints at Stancombe Quarry. (No working of the Spinney assumed)	28.03mt
Calculated surplus/shortfall over theoretical lower apportionment, taking account of constraints at Stancombe Quarry	28.03-**25.7**=small surplus of 2.33**mt**
Reserves in North Somerset assumed to be made readily available as from end of 2008, if land at The Spinney is permitted (adding 9mt of limestone at The Spinney itself plus 5.4mt beneath conglomerate and 2.3mt in existing south wall of quarry at Stancombe, totalling 16.7mt). (Note: this does not assume use of the further 10.8mt beneath the stockyard and plant.)	28.03mt+16.7mt =44.73mt
Calculated surplus/shortfall over theoretical lower apportionment, assuming the above occurs	44.73-**25.7**=surplus of 18.96mt
Reserves in North Somerset assumed to be made readily available as from end of 2008, if land at The Spinney is permitted, including use of the further 10.8mt beneath the stockyard and plant.	44.73mt +10.8mt =55.53mt
Calculated surplus/shortfall over theoretical lower apportionment, assuming the above occurs	55.53-25.7=surplus of 29.83mt

MT=million tonnes

Table 2c

Implications for landbank

In line with the government guidance, the council has calculated the landbank for North Somerset based on the 10 year average sales figure for crushed rock, which is assumed to be 1.43mtpa (40% of the 3.57mtpa figure for West of England)

Landbank to be calculated	**Landbank calculation**	**Implications**
Assumed landbank at 31st December 2008 (This does not consider impact of constraints at Stancombe Quarry on deliverability of reserves) (No working of the Spinney assumed)	Permitted reserves of 47.63mt divided by **1.43**= **33.3** years	A landbank of 33.3 years at the end of 2008 would be expected to last till **2041**, and a 10 year landbank maintained till **2031** , based on an assumed level of production of **1.43**mtpa
Assumed landbank at 31st December 2008 based on readily available permitted reserves, taking account of constraints at Stancombe Quarry (No working of the Spinney assumed)	Readily available permitted reserves of 28.03mt divided by **1.43= 19.6** years	A landbank of **19.6 years at the end of 2008** would be expected to last till into **2027**, and a 10 year landbank maintained till only **2017,** based on an assumed level of production of **1.43**mtpa
Assumed landbank based on the 44.73mt of reserves assumed to be made readily available as from end of 2008, if land at The Spinney is permitted, but without using the further 10.8mt beneath the stockyard and plant.	Readily available permitted reserves of 44.73mt divided by **1.43**= 31.27 years	A landbank of 31.27 years would be expected to last till **2039**, and a 10 year landbank maintained till 2029 based on an assumed level of production of **1.43mtpa.**
Assumed landbank based on the 55.53mt of reserves assumed to be made readily available as from end of 2008, if land at The Spinney is permitted, and eventually, the 10.8mt beneath the stockyard and plant is used.	Readily available permitted reserves of 55.53mt divided by **1.43**= 38.83 years	A landbank of 38.83 years would be expected to last till into **2046,** and a 10 year landbank maintained till into 2**036,** based on an assumed level of production of **1.43**mtpa.

Minerals Safeguarding Area for Carboniferous Limestone

18.0 The NPPF paragraph 143 requires local planning authorities to "define Minerals Safeguarding Areas (MSAs) and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked". The glossary to the NPPF defines minerals of local and national importance as "minerals which are necessary to meet society's needs", and indicates that they include aggregates".

18.1 Paragraph 144 states that local authorities should "not normally permit other development proposals in MSAs where they might constrain potential future use for these purposes". It adds that local authorities should "set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place".

18.2 Core Strategy Policy CS8 states "the council will seek to protect mineral resources where appropriate, by means of identification of Mineral Safeguarding Areas (MSAs).

18.3 Consistent with the NPPF and Core Strategy, in preparing the Sites and Policies Plan, the council identified a MSA for carboniferous limestone, the main source of aggregates in North Somerset. The area has been identified with regard to the 2005 Mineral Resources map by the British Geological Survey (BGS) and consultation with the Minerals industry. The area includes Stancombe and Freemans Farm quarries) but also land between and adjoining them, taking account of the views of quarry operators.

18.4 The council proposed an accompanying policy (DM18) on MSAs in the Consultation Draft Sites and Policies Plan, which became policy DM17 of the Sites and Policies Plan Part 1 Development Management Policies Publication Version, February 2015.

Appendix A.

Calculating the apportionment for North Somerset

A 1.0 In April 2008 new guidelines for the provision of aggregates were published to replace those which had existed since 2003. These guidelines, 'National and Regional Guidelines for Aggregates Provision in England 2005 - 2020' continued to reflect an overall fall in national demand for aggregates and a call for an even greater contribution to supplies from alternatives to primary aggregates. The revised guidelines were finally published in June 2009 after CLG had carried out a 'sensitivity' test in December 2008 to account for the effect the recession might have on the economic parameters in the

forecasting model. In the event, however, CLG forecasts found a relatively small decrease across the period of around 66mt between 2005 and 2020 and it was therefore concluded that the draft guidelines were still apposite. [6]

A1.1 The resulting (2009) National and Regional Guidelines for Aggregate Provision in England 2005-2020 provided a national forecast of aggregates demand apportioned down to the regional level over a 16 year period. The guidelines are based on outputs from an econometric model of the relationship between construction and aggregate consumption to predict future aggregate need. The guidelines are based on the assumption that recycled and other alternative materials will meet nationally 25% of total demand for aggregates over the period to which they apply. [7]

A1.2 In 2009 the then South West Councils commissioned consultants Capita Symonds to undertake technical work for the sub regional apportionment of the regional apportionment figure for the south west set out in the 2009 guidelines.

A1.3. The technical work was continued by the South West Regional Aggregates Working Party (SWRAWP) in 2010, and resulted in a total sub regional apportionment for Avon (West of England area) for crushed rock of 79.10mt, 2005-2020, being submitted by SWRAWP to the Department of Communities and Local Government (DCLG) for approval. (Annualised, that amounts to about 4.94mt for that 16 year period).That sub regional apportionment was based on applying the area's % share of crushed rock production in the south west over the period 2004-2008 to the 412million tonnes (mt) requirement for the South West set out in the 2009 guidelines.

A1.4 The sub regional apportionment for the West of England had to be subdivided to local authorities within that area. Within the West of England primary aggregates, in the form of crushed rock, is worked from quarries in South Gloucestershire and North Somerset, with the other local authorities making a negligible contribution The limited land- based sand and gravel resources known to be present in the sub-region are not known to have any economic significance.

A1.5 Policy 26 of the former Joint Replacement Structure Plan for the West of England area stated that, beyond 2026, the appropriate contribution to crushed rock aggregate supply will be determined through minerals local plans, in the light of national and regional guidance prevailing at the time, apportioned between South Gloucestershire and North Somerset on a ratio of 60:40%.

A1.6 This split broadly reflects the proportions of crushed rock production (sales) by quarries from the two local authority areas shown in data published in SWRAWP annual reports from 2001-2008. However commercial confidentiality has prevented break down of the West of England production figures between the two local authority areas in some years, notably in 2004 and 2006-2008; (see Table A1 below).

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[6] SWRAWP Annual Report 2008, paragraph 2.1

[7] Letter from Steve Quartermaine, Chief Planner CLG, 29 June 2009 to Chief Planning Officers

Table A1
Crushed Rock production in the West of England 2001 - 2008

Year	West of England (mt)	South Gloucestershire (mt)	North Somerset (mt)	SGC : NSC Ratio
2001	5.55	3.08	2.47	55:45
2002	4.76	2.68	2.08	56:44
2003	4.57	2.82	1.75	62:38
2004	4.40	n/a	n/a	n/a
2005	4.08	2.35	1.73	58:42
2006	3.63	n/a	n/a	n/a
2007	4.06	n/a	n/a	n/a
2008	4.32	n/a	n/a	n/a

Source: SWRAWP Annual Reports

A1.7 In preparing their Core Strategies, both South Gloucestershire and North Somerset Councils considered that a continuation of the 60:40 split was appropriate, for calculation of their respective apportionments. This is now reflected in the apportionments set out in Policy CS10 of the South Gloucestershire Core Strategy and Policy CS8 of the North Somerset Core Strategy.

A1.8 North Somerset used the SWRAWP Annual Reports data to help to calculate their apportionment, but assumed that, for the years when there is no breakdown of the West of England production figures, those figures should be broken down on the basis of the 60:40% split. This is reflected in Table A2 below.

Table A2 Crushed Rock production from published SWRAWP Annual Reports for 2005 -2008, with assumed 60:40 split for years other than 2005

Year	West of England (Mt)	South Glos (Mt)	North Somerset (Mt)	SGC : NSC Ratio
2005	4.08	2.35	1.73	58:42
2006	3.63	n/a (assume 2.18)	n/a (assume 1.45)	(60:40)
2007	4.06	n/a (assume 2.44)	n/a (assume 1.62)	(60:40)

2008	4.32	n/a (assume 2.59)	n/a (assume 1.73)	(60:40)

A1.9 Based on the above, North Somerset have calculated their apportionment requirement as shown in Table 3 below, (the right hand column of which explains the figure in the middle one).

A1.10 The calculated apportionment runs up to 2026 since that is the end date of the North Somerset Core Strategy (and also the Sites and Policies Plan).

A1.11 The North Somerset apportionment is largely based on 40% of the West of England sub regional apportionment figure of 79.1mt (2005-2020), but since that only runs up to 2020 it has been necessary to add an additional requirement for 2020-2026 based on a roll forward of the 40% share to cover that additional six year period on a pro rata basis. That additional requirement has been calculated by calculating the annualised West of England sub regional apportionment figure: ie: 79.1(mt) divided by 16 (years), to give 4.94(mt), multiplying that by 6 (years), and calculating 40% of the result.

A1.12 Adding on the additional requirement gives a total apportionment requirement for North Somerset for 2005-2026. The council has then deducted a figure for production for 2005-2008 inclusive to leave an apportionment figure for 2009-2026 inclusive, since that aids comparison against the latest published figure for permitted reserves in North Somerset (which is at the end of 2008).

The full calculation is shown in Table 3 below:

Table 3. Calculated apportionment for North Somerset

Apportionment requirement for North Somerset 2005-2020 inclusive	31.64 million tonnes (mt)	40% of West of England (WoE) sub regional apportionment 2005-2020, (79.10 x 40%), is 31.64mt .
Additional requirement needed to maintain a supply beyond 2020 to the end of 2026	11.85mt	Note: Annualised apportionment for WoE 2005-2020=79.1/16years=4.94mt Hence additional requirement is 40% of annualised sub regional apportionment for WoE multiplied by 6 years, (so 40% of 4.94 mt x6)

		=11.85mt
Total requirement 2005 – 2026 inclusive	43.49mt	31.64+11.85=43.49mt
Production for 2005-2008 inclusive to deduct	6.53mt	Need to deduct production for 2005-2008 which is assumed to be as follows: 2005: **1.73** N Somerset (actual breakdown figure) 2006: (assume 40% of WoE tot of 3.63=**1.45**) 2007 (assume 40% of WoE tot of 4.06=**1.62**) 2008 (assume 40% of WoE tot of 4.32=**1.73**) so total to deduct of 6.53mt
Apportionment requirement for 2009 – 2026	**36.96 mt**	43.49mt-6.53=36.96mt; (annualised that amounts to 36.96mt/18=2.05mt per year)

Appendix B1

Sustainability Appraisal of minerals options (general)

B1.0 The NPPF paragraph 165 states that a sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors.

B1.1 Sustainability Appraisal (SA) is required for Development Plan Documents (DPDs) like the Sites and Policies Plan (SAPP) under section 39(2) of the Planning and Compulsory Purchase Act 2004. Section 39 also requires that any person or body which exercises any function in relation to local development documents must do so with the objective of contributing to the achievement of sustainable development.

B1.2 Sustainability Appraisal as required by s 19(5) of the Planning and Compulsory Purchase Act 2004 should be an appraisal of the economic, social and environmental sustainability of the plan.

B1.3 It is desirable for an SA to also comply with the requirements of the SEA (Strategic Environmental Assessment) Directive (Directive 2001/42.EC) on the assessment of the effects of certain plans and programmes on the environment, transposed into English law by the SEA Regulations (Environmental Assessment of Plans and Programmes Regulations 2004).

B1.4 There is much overlap between SA and SEA aims, and in line with government advice we have aimed to incorporate the requirements of SEA

within the SA process. A SA report will be prepared for the emerging Sites and Policies Plan which meets the requirements of an Environmental Report under the SEA regulations.

B1.5 Government guidance on SA in "Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents" (ODPM Nov 2005) is still relevant. It states that a SA need not be done in any more detail, or using more resources, than is useful for its purpose. The SA should focus on the significant sustainability effects of the DPD, and consider alternatives that take into account the objectives and the geographical scope of the document.

B1.6 The ODPM guidance refers to various stages of SA, including:

Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
• **A1:** Identifying other relevant policies, plans and programmes, and sustainability objectives.
• **A2:** Collecting baseline information.
• **A3:** Identifying sustainability issues and problems.
• **A4:** Developing the SA framework.
• **A5:** Consulting on the scope of the SA.

Stage B: Developing and refining options and assessing effects
• **B1:** Testing the DPD objectives against the SA framework.
• **B2:** Developing the DPD options.
• **B3:** Predicting the effects of the DPD.
• **B4:** Evaluating the effects of the DPD.
• **B5:** Considering ways of mitigating adverse effects and maximising beneficial effects.
• **B6:** Proposing measures to monitor the significant effects of implementing the DPDs.

• **C1:** Preparing the SA Report.

<u>Stage A</u>

B1.7 The emerging SAPP will be subject to full SA which will include a Scoping Report that meets the requirements of stage A. However, to inform the minerals element of the emerging SA of the SAPP, the council have done more specific work.

B1.8 We have considered the SA framework that was used in the SA of the adopted Core Strategy and considered the relevance of the SA objectives in it to minerals issues. Where appropriate we have changed the SA framework to make it wholly relevant to minerals, and have also brought it up to date regarding government policy, such as that in the NPPF. See Appendix B2 for details, and the resulting SA framework for minerals.

B1.9 In doing this we have had regard to economic, environmental, and social information and issues we have gleaned on minerals in North Somerset, particularly regarding the Stancombe, Freemans Farm and Durnford quarries. This information/issues is summarised as below. Note that more detailed information on the existing (baseline) situation is in the SA matrix, column 4; (see Appendix B3).

Economic

B1.10 The operator has identified significant constraints affecting existing permitted reserves at Stancombe Quarry, which mean that most of them are not readily available, and which could potentially significantly affect productivity at this the largest aggregate producing quarry in North Somerset.

B1.11 Potential issues:
This is likely to have implications since it suggests that there would be a potential shortfall in terms of readily available reserves of limestone of approximately -9million tonnes (mt) against the apportionment for North Somerset 2009-2026 of about 36.9mt. Also the NPPF states that there should be a steady and adequate supply of aggregates. Also there could possibly be related implications regarding security/quantity of employment at the quarry.

B1.12 There is a need to address this by identification of appropriate options.

Environmental

B1.13 The three quarries are fairly sensitively located in that they are all within the Green Belt, two (Stancombe and Freemans Farm) are within a Groundwater Source Protection Zone, and the third (Durnford) is mostly within a Registered Historic Park or Garden (Ashton Park). All are close to Wildlife Sites, with Stancombe and Durnford quarries adjoining them.

B1.14 Potential issues:
Need to consider whether options would have likely significant effects regarding landscape, biodiversity/geological interest, water, flood risk, prudent use of resources etc. Appropriate mitigation may be necessary

Social

B1.15 All three quarries have potentially sensitive uses (dwellings /hotel and country club) within about 200m of them. Limestone quarrying can have potential impacts on such uses including noise, etc.

B1.16 Potential issues:
Need to consider whether options would have likely significant effects regarding noise, dust etc. Appropriate mitigation may be necessary

B1.17 The above information shows how we have met tasks A1-A4 regarding minerals, for stage A of the SA.

Stage B

B1.18 Regarding stage B, we have undertaken identification and development of options on minerals as detailed in paragraph 12 above.

B1.19 The three options identified (land at the Spinney, Hyattswood Farm, and a third, “no allocations” option were appraised against the SA framework, as documented in Appendix B3.

B1.20 The council had initially felt that land at The Spinney appeared a strong contender, being a potential contiguous extension of Stancombe Quarry, and had drafted a policy for its allocation, including principles such as provision of landscaping etc. For fairness, it was assumed that such principles would

apply to all the options, in undertaking the SA, together with principles in other relevant policies in the emerging Consultation Draft SAPP, Core Strategy, North Somerset Replacement Local Plan, and National Planning Policy Framework.

B1.21 The results of the SA are summarised in paragraph 15 above and found that site 1 (The Spinney) was the best performing option.

Appendix B2

Drawing up of the SA Framework

The tables below illustrate the how the SA framework used in testing of the options was drawn up.

Firstly the SA framework used for the Core Strategy was considered and its SA objectives assessed for relevance and appropriateness in terms of assessing sites for mineral working. This led to a shortened SA framework being produced.

Then government guidance on minerals (NPPF) was reviewed to see if further amendments to the SA framework should be made.

Consideration of SA Framework for Core Strategy, and applicability regarding the assessment of options regarding mineral working

SA objective in Core Strategy SA Framework	**Relevant to minerals?**	**Conclusion**
EN1 Maximise self containment of the urban areas	EN1 concerns location of housing and employment in urban areas. Not relevant to minerals development.	Exclude
EN2 Minimise average travel-to-work distance.	EN2 is concerned with distance from a development site to a major employment area, regarding carbon emissions. This distance is less relevant here than distance of a possible quarry site from the market for the minerals, and, for an extension to a quarry, the operational distances involved such as distance material would need to be carried from the extension site to the plant or access road, etc. Availability of public transport regarding employees is also relevant.	Use new SA objective instead of EN2, as follows: E1.Minimise carbon emissions, relating to transport implications (distance/mode) That would consider distance to markets, operational distances etc. Availability of public transport regarding employees could also be covered. Consistent with NPPF par 30.
EN3 Limit rural development to that meeting local needs, or infrastructure needs unavoidably requiring a rural location.	EN3 was used in the Core Strategy SA because of concern at the tendency towards urbanisation of rural areas. Not relevant here since most minerals development has to occur in rural areas to limit impact on settlements and their population.	Exclude
EN4 Minimise loss of productive land, especially best and most versatile	Relevant	Include (SA objective E2). Consistent with NPPF paragraph 142

farmland.		
EN5 Minimise flood risk.	Relevant	Include (as E3). Consistent with NPPF paragraph 143
EN6 Promote sustainable drainage	Relevant, but could be covered in wider SA objective on water resources	Include in wider SA objective on water resources ((E4). Consistent with NPPF paragraph 143
EN7 Enable design to minimise resource use and contribution to greenhouse gas emissions.	EN7 is more relevant to design of buildings than mineral developments	Exclude
EN8 Enable design to take account of higher temperatures and more extreme weather conditions.	EN9 is more relevant to design of buildings than mineral developments	Exclude
EN9 Increase the life expectancy of buildings.	EN9 is more relevant to design of buildings than mineral developments	Exclude
EN10 Achieve a net gain in cultural, heritage and landscape features and biodiversity of North Somerset.	The elements are relevant but it would be clearer to divide them up.	Include separate SA objectives on landscape heritage,and biodiversity (E5, E6 and E7). Consistent with NPPF paragraph 143
EN11 Avoid major development in the most environmentally sensitive areas.	EN11 is concerned with effect of development on national designations. It would be simpler to cover this in SA objectives on heritage, landscape and biodiversity.	Include separate SA objectives on landscape heritage, and biodiversity (E5, E6 and E7). Consistent with NPPF paragraph 143
EN12 Avoid damage to irreplaceable valued features.	EN11 is concerned with effect of development on national designations. It would be simpler to cover this in SA objectives on heritage, landscape and biodiversity.	Include separate SA objectives on landscape heritage, and biodiversity (E5, E6 and E7). Consistent with NPPF paragraph 143
EC1. Meet economic development needs, including sufficient new jobs to at least match the increase in homes.	EN11 is concerned with economic development generally. While quarries provide employment, it would be simpler to include a separate criterion concerning this	Include SA objective on employment (Econ 1). Consistent with NPPF paragraph 144
EC2.	While quarries provide employment, it would be simpler to include a	Include SA objective on employment (Econ 1).

Harness the particular Economic opportunities of North Somerset.	separate criterion concerning this	Consistent with NPPF paragraph 144
EC3. Protect and expand opportunities for local businesses to utilise local resources, especially sustainable resources.	Relevant.	Include (as Econ 2). Consistent with NPPF paragraph 144.
EC4. Maximise opportunities for regeneration and renewal within Weston-super- Mare, ahead of new development, especially ahead of major new housing.	Not relevant. This objective primarily concerns employment provision within Weston, an urban area. Most minerals development has to occur in rural areas to limit impact on settlements and their population.	Exclude
EC5. Avoid prejudicing, by phasing or otherwise, the achievement of other sustainable development objectives for regeneration and quality of life.	Partly relevant, regarding issues relating to quality of life like noise etc. However they are better addressed in a separate SA objective.	Include SA objective on noise (Soc 4). Consistent with NPPF paragraph 143
EC6. Increase prosperity, especially in areas of concentrated disadvantage.	Not really relevant. An important aspect of prosperity is to be covered in a separate criterion on employment. The most disadvantaged areas are in Weston urban area. Most minerals development has to occur in rural areas to limit impact on settlements and their population.	Include SA objective on employment (Econ 1). Consistent with NPPF paragraph 144
EC7. Make fuller use of urban spaces and promote a balanced night time economy in	Not relevant. This objective concerns urban areas. Most minerals development has to occur in rural areas to limit impact on settlements and their population.	Exclude

town centres.		
EC8. Diversify employment structure, improve choice of employment and produce greater opportunities to participate in society, paid or unpaid.	While quarries provide employment, it would be simpler to include a separate criterion concerning this	Include SA objective on employment (Econ 1). Consistent with NPPF paragraph 144
EC9. Increase ability to work from home.	Not relevant	Exclude
EC10. Protect and expand genuine opportunities for small businesses.	Any quarry extension would potentially provide opportunities to the company concerned. This would not help assess the site.	Exclude
EC11. Reduce queuing and overcrowding on the road and rail networks.	It would be simpler to include a single criterion on safe and suitable access, and accessibility to a suitable transport network, regarding minerals transport.	Include a single criterion on safe and suitable access and accessibility to a suitable transport network, (Econ 3). Consistent with NPPF paragraph 32.
EC12. Locate new development on sites and access them in ways that will not add to traffic congestion.	It would be more relevant to include a criterion covering safe and suitable access, and accessibility to a suitable transport network, regarding minerals transport. Having such an access and accessibility would help reduce congestion and promote efficient transport of minerals.	Include a single criterion on safe and suitable access and accessibility to a suitable transport network, (Econ 3). Consistent with NPPF paragraph 32.
SC1. Meet local needs locally.	Not relevant	Exclude
SC2. Improve accessibility to service, retail, educational, leisure and social provision.	Not relevant	Exclude

SC3. Increase opportunities for active lifestyles and sustainable outdoor leisure pursuits.	May have some relevance to eventual restoration and after use of quarries , but not relevant to assessing sites	Exclude
SC4. Develop a positive sense of place both physically and socially.	Not relevant.	Exclude
SC5. Promote positive wellbeing.	Not really relevant. Issues such as pollution etc would be better covered in a separate criterion.	Exclude
SC6. Reduce health inequalities.	Not really relevant. Issues such as pollution etc would be better covered in a separate criterion.	Exclude
SC7. Reduce crime and fear of crime, likewise antisocial behaviour.	Not relevant.	Exclude
SC8. Minimise risk to health and safety.	Relevant, particularly regarding stability of quarry faces. Issues such as pollution etc would be better covered in a separate criterion.	Include criterion on risk to health and safety (Soc 2). Consistent with NPPF paragraph 143.
SC9. Avoid exposure to pollution/noise.	Relevant, but would be best to have separate criteria on noise and pollution	Include separate criteria on air pollution (soc 3 and noise (soc 4). Consistent with NPPF paragraph 143.
SC10. Meet housing requirement.	Not relevant	Exclude
SC11. Narrow the gap between income and house prices/rents.	Not relevant	Exclude
SC12 Improve the life chances of those living in areas of concentrated disadvantage.	The most disadvantaged areas are in Weston urban area. Most minerals development has to occur in rural areas to limit impact on settlements and their population. .	Exclude

Review of government guidance on minerals (in NPPF) to aid drawing up of the SA framework for testing options

Paragraph of NPPF	Issue identified	Implications for SA framework arising
Para 7	Need to recognise the 3 elements of sustainable development: -economic role: contributing to building a strong, responsive competitive economy, ensuring sufficient land available in the right places etc; -social role: supporting strong, vibrant healthy communities, providing housing, high quality built environment; -environmental role: protection and enhancement of the physical and natural environment, including biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change.	Reflect these 3 elements in the Framework. Include criteria on biodiversity (E7), pollution (E8 land and E4 water) , and mitigating climate change (E1 carbon emissions, E3 flooding) Add criterion on using natural resources prudently, and minimising waste
Para 30	Encourage solutions which support reductions in greenhouse gas emissions	Cover under E1 Minimise carbon emissions
Para 35	Protect and exploit opportunities for use of sustainable transport modes	Cover under E1 Minimise carbon emissions and Econ 3 traffic congestion
Para 109	Protect and enhance valued landscapes, geological conservation interests and soils. Note paragraph 117 refers to aiming to prevent harm to geological conservation interests	Cover under landscape (under E5), biodiversity and geodiversity (under E7), and protect land from pollution (E8),
Para 123	Avoid noise from giving rise to significantly adverse impacts on health and quality of life	Cover under Soc 4 noise and blasting vibrations
Para 132	Give great weight to conservation of designated heritage assets	Cover under historic environment (E6)
Para 120	Prevent unacceptable risks from pollution and land instability	Cover under water (E4), protect land from pollution (E8), health and safety (Soc 2),
Para 142	Make best of minerals, a finite natural resource	Reflect in a criterion (E9) on using natural resources prudently
Para 143	Avoid unacceptable impacts on natural and historic environment and human health, including noise, dust, visual intrusion, traffic, tip and quarry slope stability, flood risk, water, and cumulative effects of multiple impacts from sites in a locality	Better split down into topics, such as biodiversity (under E7), noise (Soc4) air pollution (Soc 3), landscape (under E5), health and safety (Soc 2), flood risk (E3), water (E4).
Para 143	Land reclamation, with safeguarding long term potential of BMV land and conserving soil resources, geodiversity, biodiversity, native woodland, historic environment and recreation	Better split down into topics, such as biodiversity (under E7), minimise loss of productive land (E2), protect land from pollution (E8), historic environment (E6), leisure provision (Soc 1)
Para 144	Give great weight to the benefits of mineral extraction, including to the economy	Cover under criteria on economy, such as EC1 (meet economic development needs)
Para 144	As far as practicable, provide for maintenance of landbanks	Cover under landscape (E5)

	outside AoNBS	

Resultant SA Framework

SA Objectives	Questions to ask	Can the effect be quantified?	Existing situation	Assessment of Site/option
Environmental issues				
E1.Minimise carbon emissions, relating to transport implications (distance/mode) That would consider distance to markets, operational distances etc	What are the likely transport implications of site: likely mode, distance material might need to be carried, operationally and to markets. Does the site have accessibility by modes other than the car for workers?	Yes regarding distances, such as from Bristol, an important market area.		
E2.Minimise loss of productive land, especially best and most versatile BMV) farmland.	Will previously developed land be used? Will there be loss of agricultural/forestry land?	Yes (a). Area of agricultural/forestry land developed (b). Area of BMV agricultural land developed		

E3.Minimise flood risk.	What is the flood zone categorisation of the land affected?. Note: Strategic Flood Risk Assessment refines approach.	Yes (a). Area of land that would be developed in flood zone 2 (b). Area of land that would be developed in flood zone 3 (c). Risk of flooding from additional run-off (+ve, -ve or neutral effect)		
E4.Promote safeguarding of water quality and water resources	Will there be a likely effect on water resources, including ground water?	Not in quantitative terms		
E5.Protect and enhance the landscape	Will there be an effect on national and local landscape designations? Eg. AoNBs, strategic gaps. How will the landscape be likely to be affected?	Not in quantitative terms		

E6.Protect and enhance the historic environment	Will national and local designations be affected: eg. Ancient Monuments, other archaeological sites/remains, Conservation Areas, listed buildings, Ancient woodlands	Not in quantitative terms		
E7.Protect and enhance biodiversity and protection of geological interests	Will national and local designations be affected eg. Natura 2000 sites, SSSIs, Wildlife Sites	Not in quantitative terms		
E8.Protect land from contamination and pollution	Will pollution or contamination of land be likely?	Not in quantitative terms		

E9. Use natural resources prudently and minimise waste	Will the option/site promote prudent use of natural resources, especially minerals? Will it help to reduce waste?	Not easy to quantify		
Economic Issues				
Econ1 Promotion of provision or retention of employment	Will the site help to provide or retain employment?	Not easy to quantify		
Econ2 Protect and expand opportunities for local businesses to utilise local resources, especially sustainable resources.	Would the site enable exploitation of mineral resources: are they present?	Not easy to quantify		
Econ 3 Promote safe and suitable access, and accessibility to suitable transport network, for efficient transport .	Is there a suitable means of access? Is the site appropriately located with regard to a suitable transport network?	Not easy to quantify		
Social issues				
Soc 1 Improve accessibility to service, retail, educational, leisure and social provision.	Will any community facilities be affected?	Number of community facilities affected		

Soc 2 Minimise risk to health and safety.	Is there likely to be increased risk to health and safety (apart from pollution and noise covered below)?; eg. Stability of quarry faces.	Not easy to quantify.		
Soc 3 Avoid exposure to air pollution	Is there likely to be air pollution problems? (eg. dust)	Not easy to quantify. Should consider proximity of potentially sensitive receptors like dwellings		
Soc 4 Avoid exposure to noise or blasting vibrations	Is there likely to be problems from these?	Not easy to quantify. Should consider proximity of potentially sensitive receptors like dwellings		

Appendix B3

Results of SA of the options

Note

This assessment has been done at a level appropriate for SA and cannot be expected to represent, replace or supersede comments and conclusions of the council relating to planning applications or other matters relating to the sites. Also while extracts from relevant EIA scoping or screening opinions have been referred to, the assessment does not replace or supersede comments and conclusions in those documents. The reader should refer to the full reports on these for the full picture.

The assessment examines whether the option would be likely to have a significant effect with regard to the SA objectives. The assessment assumed that principles in a policy that was drafted for The Spinney (site1) would apply to all the options, together with principles in other relevant policies in the proposed Consultation Draft SAPP, Core Strategy, North Somerset Replacement Local Plan, and NPPF. (See paragraph B1.20 above)

The policy that was drafted for The Spinney was as follows, and is now reflected in policy DM17 of the SAPP:

Land south of the existing permitted reserve at Stancombe Quarry, called 'The Spinney' is identified as a preferred area for mineral working on the Proposals Map.

Detailed requirements will be determined at the development management stage. In addition proposals should be phased to the satisfaction of the council and:

- **relevant development management policies and issues must be met or addressed to the satisfaction of the council. For example: amenity, noise, vibration, air over pressure, public health and safety, dust, biodiversity, landscape, highways and impact on the local highway network, water, archaeology, landscaping and restoration;**
- **proposals must demonstrate to the satisfaction of the council, that there is a genuine need to work The Spinney and that it is appropriate to do so at that particular time;**
- **a suitably qualified ecological consultant should be contracted to carry out a wildlife survey which covers evidence of any legally protected species;**

- **provision is made for stopping up and or/diversion of public rights of way that would be affected by operations, and their reinstatement as part of restoration of the site as appropriate;**
- **good quality landscaping, with appropriate planting/bunding would be provided/retained as appropriate, and managed and maintained, including for example along the west boundary fronting Backwell Hill Road, the south boundary fronting Long Lane, and the east boundary;**
- **proposals must make satisfactory measures to safeguard against adverse effects on water and water resources, including appropriate depth of extraction; and**
- **adequate and appropriate provision for restoration and aftercare must be made, including sustainable use of overburden and waste materials.**

The scoring system that was used in the SA was as follows:

++ positive in principle, no suggestions for enhancing effect
+ positive but can be enhanced
=mixed effect
? uncertain effect
0 no significant effect
-negative but can be mitigated
--negative in principle; no suggestions for mitigating effect

SA Objectives	Questions to ask	Can the effect be quantified?	Existing situation	Considerations of the options, with assessment score given in the row immediately below		
Environmental issues				**Site 1 The Spinney, immediately south of Stancombe Quarry**	**Site 2: Hyattswood Farm**	**No allocations option, including removal of existing Preferred Areas in the MWIALP**
E1.Minimise carbon emissions, relating to transport implications (distance/mode) That would consider distance to markets etc	What are the likely transport implications of site: likely mode, distance material might need to be carried, operationally and to markets. Does the site have accessibility by modes other than the car for workers?	Yes regarding distance from nearest main market (Bristol)	<u>Distance material carried operationally</u> At all three quarries the plants are within/adjoining the quarries themselves minimising distance travelled operationally. <u>Proximity to markets</u> The existing quarries are all close to Bristol: Stancombe Quarry and Freemans Farm Quarry are within 5.4km and 4.4km respectively, and Durnford quarry within 1km of the Bristol City Council boundary (crow fly).	Site could be a contiguous extension to Stancombe Quarry. Site adjoins the existing quarry (permitted reserves). Hence relatively little change in distance material would be carried operationally and to markets compared to existing. Opportunity for workers to use public transport would be as existing at Stancombe.	Site could be a non-contiguous extension to Stancombe Quarry. Site is 140 m south of Stancombe Quarry permitted reserves, and still further from existing plant, so it's likely material would be carried a greater distance operationally compared to site 1, (to the plant and for onward transport via Stancombe Lane.) However transport to the existing quarry could potentially be by conveyor, which would potentially have little effect regarding carbon emissions. Site could also be possible contiguous extension to Freemans Farm Quarry, subject to agreement between the landowner and operators, with relatively little	Uncertain effects. While no allocations might appear to minimise impact, there could be potential implications. Deletion of existing preferred areas (sites 1 and 2) would remove a potential means of overcoming constraints affecting existing permitted reserves at Stancombe, and increase the likelihood that productivity there and overall in North Somerset would be significantly adversely affected. This could lead to increased pressure for minerals development in other possibly less sustainable locations (perhaps further from the key market area of Bristol and further from bus stops), than the site options considered.

			<u>Accessibility to Public transport:</u> Stancombe Quarry: There are regular (approx half hourly) bus services along the A370 from Backwell to Bristol, which stop near Stancombe Lane; eg First service 352, with an approx 800 m walk to the quarry offices. Freemans Farm Quarry: The council's data suggests that there are bus stops on the A38 some way to the south of the access to the quarry. This implies a walk of some 850m approx to the quarry offices. Durnford Quarry: The council's data suggests that there are bus stops on the B3128 some way to the west of the access to the		change in distance material would need to be carried. Relatively little likely change in distance material would be carried to markets compared to existing. Opportunity for workers to use public transport likely to be as existing at Stancombe.	

			quarry. This implies a walk of some 1,650m approx to the quarry offices.			
Assessment score re E1.				0	- This minus score reflects the greater distance rock would need to be carried operationally from the site to the existing plant at Stancombe, However use of a conveyor rather than vehicles would be a potential way of mitigating for this, regarding carbon emissions.	? Uncertain: (depends on location etc.)
E2.Minimise loss of productive land, especially best and most versatile BMV) farmland.	Will previously developed land be used? Will there be loss of agricultural/forestry land?	Yes (a). Area of agricultural/forestry land developed (b). Area of BMV agricultural land developed	Regarding the land occupied by the existing quarries, the following is shown on the council's digital Earthlight map, based on Environment Agency data: : The south part of the existing permitted area at Stancombe,	On council's digital Earthlight map: Most of the Spinney site is is shown as having a high probability of being BMV land (except for a narrow strip north of the southern plantation.) , NPPF paragraph 112 states that local planning authorities should take into account the economic and other	On council's digital Earthlight map: The site is not shown as having a high probability of being BMV land. NPPF paragraph 112 states that local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land.	Uncertain effects. While no allocations might appear to minimise impact, there could be potential implications, for similar reasons to those under E1. There could be increased pressure for minerals development in other locations, which could include BMV land. However NPPF paragraph 112 states that local planning

			and all of the existing permitted area at Freemans Farm quarry is shown as having a high probability of being BMV land, Durnford is not shown as having a high probability of being BMV land,).	benefits of the best and most versatile agricultural land.		authorities should take into account the economic and other benefits of the best and most versatile agricultural land.
Assessment score re E2				? Uncertain due to lack of data.	? Uncertain due to lack of data	? Uncertain: depends on location
E3.Minimise flood risk.	What is the flood zone categorisation of the land affected?.	Yes (a). Area of land that would be developed in flood zone 2 (b). Area of land that would be developed in flood zone 3 (c). Risk of flooding from additional run-off (+ve, -ve or neutral effect)	No part of the 3 existing quarries is within zone 3 (high risk of flooding), or zone 2 (medium risk).	No part of the site is within zones 2 or 3 (medium or high risk of flooding) Core Strategy policy CS3 and NPPF require compliance with sequential test	No part of the site is within zones 2 or 3 (medium or high risk of flooding) Core Strategy policy CS3 and NPPF require compliance with sequential test	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1. There could be increased pressure for minerals development in possibly less sustainable locations (perhaps land of higher flood risk) than the site options considered. However Core Strategy policy CS3 and NPPF require compliance with sequential test
Assessment score re E3.				0	0	0?

E4.Promote safeguarding of water quality and water resources	Will there be a likely effect on water resources, including ground water?	Not in quantitative terms	Stancombe and Freemans quarries are within a Groundwater Source Protection Zone, but Durnford Quarry is not, according to NSRLP (North Somerset Replacement Local Plan). Tarmac state that extraction of the lowest two benches at the existing Stancombe quarry would require dewatering by lowering the water table and discharging water off site. Measures relating to conditions on planning consents have helped protect water quality. For example, the last extension to Stancombe Qurry (application 95/1918) was permitted subject to	Site is within a Groundwater Source Protection Zone according to NSRLP .Good management practices would be likely to be needed. The Environment Agency have stated that the general vicinity embracing the site is an aquifer. Taking rock out of the aquifer could affect the amount and direction of groundwater running through to springs which could be tapped by 3rd parties for water consumption. Compensation ponds are likely to be needed to help to compensate for that. As indicated in paragraph 5.7 above, Tarmac submitted an EIA Scoping Request in respect of this site to the council (ref 11/P/2333/EIA2.) The council responded by making an EIA Scoping Opinion, which makes various comments which would be relevant to a planning application. It states: The site lies within zone 2 of the Chelvey Well Source Protection Area, so	Site is within a Groundwater Source Protection Zone according to NSRLP. Good management practices would be likely to be needed. The Environment Agency have stated that the general vicinity embracing the site is an aquifer. Taking rock out of the aquifer could affect the amount and direction of groundwater running through to springs which could be tapped by 3rd parties for water consumption. Compensation ponds are likely to be needed to help to compensate for that. Relevant policies on water would apply. Core Strategy policy CS3 states that development that would result in water pollution will only be permitted if potential adverse effects would be mitigated to an acceptable level. Proposed policy DM17 of the SAPP covers issue of “water”. So does the NPPF in paragraph 109.	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1.. There could be increased pressure for minerals development in possibly less sustainable locations (perhaps lower lying and closer to the water table) than the site options considered. The effects would be uncertain and depend upon the location and design. However relevant policies on water would apply. Core Strategy policy CS3 states that development that would result in water pollution will only be permitted if potential adverse effects would be mitigated to an acceptable level. Proposed policy DM17 of the SAPP covers issue of “water”. So does the NPPF in paragraph 109.

			conditions against pollution from storage of oils, fuels or chemicals, controls on the final working depths of mineral extraction, and a requirement for construction of compensation ponds at the base of the quarry to hold a volume of water equivalent to that which is lost from temporary storage when mineral deposit is removed. Conditions also required submission of a programme of monitoring groundwater levels within the quarry. Similarly for Freemans Quarry, measures proposed in connection with the 1996 planning consent included: drainage of all accumulated	consideration of any potential effects on ground and surface waters is needed. The developer should take prudent steps to assess risk from potential contaminants, to ensure against pollution of Controlled Waters, The Scoping Opinion recommends that a detailed assessment of the existing water regime in/around the site would be needed through a comprehensive Flood Risk Assessment, to determine the level of impact from the development in consultation with the Environment Agency. Relevant policies on water would apply. Core Strategy policy CS3 states that development that would result in water pollution will only be permitted if potential adverse effects would be mitigated to an acceptable level. Proposed policy DM17 of the SAPP covers issue of “water”. So does the NPPF in paragraph 109.		

			surface water in the quarry to temporary sumps or collecting points in the working area, passage through a silt settlement lagoon system and oil interceptor facility, and discharge of treated water to excavated hollows prior to percolation away to ground water, under licence from the Environment Agency. In line with a section 106 agreement associated with the original planning consent at Freemans Quarry, RMC Roadstone Ltd proposed a scheme for monitoring of spring flows, surface water flows, groundwater abstraction rates, groundwater levels			

			and water quality. An extensive monitoring framework was installed with monitoring points at Winford Brook, Cold Bath Springs, Chelvey Springs, and River Kenn. However CEMEX have stated verbally that water is not major issue at Freemans Quarry, since the quarry is relatively high lying and not below the water table.			
Assessment score re E4.				0 Existing and proposed policies are strong on water pollution and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on water pollution and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on water pollution and development having significant adverse effects would be unlikely to be permitted.

E5.Protect and enhance the landscape	Will there be an effect on national and local landscape designations? Eg. AoNBs, strategic gaps. How will the landscape be likely to be affected?	Not in quantitative terms	Stancombe Quarry is not within the AoNB or a Strategic Gap . The existing quarry is relatively well screened from close viewpoints by the existing landform, screen banks and adjacent woodland. (Source: NS EIA Scoping Opinion). There is bunding/planting along Backwell Hill Road to the west, bunding to the south, woodland to the east and development, including the listed Backwell House, to the north. Freemans quarry is reasonably contained by the topography and has some screening from existing woodlands.	No AoNB or Strategic Gap affected. Within Green Belt. Site comprises fields visible through trees fronting Backwell Hill Road to west, and bridleway to north. A plantation aids screening to south. Existing quarry lies to north, beyond intervening hedges and bridleway. Site is part of a larger existing Preferred Area (called sub area (a))in the MWIALP which, together with site 2 (sub area (b)) was considered in the Public Local Inquiry for that plan. The Inspector's Report (May 1992) paragraph 3.39 states that sub area (a) is the most acceptable regarding visual impact. However there would need to be adequate landscaping provided/retained along the south and west boundaries. This could include a continuation of the landscaping/bunding used to screen the existing quarry. There is a belt of existing woodland on the east boundary which should be retained.	No AoNB or Strategic Gap affected. Within Green Belt. Site comprises fields clearly visible over low hedge from Backwell Hill Road to west. Also visible from Long Lane to north, and from points along Tinkers Lane to east. Site is separated from Stancombe Quarry and Site 1 by an intervening field. If developed as extension to Stancombe Quarry, Tarmac feel material from this site could be carried by conveyor northwards over intervening land to the existing quarry for processing and onward transport. This would be likely to require the same continuation of landscaping/bunding as for site1, but for the intervening field too. Cutting the conveyor into the ground, or use of a tunnel could help. Proposed policy DM17 of the SAPP covers issue of "landscape". NPPF paragraph 156 refers to conservation and enhancement of the natural and historic environment, including	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1.. There could be increased pressure for minerals development in possibly less sustainable locations (perhaps more visually intrusive) than the site options considered. However proposed policy DM17 of the SAPP covers issue of "landscape". NPPF paragraph 156 refers to conservation and enhancement of the natural and historic environment, including landscape.

			A proposed revised scheme of working for phase 1 of the existing Freemans Farm quarry development included various measures to mitigate landscape impact: controls on height of plant, use of screen mounds, tree planting, use of existing topography. To meet conditions imposed when the existing Freemans quarry was permitted, (including eventual reclamation for agricultural and/or forestry and nature conservation purposes) a proposed final restoration scheme was submitted including after use as various grasslands, natural regeneration, woodland and water areas.	The EIA Scoping Opinion recommends that a detailed Landscape and Visual Impact Assessment be carried out. Proposed policy DM17 of the SAPP covers issue of "landscape". NPPF paragraph 156 refers to conservation and enhancement of the natural and historic environment, including landscape.	landscape. Subject to agreement between Tarmac, CEMEX, and the landowner, site 2 could alternatively be worked as a contiguous extension to Freemans Quarry, but there would still need to be landscaping/bunding to screen the site from the Backwell Hill Road.	

			CEMEX have stated verbally that overburden (sub soil) is placed on the edge of the quarry and with top soil on top, becomes grassed and helps screen the quarry, already in a “bowl” due to topography. Durnford Quarry has screening from belts of woodland to south, west, and east and from thinner treed areas to north and along the B3128. Some activity visible from Longwood Lane. Note All three quarries are within the Green Belt. However the NPPF suggests that mineral extraction need not be inappropriate development in the Green Belt.			

Assessment score re E5.				0 Existing and proposed policies are strong on landscape and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on landscape and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on landscape and development having significant adverse effects would be unlikely to be permitted.
E6.Protect and enhance the historic environment	Will national and local designations be affected: eg. Ancient Monuments, other archaeological sites/remains, Conservation Areas, listed buildings, Ancient woodlands	Not in quantitative terms	Most of Durnford Quarry (except the area west of Longwood Lane) is within a Registered Historic Park or Garden (Ashton Park). There is a listed Lodge about 400m south east of the quarry. The existing Freemans quarry site lies adjacent to the listed Freemans Farm house and buildings; the farmhouse is about 170m from the worked part of the quarry. Conditions were imposed regarding maintenance of the structural stability of Freemans Farmhouse when	No listed buildings within site. There is potential for archaeological remains to exist in the undisturbed agricultural land. There is almost certain evidence of open cast mining presumably for lead ore, on 1946 air photos. May well be evidence of WW2 activity in area. Need for an assessment to determine the presence and potential direct impact on archaeological features within the site and the indirect impact on the setting of recognised features beyond the site. There will be a likely requirement that a planning application be accompanied by an archaeological study. (Source: Screening Opinion by NSC) Proposed policy DM17 of the SAPP covers issue of “archaeology”. Policy DM15	No listed buildings within site. The HER shows a limekiln site within the site and other archaeological sites bordering it. Proposed policy DM17 of the SAPP covers issue of “archaeology”. Policy DM15 covers historic environment.	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1.. There could be increased pressure for minerals development in possibly less sustainable locations (perhaps more sensitive historically) than the site options considered. The effects would depend upon the location, design, and mitigation measures used. However proposed policy DM17 of the SAPP covers issue of “archaeology”. Policy DM15 covers historic environment.

			the existing quarry was permitted, including limits on blasting The nearest listed buildings to the existing Stancombe Quarry are over 600m to the west at Backwell, (near and including St Andrews Church), those at Barrow Court, over 600m to the east, and Backwell House, 600m north of the working part of the quarry.	covers historic environment.		
Assessment score re E6.				?- It is likely that archaeological remains are present. If they are, mineral working would potentially be likely to harm them. An archaeological study would be likely to need to be submitted with a planning application; (Source: Screening Opinion by NSC). If consent is granted recording of any archaeological finds would be	?- It is uncertain whether archaeological remains are present but, if they are, mineral working would potentially be likely to harm them. It is likely that similar measures as for site 1 would be needed.	?- Uncertain: depends on location. If archaeological remains are present mineral working would potentially be likely to harm them. It is likely that similar measures as for site 1 would be needed.

				likely to be needed.		
E7.Protect and enhance biodiversity and protection of geological interests	Will national and local designations be affected eg. Natura 2000 sites, SSSIs, Wildlife Sites	Not in quantitative terms	Stancombe Quarry is flanked to the east by Bourton Combe, a woodland designated as a non statutory Wildlife Site. Durnford quarry similarly adjoins Wildlife Sites to the east and west. Freeman's Farm quarry is less than 100m north east of a Wildlife Site (Oatfield Pool) and about 200m south east of another Wildlife Site (woodland at Bourton Combe.) Stancombe Quarry and Freemans Farm quarry are within the 5km consultation area	There is a substantial breeding roost of greater horseshoe bats at Brockley Hall Stables (SSSI, part of an SAC) about 3.3km from site 1, and it is possible that the site supports foraging or commuting habitat for these bats. Bat surveys and assessment will be essential and should follow accepted guidelines, such as those set out in the Bat Mitigation Guidelines (Mitchell-Jones, 2004); Source: PA/EIA Scoping Opinion.. This site includes scrub/hedgerows and a pond. Because legally protected species are a material planning consideration a protected species survey would need to be carried out at this site as follows: A suitably qualified ecological consultant should be contracted to carry out a wildlife survey which includes	A Wildlife Site lies north west of the site, but separated from it by Backwell Hill Road. Site is located within the five km protection zone around the NS and Mendip Bats SAC where development that would adversely affect structures, feeding grounds or landscape features used by Greater and Lesser Horseshoe Bats will not normally be permitted, (NS Replacement Local Plan). Hence it's desirable for compensatory tree and hedge planting on site with native shrub and tree species of local provenance to be carried out to provide no net decrease (and ideally an increase) in the number of trees or the length of hedgerows on site. The site adjoins a Wildlife Site, Oatfield Pool, which includes woodland (carr) so a buffer of 5 to 10 m should be	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1.. There could be increased pressure for minerals development in possibly less sustainable locations (perhaps more sensitive ecologically) than the site options considered. The effects would be uncertain and depend upon the location, design, mitigation measures used, and restoration/afteruse. However proposed policies DM15 and DM17 of the SAPP both cover issue of "biodiversity".

			for the North Somerset and Mendip Bats SAC. Much of the permitted area at Stancombe Quarry is a Geological Site on the Replacement Local Plan Proposals Map. The other quarries are not, although a Geological Site lies to the east of Durnford Quarry. Some of the existing quarries had conditions attached to their consents, concerning biodiversity. For instance, measures required for Freemans Farm Quarry in 1996 included, under licence from English Nature, carrying out of a badger survey, monitoring of setts, use of one way	evidence of any legally protected species Section 41 species and habitats should also be included. The survey should include the results of a data search from the Bristol Regional Environmental Records Centre. The Wildlife Site, Bourton Combe, immediately to the east is protected by policy ECH/14 in the Replacement Local Plan and therefore a buffer of at least 5 metres should be provided to retain the value of the Wildlife Site. Within this buffer there should be no damaging works, storage of materials or pollution allowed to damage the site. Buffers of tall vegetation should be provided around relevant wildlife habitats. This accords with the guidance in Biodiversity and Trees, the Supplementary Planning Document for developments within North Somerset, section 8.4, page 13, which states that, 'At least	provided around the Wildlife Site. This accords with the guidance in Biodiversity and Trees SPD. The site adjoins a Regionally Important Geological Site, the former Hyattswood Quarry (across Backwell Hill Road). An ecological survey would need to be undertaken and ecological mitigation proposals developed. (Source: NS Council's Ecologist). Proposed minerals policies DM15 and DM17 of the SAPP both cover issue of "biodiversity".	

			badger gates to prevent reoccupation, amphibian surveys, replacement of existing pond with new constructed amphibian receptor ponds and trapping and translocation of newts etc to them, and monitoring.	a five metre strip and sometimes a 10 metre strip for all water courses, hedges and woodlands should be retained to allow for management.' This site is located within the five km protection zone around the North Somerset and Mendip Bats Special Area of Conservation. Within this zone, development that would adversely affect structures, feeding grounds or landscape features used by Greater and Lesser Horseshoe Bats will not normally be permitted, (paragraph 5.63 and policy ECH/12 in the Adopted Replacement Local Plan). Accordingly it would be desirable if compensatory tree and hedge planting on site with native shrub and tree species of local provenance was carried out to provide no net decrease (and ideally an increase) in the number of trees or the length of hedgerows on site. Ecological mitigation proposals should take account of the guidance in		

				the SPD on Biodiversity and Trees. There would also be opportunities to create new habitats e.g. low fertility grassland by placing subsoil above topsoil. South facing slopes and banks for certain invertebrates and reptiles could also be created. (Source: NS Council's Ecologist). The EIA Scoping Opinion recommends submission of an Extended Phase 1 Ecological Survey (to be undertaken prior to determination of any planning application). Proposed minerals policies DM15 and DM17 of the SAPP both cover issue of "biodiversity".		
Assessment score re E7.				0 Existing and proposed policies are strong on biodiversity and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on biodiversity and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on biodiversity and development having significant adverse effects would be unlikely to be permitted.

E8.Protect land from contamination and pollution	Will pollution or contamination of land be likely?	Not in quantitative terms	Note : Water pollution/contamination is covered in E4. There is reference to measures used at existing quarries relating to conditions against pollution from storage of oils, fuels or chemicals, etc. Pollution from dust is covered under Soc3 below.	No information available on whether site is contaminated. Proposed policy DM15 of SAPP covers issue of "contamination", as does Core Strategy policy CS3.	No information available on whether site is contaminated. Proposed policy DM15 of SAPP covers issue of "contamination", as does Core Strategy policy CS3.	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1. There could be increased pressure for minerals development in possibly less sustainable locations, which could include contaminated land. However proposed policy DM15 of SAPP covers issue of "contamination", as does Core Strategy policy CS3.
Assessment score re E8.				?/0 Uncertain whether land is contaminated, but existing and proposed policies are strong on contamination and development having significant adverse effects would be unlikely to be permitted.	?/0 Uncertain whether land is contaminated, but existing and proposed policies are strong on contamination and development having significant adverse effects would be unlikely to be permitted.	?/0 Uncertain whether any land that would come forward is contaminated, but existing and proposed policies are strong on contamination and development having significant adverse effects would be unlikely to be permitted.

E9. Use natural resources prudently and minimise waste	Will the option/site promote prudent use of natural resources, especially minerals? Will it help to reduce waste?	Not easy to quantify	There is little data for the existing quarries on this. However it is clearly in the interests of the quarry operators to maximise the amount of rock that can be economically worked from the permitted areas, and minimise waste.	Tarmac have indicated that this option would promote efficient use of minerals by enabling constraints at Stancombe to be overcome and use of existing permitted reserves to be maximised: Eg use of rock in the south wall and beneath conglomerate, and for the conglomerate to be sold if possible and/or used in restoration of worked benches. There is likely to be potential to use excavated soil/waste material for landscape bunds etc. This option presents the opportunity to continue use of resources like existing offices and access road at Stancombe and also existing plant which according to Tarmac still has several years life remaining.	This option presents the opportunity to continue use of existing offices at Stancombe and also existing plant which according to Tarmac still has several years life remaining. There is likely to be potential to use excavated soil/ waste material for landscape bunds etc. However while having similar "positive in principle" effects to option 1, there would not be the same potential for benefit from maximising use of existing permitted reserves.	Removal of site 1 as an existing Preferred Area allocation would reduce the likelihood of it being worked and of helping to overcome constraints affecting existing permitted reserves at Stancombe, (Potential rock beneath conglomerate and in the south wall would be likely to be left unworked.)
Assessment score re E9.				++	++	--

Economic Issues						
Econ1 Promotion of provision or retention of employment	Will the site help to provide or retain employment?	Not easy to quantify	The existing quarries provide local employment. For example over 270 people are employed directly or indirectly at Stancombe, which is the largest quarry operation in North Somerset. (Source EIA Scoping request). Freemans Farm quarry employs about 20 full time employees, including contract workers not exclusive to CEMEX. (Source: CEMEX). When fully operational Durnford Quarry employed about 20 people (10 quarry staff and 10 regular contractors). (Source: Tarmac web site.)	The Spinney is currently agricultural land, so agricultural use would have to cease during mineral working. However there may be potential for eventual restoration to grassland and resumption of this use. Tarmac state that this site is needed to help overcome constraints at the existing Stancombe quarry. This should help to keep it operating at relatively high production levels (and hence providing significant employment) to 2026.	The land is currently agricultural land, so agricultural use would have to cease during mineral working. However there may be potential for eventual restoration to grassland and resumption of this use. As a non-contiguous extension to Stancombe Quarry this site would potentially help maintain employment at the quarry.	Removal of the Preferred Area allocation at The Spinney would reduce the likelihood of that area being worked, and hence a means of overcoming constraints affecting permitted reserves there. That could have a potentially adverse effect regarding the rate and costs of production and could potentially affect security/levels of employment at the quarry. While this could increase pressure for minerals development elsewhere with potential to provide eventual employment, it is uncertain how much employment this might provide, or when.

Assessment score re Econ1.				++	++	?=
Econ2 Protect and expand opportunities for local businesses to utilise local resources, especially sustainable resources.	Would the site enable exploitation of mineral resources: are they present?	Not easy to quantify	The British Geological Survey's 2005 Mineral Resources Map shows the permitted reserves at Durnford to be almost entirely high purity limestone and those at Stancombe and Freemans quarries to be mainly high purity limestone.	The British Geological Survey's 2005 Mineral Resources Map shows The Spinney site to include mainly high purity limestone. This option would potentially enable that resource to be worked and other constrained rock in the existing permitted reserves, such as that beneath the conglomerate and in the south wall.	The British Geological Survey's 2005 Mineral Resources Map shows the site to include a mix of limestone and high purity limestone. This option would potentially enable that resource to be worked. However while having similar "positive in principle" effects to option 1, there would not be the same potential for maximising use of existing permitted reserves.	Removal of the Preferred Area allocation at The Spinney would reduce the likelihood of that area being worked, and hence affect the ability of the quarry operator to exploit resources there. Ability to utilise existing permitted reserves at Stancombe would also be potentially significantly affected unless some other means can be found of overcoming constraints affecting them.
Assessment score re Econ 2.				++	++	--

Econ 3 Promote safe and suitable access, and accessibility to suitable transport network for efficient transport .	Is there a suitable means of access? Is the site appropriately located with regard to a suitable transport network?	Not easy to quantify	Existing consents allow the following vehicular movements at the existing quarries: <u>Stancombe</u>: unless otherwise approved by the Minerals Planning Authority (MPA): - not more than 1.5m tonnes per annum of quarried and processed materials shall leave the quarry in total; -not more than 40 HGV loads of materials arising from the quarry per day shall leave the quarry via the Backwell Hill Road access Mon-Fri inclusive, and not more than 20 HGV loads via that route on Saturdays. <u>Freemans Farm Quarry:</u> the original planning approval for the quarry	Tarmac have indicated that they have no proposals regarding this site to alter the site access (currently off Stancombe Lane) or the currently permitted level of output from Stancombe quarry; (EIA Scoping Request). The EIA Scoping Opinion recommends that the Transport Assessment to accompany a planning application should explain that it is not proposed to change the transport arrangements using the A370. Proposed minerals policies DM15 and DM17 of the SAPP cover traffic and highways respectively and both cover impact on the local road network. Policy T/10 of the RLP covers highway safety and traffic. It is likely that appropriate conditions could be imposed regarding access and number of vehicles using certain roads, as at present at Stancombe.	As a non-contiguous extension to Stancombe Quarry, Site 2 could potentially be worked by transporting extracted stone by conveyor to the existing quarry for processing. A tunnel beneath Long Lane would be likely to be needed, to reduce disruption to the lane. Proposed policies DM15 and DM17 of the SAPP cover traffic and highways respectively and both cover impact on the local road network. Policy T/10 of the RLP covers highway safety and traffic. It is likely that appropriate conditions could be imposed regarding access and number of vehicles using certain roads, as at present at Stancombe.	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1.. There could be increased pressure for minerals development elsewhere in the district. It is uncertain what roads or access would be used. However proposed minerals policies DM15 and DM17 of the SAPP cover traffic and highways respectively and both cover impact on the local road network. Policy T/10 of the RLP covers highway safety and traffic. It is likely that appropriate conditions could be imposed regarding access and number of vehicles using certain roads,

			required a designated access route to serve the new quarry from the A38, which was built. <u>Durnford Quarry:</u> the daily number of lorry loads of quarried stone and recycled aggregate leaving the quarry shall not exceed 320; Source: decision notice for 12/P/2223/F.			
Assessment score re Econ 3.				0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.
Social issues						
Soc 1 Improve accessibility to service, retail, educational, leisure and social provision.	Will any community facilities be affected?	Number of community facilities affected	The existing quarries have had some impact regarding public rights of way. For instance the existing permitted	The existing bridleway at Stancombe is directly north of Site 1 and it is likely that it would need to be diverted around the site, to allow the southern extension of the quarry.	The site adjoins Tinkers Lane to the east, a restricted by way (accessible to walkers and horse riders but not mechanised vehicles). It is likely that, as a non contiguous extension to Stancombe Quarry, operators	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1. There could be increased pressure for minerals development elsewhere in

			area at Freemans Farm Quarry was crossed by public footpaths, mainly in the western half of the site. Conditions have required satisfactory provision for the phased diversion of public rights of way, linked to the phasing of construction and quarrying.	The EIA Scoping Opinion recommends that a Right of Way Assessment be carried out, and any public path diversion order will need to be obtained prior to the start of any new quarrying in the site.	would need to ensure that mineral working would not adversely affect use of that byway. Also conveyors might need to be tunnelled under Long Lane.	the district. It is uncertain where sites might come forward and therefore what community facilities like public rights of way, might be affected.
Assessment score re Soc1.				? Uncertain, depends on implementation	? Uncertain, depends on implementation	? Uncertain, depends on location and implementation
Soc 2 Minimise risk to health and safety.	Is there likely to be increased risk to health and safety (apart from pollution and noise covered below)?	Not easy to quantify.	The existing quarries have measures in place to reduce risk to health and safety. For instance at Freemans Farm Quarry a condition requires that, prior to the completion of quarrying, a geotechnical appraisal of the quarry faces shall	Tarmac state that this option would allow working of the quarry from the south northwards, which is safer, since there would be improved geotechnical stability of the quarry faces, as the limestone strata dips to the north. There would need to be a geotechnical assessment to ensure that the working faces were stable and comply with health and safety legislation.	The council has no information on the limestone strata in this area and its likely implications for geotechnical stability of quarry faces.	Removal of the Preferred Area allocation at The Spinney would reduce the likelihood of that area being worked, and hence the opportunity to change the predominant direction of working at Stancombe Quarry to south to north, (safer in geotechnical terms). Currently working is mainly in a north-south direction, towards the bedding planes which slope down northwards.

			be submitted to and approved by the planning authority, and thereafter implemented to ensure the quarry faces are stable in the long term, and there is regular assessment of the stability of the faces and voids together with any appropriate remedial treatment undertaken. CEMEX have confirmed verbally that they have daily inspections of faces and bunds; blasted faces are checked to ensure nothing drops down on excavators. Edge protectors are used, pot holes checked for. At Durnford the EIA Scoping Request re 09/P/0341/EIA showed concern for health and safety,			

			referring to "splitting northern faces to 7.5m height to improve the long term stability of the quarry faces and long term restoration profile".			
Assessment score re Soc 2.				++	?	--
Soc 3 Avoid exposure to air pollution	Is there likely to be air pollution problems? (eg. dust, or traffic related pollution)	Not easy to quantify. Should consider proximity of potentially sensitive receptors like dwellings.	The existing quarries have measures in place to reduce air pollution problems. For instance at Stancombe there is a buffer (planted bund) between the highway and the worked part of the quarry. At Freemans Farm Quarry conditions were imposed regarding dust when the existing quarry was permitted. The	The EIA Scoping Opinion recommends that a full Air Quality Assessment of the existing air quality be carried out to determine the baseline conditions, and modelling of dust and fumes generation and air emissions to identify the potential impacts and methods of mitigation. Proposed policies DM15 and DM17 of the SAPP cover air pollution and dust. It is likely that appropriate conditions could be imposed.	Proposed policies DM15 and DM17 of the SAPP cover air pollution and dust. It is likely that appropriate conditions could be imposed	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1. There could be increased pressure for minerals development elsewhere in the district. However proposed policies DM15 and DM17 of the SAPP cover air pollution and dust. It is likely that appropriate conditions could be imposed

			submitted measures in 1996 proposed use of water sprays, sprinklers and bowsers to control dust, a wheel washing facility, sealing and grass seeding of soil mounds as soon as possible, and use of dust extraction equipment in blast hole drilling. They proposed containment of conditioned (water treated) dust in bunds made of quarry waste (unprocessable admixtures of clay and limestone). CEMEX have confirmed verbally that they have wheel washes, sprinklers on haul roads, wash down vehicles, use a bowser, and monitor dust daily.			

Assessment score re Soc 3.				0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.	0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.
Soc 4 Avoid exposure to noise or blasting vibrations	Is there likely to be problems from these?	Not easy to quantify. Should consider proximity of potentially sensitive receptors like dwellings	At Stancombe Quarry the worked part of the quarry is about 75m from the nearest dwelling, separated by Backwell Hill Road and a planted bund. At Freemans Farm Quarry the nearest dwelling is Freemans Farmhouse, about 170m from the worked area. At Durnford one of the nearest sensitive receptors is a hotel and country club about 200m north of the quarry. The existing quarries have measures in place	Dwellings lie within 60m of NW extremity of the site, across Backwell Hill Road, but if the bund at the existing quarry is continued southwards, the working part of the quarry would be likely to be at least 100m away, (so further than the current distance between Stancombe Quarry and a dwelling.) A further dwelling lies further away from the SW extremity of the site, again across the road and beyond a small employment site. The EIA Scoping Opinion recommends that, regarding blasting vibration, an assessment of vibration levels would need to be carried out at the boundary of adjacent properties to determine the potential for disturbance or damage together with recommendations for	Hyattswood Farm buildings adjoin the site to North, and the farm bungalow nearby is within the site. It is not likely that occupation of these dwellings would be compatible with minerals development on the site.	While no allocations might appear to minimise impact, there could be potential implications for similar reasons to those under E1. There could be increased pressure for minerals development elsewhere in the district, including locations near sensitive receptors. However proposed policies DM15 and DM17 of the SAPP both cover noise and vibrations, and DM17 also covers air over pressure. It is likely that appropriate conditions could be imposed

			to minimise the impacts of potential noise, particularly from blasting. For instance conditions at Freemans Quarry require that noise from site operations shall not exceed background noise levels at any neighbouring property by more than 10dB(A), and no plant or machinery shall be used on site unless fitted and operated with efficient noise suppression equipment. The submitted scheme of blasting (1996) restricted times of blasting, magnitude of blasts, included use of warning siren, and proposed monitoring of blasts at Freemans Farm House (listed) , and at neighbouring residential	appropriate notification, mitigation and control. Regarding noise the EIA Scoping opinion recommends a full Noise Assessment Report to determine baseline conditions, and modelling of noise created to identify potential impacts and recommendations for appropriate mitigation and noise attenuation. Proposed policies DM15 and DM17 of the SAPP both cover noise and vibrations, and DM17 also covers air over pressure. It is likely that appropriate conditions could be imposed		

			properties subject to agreements with owners (Hyattswood Farm, Yewtree Farm and Newditch Farm.)			
Assessment score re Soc 4.				0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.	-- Proximity of farmhouse and bungalow	0 Existing and proposed policies are strong on this issue and development having significant adverse effects would be unlikely to be permitted.