Bournemouth, Christchurch, Poole and Dorset Mineral Sites Plan

(previously the Bournemouth, Dorset and Poole Mineral Sites Plan)

Sites Proposed for Allocation - Screening for Cumulative Impacts

Introduction and work already undertaken

1.1. Following the hearing sessions in September/October 2018 the Mineral Planning Authority (MPA) carried out a screening exercise of the 'Cluster 4' sites (AS19 Woodsford Extension, AS25 Station Road and AS26 Hurst Farm) to consider potential cumulative and in-combination impacts. This comprised the following steps:

a) Reviewing cumulative impact assessment work already been done

b) Considering subsequent evidence (including heritage assessment for individual sites) that has been prepared in support of the plan

c) Reviewing the results of the assessment

d) Recording the screening

Screening for Likely Significant Effects

1.2. The results of this screening were made available as MSDCC - 82 on the MPA website. It was presented as a matrix, based upon Annex 1 of the SEA Directive which sets out the requirement for Likely Significant Effects. This includes the following:

The information to be provided under Article 5(1), subject to Article 5(2) and (3), (includes) the following:

(f) the likely significant effects[1] on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;

[1] These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

1.3. Each matrix set out a list of receptors including those identified in the SEA Directive and each site was assessed against these in relation to:

a) Whether or not there is a risk of a likely significant effect

b) If so, whether this is direct or secondary

c) The scope for cumulative impacts (allowing for other mineral sites or other proposed development in the area)

d) Whether any impacts could be synergistic (i.e. greater than the sum of their parts)

e) A summary of possible relationships between receptors.

1.4. The matrix also considered the potential timescale of impacts and whether or not these could be temporary or permanent.

The baseline for this assessment.

1.5. The 'baseline' for this matrix was the existing work presented as part of the submitted plan, principally the latest iterations of: the Sustainability Appraisal (MSPSD-11); the Mineral Sites Plan as annotated with the schedule of proposed modifications (MSPSD - 15) and the Habitats Regulations Assessment (MSPSD-16); and relevant site assessments.

What was recorded for this assessment?

1.6. In each box of the matrix the text shown in standard black font was taken directly, or summarised from, the baseline sources.

1.7. Where the baseline was considered deficient or not sufficiently transparent, further text was introduced and shown in red italics. This was informed by existing commentary on impacts or considerations recorded in the baseline sources, together with the evidence that has been provided in support of the examination process and the hearing sessions. Where this flagged up potential cumulative or synergistic impacts, this was recorded.

1.8. The matrix considered whether or not the screening had identified a need for further modifications to the plan, to be recorded in the comments column. No further modifications over and above those which have already been tabled were considered necessary.

Further work

1.9. As noted above, the preliminary screening exercise was only carried out on three of the sites proposed for allocation. The MPA considered it necessary and appropriate to carry out this screening for all the sites proposed for allocation, to identify possible in-combination effects and whether additional modifications were needed for any sites proposed for allocation and to ensure that all sites are screened/assessed on an equal basis. The matrices below have therefore extended the exercise described above to all 19 of the sites proposed for allocation in the Mineral Sites Plan. The baseline is the relevant and updated versions of the information as described above.

1.10. In cases where Main Modifications (MMs) to the Plan are proposed in response to a need for amendments or further protection identified through the Screening exercise (for both the original three sites screened, and all the remaining sites subsequently screened) , the reference for each MM has been included. The MMs can be seen in the Schedule of Modifications on the Examination website at: https://www.dorsetcouncil.gov.uk/planning-buildings-land/planning-policy/dorset-county-council/minerals-planning-policy/mineral-sites-plan/examination-library.aspx

1.11. The full range of sites screened is:

Site Reference	Name of Allocated Site	Mineral Type
AS06	Great Plantation	Aggregate - Sand/Sand and Gravel (8)
AS12	Philliol's Farm	
AS13	Roeshot	
AS15	Tatchell's Extension	
AS19	Woodsford Quarry Extension	
AS25	Station Road	
AS26	Hurst Farm	
AS27	Land at Horton Heath	
BC04	Trigon Hill Extension	Ball Clay (1)
PK16	Swanworth Quarry Extension	Crushed rock (1)
RA01	White's Pit	Recycled aggregate (1)
PK02	Blacklands Quarry Extension	Purbeck Stone (5)
PK10	Southard Quarry	
PK17	Home Field	
PK18	Quarry 4 Extension	
PK19	Broadmead	
BS02	Marnhull Extension	Other Building Stone (3)
BS04	Frogden Extension	
BS05	Whithill Extension	
		19 sites screened

1.12. This screening exercise, for all the proposed site allocations, is presented as an addendum to the existing SA report, but is a separate document. Following the screening matrix prepared for each site, a summary of the outcomes is provided, identifying possible in-combination effects and inter-relationships among receptors for each site. This summary, for each of the 19 site allocations, in addition to being presented in this screening report

has also been copied into the relevant site assessment in Appendix A of the Sustainability Appraisal Report (May 2019) (MSPSD - 18) and also referenced in Section 8 of the Sustainability Appraisal Report (May 2019) (MSPSD - 18).

1.13. The SA report itself has been updated to include an assessment of main modifications, as has the Habitats Regulations Assessment (HRA).

1.14. In the text below, 'DG' represents Development Guideline and 'DGs' represents Development Guidelines.

1.15. The tables below refer to ‘MM’ Main Modifications proposed to the Pre-Submission Mineral Sites Plan. These are set out in the Schedule of Main Modifications (MSDCC - 83).

AS06 Great Plantation

Receptor[1]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS06 - Great Plantation	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** Mineral extraction from within the proposed area may lead to effects on European/international designations from proximity and displacement of recreation. There may also be effects on species typical of European sites (including smooth snake, sand lizard, Dartford warbler, nightjar and woodlark), on national designations, local designations and protected species. Without mitigation these impacts would be expected to be significant. Developers will be expected to identify and implement appropriate mitigation to reduce any impacts to a level such that it they are not considered significant. These potential impacts are addressed in the Natural Environment DG for AS06.	The site provides open public access, and the loss of this access land could lead to recreational displacement effects on national and international designations around the site. Without mitigation these impacts would be expected to be significant. Developers will be expected to identify and implement appropriate mitigation to reduce any impacts to a level such that it they are not considered significant. The proposal will require offsite habitat creation and provision of alternative public access land to compensate for loss of	*Potential for negative impacts on biodiversity through the development of this site and others along Puddletown Road.* Without mitigation these impacts would be expected to be significant. Developers will be expected to identify and implement appropriate mitigation to reduce any impacts to a level such that it they are not considered significant. *However, there are opportunities for large scale biodiversity benefits through creation of heathland at this site and other sites along the Puddletown Road, through implementation of the Puddletown*	*Potential synergistic beneficial effect from large scale creation of heathland in the Puddletown Road Policy Area. This link is highlighted through a modification to the Restoration Vision for this site (MM39).*	*Negative impacts through loss of habitat, however offsite creation of habitat is to be implemented prior to development which will minimise this risk. This is secured through a modification to a DG (MM36).*	*Negative impacts through loss of habitat, however offsite creation of habitat is to be implemented prior to development which will minimise this risk. This is secured through a modification to a DG (MM36).*	*Creation of additional habitat through ongoing restoration and implementation of the Puddletown Road Policy. This is secured through a modification to the Restoration Vision for this site (MM39).*	*Temporary loss of biodiversity, however compensatory measures are proposed. This is secured through modifications to DG (MM36).*	*Heathland restoration on AS06 and other existing sites on the Puddletown Road will provide direct and synergistic benefits. This is secured through a modification to the Restoration Vision for this site (MM39).*	Without mitigation the negative impacts resulting from this development have the potential to be significant. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. No further modifications proposed for AS06 in addition to those referred to.

[1] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

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			habitat and potential recreational displacement effects. This is addressed through the DGs.	*Road Policy MS-7, as referenced in the DGs as modified.*							
	Human health - **including noise**	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Closest residences are approximately 200m to the west, others within 250-500m buffers around site, including Hethfelton House. Impacts could be significant and development is likely to require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where	None expected.	*Potential for recreational benefits through implementation of the Puddletown Road Policy. This link is highlighted through a modification to the Restoration Vision for this site (MM39).*	None expected.	*Negative impacts through loss of recreational land, however offsite provision is to be implemented prior to development which will minimise this risk. This is secured through a modification to a DG (MM36).*	*Negative impacts through loss of recreational land, however offsite provision is to be implemented prior to development which will minimise this risk. This is secured through a modification to a DG (MM36).*	*Creation of additional recreational opportunities.*	*Temporary loss of recreational land, however compensatory measures are proposed. This is secured through modifications to DG's (MM36).*	*Restoration on AS06 and other existing sites on the Puddletown Road may provide direct benefits. This is secured through a modification to the Restoration Vision for this site (MM39).*	Without mitigation the negative impacts resulting from this development have the potential to be significant. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further modifications proposed in addition to those referred to.

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	possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts Impact on Existing Settlements Stokeford lies within approximately 400m of the site, while Wool and Bovington Camp are over 1km distant. The site is unlikely to have any impact on any of these sites. Lorries would travel northwards to the A35 and in so doing may have some impact on Bere Regis. Impact on Recreational Land Although there are no formal rights of way or formal recreational uses on the site, as Forestry Commission land the site is available for public access. This would change during working but after restoration the site could be open to public access again. Alternative access land will be provided prior to site development. The need for offsite mitigation in advance of development is secured through a modification to a DG *(MM36).* Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site.									

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Soil	**9. To maintain, conserve and enhance soil quality.** The site comprises primarily heathland, grassland and woodland cover. Soils expected to be relatively poor and acidic. They are likely to contain a heathland plants seedbank. Site preparation and working would require stripping and storage of the soils, to be carried out following best practice approach. There will be impacts on the soil, but it is unclear what level of significance should be ascribed to these impacts. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Restoration to heathland this will require reinstatement and retention of acidic soils.	None expected.	*Potential for cumulative impacts on soils, in combination with other sites along the Puddletown Road.* *The Puddletown Road Policy seeks to address issues such as this, through management at a wider scale.*	*Potential synergistic beneficial effect from wider scale creation of soil management in the Puddletown Road Policy Area.*	Residual, non-significant negative impacts will be greatest for duration of preparation and working.	Residual, non-significant negative impacts will be greatest for duration of preparation and working.	Phased restoration will be reducing the impacts as stored soils are re-spread. A modification to a DG secures the principle of restoration taking place as soon as a phase is finished *(MM36)*.	Residual, non-significant negative impacts are expected to be temporary, for the duration of preparation and working. As restoration proceeds, impacts will reduce. No overall loss of soils expected.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further modifications proposed in addition to those referred to.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Assessment required to determine possible impacts on hydrogeology, with appropriate mitigation identified and implemented. No impacts on Source Protection Zones. Site overlies secondary aquifer.	None expected - full assessment will be required to assess potential for impacts and ensure appropriate mitigation applied. This is already addressed through a DG in the Plan.	None expected - full assessment will be required to assess potential for impacts and ensure appropriate mitigation applied. This is already addressed through a DG in the Plan.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	As restoration is undertaken this will begin reducing the impacts.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[1]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		<u>Surface Water</u> Drain runs within 50m of proposed development area. **5. To reduce flood risk and improve flood management.** The site is in Flood Risk Zone 1 and working is not considered to constitute, or exacerbate an existing, a flood risk. Flood Risk Assessment to be carried out and any necessary mitigation implemented if required.									
	Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures applied at the planning application stage.	*Potential for secondary effects of dust or air pollution beyond site boundary.* *Mitigation to be identified at planning application stage to ensure impacts are mitigated to non-significant level.*	*Limited potential for cumulative impacts of dust or air pollution, in combination with other sites along the Puddletown Road.* *Mitigation to be identified at planning application stage to ensure impacts are mitigated to non-significant level.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. .	Yes, however as restoration proceeds this will reduce impacts.	Timescale for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. These issues are addressed at the planning application stage as required by Policy DM2 of the Minerals Strategy 2014.

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Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Limited potential for cumulative impacts of GHG production, in combination with other sites along the Puddletown Road.*	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. . It is not known how long the effects of the GHGs are felt after they are produced.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. . It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs. However, it is not known how long the effects of the GHGs may last following their production. **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

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Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/ historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> Two scheduled monuments lie in the vicinity of the boundary of the proposed site, with two others further away. They are located approximately in a line that is oriented north to south, set on the ridge that runs to	There is potential for impacts on the setting of heritage assets around the site. This will be assessed prior to development, and all necessary mitigation implemented. *This is secured through a DG. Further clarification regarding the*	*Potential for cumulative impacts with existing adjoining quarry.* *This will be assessed prior to development, and all necessary mitigation implemented.* *There is a DG addressing the issue of cumulative impacts.*	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Residual/non-significant negative impacts could occur during preparation, working and in some cases even after the site is restored, depending on how the site is worked and/or restored.	Impacts could vary, from potentially direct impacts on below-ground archaeology to impacts on the setting of a more distant asset. Potential for loss of archaeology. Most impacts are expected to occur during preparation and working - as restoration begins impacts are expected to decrease. Heritage assessment will ensure that all necessary mitigation is implemented, to avoid impacts at all stages including restoration. *This is secured through a DG. Further clarification regarding the setting assessment has been included through a modification (MM37).* Restoration to open heathland could improve the settings of the		No further DGs proposed - necessary safeguards have already been included. in addition to those referred to. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

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	the east of Baker's Well Valley. To the east of the barrows, the land is level with no clear edge to the ridge. Since a major part of the setting of the barrows essentially comprises the ridge and the valley to the west, it is important to preserve these landscape elements A section of Battery Bank is also present within the valley. While there is no question of removing these monuments, the question is how close to them quarrying could be allowed. Historic England and the operator, Hanson, have agreed a way forward, to include further evaluation at the planning application stage. <u>Historic Landscapes</u> Much of the site, with the possible exception of the lower part of Baker's Well Valley, would have been heathland before the woodland was planted. This heathland formed part of the setting of the Scheduled Monuments on the site. Unsympathetic extraction and quarrying could have a significant negative impact on the setting of these Monuments, but there is the potential for an improvement in that setting through restoration to heathland.	*setting assessment has been included through a modification (MM37).*						Monuments. The Restoration Vision encourages this.		

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	Direct	**Secondary**	**Cumulative**	**Synergistic**	**Short-term (<5 yrs)**	**Medium-Term (5-10 yrs)**	**Long-term (10+ yrs)**	**Temporary**	**Permanent**	
	Without mitigation these impacts would be expected to be significant. Developers will be expected to identify and implement appropriate mitigation to reduce any impacts to a level such that they are not considered significant.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Historic Buildings</u> The nearest listed building which may have views of part of the site across fields is Heath View at Stokeford, over a kilometre to the south-east. Maintenance/build-up of vegetation around the edge of the site will increase screening and restrict views in. Significant impacts not expected.	None expected.	None expected.	None expected.	None expected. However, if any negative impacts are identified these are likely to be during preparation and working.	None expected. However, if any negative impacts are identified these are likely to be during preparation and working.	None expected. However, if any negative impacts are identified these are likely to be during preparation and working. Site restoration should ensure no long term impacts.	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working. Mitigation will be identified and implemented.	There may be some changes to the landscape but overall the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[1]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> The site is spread across a south facing slope, with a total variation of approximately 20m. The impact on the open access land will need to be assessed and appropriate mitigation measures built into a comprehensive package. There is the potential to affect the AONB to the south of the site. Impacts will need to be assessed and appropriate mitigation measures identified and implemented.	The scale of excavations, in combination with the orientation of the slope, mean that operations will be visible from elevated locations, such as the Purbeck Hills within the AONB. From here the development may have adverse effects, when considered individually, as well as cumulative adverse effects in combination and sequence with existing sites.	The scale of excavations, in combination with the orientation of the slope, mean that operations will be visible from elevated locations, such as the Purbeck Hills within the AONB. From here the development may have adverse effects, when considered individually, as well as cumulative adverse effects in combination and sequence with existing sites. *At a local level, there is potential for cumulative visual impacts, as Hyde Pit will remain open while Great Plantation is worked.* There are other quarries along Puddletown Road, and new development in the area is proposed through the Purbeck District Plan	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Appropriate mitigation measures to be identified and built into a comprehensive package. This is secured through DG5.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Appropriate mitigation measures to be identified and built into a comprehensive package. This is secured through DG5.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. However as restoration proceeds negative impacts will reduce.	Yes – temporary impacts for duration of preparation and working. There is an 'ecological mitigation corridor' averaging some 80m wide running along the southern edge of the proposed extraction area. It provides a physical link and wildlife corridor between the designated SACs to the southwest and east of the proposed site. It also generally follows the conceptual alignment of the Scheduled Monument 'Battery Bank' which may link the two Scheduled Monuments which also lie to the south west and east of the site. The mitigation corridor also serves as a landscape buffer, limiting the visual impacts of development. The reduced scale of the allocation and the proposed mitigation corridor/landscape buffer along the southern boundary are considered to reduce the potential landscape and visual impacts to an acceptable level.		No further modifications proposed in addition to those referred to. Without mitigation the negative impacts resulting from this development have the potential to be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[1]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Amenity **<u>NB</u>** this section relates primarily to visual amenity/impacts from site related traffic; noise is considered separately above under Human Health above.	**<u>17. To sustain the health and quality of life of the population</u>** <u>Impact on Sensitive Human Receptors</u> Closest residences are approximately 200m to the west, others within 250-500m buffers around site, including Hethfelton House. . <u>Impact on Existing Settlements</u> Stokeford lies within approximately 400m of the site, while Wool and Bovington Camp are over 1km distant. The site is unlikely to have any impact on any of these sites. Lorries would travel northwards to the A35 and in so doing may have some impact on Bere Regis.	It is possible there may be some impacts on properties in the vicinity, but it is unclear what level of significance should be ascribed to these impacts. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Settlements in be vicinity are not expected to be impacted by the site itself; there may be some l impacts from site related traffic on settlements such as Bere Regis, however no intensification of traffic is expected and impacts not expected to be significant.	Potential visual cumulative impacts from more distant vantage points such as Purbeck Hills to the south already noted; Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Other cumulative impacts not expected.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. However restoration will reduce the impacts as it progresses.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent changes expected.	No further DGs proposed - necessary safeguards have already been included. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014.

AS06 Great Plantation **Possible in-combination effects.**	There is potential for cumulative or in-combination effects in relation to biodiversity; human health; soil; air/dust; Greenhouse Gases; landscape and archaeology/heritage. Some effects are beneficial. There are potential inter-relationships between biodiversity and human health/amenity while the site is being worked, as additional areas for both need to be provided. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. The MPA is satisfied that identified impacts have been satisfactorily addressed by DGs and existing/proposed policy. Proposed DG requires cumulative impacts to be taken into consideration. The restoration vision promotes long term benefits, including possible creation of heathland and multi-functional green infrastructure which is identified in the restoration vision, including recreational, landscape, biodiversity and amenity benefits. As this site lies within the boundary of the Puddletown Road Area, Policy MS-7, a long term and coordinated approach to development, restoration and management will be sought within this area.

AS12 Phillíol's Farm

NB - following the Hearings into the Plan in Autumn 2018, and further advice from the Inspector, a modification (MM41) is proposed to remove Phillíol's Farm as a site allocation from the Plan.

Receptor[2]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS12 Phillíol's Farm	**Biodiversity** (incl. flora and fauna)	**To maintain, conserve and enhance biodiversity.** There are records of Fairy Shrimp from a pond at Phillíol's Farm; this is a fully protected species under the Wildlife & Countryside Act and assessment of the implications of the development for this species will need to be fully assessed, especially as the species is known to flourish in temporary pools and mineral extraction would be likely to affect local hydrology. It is expected that negative impacts can be appropriately mitigated - if this is not possible, the development will not go ahead; full assessment will be required, to identify all possible impacts and the necessary mitigation. It is possible Dormouse lives in the hedgerows within the proposed area; mitigation should be possible. There are a number of old boundary trees, mainly oak, within the proposed area and the implications for the biodiversity and longevity of	There are possible indirect effects on European heathland sites as the extraction area lies adjacent along part of the northern boundary, the mineral haul route is currently unspecified but likely to be through Wareham Forest so could pass close to the designated areas. Displacement of recreation due to the haul route must be taken into consideration, and mitigated against. The haul route is likely to pass through forestry areas which support Annex 1 birds which may be functionally	No negative cumulative impacts with other mineral sites, existing or proposed, expected. No other cumulative impacts expected. *Potential for cumulative benefits of nitrate reduction in Poole Harbour, in combination with other approaches e.g. possible reductions in nitrates from changes in land-use at AS19 Woodsford Extension and AS26 Hurst Farm.*	None expected.	*No negative LSE expected following mitigation.* *Benefits may remain, depending on whether a wetland area is created as proposed, or how much of the land is returned to agriculture.*	*No negative LSE expected following mitigation.* *Benefits may remain, depending on whether a wetland area is created as proposed, or how much of the land is returned to agriculture.*	*No negative LSE expected following mitigation.* *Benefits may remain, depending on whether a wetland area is created as proposed, or how much of the land is returned to agriculture.*	*No negative LSE expected following mitigation.* *If a wetland is created, and some land taken out of agriculture, benefits will be long-term.*	*No negative LSE expected following mitigation.* *If wetland is created, and land is long-term taken out of agriculture, benefits could be long-term to permanent*	Without the detail of proposed working there is a risk of adverse effects on European sites but this risk could almost certainly be removed through careful planning. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. All necessary protections already included. No modifications or further DGs proposed.

[2] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

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		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		these trees must be assessed. Trees to be protected during working and their habitats enhanced during restoration where possible.	linked to Dorset Heathlands SPA and the plantation is well used as recreation site contributing to the network of areas which help to reduce human recreational pressure on designated heathlands. It is expected that negative impacts can be appropriately mitigated - if this is not possible, the development will not go ahead; full assessment will be required, to identify all possible impacts and the necessary mitigation. **Positive benefit:** Area through which the haul route is likely to pass supports Annex 1 birds as part of the existing forestry crop rotation. Clearance of trees would result in heathland regeneration and the open habitat would								

Receptor[2]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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			rapidly become suitable for more Annex 1 birds. The site has the potential to be included in a revision to the heathland SPA boundary. Risk based approach essential here. Without the detail of proposed working there is a risk of adverse effects to Annex 1 birds but this risk could almost certainly be removed through careful planning. Existing rides support significant populations of European protected species, Sand Lizard and Smooth Snake, and common protected reptiles. Depending on the alignment of the haul route, mitigation for effects on reptiles may be necessary. If so, it seems likely NE would be able to issue a disturbance								

Receptor[2]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
			licence if required. *Positive benefit of reduction in nitrates entering ground/surface water, and travelling to Poole Harbour.*								
	Human health - **<u>including noise</u>**	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. **17. To sustain the health and quality of life of the population** <u>Impact on Sensitive Human Receptors</u> Residences adjacent to/within 50m of the site; other residences in vicinity of site. Without mitigation there will be amenity impacts e.g. noise, dust, visual. Mitigation e.g. bunds, screening will reduce this but would not be expected to completely remove it. <u>Impact on Existing Settlements</u> Nearest settlement is Bere Regis, approximately 2.7 km away. No visual or noise impacts will affect these settlements, but there may be transport related impacts. <u>Impact on Recreational Land</u> Although the site itself is in agricultural use, with no	<u>Air Quality/Noise</u> No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. To mitigate impacts beyond the site boundaries, development would require visual and noise attenuation bunding, standoffs and similar measures.	None expected.	None expected.	Impacts will be mitigated but this is not expected to completely remove all amenity effects. However these are not expected to be significant and will reduce when the extraction is coming to an end, and restoration progresses into the final phase of work.	Impacts will be mitigated but this is not expected to completely remove all amenity effects. However these are not expected to be significant and will reduce when the extraction is coming to an end, and restoration progresses into the final phase of work.	Impacts will be mitigated but this is not expected to completely remove all amenity effects. However these are not expected to be significant and will reduce when the extraction is coming to an end, and restoration progresses into the final phase of work.	Following mitigation residual negative impacts expected to remain, but not to be significant. Expected to be temporary, during preparation and working; and reduce as restoration progresses.		Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. Modifications are proposed to address the issue of recreational displacement - MM.AS12.1 No further DGs proposed - necessary safeguards have already been included.

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	formal/informal recreation on the site, there are Rights of Way in the vicinity The proposed haul road to the public highway will run through land used for recreation, and could have recreational displacement effects which must be addressed and mitigated.	A Transport Assessment would be required at planning application stage, to identify impacts and mitigation require to address such impacts. Full assessment of all impacts on Rights of Way, and the access road passing through recreational land and the likely recreational displacement will be required, with all necessary mitigation identified.								
Soil	**9. To maintain, conserve and enhance soil quality.** Some 75% of the site is identified as 'Best and Most Versatile' (BMV) agricultural land. Working the site will have impacts on this soil. Soils will be protected during working and restoration could bring BMV land back into agricultural production. Soil to be properly stripped and stored prior to working; protected during working; and re-spread on site after working.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Restoration to include high quality agricultural land, possibly with other uses as well									
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Ditches in proximity to site, which are presumably groundwater fed. No Source Protection Zones are affected by the site. Site overlies secondary aquifer. Environment Agency concerns over effects of extraction on groundwater feeding ephemeral pond supporting Fairy Shrimp. <u>Surface Water</u> Site is adjacent to Bere Stream and close to River Piddle. Ponds on site **5. To reduce flood risk and improve flood management.** Site is FRZ 1 but is adjacent to FRZ 2 and 3. Site is sand and gravel site, with extraction allowed within functional floodplain. Flood Risk Assessment to be carried out and any necessary mitigation implemented. **Mitigation** Further assessment on possible impacts on water	Potential for impacts downstream from the site via Bere Stream or River Piddle. However any potential impacts must be fully assessed an mitigated to the satisfaction of the MPA and to the extent that any impacts will not be significant. Also potential for benefits from reduced nitrates in ground/surface water, due to reduction in agriculture. If a wetland is created, these benefits increase and are for longer term.	Possible cumulative benefits on Poole Harbour, in conjunction with other nitrate reduction operations such as proposed at AS19 Woodsford and AS26 Hurst Farm.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. Benefits of reduction in level of nitrates due to cessation of agriculture for mineral working will be temporary.	Benefits of wetland creation would be long-term/permanent. Proposed DG sets out detail of wetland - MM-AS12.2	The need for assessment and mitigation is addressed in the DGs. No further DGs proposed - necessary safeguards have already been included.

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	supplies and appropriate mitigation if potential impacts identified - particularly regarding Fairy Shrimp and its ephemeral habitat. Where necessary mitigating measures should be installed to maintain groundwater levels and/or monitor private water supplies. Alternative arrangements should be in place in case of a reduction in supply. Hydrological assessment required to determine possible impacts, on ground and surface waters, with appropriate mitigation to be implemented. Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the rivers/watercourses is of an acceptable quality. Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources. Land Drainage Consent to be obtained from Dorset County Council if works may affect flow of an ordinary watercourse.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.**	None expected.- if there are impacts it is	None expected.	None expected.	None expected.	None expected.	None expected.	N/A	N/A	No further DGs proposed - necessary

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. .	expected that these will be mitigated to non-significant levels								safeguards have already been included. These issues are addressed at the planning application stage as required by Policy DM2 of the Minerals Strategy 2014.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing land as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of	Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary. Not expected to be significant, emissions are relatively low.	Potential for cumulative effects with other quarry sites in the Puddletown Road area . Not expected to be significant, emissions are relatively low.	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. It is expected that any effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of

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	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	climate change mitigation, but again these benefits will be relatively small.									vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/ historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings,**	Impacts expected on heritage assets around the site.	None expected.	None expected.	No significant impacts expected. No significant impacts	No significant impacts expected. No significant impacts	Residual effects will decline as restoration progresses, but depending on	Greatest residual effects will be temporary, during preparation and	Some effects could be permanent, but must be mitigated to	This is addressed through a DG in the Plan.

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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	conservation areas, historic parks and gardens and other locally distinctive features and their settings). <u>Archaeology</u> An archaeological evaluation consisting of the excavation of trial trenches was undertaken on parts of this site in 2005; little was found in many of the trenches, but evidence of Roman settlement was found in the southernmost part of the site. Unless the area of Roman remains is excluded from quarrying, the development is likely to have a significant impact on archaeological remains. The fields that were not included in the 2005 evaluation still need to be evaluated before a fully-informed planning decision can be made, and the results could possibly show further very significant archaeological impacts. The impact on the setting of nearby barrows that are protected as Scheduled Monuments also needs to be assessed. More recent assessment (September 2018 - MSDCC - 75) states that the exact impact on heritage assets will depend on the eventual sequence and methods of extraction and landscape restoration. Therefore, it is considered that the degree to which impacts can be minimised during the extraction phase cannot be fully assessed.	These impacts expected to be significant, and must be appropriately mitigated to an acceptable level.			expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	restoration landform effects could be long-term. However such effects would have to be less than significant, with mitigation.	working, declining in restoration phase.	appropriate level, and not be significant.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Consideration of parcel by parcel extraction would retain the historic network of hedges and provide some limitation to immediate visual impact. The avoidance of tall spoil heaps during the extraction process would reduce these particularly visually intrusive additions to views or the appearance of a scarred landscape. However, given the relatively small size of the Site the degree to which this could be achieved may not be appreciable or render the project unfeasible. Given the historic character of the area and system of boundaries within the Site, and many relating to the 18th and early 19th century development of the farm, it would be desirable to maintain as much of these as possible. It would certainly be necessary to reinstate those which have to be removed after completion of extraction. An approach to reinstatement would need to be considered which would restore as much of the existing landform as possible. This would mitigate the long-term effects on setting, even if the landform is permanently altered and essentially a reconstruction. <u>Historic Landscapes</u> The site is currently under agriculture, and its restoration to the same use could have a neutral impact									

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	if properly mitigated through restoration of hedgerows and the like.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Historic Buildings</u> Given the location of the buildings in relation to the land, situated deliberately at the heart of the historic holding, any benefits through mitigation by removing parts of the scheme or moving boundaries further from the structures is difficult to assess. Greater separation from the buildings from the proposed area would reduce the potential impact of potential vibration, noise, dust and odours and very close views. However, the flat topography means that it would be impossible to entirely mitigate both short and long-term visual impacts. Additionally, in respect of Lower Stockley farmhouse and Warren House, the significance of which is derived from their own fabric and historic relationships with their own immediate settings, the impacts are anticipated to be largely visual, with some impact from noise and dust during extraction work.	Impacts expected on heritage assets around the site. These impacts expected to be significant, and must be appropriately mitigated to an acceptable level.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Residual/negative effects will decline as restoration progresses, but depending on final restoration landform effects could be long-term. However such effects would have to be less than significant, with mitigation.	Greatest residual effects will be temporary, during preparation and working, declining in restoration phase.	Some effects could be permanent, but must be mitigated to appropriate level, and not be significant.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[2]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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	The potential long term visual changes to areas immediately adjacent to these two buildings are regarded as creating less than substantial harm. Some mitigation could be achieved in both cases by moving the boundary of the extraction area back, although this would not remove the impact of changes to middle distance views. Removal of areas or moving boundaries further back so that they are not adjacent to the Philliol's Farm Barn and Granary, Warren House and Lower Stockley Farm would provide some reduction in visual impact, particularly in the latter cases, although this cannot be completely removed.									
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> This is considered to be an intimate and sensitive part of the Heath Forest Mosaic. Development would affect the existing rural character and views from close proximity sensitive visual receptors (residential and bridleway). It would introduce a new obtrusive use into this landscape. The capacity to 'absorb' this proposed development is low without mitigation and medium/low with mitigation.	This development will have a negative impact on the landscape of the site and its surroundings. Such impacts will be significant without mitigation, and must be mitigated to acceptable levels.	None expected.	None expected.	Yes - any residual effects following mitigation will be greatest during preparation and working. It is expected that impacts will be mitigated to a level considered to be non-significant.	Yes - any residual effects following mitigation will be greatest during preparation and working. It is expected that impacts will be mitigated to a level considered to be non-significant.	Residual effects will decline as restoration progresses, but depending on final restoration landform effects could be long-term. However such effects would have to be less than significant, with mitigation.	Greatest residual effects will be temporary, during preparation and working, declining in restoration phase.	Some effects could be permanent, but must be mitigated to appropriate level, and not be significant.	This is addressed through a DG in the Plan. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[2]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Residences adjacent to/within 50m of the site; other residences in vicinity of site. Development would require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts to non-significant levels Impact on Existing Settlements Nearest settlement is Bere Regis, approximately 2.7 km away. No visual or noise impacts will affect these settlements, but there may be transport related impacts. Impact on Recreational Land Site is in agricultural use, with no formal/informal recreation on the site. Impact on Public Rights of Way There are no rights of way across the site, although a bridleway runs adjacent to section of site boundary and will require screening.	The proposed haul road to the public highway will run through land used for recreation, and could have recreational displacement effects which must be addressed and mitigated. There are other Rights of Way in the vicinity that will potentially be affected by quarrying at this site. Potential impacts are addressed through a DG proposed for inclusion through MM-AS12.1	None expected.	None expected.	Yes - any residual effects following mitigation will be greatest during preparation and working. It is expected that impacts will be mitigated to a level considered to be non-significant.	Yes - any residual effects following mitigation will be greatest during preparation and working. It is expected that impacts will be mitigated to a level considered to be non-significant.	Residual effects will decline as restoration progresses, but depending on final restoration landform effects could be long-term. However such effects would have to be less than significant, with mitigation.	Greatest residual effects will be temporary, during preparation and working, declining in restoration phase.	Some effects could be permanent, but must be mitigated to appropriate level, and not be significant.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

AS12 Philliol's Farm **Possible in-combination effects.**	There is potential for cumulative or in-combination effects in relation to biodiversity; human health; soil; air/dust; Greenhouse Gases; landscape and archaeology/heritage. Some effects are beneficial. There are potential inter-relationships between biodiversity and human health/amenity while the site is being worked, as additional areas for both need to be provided. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. Proposed DG requires cumulative impacts to be taken into consideration. The restoration vision promotes long term benefits, including possible creation of heathland and multi-functional green infrastructure which is identified in the restoration vision, including recreational, landscape, biodiversity and amenity benefits. As this site lies within the boundary of the Puddletown Road Area, Policy MS-7, a long term and coordinated approach to development, restoration and management will be sought within this area. Transport issues, specifically the potential level of minerals traffic on the C7 Wareham to A35 road, generated by AS12 Philliol's Farm; BC04 Trigon Hill Extension and AS15 Tatchell's was identified as a potentially significant cumulative impact. This was addressed through two DGs, MM-AS12.3 and MM-AS12.4. It was considered that these DGs provided adequate protection. However, following the Hearings in Autumn 2018 the MPA was advised by the Inspector to remove AS12 as a proposed site allocation in the Mineral Sites Plan. There was no indication that this was as a response to perceived risks of cumulative impacts. **Therefore, a modification (MM41) is proposed to remove Philliol's Farm as a site allocation from the Plan**

AS13 Roeshot

Receptor[3]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS13 Roeshot	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** There are records of Southern Damselfly from the Mude River on the eastern boundary of the site and the effects of extraction on this rare species would need to be fully understood and mitigated. Without mitigation development related impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. It is possible that there are common protected reptile populations around the existing field margins. Mitigation would likely be straightforward.	Potential for impacts downstream from this site, and on heathland and other habitats in the vicinity, including land with nature conservation designations. Without mitigation development related impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. A modification is proposed to the DG's to highlight the presence of other designations and the need to consider impacts through an EIA at the planning application stage (MM44), Extraction from this site could facilitate restoration to open ground including	*Potential for impacts along with the Hampshire side of the site.* *These will be evaluated, and appropriate mitigation identified and implemented* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. *Modifications are proposed to the details of the development to explain that there should be no simultaneous extraction from Dorset/Hampshire sites to minimise cumulative impacts (MM42)*	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	As phased restoration proceeds, residual non-significant impacts will reduce. When the site is completed and developed as Suitable Alternative Natural Greenspace (SANG) it will then provide beneficial effects, diverting access from other more sensitive areas. This principle of restoration to SANG is secured through a DG, further clarification is proposed through a modification to the DG (MM47)	Negative impacts would be expected during site preparation and working, with a reduction in impacts as restoration proceeds. Negative impacts not expected to be permanent. As the SANG is created to be in existence in perpetuity, the positive benefits it provides will remain, offsetting access pressures from housing to the south of the rail line.		It is expected that any effects on Damselfly habitat will be avoided through providing for a suitable stand-off from the river. This is secured through a DG (MM43). Cumulative impacts with the Hampshire side of the site will be addressed at the planning application stage, through Policy DM2 of the Minerals Strategy 2014 Issues of SANG and Damselfly already addressed - No further DGs proposed - necessary safeguards have already been included.

[3] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		public open space for informal recreation to mitigate against effects of human pressures on the heaths of the New Forest National Park, thereby providing positive external benefits. This is secured through a DG, a modification is proposed to provide clarification (MM47).								
Human health - **including noise**	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Waterditch Farm to north and Burton Village to west, both with 300m;	Potential for some impacts; evaluation at planning application stage to identify impacts, with appropriate mitigation to be implemented to ensure impacts are not significant. Positive impacts of the SANG when it is created (MM47).	Potential for cumulative impacts with Hampshire side of the site; however as the two sides are not to be worked simultaneously (apart from some limited crossover working) no significant effects expected. This principle is secured through a modification to the details of the proposed development (MM42)	None expected.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	As phased restoration proceeds, residual/non-significant impacts will reduce. When the site is completed and developed as Suitable Alternative Natural Greenspace (SANG) it will then provide beneficial effects.	Negative impacts would be expected during site preparation and working, with a reduction in impacts as restoration proceeds. Negative impacts not expected to be permanent. As the SANG is created to be in existence in perpetuity, the positive benefits it provides will remain, providing convenient access from housing to the south of the rail line.		Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) would limit impacts. This will be addressed at the planning application stage, applying the development management policies of the Minerals Strategy 2014. No further modifications proposed in addition to those referred to.

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	properties to the south screened by railway embankment. Development is likely to require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will mitigate impacts to some extent. <u>Impact on Existing Settlements</u> Burton Village to west; properties (include Urban Extension) to the south screened by railway embankment. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. <u>Impact on Recreational Land</u>									

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Site is agricultural land and has no formal or informal recreation use. Part of the site expected to be used as Suitable Alternative Natural Greenspace to provide public access to countryside, primarily for the benefit of the housing proposed to the south. The principle of this is secures through a DG.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site is very good agricultural land and working the site will have impacts on this soil. Soils can be protected and used to restore at least part of the site to its agricultural use. Soil to be properly stripped and stored prior to working; protected during working; and re-spread on site after working.	None expected.	None expected.	None expected.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	Any residual non-significant effects following mitigation will be greatest during preparation and working, however phased restoration will be reducing the impacts.	Yes – residual/non-significant negative impacts for duration of preparation and working. As restoration proceeds, impacts will reduce. No overall loss of soils expected.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground,**	Potential for quarrying at this site to have	Potential for limited cumulative impacts	None expected.	No significant impacts expected. No significant	No significant impacts expected. No significant	Any residual non-significant negative effects following	Timescale for potential for residual/non-significant impacts		No further modifications are

Receptor[3]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	surface and sea waters and manage the consumption of water in a sustainable way. <u>Groundwater</u> The Mude is designated a main river and is adjacent to site (forming the eastern boundary) and presumably receives groundwater discharge derived from the site. Site overlies secondary aquifers. Not within any Source Protection Zone designation. Licensed extraction within 500m. <u>Surface Water</u> Drains flow over site into the River Mude. Without mitigation development related impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	impacts downstream. Without mitigation development related impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. This is already addressed through DG3 in the Plan.	with Hampshire side of the site. Apart from a brief crossover period, when both sides of the site may be being prepared and/or worked, the two sides will not be worked simultaneously (MM42). One side may be under restoration while the other is being worked. Full assessment will be required to determine potential impacts and ensure appropriate mitigation applied. This is already addressed in the Plan.		impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. .	impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. .	mitigation will be greatest during preparation and working. As restoration is undertaken this will begin reducing the impacts.	would be expected to be temporary, during preparation and working.		proposed to the DGs Assessment required to determine possible impacts on hydrogeology. Impacts to be appropriately mitigated.

Receptor[3]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	5. To reduce flood risk and improve flood management. FRZ 2 and 3 on part of site, majority within FRZ 1. As a sand and gravel site, extraction is allowed within functional floodplain. Flood Risk Assessment to be carried out and any necessary mitigation implemented if required.									
Air	**8.To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures applied at the planning application stage.	*Potential for secondary effects of dust or air pollution beyond site boundary, from workings and/or quarry related traffic* *Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.*	*Limited potential for temporary cumulative impacts of dust or air pollution, in combination with the Hampshire part of the site.* *As no simultaneous working is proposed, there would be no cumulative impacts of quarry related traffic (MM42)* *Impacts not expected to be significant.*	None expected.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	Any residual non-significant effects following mitigation will be greatest during preparation and working.	Yes, however as restoration proceeds this will reduce impacts from workings. Impacts from quarry related traffic will occur until completion of workings.	Timescale for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. These issues will be addressed at the planning application stage as required by Policy DM2 of the Minerals Strategy 2014.

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Limited potential for cumulative impacts of GHG production, in combination with other sites including the Hampshire side of the site, particularly as there will be no simultaneous working (MM42).*	None expected.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production. **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that an on-site inert recycling facility may be needed to ensure proper restoration. If this was the case, it would promote production/use of alternative materials.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	If a recycling plant is constructed/is operational, benefits will be primarily realised in the later/restoration stage of development. Benefits of mineral supply decrease as site is worked and restored.	Not expected to be permanent - benefits will only be realised while a minerals extraction occurs and recycling facility is in operation.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic**	No significant impacts expected.	No significant impacts expected.	No significant impacts expected.	No significant impacts expected. No significant impacts expected. If residual/non-	No significant impacts expected. No significant impacts expected. If residual/non-	Any residual non-significant negative effects following mitigation will be greatest during	Impacts potentially on below-ground archaeology - potential for loss of archaeology. Impacts are expected to be limited to the preparation and working period. Heritage assessment will ensure that all necessary mitigation is		No further DGs proposed - necessary safeguards have already been included.

Receptor[3]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings). <u>Archaeology</u> Staple Cross, a Scheduled Monument, lies to the south of the proposed site. The railway line running on an embankment shields the site from this Monument therefore its setting is not affected by the proposal. There is likely to be high archaeological potential at this site. Archaeological assessment and evaluation would be required before an informed planning decision could be made (DG2). <u>Historic Landscapes</u> The site lies within the broad flat agricultural landscape between the river Avon on the west and the somewhat higher ground of the New Forest to the east. There are distant				significant negative impacts following mitigation were to occur they would be expected during preparation and working.	significant negative impacts following mitigation were to occur they would be expected during preparation and working. .	preparation and working.	implemented, to avoid impacts at all stages including restoration.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	views to St. Catherine's Hill, while views towards the historic centre of Christchurch are impeded by the railway line. Further evaluation will be required. When this has been undertaken possible impacts, if any, will be better understood.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Historic Buildings No significant impact on any of the nearby listed buildings expected because of existing screening.	None expected.	None expected.	None expected.	No significant impacts expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working.	No significant impacts expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working.	No significant impacts expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working.	No significant impacts expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working. The Heritage Assessment will confirm whether any mitigation is required, and it will be implemented.		No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[3]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> The site is not directly overlooked by any properties but there are more distant views from the edge of Burton Village (including the Conservation Area) and from adjacent lanes. Retention and management of existing hedgerows, appropriate new planting and bund screening is recommended to reduce any residual impacts. Potential visual impacts from the railway line. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. <u>Designated Landscapes</u> Potential visual impacts also exist on the New Forest National Park. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts.	Potential for impacts beyond the boundary of the site, including on the New Forest National Park. Assessment will identify likely impacts and ensure these are properly mitigated.	*Potential for cumulative impacts, as even though both sides of the site won't be worked simultaneously (apart from brief periods of time) , one will be in restoration while the other is being worked, so there will be cumulative visual impacts.* These will be assessed and appropriate mitigation identified and implemented.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, however as restoration proceeds impacts will reduce.	Impacts will primarily be for duration of preparation and working. There will be some effects after restoration - the site will be restored, but restoration cannot be exactly as the site was. However, impacts will be mitigated and the site will be restored in accordance with agreed guidelines.		Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included. MM42 expands the details of the proposed development explaining that there is to be no simultaneous extraction from the Dorset/Hampshire sides, apart from a minimum period while the Dorset site is being prepared for working and vice versa. This should reduce the impacts of working.

Receptor[3]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Waterditch Farm to north and Burton Village to west, both with 300m; properties to the south screened by railway embankment. Impact on Existing Settlements Burton Village to west; properties (include Urban Extension) to the south screened by railway embankment. Impact on Recreational Land Site is agricultural land and has no formal or informal recreation use. Part of the site expected to be used as Suitable Alternative Natural Greenspace to provide public access to countryside, primarily for the benefit of the housing proposed to the south (MM47). There could be impacts on amenity but it is unclear what level of significance should be ascribed to these impacts. Further assessment at the planning	Potential for some impacts beyond site boundaries - to be assessed and all necessary mitigation implemented.	*Potential for limited cumulative impacts with Hampshire side of site - to be assessed and all necessary mitigation implemented. Impacts will be reduced through the requirement for no simultaneous working (MM42).*	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, however restoration will be reducing the impacts.	Yes - – potential for some negative impacts for duration of preparation and working. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) would limit impacts.	The landscape will be changed, which will result in a permanent impact; the restored site will be landscaped and available for public access, taking some recreational pressure from other more sensitive areas. It is expected that the restored site will have permanent positive changes, in appearance and use.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[3]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.									

AS13 Roeshot **Possible in-combination effects.**	There is potential for in-combination effects in relation to biodiversity; water environment, air/dust; Greenhouse Gases; and landscape. There are potential inter-relationships between biodiversity, air (dust), amenity and landscape at the time when working is moving from Hampshire to Dorset and back again. The timescale for these impacts will be kept to the minimum necessary In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. Restoration will be to use as Suitable Alternative Natural Greenspace (SANG) for the housing proposed south of the site.

AS15 Tatchell's

Receptor[4]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS15 Tatchell's	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** <u>Protected species</u> It is possible that there are common protected reptile populations around the existing field margins. If any of these populations would be affected, mitigation would likely be straightforward. No significant impacts expected.	Quarrying at this site is not expected to have impacts on surrounding biodiversity. Restoration to heathland could have wider benefits.	None expected.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. .	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. As restoration proceeds, impacts would be expected to reduce.	Any residual non-significant effects following mitigation will be greatest during preparation and working. . Negative impacts not expected to be permanent. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		These points are already addressed through DG's in the Plan. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
	Human health - **<u>including noise</u>**	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures.	Potential for impacts beyond edge of site. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Screening (visual and noise attenuation bunding) would be used to limit	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Screening (visual and noise attenuation bunding) would be used to limit	As phased restoration proceeds, impacts will reduce.	non-significant negative impacts would be expected during site preparation and working, with a reduction in impacts as restoration proceeds. They would not be permanent.		It is expected that appropriate mitigation (such as visual and noise attenuation bunding, standoffs) would be used to limit impacts. This will be addressed at the planning application stage, applying the development management policies of the

[4] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	17. To sustain the health and quality of life of the population Impact on Sensitive Human Receptors Residences within 300m. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. Impact on Existing Settlements Wareham is the closest settlement, to the east of the site and approximately 450m at its closest. Impact on Recreational Land Site is currently agricultural land and does not contain any recreational use, either formal or informal. No significant impacts expected.				the impact of the site working.	the impact of the site working.				Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Soil	**9. To maintain, conserve and enhance soil quality.** Site is very good agricultural land and working the site will have impacts on this soil. Soils can be protected and re-used as required. Soil to be properly stripped and stored prior to working; protected during working; and re-spread on site after working. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - for duration of preparation and working. As restoration proceeds, impacts will reduce. No overall loss of soils expected.		No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Site overlies secondary aquifer. Not within any	None expected - Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. .	None expected - Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. .	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	As restoration is undertaken any impacts would reduce.	Timescale for potential for residual non-significant impacts would be expected to be temporary, during preparation and working.		No further modifications are proposed to the DGs Assessment will be undertaken to determine possible impacts on hydrogeology. Impacts to be appropriately mitigated.

Receptor[4]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Source Protection Zone designation. Licensed extraction within 500m. <u>Surface Water</u> Pond within 50m of site in existing quarry to west of site. River Piddle within 250m of the site boundary. It is not clear whether the impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. **5. To reduce flood risk and improve flood management.** Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding. Flood Risk Assessment to be carried out and any necessary mitigation implemented if required.	This is already addressed through DG3 of the Plan.	This is already addressed through DG3 of the Plan.							

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Developing the site as a quarry is expected to have some negative impacts regarding air quality and noise due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures applied at the planning application stage.	*Potential for secondary effects of dust or air pollution beyond site boundary.* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected. Potential for cumulative effects on air quality from quarry traffic on the C7 from several sites in the vicinity working together, This issues is covered by a modification to the Plan (MM50)	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however as restoration proceeds this will reduce impacts from workings. Impacts from quarry related traffic will occur until completion of workings.	Timescale for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. These issues will be addressed at the planning application stage as required by Policy DM2 of the Minerals Strategy 2014.

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Limited potential for cumulative impacts of GHG production, in combination with other sites in the vicinity.*	None expected.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production. **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included. The loss of Phillols Farm as an allocated site will also reduce the cumulative impacts of minerals working in this part of Dorset (MM41)

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that development of this site would provide a benefit in terms of contributing to the provision of a supply of minerals to meet society's needs.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> Assuming the site was heathland until relatively recently, its archaeological potential is likely to be low. The Dorset Historic Environment Record records the presence of 19th century quarries on and around the site, so it would be appropriate for an assessment to check whether there are any remains of industrial archaeological significance of or associated with this quarrying on the site. If such remains were present, appropriate recording should	No significant impacts expected.	No significant impacts expected.	No significant impacts expected.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Negative impacts potentially on below-ground archaeology - potential for loss of archaeology. Impacts are expected to be limited to the preparation and working period. Heritage assessment will ensure that all necessary mitigation is implemented, to avoid impacts at all stages including restoration. When such assessment is undertaken archaeological impacts, if any, will be better understood.		No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	take place before development. Historic Landscapes The site is currently under agriculture, and historically it was presumably heathland. There is map evidence of quarrying here (undoubtedly on a much smaller scale) from the 19th century. It is not clear whether the impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant, as required by DG.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive**	No significant impacts expected.	No significant impacts expected.	No significant impacts expected.	No Likely Significant Effects expected, however if any negative impacts are identified through more detailed assessment these are likely to be temporary, and during	No Likely Significant Effects expected, however if any negative impacts are identified through more detailed assessment these are likely to be temporary, and during	No Likely Significant Effects expected, however if any negative impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working.	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary, and during preparation and working. Mitigation will be identified and The Heritage Assessment will confirm whether any mitigation is required, and it will be implemented.		No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to

Receptor[4]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	features and their settings). Historic Buildings The nearest listed building, Carey House, is hidden from the site by wooded areas so there is no significant effect on the listed building.				preparation and working. Heritage assessment will identify the likelihood of such impacts and appropriate mitigation.	preparation and working. Heritage assessment will identify the likelihood of such impacts and appropriate mitigation.	Heritage assessment will identify the likelihood of such impacts and appropriate mitigation.			ensure impacts are not significant.

Receptor[4]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> The site is considered unlikely to be visually intrusive being screened from the residential areas of Wareham and Northport by a ridge of high land. Appropriate mitigation will be required along the boundaries of the site. It is not clear whether the impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. <u>Designated Landscapes</u> No significant impact/negligible.	None expected.	*Potential for cumulative impacts with adjacent quarry.* It is not clear whether the impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Yes, however as restoration proceeds negative impacts will reduce.	Any impacts will be for duration of preparation and working. However, impacts will be mitigated and the site will be restored in accordance with agreed guidelines.		For all potential impacts, assessment to be undertaken, to identify possible impacts and ensure they are fully mitigated. This will be done at planning application stage, as required by the Minerals Strategy 2014 e.g. Policy DM2. No further DGs proposed - necessary safeguards have already been included.

Receptor[4]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS15 Tatchell's	Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Residences within 300m. Development would likely require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. It is not clear whether the impacts could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Impact on Existing Settlements Wareham is the closest settlement, to the east of the site and approximately 450m at its closest.	Potential for some impacts beyond site boundaries - to be assessed and all necessary mitigation implemented.	*Potential for cumulative impacts with adjacent quarry.* *All appropriate mitigation to be identified and implemented.*	None expected.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any residual non-significant impacts were to occur they would be expected during and after preparation and working.	Yes, however restoration will be reducing the impacts.	Yes - for duration of preparation and working. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) would limit impacts.	No permanent significant impacts expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

AS15 Tatchell's **Possible in-combination effects.**	There is potential for in-combination effects in relation to air/dust; Greenhouse Gases; landscape and amenity. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. Impacts from mineral traffic are likely until extraction ceases. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. The loss of Phillols Farm from the Plan, as an allocated site, will reduce the potential for cumulative impacts from mineral working in the area. Proposed modifications MM-50 and MM-51 address these cumulative impact issues. There is also potential for inter-relationships between amenity and landscape in the short/medium term, while the site is being worked.

AS19 Woodsford Quarry Extension

Receptor[5]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS19 - Woodsford Quarry Extension	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** Water voles and other protected species (including otter) may be present in watercourses contained within the proposed site. If they are present, mitigation should not be difficult. This is addressed in the Natural Environment DG for AS19. *Potential risk of loss of existing hedges/tree belts. This is addressed in the DG5 'Landscape/Visual'*	The permanent change of at least part of the site area from intensive agriculture to mineral extraction restored to extensive grassland and water bodies would be likely to result in a reduction in nitrate levels in receiving waters of the R. Frome, groundwater and Poole Harbour (SPA and Ramsar). If this can be secured there would be strategic nature conservation gain (MM57). In addition, reduction in intensive agricultural management of the fields between the proposed extraction area and the R. Frome would be an additional significant gain, preventing more direct runoff of fertiliser into the river and onward to Poole Harbour. Risk of impact on Frome SSSI (e.g. silt) during site	*Potential risk of loss of existing hedges/tree belts in combination with adjacent site AS26, due to shared boundary. This is addressed in the DG5 'Landscape/Visual' for AS19.* Positive cumulative effect in reduction of nitrates on biodiversity (with AS25 and AS26) *Potential cumulative adverse effect on River Frome if water quality is affected through other sites being worked simultaneously.*	*Potential synergistic beneficial effect of reduction of nitrates from AS19, AS25 and AS26. Not quantifiable at this stage.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture.*	*Benefits from loss of nitrate inputs through restoration of part of the site to wetland.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture during site preparation and working.*	*Benefits from loss of nitrate inputs through restoration of part of the site to wetland.* *If wetland restoration takes place on AS19 and AS26, direct and synergistic benefits could accrue*	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further modifications proposed for AS19. DG to be added to AS26 to prevent loss of boundary hedgerows/trees (MM66.1). Landscape/Visual DG also addresses this.

[5] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[5]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
			clearance/working unless carefully managed. It has been suggested that, following working, the restoration of land nearer to the Frome could significantly enhance the river by establishing a wetland that would remove nitrate, phosphate and silt as well giving additional flood alleviation capacity.								
	Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. **17. To sustain the health and quality of**	None expected. Potential for impacts beyond edge of site - all necessary mitigation to be in place before working begins.	The main cumulative impact would occur if this site proposal was to be worked simultaneously with the proposed **AS26 Hurst Farm**, immediately to the **east**. This could lead to disturbance to properties on the north side of the Frome. *There is potential for cumulative adverse impacts in combination with AS25 and AS26. This is addressed through proposed modifications in the 'Other' section of the DGs (MM56)*	*Potential for synergistic impacts if AS19 and AS26 were worked simultaneously and without appropriate phasing. This is addressed through proposed modifications to the DGs (MM56, MM54)*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. As phased restoration proceeds, impacts will reduce.	No permanent health impacts are expected following restoration.	No further DGs proposed - necessary safeguards have already been included.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	life of the population Impact on Sensitive Human Receptors Residences and businesses within 250-500m. The site is large enough that it should be possible to screen these residences satisfactorily. Development would likely require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. Impact on Existing Settlements Site is well screened by existing hedges/trees. The site is large enough that where necessary it should be possible to screen any negative impacts satisfactorily, using mitigation such as visual and noise attenuation bunds. Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will mitigate									

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	impacts to some extent. Cumulative impacts on surroundings of working along with the adjacent Hurst Farm proposed site to be taken into consideration and mitigated against.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises very good quality agricultural land. Working the site will have impacts on this soil. Restoration will return the land to original ground levels, and will restore the quality of the land. **Mitigation** Soil to be properly stripped and stored prior to working; protected during working; and re-spread on site after working. Restoration to include high quality agricultural land - **MSP Appendix A 'AS19 Woodsford Quarry Extension' under 'Other ' in DGs** notes: The site is BMV agricultural land and protection and	None expected.	*There is potential for cumulative adverse impacts through loss of BMV land in combination with AS25 and AS26. However, no loss of soils is expected.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. As phased restoration proceeds, impacts will reduce.	Depending on final restoration it is likely that some BMV land could be lost. There will be no overall loss of soil.	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[5]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		appropriate management of soils is required to enable the land to retain its longer term capability.									
	Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** Groundwater Site is within 250 m of licensed water supplies. Overlies secondary aquifer, but does not affect any Source Protection Zone. Assessment required to determine possible impacts on hydrogeology. Impacts to be appropriately mitigated (DG5). Surface Water River Frome runs north of the site boundary, and there are many other watercourses within and near the site. Restoration proposals should incorporate gain of wetland features which will contribute to the aspirations of the England Biodiversity Strategy. Ensure no	*Potential for secondary effects of siltation or fuel contamination beyond site boundary.* *Potential for benefits on Poole Harbour if restoration includes wetland to assist in removing nitrates from ground and surface water*	*Potential for cumulative impacts of siltation or fuel contamination, in combination with AS26 and AS25.* *Potential for cumulative benefits on Poole Harbour if restoration to wetland is implemented on AS26 as well.*	*Potential synergistic beneficial effect of reduction of nitrates from AS19 and AS26. Not quantifiable at this stage.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts. During this phase the beneficial effects of the wetland would begin to be felt.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Benefits of the wetland and effect of nitrate reduction expected to be long-term/permanent.	No further modifications are proposed to the DGs; potential risks are addressed through the existing pollution control regime. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	impacts from this development and no increased sedimentation. Proposal will reduce nitrate contamination of surface water from agricultural fertiliser Small area of northern part of the site is within Flood Zones 2 and 3, most of site within FRZ 1. Processing plant and ancillary infrastructure will be sited outside of Flood Zones 2 & 3 and will not constitute a flood risk. There will be no storage of materials within the flood plain. **Mitigation** Hydrological assessment required to determine possible impacts, on ground and surface waters, with appropriate mitigation to be implemented. Where necessary mitigating measures should be installed to maintain groundwater levels. Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the rivers/watercourses is of an acceptable quality.									

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources. Land Drainage Consent to be obtained from Dorset County Council if works may affect flow of an ordinary watercourse. **Preliminary Hydrological Risk Assessment** Refers to risks of contamination of controlled waters or water supplies, due to spillage/seepage of fuel or silt in water. Mitigation includes ensuring silt is removed from runoff; storing fuel in appropriate manner; and on-going monitoring. Site assessment (MSDCC 16) refers to site being within 250m of licensed water supplies; ongoing objection of Environment Agency; potential impacts on River Frome SSSI; and small part of the									

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	site is covered by Flood Zones 2 and 3.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures.	*Potential for secondary effects of dust or air pollution beyond site boundary.*	*Potential for cumulative impacts of dust or air pollution, in combination with AS26 and AS25.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however as restoration proceeds this will reduce impacts from workings. Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with AS26 and AS25, and/or other site proposals/ and other existing or proposed development.*	*Potential for synergistic impacts of AS19 being worked simultaneously with other sites, and other development, both locally and more widely.*	If negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	If negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts from quarry related traffic will occur until completion of workings. It is not known how long the effects of the GHGs are felt after they are produced.	it is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna. **MSDCC 16 - Criterion C22**: Site will rely on road transport, although conveyors will be used to move material to the processing plant within the site (MM53).									development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals. Impacts on BMV land and Existing Settlements are referred to elsewhere in this assessment.									
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Potential for direct impacts on archaeological remains and *surviving earthworks of*	*Potential for secondary effects on archaeological remains beyond the site boundary in the event that workings result in significant off-site changes to hydrology.* *These are addressed through the DG for Historic/Cultural Environment.*	*Given the potential for archaeological remains in this part of the Frome Valley, there is potential for cumulative impacts from the existing and proposed mineral workings and other non-mineral developments in the event that archaeological remains are damaged or destroyed without being adequately*	*Potential loss of comprehensive understanding of the archaeology of the Frome Valley if cumulative archaeological loss occurs and assets are not adequately preserved or recorded.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Potential adverse impact on the	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Potential adverse impact on the setting of Frome Bridge, depending on the stage of phasing. Yes, however phased restoration will be reducing the impacts.	Setting of Frome Bridge - see short to long term impacts.	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	watermeadow systems. Potential for impact on the setting of Frome Bridge. These are addressed through the DG 2 'Historic/Cultural Environment' (MM57.1).		*recorded or preserved.* *AS19, AS25 and AS26 each have a requirement within the DGs for archaeological assessment and evaluation. The MPA can secure mitigation through planning application process if this is required, or refuse consent where adverse impacts cannot be appropriately mitigated*		setting of Frome Bridge, depending on the stage of phasing.	Potential adverse impact on the setting of Frome Bridge, depending on the stage of phasing.				
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** No Likely Significant Effects identified through assessment to date. However as a precaution the DGs require assessment of any affected heritage assets and their settings (MM57.1).	None expected.	*Potential for impacts from simultaneous existing and potential mineral workings, along with other non-mineral developments, will require Environmental Impact Assessment at the stage of planning application.*	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. varying according to the stage of phasing.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts not expected to be significant. Potential adverse impact, varying according to the stage of phasing - phased restoration will be reducing the impacts.	If any impacts are identified through more detailed assessment these are likely to be temporary	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs (MM57)	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** The landscape is open and agricultural in character and development has the potential to impact on the openness of this landscape. Existing and new hedgerows and blocks of woodland provide an element of natural screening which would assist in the mitigation of any quarry development. Potential risk of loss of existing hedges/tree belts. This is addressed in the Landscape/Visual DG.	Landscape impacts beyond the site boundary are possible, however these are addressed through DG5 'Landscape/Visual'	There could be cumulative visual/landscape impacts, depending on how much of previous working of other parts of the existing site have been effectively restored when the North East Extension is worked. This should be addressed at the planning application stage. Full visual impact assessment will be required, to identify impacts and mitigation (DG5). *There is potential for cumulative adverse visual impacts in combination with AS25 and AS26. This is addressed through proposed modification to the DG (MM54).* Potential risk of loss of existing hedges/tree belts in combination with adjacent site AS26, due to shared boundary. This is addressed in the Landscape/Visual DG for AS19. **MSP 'Landscape/Visual' DG 5 notes**: A Landscape and Visual Impact Assessment will be required, with appropriate	*Potential for synergistic impacts if AS19 and AS26 were worked simultaneously and without appropriate phasing. This is addressed through proposed modifications to the DGs (MM54)*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. The site will be restored, but restoration cannot be exactly as the site was.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs (MM57)	No further modifications proposed for AS19. DG5 for AS19 on Landscape/Visual addresses the loss of boundary hedgerows/trees. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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			mitigation identified and implemented in order to minimise impacts on surroundings, including possible cumulative impacts with restoration of the current site.							
Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors: There are two properties within the proposed allocation boundary and further residences and businesses within 250-500m. The site is large enough that it should be possible to screen these residences satisfactorily. Development would likely require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts (DG5). DG 'Other' also states that '… it may be necessary to limit extraction to the winter months only on some parts of these sites.' If necessary, this would provide mitigation (MM56)	Higher Woodsford is some 900m away. East Woodsford is within 500m to the east, Tincleton some 700m to the north and Pallington 700m north east. Crossways is approximately 1.3 km to the south. *Secondary effects on amenity beyond the site boundary are possible. However, these are addressed through the DG for 'Other Issues' in the MSP (MM56).* An EIA will also be carried out as part of a planning application and appropriate mitigation will be required. For example visual and noise attenuation bunds and reducing noise at source where possible and appropriate.	**Mitigation**: Cumulative impacts on surroundings of working along with the adjacent Hurst Farm proposed site to be taken into consideration and mitigated against. The main cumulative impact would occur if this site proposal was to be worked simultaneously with the proposed AS19 AS26 Hurst Farm Woodsford Extension, immediately to the west east. This could lead to disturbance to properties on the north side of the Frome. The working of these sites will be phased to ensure that they do not work in adjacent areas simultaneously. The northern boundary of the site has been pulled back to provide a greater buffer.	*Potential for synergistic impacts through noise, affecting tranquillity across a wider area, if AS19 and AS26 were worked simultaneously and without appropriate phasing. This is addressed through proposed modifications to the DGs*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working.	No permanent negative impacts expected as the open nature of the landscape will be reinstated following working. There may be long term, permanent positive effects if restoration gives rise to recreational opportunities.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[5]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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			There is also potential for cumulative impacts on amenity if this site was to be worked at the same time as AS25, and material from AS25 was processed in a plant located on AS26. There is also potential for impact if this site was worked when other development was ongoing in the vicinity. This is addressed in the 'Other' section of the DGs for this site. *Potential for cumulative effects on amenity beyond the site boundary, in combination with AS26 and AS25.* *These are addressed through the DG for 'Other' in the MSP*							

AS19 Woodsford Quarry Extension **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; soil; water; air/dust; climate/GHGs; cultural heritage (archaeology/Listed Buildings); landscape and amenity. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. Proposed modification to the DGs requires cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. There is potential for in-combination effects in relation to landscape, amenity and heritage. This could occur in the short to medium term in respect of landscape which contributes to the setting of heritage assets and where the amenity of residents and visitors could be affected by visual/noise impacts in this open landscape. In the long term restoration ensures that the open landscape will be maintained. There is potential for increased public access, which would provide long-term amenity benefits.

AS25 Station Road

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS25 Station Road Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** *Potential risk of loss of existing hedges/tree belts noted in MSP Landscape/Visual DG5* This is addressed through the Historic/Cultural Heritage DG2 and through a requirement to assess impacts and identify/implement mitigation.	The permanent change of at least part of the site area from intensive agriculture to mineral extraction, with restoration to agriculture and other uses possibly including wetland could potentially reduce nitrate levels in receiving waters of the R. Frome, groundwater and ultimately Poole Harbour (SPA and Ramsar). If this can be secured there would be strategic nature conservation gain. Risk of impact on Frome SSSI (e.g. silt) during site clearance/working unless carefully managed (DG1).	Positive cumulative effect in reduction of nitrates on biodiversity (with AS19 and AS26) *Potential cumulative adverse effect on River Frome if water quality is affected through other sites being worked simultaneously.*	*Potential synergistic beneficial effect of reduction of nitrates from AS19, AS25 and AS26. Not quantifiable at this stage.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture during preparation and working.* *However as the site is restored land is likely to go back to agriculture (at least in part) which will reduce benefits.*	*Benefits from loss of nitrate inputs through restoration of part of the site to non-agricultural use.* *Further assessment will be required regarding agricultural/non-agricultural restoration.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture during site preparation and working.*	*Benefits from loss of nitrate inputs through restoration of part of the site to non-agricultural use.*	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further modifications proposed for AS25. DGs proposed for Historic/Cultural Environment (DG2) will protect and prevent loss of boundary hedgerows/trees (MM61.1).
Human health - **including noise**	**8. To protect and improve air quality**		*The main cumulative impact would occur if this*	*Potential for synergistic impacts if AS25*	No significant impacts expected. If	No significant impacts expected. If	Yes, however phased restoration will be	Yes - for duration of preparation and	No permanent negative health impacts are	No further DGs proposed - necessary safeguards have

[6] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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	and reduce the impacts of noise. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. **Mitigation.** Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Residential properties adjacent to site and in vicinity of site. Site is large enough to include appropriate mitigation to adequately screen surrounding properties from visual/noise impacts. Development is likely to require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. **Mitigation:** Provision of appropriate	Potential for impacts beyond edge of site - all necessary mitigation to be in place before working begins.	*site proposal was to be worked simultaneously with the proposed AS26 Hurst Farm, to the north west. This is addressed through proposed modifications in the ' Cumulative Impacts' section of the DGs (MM60).* *There is potential for cumulative adverse impacts in combination with AS26 Hurst Farm. This is addressed through proposed modifications in the 'Other' section of the DGs.*	*and AS26 were worked simultaneously. This is addressed through proposed modifications to the DGs (MM60)*	residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	reducing the impacts.	working. As phased restoration proceeds, impacts will reduce.	expected following restoration. Potential for positive impacts on heath if restoration provides green infrastructure links.	already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	mitigation, following assessment of likely impacts.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. Soils will be stripped and removed to be stored. It is expected that restoration will return at least part of the land to original ground levels, and will restore the quality of the land. **Mitigation.** Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration. Restoration to include high quality agricultural land.	None expected.	*There is potential for cumulative adverse impacts through loss of good quality agricultural land in combination with losses at AS19 and AS26 and existing quarries in the vicinity. However, no loss of soils is expected.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. As phased restoration proceeds, impacts will reduce.	Depending on final restoration there is potential that some BMV land could be lost. There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Water	4. **To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** Site working and restoration has the potential to reduce flow of nitrates into the groundwater, the Frome and ultimately Poole Harbour Applicants or developers should be aware of their responsibilities to ensure that the operations do not interfere with riparian owners' common law rights to receive water undiminished in quantity or quality. *MSP under 'Hydrology/Flood Risk' DG3 notes that a water course flows eastwards through Moreton Village from the vicinity of the site. Development of this site must ensure that the flow of water is not affected in any way.*	*Potential for secondary effects of siltation or fuel contamination beyond site boundary.* *Potential for impacts of quality and quantity of water flowing through Moreton.* *Potential for benefits on Poole Harbour if restoration reduces level and intensity of farming and fertiliser inputs.*	*Potential for cumulative impacts of siltation or fuel contamination, in combination with AS26 and AS19.* *Potential for cumulative benefits on Poole Harbour if restoration involving reduction in level/intensity of farming is implemented on AS19 and AS26 as well.*	*Potential synergistic beneficial effect of reduction of nitrates from AS19, AS25 and AS26. Not quantifiable at this stage.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. There may be positive impacts in the short term as extraction reduces the level and intensity of faming and fertiliser inputs.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. There may be positive impacts as extraction reduces the level and intensity of faming and fertiliser inputs. If land is restored to agriculture these benefits may reduce.	If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Restoration to some combination of agriculture and non-agricultural use would reduce any non-significant impacts associated with quarrying, but would also increase impacts associated with nitrates in ground and surface water.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Benefits of effects of nitrate reduction expected to be long-term/permanent.	No further modifications are proposed to the DGs; potential risks are addressed through the existing pollution control regime. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Any dust resulting from working will be controlled through normal dust-suppression measures. **Mitigation.** Environmental protection measures to reduce dust and ensure noise is appropriately mitigated.	*Potential for secondary effects of dust or air pollution beyond site boundary.*	*Potential for cumulative impacts of dust or air pollution, in combination with AS26 and AS19.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however as restoration proceeds this will reduce impacts from workings. Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with AS26 and AS19, and/or other site proposals/ and other existing or proposed development.*	*Potential for synergistic impacts of AS25 being worked simultaneously with other sites, and other development, both locally and more widely.*	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, including provision of habitat for wildlife, but again these will be relatively small. **Mitigation.** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.									benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals. Impacts on agricultural land and Existing Settlements are referred to elsewhere in this assessment.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - Archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Potential for direct impacts on archaeological remains Potential for impact on the historic landscape. Potential for impact on Moreton Conservation Area *and its setting.*	*Potential for secondary effects on archaeological remains beyond the site boundary in the event that workings result in significant off-site changes to hydrology.* *Potential for impacts on the Moreton Conservation Area beyond site boundary.* *These are addressed through DG2 'Historic/Cultural Environment' (MM61.1)*	*Given the potential for archaeological remains in this part of the Frome Valley, there is potential for cumulative impacts from the existing and proposed mineral workings and other non-mineral developments in the event that archaeological remains are damaged or destroyed without being adequately recorded or preserved, including cumulative impacts upon hydrology. AS19, AS25 and AS26 each have a requirement within the DGs for archaeological assessment and evaluation. The MPA can secure mitigation through planning application process if this is required, or refuse consent where adverse impacts cannot be appropriately mitigated.*	*Potential loss of comprehensive understanding of the archaeology of the Frome Valley if cumulative archaeological loss / impact on hydrology occurs and assets are not adequately preserved or recorded.*	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. Phased restoration will be reducing the impacts.	Setting of Moreton Conservation Area and Listed Buildings - see short to long term impacts.	Potential for loss of archaeology. Potential for changes to the historic landscape	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Station Road is lined on both sides with an informal avenue of trees and shrubs. The two closest listed buildings are sited to face along the road rather than across it at the site. The avenue of trees will limit impacts on these buildings and their settings. The presence of these heritage assets constitutes a constraint that has been given considerable weight and importance. **Mitigation** Full heritage assessment required to be carried out, with appropriate mitigation identified and implemented as required. If the impacts cannot be mitigated	*Potential for impacts on the Moreton Conservation Area and Listed Buildings beyond site boundary.*	*Potential for impacts from simultaneous existing and potential mineral workings, along with other non-mineral developments, will require Environmental Impact Assessment at the stage of planning application.*	Not expected.	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Potential adverse impact on the Moreton Conservation Area and its setting, and Listed Buildings, depending on the stage of phasing. Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. Yes, however phased restoration will be reducing the impacts.	Setting of Moreton Conservation Area and Listed Buildings - see short to long term impacts.	Potential for loss of archaeology. Potential for changes to the historic landscape	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	satisfactorily the site will not be developed The DGs require assessment of any affected heritage assets and their settings.									
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Development will create a medium adverse impact on the openness of the river valley pasture landscape and a significant adverse impact on the pattern of field boundary hedgerows/trees and copses. Existing hedgerows and lines of trees provide an element of natural screening which would assist in the mitigation of any quarry development. Potential risk of loss existing field boundaries. This is addressed in the Historic/Cultural Environment DG2 (MM61.1).	None expected.	*There is limited potential for cumulative adverse visual impacts in combination with AS26.* *A Landscape and Visual Impact assessment will be required, to identify impacts and mitigation, as set out in DG5, Landscape/Visual .*	Not expected	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working - phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. The site will be restored, but restoration cannot be exactly as the site was.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further modifications proposed for AS25. DGs proposed for Historic/Cultural Environment will protect and prevent loss of boundary hedgerows/trees. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
Amenity **NB** this section relates primarily	**17. To sustain the health and quality**	Moreton Village is adjacent to the eastern end of	*There is potential for cumulative impacts on amenity if this site*	Not expected	Impacts not expected to be significant. If any negative impacts	Impacts not expected to be significant. If any negative impacts	Yes, however phased restoration will be	Yes - for duration of	No permanent changes expected	Impacts will be addressed at the planning application stage as required by

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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to visual amenity; noise is considered separately above under Human Health above.	**of life of the population** Impact on Sensitive Human Receptors: Residential properties adjacent to site and in vicinity of site. Development would likely require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. **Mitigation**: Provision of appropriate mitigation, following assessment of likely impacts.	the site. The size of the site and the level of the existing tree screening should make it possible to effectively screen the workings from the village. Quarry traffic will not enter the village or travel on Station Road/C33 itself, as required by DG4 Transport/Access. Vehicular access will be directly onto the B3390 **only**. The conveyor system would take mineral directly to the processing plant at AS26, going under both the B3390 and the C33. Villages along the B3390 may be affected by site traffic depending on where the site is accessed. *Potential for secondary effects on amenity beyond the site boundary.*	*was to be worked at the same time as AS26, and material from AS25 was processed in a plant located on AS26. If this occurred there could be a further cumulative impact in combination with AS19.* *There is also potential for impact if this site was worked when other development was ongoing in the vicinity. This is addressed in the 'Cumulative impacts' section of the DGs for this site (MM60). Potential for cumulative effects on amenity beyond the site boundary, in combination with AS26.*		were to occur they would be expected during and after preparation and working.	were to occur they would be expected during and after preparation and working.	reducing the impacts.	preparation and working.	Potential for positive impacts in the long term, permanent if the landscape is improved through the introduction of green infrastructure links whilst maintaining the open character.	planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[6]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		These are addressed through the DG for 'Other' in the MSP. An EIA will also be carried out as part of a planning application and appropriate mitigation will be required. For example visual and noise attenuation bunds and reducing noise at source where possible and appropriate. Crossways is approximately 1 km away.								

AS25 Station Road **Possible in-combination effects.**	There is potential for in-combination effects in relation to biodiversity; human health; soil; water; air/dust; climate/GHGs; cultural heritage (archaeology/Listed Buildings); landscape and amenity. This could occur in the short to medium term in respect of landscape which contributes to the setting of heritage assets and where the amenity of residents and visitors could be affected by visual/noise impacts if there is a loss of existing tree belts. There is potential for in-combination effects in relation to landscape, amenity and heritage. This could occur in the short to medium term in respect of landscape which contributes to the setting of heritage assets and where the amenity of residents and visitors could be affected by visual/noise impacts if there is a loss of existing tree belts. In the long term restoration ensures that the openness of the river valley pasture will be maintained. Potential long term benefits through restoration, including possible creation of multi-functional green infrastructure which is identified in the restoration vision. Potential long term benefits through restoration, including possible creation of multi-functional green infrastructure which is identified in the restoration vision. Proposed modification to the DGs requires cumulative impacts to be taken into consideration . In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. There is potential for increased public access, which would provide long-term amenity benefits. Proposed modification to the DGs requires cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy.

AS26 Hurst Farm

Receptor[7]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS26 Hurst Farm	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** *Potential risk of loss of existing hedges/tree belts.* *This is addressed in the DG5 'Landscape/Visual ' and DG2 'Historic/Cultural Heritage'.*	The permanent change of at least part of the site area from intensive agriculture to mineral extraction restored to extensive grassland and water bodies would be likely to result in a reduction in nitrate levels in receiving waters of the R. Frome, groundwater and Poole Harbour (SPA and Ramsar). If this can be secured there would be strategic nature conservation gain. In addition, reduction in intensive agricultural management of the fields between the proposed extraction area and the R. Frome would be an additional significant gain, preventing more direct runoff of	*Potential risk of loss of existing hedges/tree belts in combination with adjacent site AS19, due to shared boundary.* Positive cumulative effect in reduction of nitrates on biodiversity (with AS19 and AS25) (MM65) *Potential cumulative adverse effect on River Frome if water quality is affected through other sites being worked simultaneously (DG3).*	*Potential synergistic beneficial effect of reduction of nitrates from AS19, AS25 and AS26. Not quantifiable at this stage.*	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. *Benefits from loss of nitrate inputs through change of land-use from agriculture.*	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. *Benefits from loss of nitrate inputs through change of land-use from agriculture.*	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working; phased restoration will be reducing the impacts. *Benefits from loss of nitrate inputs through restoration of part of the site to wetland.*	*Benefits from loss of nitrate inputs through change of land-use from agriculture during site preparation and working.*	*Benefits from loss of nitrate inputs through restoration of part of the site to wetland.* *If wetland restoration takes place on AS19 and AS26, direct and synergistic benefits could accrue.*	No further modifications proposed for AS26. DGs proposed for Historic/Cultural Environment (DG 2) will protect and prevent loss of boundary hedgerows/trees. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Potential for negative/adverse impacts, however mitigation secured through the MSP should ensure no LSE

[7] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[7]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
			fertiliser into the river and onward to Poole Harbour. Risk of impact on Frome SSSI (e.g. silt) during site clearance/working unless carefully managed (DG1). It has been suggested that, following working, the restoration of land nearer to the Frome could significantly enhance the river by establishing a wetland that would remove nitrate, phosphate and silt as well giving additional flood alleviation capacity (MM65).								
Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation	Potential for impacts beyond edge of site - all necessary mitigation to be in place before working begins.	*There is potential for cumulative adverse impacts in combination with AS19 and AS25.* *This is addressed through proposed modifications in the 's Impacts' section of the DGs.*	*Potential for synergistic impacts if AS19 and AS26 were worked simultaneously and without appropriate phasing.* *This is addressed through proposed modifications in the 'Cumulative Impacts' section of the DGs.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working - phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. As phased restoration proceeds, impacts will reduce.	No permanent health impacts are expected following restoration. Recreational opportunities may be created.	No further DGs proposed - necessary safeguards have already been included. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure

Receptor[7]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	**Secondary**	**Cumulative**	**Synergistic**	**Short-term (<5 yrs)**	**Medium-Term (5-10 yrs)**	**Long-term (10+ yrs)**	**Temporary**	**Permanent**	
	to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. **<u>17. To sustain the health and quality of life of the population</u>** <u>Impact on Sensitive Human Receptors</u> Development is likely to require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will mitigate impacts to some extent.									impacts are not significant.
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil.	None expected.	*There is potential for cumulative adverse impacts through loss of good quality agricultural land in combination with losses at AS19 and AS25. However, no loss*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	Yes, however phased restoration will be reducing the impacts.	Yes - for duration of preparation and working. As phased restoration proceeds, impacts will reduce.	Depending on final restoration it is likely that some BMV land could be lost. There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Mitigation: Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration. Existing DG addresses the issue of protection of soils.		*of soils is expected.*			preparation and working.				impacts are not significant.
Water	4. **To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way** <u>Groundwater</u> Site boundary is within 100 m of a groundwater SPZ1 and there is a licensed abstraction within 250m (adjacent). The proposed development will need to be supported with a hydrogeological risk assessment at the planning application stage as Hurst Farm is on the border with a groundwater Source Protection Zone 1 (SPZ1) and a licensed abstraction (DG3). Development has the potential to reduce the level of nitrate entering the groundwater and affecting the Frome and Poole Harbour (MM65).	*Potential for secondary effects of siltation or fuel contamination beyond site boundary.* *Potential for benefits on Poole Harbour if restoration includes wetland to assist in removing nitrates from ground and surface water* *Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.*	*Potential for cumulative impacts of siltation or fuel contamination, in combination with AS19 and AS25.* *Potential for cumulative benefits on Poole Harbour if restoration to wetland is implemented on AS26 as well.* *Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.*	*Potential synergistic beneficial effect of reduction of nitrates from AS19 and AS25. Not quantifiable at this stage.* *Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes, however phased restoration will be reducing the impacts. During this phase the beneficial effects of the wetland would begin to be felt.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Benefits of the wetland and nitrate reduction expected to be long-term/permanent.	No further modifications are proposed to the DGs; potential risks are addressed through the existing pollution control regime. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

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	Surface Water There are watercourses shown running within the proposed site and River Frome runs north of the site boundary. It will need to be proved that the minerals proposals will not have an adverse effect on the natural hydrology and water quality. Restoration proposals should incorporate gain of wetland features which will contribute to the aspirations of the England Biodiversity Strategy. Ensure no impacts from this development and no increased sedimentation. **Mitigation** Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the rivers/watercourses is of an acceptable quality. Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent									

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	contamination of groundwater resources. Small area of northern part of the site is within Flood Zones 2 and 3, most of site within FRZ 1. Processing plant and ancillary infrastructure will be sited outside of Flood Zones 2 & 3 and will not constitute a flood risk. There will be no storage of materials within the flood plain.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated.	*Potential for secondary effects of dust or air pollution beyond site boundary.*	*Potential for cumulative impacts of dust or air pollution, in combination with AS25 and AS19.*	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, including provision of habitat for wildlife, but again these will be relatively small.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with AS19 and AS25, and/or other site proposals/ and other existing or proposed development.*	*Potential for synergistic impacts of AS26 being worked simultaneously with other sites, and other development, both locally and more widely.*	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included. No further DGs proposed - necessary safeguards have already been included.

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Proposed Mitigation: Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.									
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals. Impacts on BMV land and Existing	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
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	Settlements are referred to elsewhere in this assessment.									
Cultural heritage - archaeology/ historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Potential for direct impacts on archaeological remains and watermeadow systems. Potential for impact on the setting of Hurst Bridge. These are addressed through DG2 for Historic/Cultural Environment (MM66.1). Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Mitigation will be secured through the requirements of the MSP to ensure that	*Potential for secondary effects on archaeological remains beyond the site boundary in the event that workings result in significant off-site changes to hydrology.* *These are addressed through DG2 for Historic/Cultural Environment (MM66.1).*	*Given the potential for archaeological remains in this part of the Frome Valley, there is potential for cumulative impacts from the existing and proposed mineral workings and other non-mineral developments in the event that archaeological remains are damaged or destroyed without being adequately recorded or preserved. AS19, AS25 and AS26 each have a requirement within the DGs for archaeological assessment and evaluation. The MPA can secure mitigation through planning application process if this is required, or refuse consent where adverse impacts cannot be appropriately mitigated.*	*Potential loss of comprehensive understanding of the archaeology of the Frome Valley if cumulative archaeological loss occurs and assets are not adequately preserved or recorded.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Potential adverse impact on the setting of Hurst Bridge, depending on the stage of phasing.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Potential adverse impact on the setting of Hurst Bridge, depending on the stage of phasing.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Potential adverse impact on the setting of Hurst Bridge, depending on the stage of phasing. Phased restoration will be reducing the impacts.	Setting of Hurst Bridge - see short to long term impacts.	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included.

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	any impacts are reduced to a level such that they are not considered significant.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** No Likely Significant Effects identified through assessment to date. However as a precaution the DGs require assessment of any affected heritage assets and their settings. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	*Potential for impacts from simultaneous existing and potential mineral workings, along with other non-mineral developments, will require Environmental Impact Assessment at the stage of planning application.*	Not expected.	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Development will create a medium adverse impact on the openness of the river valley pasture landscape and a	None expected.	*There is potential for cumulative adverse visual impacts in combination with AS19 and AS25. This is addressed through proposed modifications to the DGs (MM62).* Potential risk of loss of existing hedges/tree belts	*Potential for synergistic impacts if AS19 and AS26 were worked simultaneously and without appropriate phasing.* *This is addressed through proposed modifications to the DGs*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, however phased restoration will be	Yes - for duration of preparation and working. The site will be restored, but restoration cannot be exactly as the site was.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further modifications proposed for AS26. DGs proposed for Historic/Cultural Environment will protect, and prevent loss of, boundary hedgerows/trees. Mitigation will be secured through the requirements of the MSP to ensure that

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	significant adverse impact on the pattern of field boundary hedgerows. The landscape is open and agricultural in character and development has the potential to impact on the openness of this landscape. Existing hedgerows and blocks of woodland provide an element of natural screening which would assist in the mitigation of any quarry development. Potential risk of loss of existing hedges/tree belts. This is addressed in DG2 'Historic/Cultural Environment'. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		in combination with adjacent site AS19, due to shared boundary. This is addressed in the Historic/Cultural Environment DG for AS19. *A modification of the DGs for AS26 is proposed to reflect this potential risk.*			preparation and working.	reducing the impacts.			any impacts are reduced to a level such that they are not considered significant.
Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors: There are residential properties within site, adjacent to site and in vicinity of site, including properties and businesses on the other side of the river. **Mitigation**:	Closest settlements include Moreton, Tincleton and Crossways. Pallington lies to the north. *Potential for secondary effects on amenity beyond the site boundary. These are addressed through the DG*	Cumulative impacts on surroundings of working along with the adjacent to AS19 (Woodsford Extension) to be taken into consideration and mitigated against. *Potential for cumulative effects on amenity beyond the site*	*Potential for synergistic impacts through noise, affecting tranquillity across a wider area, if AS19 and AS26 were worked simultaneously and without appropriate phasing. This is addressed through proposed*	Yes – negative impacts for duration of preparation and working. Impacts may be greater in certain phases of development.	Yes – negative impacts for duration of preparation and working. Impacts may be greater in certain phases of development.	Yes – negative impacts for duration of preparation and working. Impacts may be greater in certain phases of development.	Yes - for duration of preparation and working.	No permanent changes expected. There will be a permanent change to the landscape from agriculture to large scale wetland. This should not negatively impact in amenity terms as the open	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Mitigation will be secured through the

Receptor[7]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access.	*for 'Other Issues' in the MSP (MM66).* Villages along B3390 may be affected by site traffic depending upon where the site is accessed. An EIA will also be carried out as part of a planning application and appropriate mitigation for these issues will be will be required. For example visual and noise attenuation bunds and reducing noise at source where possible and appropriate.	*boundary, in combination with AS25 (Station Road).* *These are addressed through the DG for 'Cumulative Impacts' in the MSP (MM62).*	*modifications to the DGs (MM62)*					character will remain. Positive impacts may arise through the introduction of recreational opportunities (MM65).	requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

AS26 Hurst Farm **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; soil; water; air/dust; climate/GHGs; cultural heritage (archaeology/Listed Buildings); landscape and amenity. These are expected to occur primarily in the short to medium term. Phased working of the site and mitigation proposed through the MSP will minimise impacts. There is potential for in-combination effects in relation to landscape, amenity and heritage. This could occur in the short to medium term in respect of landscape which contributes to the setting of heritage assets and where the amenity of residents and visitors could be affected by visual/noise impacts in this open landscape. Potential long term benefits through restoration, including possible creation of recreational opportunities which is identified in the restoration vision. In the long term restoration ensures that the open landscape will be maintained. There are no permanent changes expected that will adversely affect amenity. The DGs require cumulative impacts to be taken into consideration . In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. There are no permanent changes expected that will significantly adversely affect amenity. Proposed modification to the DGs requires cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy.

AS27 Land at Horton Heath

Receptor [8]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
AS27 Land at Horton Heath	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** Area AS27 lies to the west of Horton Common SSSI, a component part of the Dorset Heaths SAC and Dorset Heathlands SPA/RAMSAR - quarrying could lead to hydrological impacts on these designations. There is a layer of Broadstone Clay beneath the sand and gravel and disturbance of this risks affecting the hydrology of Horton Common SSSI. Loss of hedgerows could have impact on protected species e.g. dormice Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Possible effects on hydrology causing impacts on Horton Common SSSI, Dorset Heaths SAC and Dorset Heathlands SPA/RAMSAR DG1 'Natural Environment' includes specific mitigation identified through the HRA to reduce impacts to non-significant levels.	Possible cumulative impacts with recently permitted quarry to the east; and other operations, e.g. sewage sludge spreading, in the area. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Restoration to acid grassland will provide benefits. This is set out in the Restoration/Vision DG.		Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. No further DGs proposed.
	Human health (incl. noise)	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures.	Possible impacts, without mitigation, on settlements along the C2 Horton Road, from lorries travelling to/from the A31 Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure	Possible cumulative impacts, without mitigation, with traffic in nearby settlements, specifically around Woolsbridge There should be no cumulative impacts with adjacent quarry as working should be complete before	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	During working and restoration.	Will end when site is worked and restored.		Transport Assessment to be undertaken to identify mitigation. No further DGs proposed - necessary safeguards have already been included.

[8] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Any impacts due to noise resulting from mineral working would be expected to be satisfactorily minimised through normal noise mitigation measures, imposed at the planning application stage. **17. To sustain the health and quality of life of the population** There are a number of residences within 500m, the closest being approximately 50m. Verwood is approximately 1 km to the north-east, and Three Legged Cross over 1km to the south-east. These settlements are unlikely to experience any visual or noise impacts from working in the vicinity of the site. Lorries travelling from the site to the A31 will pass through Three Legged Cross and Ashley Heath and could have an impact. Detailed assessment will be required at the planning application stage, with appropriate mitigation identified and implemented. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	impacts are not significant.	commencement of new quarry. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.						

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Soil	**9. To maintain, conserve and enhance soil quality.** Soil is poor quality in agricultural terms but valuable in terms of potential for acid grassland restoration. Soils to be stored/protected during preparation and working and properly reinstated during restoration. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, but restoration will be improving soil condition.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent significant impacts expected.	No further DGs proposed - necessary safeguards have already been included. If appropriate, conditions could be attached to a planning permissions to protect soil quality and ensure appropriate soil handling – probably don't need to say it though…
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** Hydrological assessment required to demonstrate no significant negative impact on hydrogeological connectivity and pathways and surface water flow regimes. Assessment to demonstrate that the proposed restoration will have no significant impact on water quality and cause no deterioration in WFD status. This is particularly relevant for sites adjacent to, and which drain to, watercourses and wetland features of interest. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent	Potential impacts on groundwater flows, with further impacts on offsite ecological designations. DG1 'Natural Environment' includes specific mitigation identified through the HRA to reduce impacts to non-significant levels. This includes the need for a hydrological investigation. No flooding impacts. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	Potential for cumulative impacts with adjacent quarry to be assessed. Adjacent/current quarry expected to be finished before proposed site begins.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, - assessment prior to working must establish no significant impacts capable of mitigation.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, assessment prior to working must establish no significant impacts capable of mitigation.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, assessment prior to working must establish no significant impacts capable of mitigation.	There will either be no impacts, or impacts will be mitigated to acceptable level.		No further DGs proposed - necessary safeguards have already been included.

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	contamination of groundwater resources. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. **5. To reduce flood risk and improve flood management.** Working is not considered to constitute, or exacerbate an existing, a flood risk. Land Drainage Consent to be obtained from Dorset County Council if works may affect flow of an ordinary watercourse.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Any impacts due to noise resulting from mineral working would be expected to be satisfactorily minimised through normal noise mitigation measures, imposed at the planning application stage. Development is likely to require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts.	Potential for secondary effects of dust or air pollution beyond site boundary.	None expected.	None expected.	If impacts were to occur they would be expected during preparation and working.	If impacts were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.**	Potential for secondary effects resulting from the production of	None expected.	None expected - emissions	Impacts not expected to be significant. If any negative	Impacts not expected to be significant. If	Impacts not expected to be significant. If	It is expected that effects would be temporary, and associated with the production of GHGs .		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Developing land as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small.	greenhouse gases (GHGs) beyond site boundary.		expected to be relatively low	impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	However it is not known how long the effects of the GHGs may last following their production.		minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further modifications are proposed to the DGs, all necessary safeguards already included.

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material Assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The site will make an important contribution to the supply of aggregate for local and wider markets. It does not promote the supply of alternative materials.	None expected.	None expected.	None expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** An archaeological assessment and probably an evaluation of the site that considers all the Monuments and their settings, as well as other possible archaeological material on the site, is needed (DG2). Quarrying impacts on topography and historic landform could have very	Potential for impacts on the setting of Scheduled Monuments and other heritage in the vicinity of the site. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	None expected.	None expected.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	If any non-significant impacts are experienced, these could have an ongoing effect. Detailed assessment required to ensure that the restoration proposed will not have permanent and unacceptable impact on the heritage. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		If the site is restored at a lower level this could also have an ongoing impact on the heritage, further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. DG2 'Historic/Cultural Environment' covers this. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	significant impacts on the settings of the SMs and their inter-relationship within the landscape. The SMs here – prehistoric barrows and land boundary dikes - are all specifically 'landscape monuments', which have an intimate and highly significant relationship with the local topography; their relationship with the landform and their inter-relationship with each other across the landscape are important factors in their heritage significance. Appropriate restoration could improve the settings of the monuments. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.									No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** No impacts on Listed Buildings are expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	No further DGs proposed - necessary safeguards have already been included.

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** The site is also part of a prominent ridge line with open views especially to the east. The site has some landscape value and any future extraction should be limited in extent and be based on a detailed and independent assessment of landscape character so any future operations conserve and enhance key features and views and mitigation and restoration reflects existing character (DG5). The adjacent bridleway is a key visual receptor. It is important that prior to any application a full LVIA is carried out to assess impacts from all key visual receptors (DG5). Landscape and visual impact assessment to identify impacts; adequate mitigation of such impacts before and during working. Protect and maintain the identified key features of the site. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Development of the site could have landscape/visual impacts on land to the north. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Could be cumulative impacts on surrounding areas, especially on Rights of Way and users of Rights of Way, when site development is considered along with adjacent quarry; photo voltaics; and other uses. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Impacts could be synergistic, depending on location viewed from. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working; ongoing restoration will be reducing the impacts.	Yes - for duration of preparation and working. The site will be restored - restoration will be at lower level, so some effects will be permanent, essential to assess these and ensure they are acceptable. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	There will be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.
Amenity NB this section relates primarily to visual amenity; noise is considered	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors There are a number of residences within 500m, the	Potential for impacts on closest residences. Mitigation will be secured through the requirements of the MSP to ensure that	Potential for impacts in combination with other existing uses in the vicinity Mitigation will be secured through the requirements of the	None expected.	No significant impacts expected. If residual/non-significant negative impacts	No significant impacts expected. If residual/non-significant negative impacts	No significant impacts expected. If residual/non-significant negative impacts	Yes - limited non-significant impacts during preparation and working.	Although site to be restored to lower level, no permanent	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014.

Receptor [8]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
separately above under Human Health above.	closest being approximately 50m. Mitigation (visual screening bunds, planting) will be required but it is likely that there will still be impacts, including from lorries on the access road. Impacts to be assessed and mitigated. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. <u>Impact on Existing Settlements</u> Verwood is approximately 1 km to the north-east, and Three Legged Cross over 1km to the south-east. These settlements are unlikely to experience any visual or noise impacts from working in the vicinity of the site.	any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		following mitigation were to occur they would be expected during preparation and working.	following mitigation were to occur they would be expected during preparation and working.	following mitigation were to occur they would be expected during preparation and working. Restoration will begin to reduce effects.		changes expected.	No further DGs proposed - necessary safeguards have already been included.

AS27 Land at Horton Heath **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; water; climate/GHGs; cultural heritage (archaeology); landscape and amenity. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. There are no permanent changes expected that will significantly affect amenity. There are also potential in-combination effects between biodiversity and water - seeking to ensure best returns of aggregate while ensuring the clay layer is not damaged thereby causing biodiversity impacts. Potential will remain during working, reducing during restoration. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy.

PK16 Swanworth Quarry Extension

Receptors [9]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK16 Swanworth Quarry Extension	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** The Isle of Portland to Studland Cliffs SAC lies to the south of the site, and must be protected. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	The need to protect, the Isle of Portland to Studland Cliffs SAC to the south are acknowledged in the Development Guidelines (DG1) in the Plan. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	Potential for cumulative impacts with ongoing operations in the current quarry is acknowledged, and a DG included in the Plan addresses this (DG 'Other Issues to take into consideration b (MM71).' Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working , declining with restoration.	Any residual/non-significant negative impacts expected to be temporary - mitigation measures will be applied to ensure protection during working and no impacts expected after working.		No further DGs proposed - necessary safeguards have already been included.
	Human health (incl. noise)	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures.	*Potential for noise and dust and traffic impacts beyond boundary of site*; these will be minimised through mitigation measures imposed at the planning application stage. Proposal will be worked as an extension to the current operation. Further assessment at the planning application stage	As the proposal is an extension of an existing site with no intensification of traffic movements proposed, traffic related cumulative impacts are not expected. *Visual and noise cumulative impacts could occur, as the original site and the new site would both be operational (although extraction from the current site would have ceased by the time*	Negative synergistic traffic impacts with other Purbeck Stone quarries in the vicinity are possible, but unlikely as no intensification is proposed and the extension is not visible from other Purbeck Stone quarries.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Any residual/non-significant negative impacts expected to be temporary - mitigation measures will be applied to ensure protection during working and no impacts expected after working.		No further DGs proposed - necessary safeguards have already been included.

[9] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptors [9]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Users of the Purbeck Way will have to pass beneath the bridge carrying lorries. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Closest property approximately 350m to north/east; others >500m to south, Kingston Village approximately 1km to north-west. Possibility of some visibility from the north. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. Impact on Existing Settlements Kingston Village is approximately 1km to north west, Worth Matravers approximately 1km to south east. Limited if any visibility from the north, limited if any visibility from the south at Worth Matravers – site would be visible from the C135 north of Worth Matravers. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a	will determine impacts and appropriate mitigation to ensure impacts are not significant.	*the extension was being worked).* Traffic from other Purbeck Stone quarries and service yards could have cumulative impacts on the area along with the proposed extension. This is acknowledged and addressed by DG5 - MM71). Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.							

Receptors [9]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site is 'Good to Moderate' agricultural land. Soils will be stripped prior to quarrying, resulting in temporary loss of soil and some damage expected. Soil will be protected following best practice during preparation and working and reused on site as part of restoration. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working - restoration will improve soil condition.	Non-significant impacts expected to be temporary - mitigation during stripping/storage will assist in protecting soil, and soil will be returned as part of restoration.		No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Site overlies Principal Aquifer. No impact on Source Protection Zones. No licenced supplies. Proposed extension overlies part of the area from which Kingston's water supply comes. Mitigation will be secured through the requirements of the MSP to	Potential for impact on the water resource and on down gradient licensed springs and receiving water course. Potential for impacts on Kingston water supply. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a	Potential for cumulative impacts with ongoing operations in current quarry. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. This is already addressed through DG3	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Any residual/non-significant negative impacts expected to be temporary - mitigation measures will be applied to ensure protection during working and no impacts expected after working.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptors [9]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	ensure that any impacts are reduced to a level such that they are not considered significant. DG3 'Hydrology/Flood Risk' addresses this. Surface Water Surface water within approximately 500m of site boundary, to the south. **5. To reduce flood risk and improve flood management.** Flooding/Coastal Stability Site is entirely in Flood Risk Zone 1, no risk of flooding.	level such that they are not considered significant. This is already addressed through DG3 'Hydrology/Flood Risk'.	'Hydrology/Flood Risk'.							
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Dust or noise could be generated by extracting and working the stone. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	There is potential for noise and dust to impact beyond site boundary, but this is not expected to be significant and to be satisfactorily mitigated through normal noise and dust controls applied at the planning application stage.	No impacts expected.	No impacts expected.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing land as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However,	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with operations at existing quarry.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for

Receptors [9]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	these will in relative terms be negligible.				preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is not known how long the effects of the GHGs are felt after they are produced.			any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
Material Assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** This proposal will provide a source of crushed rock aggregates in a location away from Portland -	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptors [9]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	required to support the local and wider economy, with accompanying benefits to the economy.									
Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> A barrow that is protected as a Scheduled Monument is a constraint to quarrying here. It occupies a location west of the proposed extension. There are other barrows and other heritage assets below-ground archaeology in the vicinity. <u>Historic Landscapes</u> The presence of the Monument and associated constraints have been discussed above. As well as being part of a landscape where quarrying has taken part in the past, the site appears to be one of a number of relatively flat locations around Combe Bottom that were chosen as locations for Bronze Age barrows. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.	Potential for impacts on assets and settings of assets around the site. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. This is addressed through DG2 (MM68) Historic/Cultural Environment.	Some potential for cumulative impacts with existing site. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. This is addressed through DG2 (MM68) Historic/Cultural Environment.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and during restoration as the site is restored to ground level.	Timescale for potential for impacts would be expected to be temporary, during preparation and working and restoration - site to be restored to ground level, so any impacts not expected to be permanent. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs considered necessary. Plan already contains appropriate safeguards.

Receptors [9]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	This is addressed through DG2 Historic/Cultural Environment.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** This is a quarry set in a quarrying landscape and the nearest listed buildings are too far away to be affected. No significant impact expected.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	None expected.	None expected.	No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> The site is located within the Purbeck Plateau, an open coastal landscape that provides sweeping views across a predominantly undeveloped context, often incorporating characteristic geometric fields with stone boundaries. Therefore, despite the upper western area being in the 'Zone of Least Landscape and Visual Impact' it is felt access to this area in terms of the impact on the coombe, the rest of the eastern facing slopes and the Purbeck Way means at this scale it is not appropriate for landscape and visual reasons.	Secondary effects are expected - the proposal would have a significant adverse impact on the physical landscape, which is highly valued and protected. Proximity to the Purbeck Way and public highways are key issues due to visual effects and operational noise. This will result in significant adverse impacts on sensitive visual receptors and impact negatively on the tranquillity in this part of the AONB. MMs 72 and 73 of DG5 'Landscape/Visual'	Potential for cumulative impact issues as existing quarry will remain open while proposed extension is developed. DG (b) (MM71) under 'Other Issues to take into consideration' has been added to address this point.	None expected.	Impacts are expected during site preparation and working. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and compensation for such impacts would be required in this case.	Impacts are expected during site preparation and working. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and compensation for such impacts would be required in this case.	Impacts are expected during site preparation and working and restoration. In the longer term, impacts will begin to decrease as restoration (of both existing and proposed sites) begins and/or proceeds. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and	The site is to be restored to ground level, so no permanent impacts are expected. Policy DM4 of Minerals Strategy 2014 (MSDCC – 54) notes that *Development which affects the landscape will only be permitted if it can be demonstrated that any adverse impacts can be:* *i. avoided; or* *ii. where an adverse impact cannot be avoided, the impact will be adequately mitigated;* *or iii. <u>where adverse impacts cannot be avoided or adequately mitigated, compensatory environmental enhancements will be made to offset the residual landscape and visual impacts.</u>*		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Impacts will be identified prior to development and as far as possible mitigated. Those that cannot be mitigated will be compensated in a way to be agreed. The issues/impacts are already addressed through DG5 Landscape/Visual in the Plan. No further DGs proposed - appropriate safeguards have already been included.

Receptors [9]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	**Secondary**	**Cumulative**	**Synergistic**	**Short-term (<5 yrs)**	**Medium-Term (5-10 yrs)**	**Long-term (10+ yrs)**	**Temporary**	**Permanent**	
	<u>Designated Landscapes</u> Significant Adverse Impact – site is within Dorset Area of Outstanding Natural Beauty and Heritage Coast.	have been proposed to address this issue. The earthworks required would also create significant adverse impacts on the open and sloping sides of the valley above the wooded edges and actively impact on the setting of the adjacent tumuli.					compensation for such impacts would be required in this case.	If adverse impacts cannot be fully and appropriately mitigated, it is likely that some form of compensation for the impacts would be required.		
	17. To sustain the health and quality of life of the population <u>Impact on Sensitive Human Receptors</u> Closest property approximately 350m to north/east; others >500m to south, Kingston Village approximately 1km to north-west. Possibility of some visibility from the north. <u>Impact on Existing Settlements</u> Kingston Village is approximately 1km to north west, Worth Matravers approximately 1km to south east. Limited if any visibility from the north, limited if any visibility from the south at Worth Matravers – site would be visible from the C135 north of Worth Matravers. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant - or if **Amenity** <u>NB</u> this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	Impacts expected from views into the site from surroundings. Assessment required. If appropriate mitigation for landscape impacts not possible, compensatory measures will be required. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant - or if necessary compensatory measures are provided.	Cumulative impacts of existing quarry and proposed extension possible. Assessment required. If appropriate mitigation not possible, compensatory measures will be required.	None expected.	Impacts are expected during site preparation and working. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and compensation for such impacts would be required in this case.	Impacts are expected during site preparation and working. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and compensation for such impacts would be required in this case.	Impacts are expected during site preparation and working and restoration. In the longer term, impacts will begin to decrease as restoration (of both existing and proposed sites) gets under way/continues. These impacts will be assessed and mitigation identified and applied. However, impacts may continue to be significant even after mitigation, and compensation for such impacts would be required in this case.	The site is to be restored to ground level, so no permanent impacts are expected.	Impacts will be identified prior to development and as far as possible mitigated. Those that cannot be mitigated will be compensated in a way to be agreed.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. If mitigation not possible, compensation for impacts will be required. The issues/impacts are already addressed through DGs in the Plan - no further DGs proposed, appropriate safeguards have already been included.

Receptors [9]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		necessary compensatory measures are provided.									

PK16 Swanworth Quarry Extension **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; water; air/dust; climate/GHGs; cultural heritage (archaeology); landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; however, some such as landscape will continue until restoration is complete and the site is restored to ground level. This would also affect factors such as amenity of residents and visitors. Noise and visual impacts would also continue during restoration. There is potential for in-combination effects between human health, landscape and amenity, with all being affected during the working of the site. Landscape impacts that cannot be satisfactorily mitigated will require appropriate compensation, as noted in the DGs. Compensation could benefit human health and amenity as well. The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

RA01 Land at White's Pit

NB: Whites Pit is currently operating under a temporary (7 year) planning permission.

Receptors [10]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
RA01 Land at Whites Pit	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** Probably no significant impact, but more information is required to determine the effect on Annex 1 Nightjar who are known to forage north from Canford Heath towards the Stour River and may cross this site. Site is currently operating under a time-limited planning permission.	Probably no significant impact, but more information is required to determine the effect on Annex 1 Nightjar who are known to forage north from Canford Heath towards the Stour River and may cross this site.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Timescale for potential for non-significant impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.
	Human health (incl. noise)	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Any impacts due to noise resulting from mineral working would be expected to be satisfactorily minimised through normal noise mitigation measures, imposed at the planning application stage.	The site is an existing operation, with no expected intensification. No LSE expected from the continued operation of the site.	There are other waste processing facilities adjacent to this site. As an existing operation, no cumulative impacts are expected from the continued operation of the site.	There are other waste processing facilities adjacent to this site. As an existing operation, no synergistic impacts are expected from the continued operation of the site.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Impacts would be expected while the site is operational and will cease when the site ceases operation and is restored.		No further DGs proposed - necessary safeguards have already been included.

[10] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptors [10]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	17. To sustain the health and quality of life of the population Impact on Sensitive Human Receptors Site is existing aggregate recycling site, well screened by existing landform and existing trees. No visual impacts expected, or noise/dust impacts. No increase in levels of traffic using the site expected and no new access proposed. Impact on Existing Settlements Site is existing aggregate recycling site, well screened by existing landform and existing trees. No visual impacts expected, or noise/dust impacts. No increase in levels of traffic using the site expected and no new access proposed.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site is an existing aggregate recycling operation, located on land previously quarried and landfilled in restoration. No further impacts on soil quality are expected.	No impacts expected.	No impacts expected.	No impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	Subject to any further permissions received, when the operation eventually ceases it is expected that at that stage the site will be covered with soil.		No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** Groundwater Site overlies secondary aquifer. Not within any Source Protection Zone designation. Licensed abstraction sites in proximity, any possible impacts to be appropriately mitigated. Surface Water	No impacts expected, above and beyond any currents impacts and the relevant mitigation.	No impacts expected, above and beyond any currents impacts and the relevant mitigation.	No impacts expected, above and beyond any currents impacts and the relevant mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Impacts would be expected while the site is operational and will cease when the site ceases operation and is restored.		No further DGs proposed - necessary safeguards have already been included.

Receptors [10]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Water quality issues may arise from the contaminated land beneath the site, or from the construction/ operation of the recycling centre. All these issues must be considered in the design and management of the proposed development. **5. To reduce flood risk and improve flood management.** Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site.	Potential for dust and noise beyond site boundaries. For future development this is expected to be controlled by normal planning controls.	Potential for cumulative impacts with other waste processing plant in the vicinity. For future development this is expected to be controlled by normal planning controls.	Some potential for impacts with other waste processing plant, and other traffic generating uses, in the vicinity. For future development this is expected to be controlled by normal planning controls.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Any residual/non-significant impacts will occur during working. As an existing operation, it is expected that these will be capable of satisfactory mitigation.	Impacts would be expected while the site is operational and will cease when the site ceases operation and is restored.		No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** The further development and continued operation of this site is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with nearby quarry.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the

Receptors [10]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. There will be benefits in reducing the amount of new quarrying of land needed.				GHGs are felt after they are produced.	long the effects of the GHGs are felt after they are produced.	It is not known how long the effects of the GHGs are felt after they are produced.			issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
Material Assets	**NB** - The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.**	None expected.	None expected.	None expected.	Benefits of production of recycled aggregate, while site is working; conservation of minerals in the ground, allowing highest and best use.	Benefits of production of recycled aggregate, while site is working; conservation of minerals in the ground, allowing highest and best use.	Benefits of production of recycled aggregate, while site is working; conservation of minerals in the ground, allowing highest and best use.	Benefits of production of recycled aggregate, while site is working; conservation of minerals in the ground, allowing highest and best use. Will cease when site is closed and permission expires or is surrendered.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> Since this area has been quarried and landfilled in restoration, provided that works only take place within the existing worked/restored	None expected.	None expected.	None expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No further DGs proposed - necessary safeguards have already been included.

Receptors [10]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	area, there should not be a significant impact. The only way there could be significant archaeological impact would be if there were associated works outside the previously-quarried areas, or if the works had a significant visual impact on several Bronze Age barrows in the vicinity that are protected as Scheduled Monuments. Historic Landscapes Since this area has been quarried and landfilled in restoration, provided that works only take place within the existing worked/restored area, there should not be a significant impact.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Historic Buildings No impacts on any listed buildings or settings of any listed buildings.	None expected.	None expected.	None expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Landscape Capacity Landscape capacity to accommodate the development is high, provided it is co-ordinated and designed in with the restoration of the remainder of the area. Designated Landscapes No impact on any designated landscapes.	None expected.	None expected.	None expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No further DGs proposed - necessary safeguards have already been included.

Receptors [10]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Amenity NB this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Site is existing aggregate recycling site, well screened by existing landform and existing trees. No visual impacts expected, or noise/dust impacts. No increase in levels of traffic using the site expected and no new access proposed. Impact on Existing Settlements Site is existing aggregate recycling site, well screened by existing landform and existing trees. No visual impacts expected, or noise/dust impacts. No increase in levels of traffic using the site expected and no new access proposed.	None expected.	None expected.	None expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No residual/non-significant impacts expected.	No further DGs proposed - necessary safeguards have already been included.

RA01 White's Pit **Possible in-combination effects.**	There is potential for cumulative effects in relation to air/noise and climate/GHGs. Impacts will occur while site is operation. As a currently permitted site, the MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. No in-combination effects between receptors are expected.

BC04 Trigon Hill Extension

NB - Since the Hearings into the Plan in Autumn 2018, this site has received planning permission and has been deleted as a site allocation in the Mineral Sites Plan (MM77).

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
BC04 - Trigon Hill Extension	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** European/International Designations Proposed area lies just to the south of an area of European heathland. At this stage, without detailed analysis of possible impacts, it is not clear whether there would be any likely significant effect of mineral working on the designated area. In principle it should be possible to avoid effects on the designated sites through an appropriate stand-off from the development. Annex 1 Bird Species Area could support Annex 1	There is potential for negative impacts, which could be significant, on European designations; national designations and protected species. There could be benefits for Annex 1 birds. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Impacts have been addressed through the Habitat Regulations Appraisal - DG1 Natural Environment.	There is potential for significant negative cumulative impacts, particularly with operations on other parts of the site. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, reducing during restoration.	Impacts expected to be temporary, ending following restoration.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

[11] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		birds as part of the existing forestry crop rotation. Clearance of trees would be likely to result in heathland regeneration and the open habitat would rapidly become suitable for more Annex 1 birds. The site has the potential to be included in a revision to the heathland SPA boundary. Risk based approach essential here. National Designations Proposed area lies just to the south of an area of Morden Bog and Hyde Heath SSSI. At this stage, without detailed analysis of possible impacts, it is not clear whether there would be any likely significant effect of mineral working on the designated area. In principle it should be possible to avoid effects on the designated sites through an appropriate									

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		stand-off from the development. Protected species There are numerous bat records from Trigon Hill Plantation suggesting the plantation or trees in the area may provide important roosting habitats; assessment will be required to understand the implications of removal of the plantation on bats. A large badger sett is also known in the plantation and the effects of working on this species would also require assessment. It is difficult to assess whether mitigation on bats or badger would be acceptable without detailed study on population sizes and locations.									
	Human health - **including noise**	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality at/around the site expected to be negligible.	Ball clay traffic travelling to/from Devon along the A35 would have some impact on the Chideock AQMA. Further assessment at the planning application stage will determine impacts	No significant impacts expected.	No significant impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		No further DGs proposed - necessary safeguards have already been included. No further DGs proposed - necessary safeguards have

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Any dust resulting from working will be controlled through normal dust-suppression measures. Any impacts due to noise resulting from mineral working would be expected to be satisfactorily minimised through normal noise mitigation measures, imposed at the planning application stage. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Cold Harbour properties some 380 m to the east, other residential uses further to the north. Development would likely require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. Adequate scope to screen works, using mitigation such as visual and noise	and appropriate mitigation to ensure impacts are not significant. Potential for impacts on properties in the vicinity and settlements. Not clear at this stage if impacts will be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure any residual impacts are not significant.			would be expected during preparation and working.	would be expected during preparation and working.	would be expected during preparation and working, and restoration.			already been included.

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	attenuation bunds. Impact on Existing Settlements Cold Harbour is closest settlement to the east along with other properties along the C7. Screening (visual and noise attenuation bunding) would significantly limit the impact of the site working, but there will be impacts of lorries entering/leaving the site. This is an extension and should not result in intensification of any impacts. Impact on Recreational Land Site is agricultural land and forestry, private land with no public access. No formal or informal recreational use. No impacts expected. Restoration to consider options for improving public access in the area.									
Soil	**9. To maintain, conserve and**	None expected.	None expected.	None expected.	No significant impacts expected. If	No significant impacts expected. If	No significant impacts expected. If	Yes - for duration of preparation and working. As restoration proceeds, impacts will reduce.		No further DGs proposed - necessary

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	enhance soil quality. Soils can be protected and re-used as required. Soil to be properly stripped and stored prior to working; protected during working; and re-spread on site after working. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.				residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No overall loss of soils expected.		safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> No impact on any Source Protection Zones. Site overlies a Secondary Aquifer. Possible implications of adjacent landfill, including leachate migration to be	Potential for impacts beyond the boundary of the site. Not known if such impacts would be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Potential for cumulative impacts with the other parts of the site and the landfill. Not known if such impacts would be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - for duration of preparation and working. As restoration proceeds, impacts expected to reduce.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	considered/assessed. Assessment required to determine possible impacts on hydrogeology, including considering possible hydraulic links with adjacent nature conservation designations. This is covered by DG 3 Hydrology/Flood Risk of the MSP. <u>Surface Water</u> Watercourse within the site boundary. There appears to be a pond close to the northern edge of the site and other ponds in vicinity. Assessment required to determine possible impacts on hydrogeology. Impacts to be appropriately mitigated **5. To reduce flood risk and improve flood management.** Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding.									

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality at/around the site expected to be negligible. Any dust resulting from working will be controlled through normal dust-suppression measures. Any impacts due to noise resulting from mineral working would be expected to be satisfactorily minimised through normal noise mitigation measures, imposed at the planning application stage.	Ball clay traffic travelling to/from Devon along the A35 would have some impact on the Chideock AQMA. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and restoration.	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. These issues are addressed at the planning application stage as required by Policy DM2 of the Minerals Strategy 2014.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative	None expected.	None expected.	None expected.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	terms be negligible.									minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptor[11]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	**Secondary**	**Cumulative**	**Synergistic**	**Short-term (<5 yrs)**	**Medium-Term (5-10 yrs)**	**Long-term (10+ yrs)**	**Temporary**	**Permanent**	
	Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of minerals, but does not promote the use of alternative minerals.									
Cultural heritage - archaeology/ historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> The number of prehistoric	Potential for impacts, which could be significant. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure	Potential for impacts, which could be significant. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and restoration.	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	barrows in the area in particular indicates that the site has archaeological potential. There is a Scheduled Monument – a barrow – to the south-west of the site. Part of the setting of this barrow has already been lost. Development of the proposed site is likely to have an impact on the remaining setting area. Any harm is given great weight in the assessment. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. This is addressed through DG2, Historic/Cultural Environment, including modifications. <u>Historic Landscapes</u> Historically much or all of this site would have been heathland. This heathland formed part of the setting	impacts are not significant. This is addressed through DG2, Historic/Cultural Environment, including modifications.	impacts are not significant.							

Receptor[11]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	of the barrows in the area. Unsympathetic extraction and quarrying could have a negative impact on the setting of these Monuments, but there is the potential for an improvement in that setting through restoration to heathland. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. This is addressed through DG2, Historic/Cultural Environment.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Historic Buildings</u>	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and restoration.	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		Belts of trees separate Trigon House, which is the nearest listed building to the site. Therefore the site has negligible impact on the listed buildings.									
	Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Landscape Capacity Potential to impact adversely on the open access land to the west and north west. Due to its position on the west slopes of the hillside its sensitivity is increased and its capacity to absorb development is significantly reduced. DG5, Landscape/Visual, including modification, addresses this issue. Further assessment at the planning application stage will determine impacts and appropriate	Potential for impacts, which could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. DG5, Landscape/Visual, including modification, addresses this issue.	Potential for impacts, particularly with other parts of the Trigon site and also with other mineral sites in the vicinity, which could be significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and restoration.	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		No further DGs proposed - necessary safeguards have already been included.

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		mitigation to ensure impacts are not significant. Mitigation will be secured through the requirements of the MSP e.g. DG5 Landscape/Visual , to ensure that any impacts are reduced to a level such that they are not considered significant. Designated Landscapes Less significant adverse impact.									
	Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Cold Harbour properties some 380 m to the east, other residential uses further to the north. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Development would likely	Potential for impacts on properties, but not clear whether these are significant or not. Mitigation will be secured through the requirements of the MSP to ensure that any impacts are reduced to a level such that they are not considered significant. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, and restoration.	Any residual, non-significant impacts expected to be temporary, reducing during restoration and ceasing when restoration complete.		Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.

Receptor[11]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		require appropriate mitigation (such as visual and noise attenuation bunding, standoffs) to limit impacts. Adequate scope to screen works, using mitigation such as visual and noise attenuation bunds. <u>Impact on Existing Settlements</u> Cold Harbour is closest settlement to the east along with other properties along the C7. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Screening (visual and noise attenuation bunding) would significantly limit the impact of the site working, but there will be impacts of lorries entering/leaving the site. This is an extension and should not result									

Receptor[11]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		in intensification of any impacts. The DG on Cumulative impacts addresses the issue of cumulative impacts, which would include amenity. Impact on Recreational Land Site is agricultural land and forestry, private land with no public access. No formal or informal recreational use. No impacts expected. Restoration to consider options for improving public access in the area.									

BC04 Trigon Hill Extension **Possible in-combination effects.**	There is potential for cumulative or in-combination effects in relation to biodiversity; human health; air/dust; landscape and archaeology/heritage. Some effects could be beneficial. In most cases impacts would be expected in the short to medium term. In the longer term, as restoration proceeds, impacts are expected to reduce. The MPA is satisfied that identified impacts can be satisfactorily addressed by DGs and existing/proposed policy. Proposed DG requires cumulative impacts to be taken into consideration. The restoration vision promotes long term benefits, including possible creation of heathland and multi-functional green infrastructure which is identified in the restoration vision, including recreational, landscape, biodiversity and amenity benefits. **NB - Since the Hearings into the Plan in Autumn 2018, this site has received planning permission and has been deleted as a site allocation in the Mineral Sites Plan (MM77).**

PK02 Blacklands

Receptor[12]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK02 Blacklands	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** Loss of grassland during extraction. Potential impact on Great Crested Newt. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None identified.	*Positive cumulative effect in relation to provision of bat roosts, referred to in Development Guidelines* (MM82)	None identified.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	Whatever the level of impacts, they would be expected during preparation and working, reducing during restoration. Benefits include restoration to limestone grassland and possible provision of bat roosts at end of quarrying.	*Loss of grassland during extraction.*	*Restoration to unimproved limestone grassland.* *Provision of bat roosts.*	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. No further DGs proposed - necessary safeguards have already been included.
	Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the	None expected - environmental protection measures to reduce dust and ensure noise is appropriately mitigated will be identified and applied at planning application stage.	*There is potential for cumulative adverse impacts in combination with PK17 and PK18. This is addressed through a DG - MM81* No increase in traffic movements but continuation along with PK17 and PK18 may intensify site related traffic impacts in relation to amenity. Further assessment at the planning	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working, reducing during	Impacts expected to be non-significant following mitigation, and will be temporary, - during working (around 26 years).	No permanent health impacts, or other impacts, are expected following restoration.	Visual or noise impacts are not expected to affect these settlements, nor will there be any intensification of traffic generated by the proposed extension. However existing traffic levels generated by

[12] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[12]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	development of the site. **17. To sustain the health and quality of life of the population** <u>Impact on Sensitive Human Receptors</u> Number of residential properties within 350m and within 500m. Row of cottages just north of Priest's Way. Site is an extension of existing quarry in an area with a long history of quarrying. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. <u>Impact on Existing Settlements</u> Nearest settlement is Acton, some 300m north of the proposed extension. Site extension not visible from Acton. Long history of stone quarrying in the area. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.				restoration. Restoration will take place following extraction. Life of quarry around 26 years.			the current operation will continue for a longer period of time. DG (MM81) requires that cumulative impacts are considered and minimised. No further DGs proposed - necessary safeguards have already been included.

Receptor[12]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. **Mitigation:** Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Reuse of soil onsite in restoration.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	There will be no permanent impacts and no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Site overlies Secondary aquifers. No impact on Source Protection Zones. No licenced supplies. <u>Surface Water</u> Watercourses approximately 460m to the west of the site, but no significant water interests in the vicinity. Simple	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	N/A	No permanent impacts.	No further DGs proposed - necessary safeguards have already been included.; potential risks are addressed through the existing pollution control regime.

Receptor[12]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	hydrological assessment required. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	*Potential for secondary effects of dust or air pollution beyond site boundary.* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	*Potential for cumulative impacts of dust or air pollution, in combination with PK18 and PK17.* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with PK17 and PK18, and/or other site proposals/ and other existing quarries on Purbeck plateau.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to

Receptor[12]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	mineral away from site. However, these will in relative terms be negligible. *No intensification of traffic/operations is expected as site is an extension.*				preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is not known how long the effects of the GHGs are felt after they are produced.			take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[12]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of Purbeck Stone for Bournemouth, Dorset and Poole and all other potential markets, but does not promote the use of alternative materials. Impacts on agricultural land and Existing Settlements are referred to elsewhere in this assessment.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas,**	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following	No significant impacts expected. If residual/non-significant negative impacts following	No significant impacts expected. If residual/non-significant negative impacts following	Unknown at this stage.	Potential for loss of archaeology.	Further evaluation will be required. When this has been undertaken possible impacts, if any,

Receptor[12]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	historic parks and gardens and other locally distinctive features and their settings). Archaeology The discovery of Iron Age and Roman period remains at the Blacklands site to the west and north of the proposal site indicates the present site's high potential for below-ground archaeology. There is also potential for industrial archaeological evidence of early quarrying. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Historic Landscapes The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway. Further assessment at the planning application stage will determine impacts and appropriate mitigation				mitigation were to occur they would be expected during preparation and working.	mitigation were to occur they would be expected during preparation and working.	mitigation were to occur they would be expected during preparation and working.			will be better understood. This is already noted in the Plan - No further DGs proposed - necessary safeguards have already been included.

Receptor[12]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	to ensure impacts are not significant.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Potential impacts on setting of Acton Conservation Area. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	*Potential for impacts from simultaneous existing and potential mineral workings south of Acton, along with other non-mineral developments, will require more detailed assessment at the stage of planning application. However, the village is set within a landscape of traditional small scale quarries.* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Restoration would restore landscape setting.	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary		No further DGs proposed - necessary safeguards have already been included.

Receptor[12]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity</u> Potential cumulative adverse impacts on the amenity of users of Priests Way. Restoration of adjacent quarries recommended to help avoid any cumulative landscape and visual impact. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. <u>Designated Landscapes</u> Less significant adverse impact.	None expected.	*There is potential for cumulative adverse visual impacts in combination with PK17 and PK18.* This is addressed in the Landscape/Visual DG for PK02. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working - however restoration will reduce the impacts.	Yes - for duration of preparation and working. The site will be restored.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.
Amenity **<u>NB</u>** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** <u>Impact on Sensitive Human Receptors</u> Number of residential properties within 350m and within 500m. Row of cottages just north of Priest's Way. Site is an extension of existing quarry in an area with a long history of quarrying. Impacts could be	None expected.	*There is potential for cumulative adverse impacts in combination with PK17 and PK18. No increase in traffic movements but continuation along with PK17 and PK18 may intensify site related traffic impacts in relation to amenity.* Further assessment at the planning application stage will determine impacts and appropriate mitigation	None expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - limited impacts during preparation and working.	No permanent changes expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. Appropriate mitigation to be provided, following

Receptor[12]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	either 'Less Significant' or 'Not Significant', given the context of the site. The site boundary of the Pre-Submission Draft has been amended following planning permission being granted for part of site. *The remaining site allocation is a small extension.* <u>Impact on existing settlements</u> Nearest settlement is Acton, some 300m north of the proposed extension. Site extension not visible from Acton. Long history of stone quarrying in the area. Visual or noise impacts are not expected to affect these settlements, nor will there be any intensification of traffic generated by the proposed extension. However existing traffic levels generated by the current operation will continue for a longer period of time. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		to ensure impacts are not significant.							assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts where considered necessary No further DGs proposed - necessary safeguards have already been included.

PK 02 Blacklands **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; air (noise); climate/GHGs; cultural heritage (historic buildings); landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; There is potential for in-combination effects between receptors such as human health/amenity, landscape and cultural heritage (Listed Buildings) given the concentration of sites in this area and the Acton Conservation Area nearby. The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

PK10 Southard Quarry

Receptor[13]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK-10 Southard Quarry	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** None identified.	None identified.	*Positive cumulative effect in relation to provision of bat roosts, referred to in Development Guidelines (MM82)*	None identified.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Whatever the level of impacts, they would be expected during preparation and working, reducing during restoration.* *Benefits include restoration to limestone grassland and possible provision of bat roosts at end of quarrying.*	*Loss of grassland during extraction.*	*Restoration to unimproved limestone grassland.*	Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. The site is within the existing permission but no extraction is allowed by condition. The area is currently used for storage. No further DGs proposed - necessary safeguards have already been included.
	Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning	*Potential for noise and dust and traffic impacts beyond boundary of site*; these will be minimised through mitigation measures	As the proposal is part of an existing site with no intensification of traffic movements proposed, traffic related cumulative	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they	Yes -during working (around 50 years).	No permanent health impacts are expected following restoration.	No further DGs proposed - necessary safeguards have already been included. Any potential for impacts

[13] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors No properties within 250m, closest property is approximately 290m, other properties within 500m and on to Swanage. Site likely to be screened from closest properties, but there could be more distant views into site. Site screening may be required. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant. Impact on Existing Settlements Closest settlement is Swanage, to the north and north-east, at around 480-500m distant at the closest. Site will be a continuation of quarrying within an existing quarry. Further assessment at the planning application stage will determine impacts and	imposed at the planning application stage. Proposal is part of and within a current quarry operation. No intensification proposed	impacts are not expected. Traffic from the other Purbeck Stone quarries to the west could have cumulative impacts on the area, but these are not new and would be addressed at the planning application stage. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.		would be expected during preparation and working.	would be expected during preparation and working.	would be expected during preparation and working Restoration will take place following extraction. Life of quarry up to 50 years.			will be dealt with through existing arrangements.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	appropriate mitigation to ensure impacts are not significant.									
Soil	**9. To maintain, conserve and enhance soil quality.** Site is within existing quarry, but contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. **Mitigation:** Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Re-use of soil onsite in restoration.	Yes - for duration of preparation and working.	There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Site overlies Secondary aquifers. No impact on Source Protection Zones. No licenced supplies. <u>Surface Water</u> Spring within 500m of site. No impacts expected on this. Hydrological assessment required **Mitigation** Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the watercourses or groundwater is of an acceptable quality. Any fuel on site should be	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent impacts.	No further DGs proposed - necessary safeguards have already been included. Potential risks are addressed through the existing pollution control regime.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources. The combined impacts of Purbeck Limestone Quarries should be assessed where a number of sites affect the same water resource or receiving water course. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. Further assessment at the planning application stage will determine impacts and	*Potential for secondary effects of dust or air pollution beyond site boundary.* Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	appropriate mitigation to ensure impacts are not significant.									
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, including provision of habitat for wildlife, but again these will be relatively small. *No intensification of traffic/operations as site is an extension.* **Proposed Mitigation:** Use energy efficient plant and machinery.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative effects with adjacent quarries resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.									
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of Purbeck Stone for Bournemouth, Dorset and Poole and all other potential markets, but does not promote the use of alternative materials. Impacts on BMV land and Existing Settlements are referred to elsewhere in this assessment.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally**	None expected, but further assessment at the planning application stage will determine impacts and appropriate	None expected, but further assessment at the planning application stage will determine impacts and appropriate	None expected.	No significant impacts expected. If residual/non-significant negative impacts following	No significant impacts expected. If residual/non-significant negative impacts following	No significant impacts expected. If residual/non-significant negative impacts following	Unknown at this stage. Further assessment at the planning application stage will determine	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	distinctive features and their settings). Archaeology It is considered that the site has high potential for below-ground archaeology and possibly industrial archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Historic Landscapes The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway. Mitigation Archaeological survey of the area required as part of planning application to assess possible presence and significance of non-designated remains and to assess whether/how these should be protected during working – no further work required at site allocation stage. Adequate provision to be made for preservation, excavation or recording, as appropriate. Further consideration to be given to restoration proposals, in terms of historic landscapes. This is addressed through DG2 - Historic/Cultural Environment	mitigation to ensure impacts are not significant.	mitigation to ensure impacts are not significant..		mitigation were to occur they would be expected during preparation and working.	mitigation were to occur they would be expected during preparation and working.	mitigation were to occur they would be expected during preparation and working.	impacts and appropriate mitigation to ensure impacts are not significant.		Existing policies provide all necessary protection. Further assessment at the planning application stage will determine impacts and appropriate mitigation to ensure impacts are not significant.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** This site extends a quarry away from its nearest listed building and the site as a whole is part of a quarrying landscape. This means there is minimal impact on the historic building. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. This is addressed through DG2 - Historic/Cultural Environment	None expected.	None expected.	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Restoration would restore landscape setting.	No impacts expected, however if any impacts are identified through more detailed assessment these will be addressed at planning application stage.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** There may be an issue of cumulative landscape & visual impact, with potential for an adverse impact on the amenity of the footpath users. Mitigation measures must limit height of stock piles. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts. Further assessment at the planning application stage will determine whether any	Potential for impacts beyond site boundary.	*There is potential for cumulative adverse visual impacts in combination with the adjacent California Quarry, however the site is an extension rather than intensification.* This is addressed in the Landscape/Visual DG for PK10.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. - restoration will be reducing the impacts.	Yes - for duration of preparation and working. The site will be restored.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	impacts are likely and appropriate mitigation to ensure impacts are not significant. This is addressed through DG5 Landscape/Visual									been included.
Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors: No properties within 250m, closest property is approximately 290m, other properties within 500m and on to Swanage. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Impact on existing settlements Closest settlement is Swanage, to the north and north-east, at around 480-500m distant at the closest. Visually, site is likely to be screened from closest properties. Possibility of more distant views into site and site screening may be required. Context of the site is area of mineral working and waste management. There will be no intensification of traffic generated by the proposal. However existing traffic levels generated by the current operation will continue for a longer period of time. Further assessment at the planning application stage will	None expected.	None expected.	None expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working - restoration will reduce these impacts	Yes - limited impacts during preparation and working.	No permanent changes expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptor[13]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. **Mitigation**: Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts where considered necessary									

PK 10 Southard **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; air (noise); climate/GHGs; landscape and amenity. Possible in-combination effects with landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

PK17 Home Field

Receptor[14]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK17 Home Field	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** *Loss of grassland in part of the area identified.* Further assessment at the planning application stage will determine the significance of impacts and appropriate mitigation to ensure impacts are not significant.	SAC grassland west of the site - suitable stand-off to protect this will be required. Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant, addressed through DG 1 Natural Environment	*Positive cumulative effect in relation to provision of bat roosts, referred to in Development Guidelines (MM82)*	None identified.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Restoration to unimproved limestone grassland.*	*Loss of grassland during extraction - expected to be a temporary effect.*	*Restoration to unimproved limestone grassland - long-term/permanent benefit*	No further DGs proposed - necessary safeguards have already been included.
	Human health - **<u>including noise</u>**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site.	None expected.	*There is potential for cumulative adverse impacts in combination with PK02 and PK18.* Cumulative impacts are addressed through a separate DG - see MM81. Further assessment at the planning application stage	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	Yes -during working (up to 20 years per plot).	No permanent health impacts are expected following restoration.	DG requires that cumulative impacts are considered and minimised. No further DGs proposed - necessary safeguards have already

[14] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors There are properties within 100 m to north-west; 250 m to west and approximately 300 m to the north. Campsites at approximately 400 m and 600 m to north/north west. Acton is approximately 300 m to the north National Trust will control rate of quarrying. Only small areas within the overall field will be quarried – exact sites not known yet. Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts.		will identify appropriate mitigation to ensure impacts are not significant.		during preparation and working.	preparation and working.	preparation and working. Restoration will take place following extraction. .			been included.

Receptor[14]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. **Mitigation:** Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Re-use of soil onsite in restoration.	Yes - for duration of preparation and working.	There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Groundwater springs rising 80 m to the west of the site. These springs must be protected. Site overlies Secondary aquifers. No impact on Source Protection Zones. No licenced supplies. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. <u>Surface Water</u> There are watercourses/springs to the west of the site, nearest is	Potential for impacts on the springs. Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent impacts.	No further modifications are proposed to the DGs; potential risks are addressed through the existing pollution control regime.

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	approximately 80 m from the site. Hydrological assessment required to determine possible impacts, on ground and surface waters, with appropriate mitigation to be implemented. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. **Mitigation** Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the watercourses or groundwater is of an acceptable quality. Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources. The combined impacts of Purbeck Limestone quarries should be assessed where a number of sites affect the same water resource or receiving water course.									

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated.	*Potential for secondary effects of dust or air pollution beyond site boundary.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. Appropriate mitigation will be identified and implemented at planning application stage.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with PK02 and PK18, and/or other site proposals/ and other existing quarries on Purbeck plateau.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development.

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, including provision of habitat for wildlife, but again these will be relatively small. *No intensification of traffic/operations as site is an extension.* **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.									The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of Purbeck Stone for Bournemouth, Dorset and Poole and all other potential markets, but does not promote the use of alternative materials.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> It is considered that the site has high potential for below-ground archaeology and possibly industrial	There is a Scheduled Monument to the west of the site (SM33164 – 'Pillow mound 145m south east of Eastington Farm'). This will be appropriately protected. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Unknown at this stage.	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine whether any impacts are

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. This is addressed through DG2 - Historic/Cultural Environment Historic Landscapes The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	mitigation to ensure impacts are not significant. This is addressed through DG2 - Historic/Cultural Environment								likely and appropriate mitigation to ensure impacts are not significant.
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).**	Potential impact on Acton Conservation Area and its setting. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate	Potential for cumulative impacts, with other existing and proposed sites (PK02 Blacklands and PK18 Quarry 4 Extension), on the Acton Conservation	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be	Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant, and to ensure no impacts during working and restoration.		No further DGs proposed - necessary safeguards have already been included.

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	There are Listed Buildings at Eastington Farm, to the west of the site. These are not immediately adjacent to the site but derive character from the overall landscape. It is expected that the quarry will have no significant impact on the listed buildings. The Acton Conservation Area lies to the north/west of the site, and must be appropriately protected. This is addressed through DG2 - Historic/Cultural Environment	mitigation to ensure impacts are not significant. This is addressed through DG2 - Historic/Cultural Environment	Area and its setting. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. This is addressed through DG2 - Historic/Cultural Environment		occur they would be expected during preparation and working.	expected during preparation and working.	expected during preparation and working.			
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity/Designated Landscapes</u> This site is within the zone of least landscape and visual impact. (comprising the Purbeck Stone area of search, designated through the Minerals Strategy 2014). Small areas, quantities, progressive restoration and in short campaigns with low stockpiles is recommended Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	There is potential for impacts beyond the site boundary. Further assessment at the planning application stage will assess potential impacts and identify appropriate mitigation to ensure impacts are not significant.	*There is potential for cumulative adverse visual impacts where several plots are developed within the boundary, and in combination with adjoining permitted Purbeck Stone sites.* This is addressed through DG 5 Landscape/Visual. Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - for duration of preparation and working. The site will be restored.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.

Receptor[14]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Amenity **NB** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors. There are properties within 100 m to north-west; 250 m to west and approximately 300 m to the north. Campsites at approximately 400 m and 600 m to north/north west Impact on existing settlements Acton is approximately 300 m to the north; Langton Matravers is approximately 750 m to north-west. Impacts are expected to be minimal, given the rate of quarrying and context of the site proposals. **Mitigation**: Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts where considered necessary Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Cumulative impacts addressed through DG (MM86)	Potential exists for impacts beyond the site boundary. Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Cumulative impacts addressed through DG (MM86)	*There is potential for cumulative adverse impacts due to a number of plots being worked within the site boundary.* It is expected that the National Trust, as landowners, will control the rate at which the site is worked to minimize impacts and maintain the appearance of a range of smaller quarries on their land. Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant. Cumulative impacts addressed through DG (MM86)	None expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - limited impacts during preparation and working.	No permanent changes expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.

PK 17 Home Field **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; air (noise/dust); climate/GHGs; landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the scale of working is controlled by the National Trust as landowners to minimise adverse landscape and amenity impacts and to ensure quarrying is of a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. There is potential for in-combination effects between receptors such as human health/amenity, landscape and cultural heritage (Listed Buildings) given the concentration of sites in this area and the Acton Conservation Area nearby. The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

PK18 Quarry 4 extension

	Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK18 Quarry 4 Extension	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** *Loss of grassland during extraction.* *Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant.*	None identified.	*Positive cumulative effect in relation to provision of bat roosts, referred to in Development Guidelines (see Main Modification MM82).*	None identified.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Restoration to unimproved limestone grassland.*	*Loss of grassland during extraction.*	*Restoration to unimproved limestone grassland.*	No further DGs proposed - necessary safeguards have already been included. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.
	Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure	None expected.	*There is potential for cumulative adverse impacts in combination with PK02 and PK17.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Limited - any residual, non-significant impacts would be expected during working. Restoration will take place following extraction. Life of quarry around 20 years.	Yes -during working.	No permanent health impacts are expected following restoration.	No further DGs proposed - necessary safeguards have already been included. An additional development guideline is proposed to ensure that cumulative impacts are considered

[15] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	noise is appropriately mitigated. **17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Properties within 100 m to north west and 500 m to the north. Campsites within 500 m to north/north west. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Impact on Existing Settlements Acton is approximately 380 m to the north; Langton Matravers is approximately 650 m to north east. Minimal impacts expected, given rate of quarrying and context of the site proposals Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.		Cumulative impacts addressed through DG - MM86							and minimised.
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. **Mitigation:** Soil to be properly stripped and stored prior to working; protected during working; and	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected	Yes - for duration of preparation and working.	There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included.

Receptor[15]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		returned as part of restoration. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.				during preparation and working.	during preparation and working.	during preparation and working. Re-use of soil onsite in restoration.			
	Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Site overlies Secondary Aquifer. Private or local water interests identified within 250 m of the site. No impact on source protection zones. <u>Surface Water</u> No watercourses within 500m. **Mitigation** Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the watercourses or groundwater is of an acceptable quality. Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent impacts.	No further DGs proposed - necessary safeguards have already been included. - potential risks are addressed through the existing pollution control regime.

Receptor[15]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		The combined impacts of Purbeck Limestone Quarries should be assessed where a number of sites affect the same water resource or receiving water course. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									
	Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	*Potential for secondary effects of dust or air pollution beyond site boundary.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	*Potential for cumulative impacts of dust or air pollution, in combination with PK02 and PK17.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included. Appropriate mitigation will be identified and implemented at planning application stage.

Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. *No intensification of traffic/operations as site is an extension.* **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with PK02 and PK17, and/or other site proposals/ and other existing quarries on Purbeck plateau.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of Purbeck Stone for Bournemouth, Dorset and Poole and all other potential markets, but does not promote the use of alternative materials.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/ historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> The discovery of Iron Age and Roman period remains at the Blacklands site to the west and north of the proposal site indicates the present site's high potential	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Unknown at this stage.	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included.

Receptor[15]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		for below-ground archaeology. There is also potential for industrial archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. <u>Historic Landscapes</u> The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway. DG 2 - Historic/Cultural Environment addresses this issue. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									

Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Potential impacts on setting of Acton Conservation Area Full assessment will be required. Appropriate mitigation (such as visual and noise attenuation bunding, standoffs) will be used where identified as necessary to limit impacts Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	*Potential for impacts from simultaneous existing and potential mineral workings south of Acton, along with other non-mineral developments, will require further detailed assessment at the stage of planning application. However, the village is set within a landscape of traditional small scale quarries.*	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Short and long term impacts to be identified at planning application stage, and appropriate mitigation identified to ensure no impacts during working and restoration.		No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity/Designated Landscapes</u> Potential cumulative adverse impacts on the amenity of users of Priests Way. Restoration of adjacent quarries recommended to help avoid any cumulative landscape and visual impact. Further assessment at the planning application stage will determine whether any	*There is potential for impacts beyond the site boundary.* Appropriate mitigation to be identified and implemented at planning application stage.	*There is potential for cumulative adverse visual impacts in combination with PK17 and PK02.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. This is addressed in the Landscape/Visual DG for PK18.	*None expected.*	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - for duration of preparation and working. The site will be restored.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.

Receptor[15]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	**Secondary**	**Cumulative**	**Synergistic**	**Short-term (<5 yrs)**	**Medium-Term (5-10 yrs)**	**Long-term (10+ yrs)**	**Temporary**	**Permanent**	
	impacts are likely and appropriate mitigation to ensure impacts are not significant.									
Amenity **<u>NB</u>** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**<u>17. To sustain the health and quality of life of the population</u>** <u>Impact on Sensitive Human Receptors:</u> Properties within 100 m to north west and 500 m to the north. Campsites within 500 m to north/north west. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. <u>Impact on existing settlements</u> Acton is approximately 380 m to the north; Langton Matravers is approximately 650 m to north east. Visual or noise impacts are not expected to affect these settlements, nor will there be any intensification of traffic generated by the proposed extension. However existing traffic levels generated by the current operation will continue for a longer period of time. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. **Mitigation**:	None expected.	*There is potential for cumulative adverse impacts in combination with PK17 and PK02.* *No increase in traffic movements but continuation along with PK17 and PK02 may intensify site related traffic impacts in relation to amenity.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. *This issue is addressed through the DG on cumulative impacts - MM88.*	None expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - limited impacts during preparation and working.	No permanent changes expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptor[15]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts where considered necessary									

PK 18 Quarry 4 Extension **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; air (noise/dust); climate/GHGs; landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the scale of working is controlled by the National Trust as landowners to minimise adverse landscape and amenity impacts and to ensure quarrying is of a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. There is potential for in-combination effects between receptors such as human health/amenity, landscape and cultural heritage (Listed Buildings) given the concentration of sites in this area and the Acton Conservation Area nearby. The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

PK19 Broadmead Field

Receptor[16]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
PK19 Broadmead Field	Biodiversity (incl. flora and fauna)	**2. To maintain, conserve and enhance biodiversity** Loss of grassland during extraction. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential impact on Greater Horseshoe Bat, although it is likely that appropriate mitigation could be put in place if necessary. Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant.	*Positive cumulative effect in relation to provision of bat roosts, referred to in Development Guidelines (see Main Modifications).* Further assessment at the planning application stage will identify appropriate mitigation to ensure impacts are not significant.	None identified.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	*Loss of grassland during extraction.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation. Whatever the level of impacts, they would be expected during preparation and working.	Whatever the level of impacts, they would be expected during preparation and working, reducing during restoration. *Benefits include restoration to limestone grassland.*	*Loss of grassland during extraction.*	*Restoration to unimproved limestone grassland.*	Appropriate mitigation to be identified and implemented at planning application stage. No further DGs proposed - necessary safeguards have already been included.
	Human health - **including noise**	Potential for direct impacts on surrounding receptors, including from noise generated on the site. **8. To protect and improve air quality and reduce the impacts of noise.** Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. **17. To sustain the health and quality of life of the population**	None expected.	*There is potential for cumulative adverse impacts due to a number of plots being worked within the site boundary.* Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Restoration will take place following extraction. Life	Yes -during working .	No permanent health impacts are expected following restoration.	The National Trust, as landowners, will control the rate at which the site is worked to minimize impacts and maintain the appearance of a range of smaller quarries on their land. An additional development

[16] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Impact on Sensitive Human Receptors Properties within 100 m to north west and 500 m to the north. Campsites within 500 m to north/north west. Impact on Existing Settlements Acton approximately 250m to east; Langton Matravers within 750m further east. Sites will be relatively low impact. Limited visibility towards the east. With appropriate screening, visual impacts would be further reduced. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.						of quarry around 20 years.			guideline is proposed(through MM92) to ensure that cumulative impacts are considered and minimised. No further DGs proposed - necessary safeguards have already been included.
Soil	**9. To maintain, conserve and enhance soil quality.** Site contains/comprises good to moderate quality agricultural land. Working the site will have impacts on this soil. **Mitigation:** Soil to be properly stripped and stored prior to working; protected during working; and returned as part of restoration.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Reuse of soil onsite in restoration.	Yes - for duration of preparation and working.	There will be no overall loss of soil.	No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Groundwater</u> Spring rises 240m from the site. • Site overlies Secondary aquifers. No impact on Source Protection Zones. No licenced supplies. <u>Surface Water</u> There is a watercourse approximately 240m from the site. Proposed development could have Significant Impact, further assessment required. Hydrological assessment required **Mitigation** Appropriate arrangements should be put in place to ensure that the water leaving the site and entering the watercourses or groundwater is of an acceptable quality. Any fuel on site should be properly stored to avoid contamination in case of spillage. Appropriate arrangements should be installed for surface water and silt collection and fuel storage to prevent contamination of groundwater resources. The combined impacts of Purbeck Limestone Quarries should be assessed where a number of sites affect the same water resource or receiving water course.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No permanent impacts.	No further modifications are proposed to the DGs; potential risks are addressed through the existing pollution control regime. No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site. Environmental protection measures to reduce dust and ensure noise is appropriately mitigated. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	*Potential for secondary effects of dust or air pollution beyond site boundary.* Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term/permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing the site as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. The Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through Policy CC1 which requires operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, including provision of habitat for wildlife, but again these will be relatively small. *No intensification of traffic/operations as site is an extension.* **Proposed Mitigation:** Use energy efficient plant and machinery. Implement restoration which provides appropriate habitats to help to increase resilience of flora/fauna.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*None expected - emissions expected to be relatively low*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Material assets	**NB -** The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of Purbeck Stone for Bournemouth, Dorset and Poole and all other potential markets, but does not promote the use of alternative materials. Impacts on BMV land and Existing Settlements are referred to elsewhere in this assessment.	Not expected.	Not expected.	Not expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.
Cultural heritage - archaeology/historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> There are various archaeological sites in the area, most notably an Iron Age and Roman period settlement and shale-working site just to the north-west. There is also potential for industrial	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Unknown at this stage.	Potential for loss of archaeology.	No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Historic Landscapes The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Historic Buildings Listed building in the vicinity - evaluation at planning application stage will identify possible impacts and appropriate mitigation. **Further assessment at the planning application stage will determine whether any impacts are likely**	Acton Conservation Area 235m east of the site - evaluation at planning application stage will identify possible impacts and appropriate mitigation Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and	None expected.	Not expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Restoration would restore landscape setting.	No LSE expected, however if any impacts are identified through more detailed assessment these are likely to be temporary	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	and appropriate mitigation to ensure impacts are not significant.	necessary mitigation. Addressed through DG 2 - Historic/Cultural Environment								
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** <u>Landscape Capacity/Designated Landscapes</u> Site is in the zone of least landscape and visual impact so it will be how the area is worked which will determine its capacity. Small areas, quantities, progressive restoration and in short campaigns with low stockpiles is recommended. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	*There is potential for cumulative adverse visual impacts where several plots are developed within the boundary.* Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. This is addressed in the Landscape/Visual DG for PK19.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. - however restoration will reduce the impacts.	Yes - for duration of preparation and working. The site will be restored.	There may be some changes to the landscape but the open character of the landscape will be maintained. See Restoration Vision of the DGs	No further DGs proposed - necessary safeguards have already been included.

Receptor[16]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Amenity **<u>NB</u>** this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** <u>Impact on Sensitive Human Receptors</u>**:** Residential properties adjacent, within 250m and 500m. <u>Impact on existing settlements</u> Acton approximately 250m to east; Langton Matravers within 750m further east. Sites will be relatively low impact. Limited visibility towards the east. With appropriate screening, visual impacts would be further reduced. <u>Mitigation</u>: Provision of appropriate mitigation, following assessment of likely impacts. Restoration to improve landscape of site where possible; and to seek to increase public access. Screening, bunding, standoffs will be used to mitigate impacts where considered necessary Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	*There is potential for cumulative adverse impacts due to a number of plots being worked within the site boundary.* The National Trust, as landowners, will control the rate at which the site is worked to minimize impacts and maintain the appearance of a range of smaller quarries on their land. Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and necessary mitigation.	None expected	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. - limited impacts during preparation and working.	Yes - limited impacts during preparation and working.	No permanent changes expected.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

PK 19 Broadmead Field **Possible in-combination effects.**	There is potential for cumulative effects in relation to biodiversity; human health; air (noise/dust); climate/GHGs; landscape and amenity. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the scale of working is controlled by the National Trust as landowners to minimise adverse landscape and amenity impacts and to ensure quarrying is of a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. There is potential for in-combination effects between receptors such as human health/amenity, landscape and cultural heritage (Listed Buildings) given the concentration of sites in this area and the Acton Conservation Area nearby. The DGs require cumulative impacts to be taken into consideration. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

BS02 Marnhull Quarry Extension

Receptors [17]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
BC02 Marnhull Quarry Extension	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** Site is within 250m of Chivrick's Brook; limited possibility of impacts on biodiversity. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected	None expected	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.
	Human health (incl. noise)	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. **17. To sustain the health and quality of life of the population**	Potential for noise and dust impacts beyond boundary of site; minimise through noise and dust mitigation measures imposed at the planning application stage. Traffic movements generated are low, and are not expected to cause secondary impacts. Not clear at this stage the significance of this impact - further assessment will be required, to establish	Not expected as the site is relatively isolated, with low traffic movements . As the proposal is an extension of an existing site, cumulative impacts are not expected. Traffic generation from these relatively small building stone quarries (including Redlands to the north, and others in the area) is not expected to contribute to significant cumulative impact impacts.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Impacts from quarry related traffic will occur until completion of workings.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

[17] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptors [17]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	Sensitive Human Receptors Closest property is just over 500m to the north east. Existing Settlements Nearest settlement is Marnhull, at approximately 800m to north west. There is potential for impacts of lorries accessing the site - as this is an extension and vehicle movements are low impacts are expected to be minimal.	significance and necessary mitigation.	Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.							
Soil	**9. To maintain, conserve and enhance soil quality.** Site is 'Good to Moderate' agricultural land. Soils will be stripped and protected during preparation and working and reused on site as part of restoration. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts will be temporary - mitigation during stripping/storage will assist in protecting soil. No overall loss of soil is expected.		No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** Ground Water No impact on Source Protection Zones and no licensed abstraction points within 500m. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to	Potential for ground/surface water leaving the site to have impacts beyond the site; full hydrological assessment will be required, with mitigation identified.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

Receptors [17]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	ensure impacts are not significant. Surface Water Site boundary is within 250m of Chivrick's Brook watercourse Assessment required to determine possible impacts on hydrogeology; and impacts to be appropriately mitigated. **5. To reduce flood risk and improve flood management.** Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. Any dust or noise resulting from working would be expected to be satisfactorily mitigated through controls applied at the planning application stage.	There is potential for noise and dust to impact beyond site boundary, but it is expected this can be satisfactorily controlled. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing land as a quarry is expected to have some	*Potential for secondary effects resulting from the production of*	*Potential for cumulative impacts of GHG production, in*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were	Impacts not expected to be significant. If any negative impacts were to	Impacts not expected to be significant. If any impacts were to occur	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise

Receptors [17]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible. Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address and seek to minimise the issue of sustainable development and climate change. Restoration to some form of vegetated environment will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small.	*greenhouse gases (GHGs) beyond site boundary.*	*combination with nearby quarry.*		to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt after they are produced.	may last following their production.		such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
	Material Assets	**NB** - The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.**	None expected.	None expected.	None expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptors [17]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	12. To provide an adequate and affordable supply of minerals to meet society's needs. The SA notes that the site would make an important contribution to the supply of building stone but does not promote the use of alternative materials.									
Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> Human remains were found near the site during quarrying about 200 years ago. They could be part of a Christian cemetery of an indeterminate period. Further quarrying could impact on remains still in the ground. Archaeological evaluation would be required for planning application to assess the likely archaeological impact of quarrying and identify appropriate mitigation. <u>Historic Landscapes</u> The field system on and around the site is possibly medieval in origin, but not considered to be of significance.	No impacts expected.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Permanent effects could include removal of human remains, and loss of the field system. These can be addressed at the planning application stage following detailed Heritage Assessment.		No further DGs proposed - necessary safeguards have already been included.

Receptors [17]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** No buildings likely to be affected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	None expected.	No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Development could lead to adverse impacts; appropriately designed mitigation can minimise these to cause no significant adverse effects. A bridleway runs along the eastern boundary of the site; appropriate and sensitive mitigation will be required to minimise impacts. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential for impacts beyond the site boundary without appropriate mitigation. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Depending on restoration, impacts on the landscape could be permanent; however mitigation will mitigate these.		No further DGs proposed - necessary safeguards have already been included.
Amenity NB this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Closest property is Toogoods Farm, just over 500m to the north east. Impact on Existing Settlements	Potential for impacts on closest residences. Not clear at this stage the significance of this impact - further assessment will be required, to establish significance and	Potential for impacts in combination with other existing uses in the vicinity Not clear at this stage the significance of this impact - further assessment will be required, to establish	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	Yes - limited impacts during preparation and working.	There may be permanent impacts on visual amenity, depending on restoration; mitigation required to minimise.	Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptors [17]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		Nearest settlement is Marnhull, at approximately 800m to north west. No significant impacts on surrounding receptors expected - mitigation to be applied to minimise any impacts. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	necessary mitigation.	significance and necessary mitigation.		preparation and working.	preparation and working.	preparation and working.			

BS02 Marnhull **Possible in-combination effects.**	There is potential for cumulative effects in relation to climate and amenity. There are also expected secondary effects for human health; water; air (noise/dust) and landscape. No in-combination effects between receptors are expected. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the quarries are small, at a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

Receptors [18]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
BC04 Frogden Quarry Extension	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** No impacts on biodiversity are expected.	None expected	None expected	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.
	Human health (incl. noise)	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures **17. To sustain the health and quality of life of the population** <u>Sensitive Human Receptors</u> Closest properties are at edge of Sherborne, some 430m to south west; other properties within 500-600m. There is a secondary school at the edge of Sherborne, 430m distant. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential for noise and dust impacts beyond boundary of site; these will be minimised through mitigation measures imposed at the planning application stage. Traffic movements generated are low, and proposal will be worked as an extension to the current operation. Further assessment at the planning application stage will determine whether any impacts are likely	Not expected as the site is relatively isolated, with low traffic movements . As the proposal is an extension of an existing site, cumulative impacts are not expected. Traffic generation from these relatively small building stone quarries (including Whithill to the south-west of Sherborne) is not expected to contribute to significant cumulative impacts. Further assessment at the planning	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

[18] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptors [18]	Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	<u>Existing Settlements</u> Nearest settlement is Sherborne, 430m to the south-west. There is potential for impacts of lorries accessing the site, and also for noise and dust to be generated. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	and appropriate mitigation to ensure impacts are not significant.	application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.							
Soil	**9. To maintain, conserve and enhance soil quality.** Site is 'Good to Moderate' agricultural land. Soils will be stripped and protected during preparation and working and reused on site as part of restoration. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts will be temporary - mitigation during stripping/storage will assist in protecting soil		No further DGs proposed - necessary safeguards have already been included.
Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Ground Water</u> Site is on a Principal Aquifer and is not within any Source Protection Zone area. Not known whether there are any licensed extraction facilities in the vicinity. <u>Surface Water</u>	Potential for ground/surface water leaving the site to have impacts beyond the site; full hydrological evaluation will be required, with mitigation identified.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

Receptors [18]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	There is a watercourse approximately 430m from the site. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. **5. To reduce flood risk and improve flood management.** Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Dust or noise could be generated by extracting and working the stone. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	There is potential for noise and dust to impact beyond site boundary, but this is expected to be limited and can be satisfactorily mitigated through normal noise and dust controls applied at the planning application stage.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing land as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with nearby quarry.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working. It is not known how long the effects of the GHGs are felt	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration

Receptors [18]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
					GHGs are felt after they are produced.	GHGs are felt after they are produced.	after they are produced.			climate change impacts and their possible mitigation for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
	Material Assets	**NB** - The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives:	None expected.	None expected.	None expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.	No further DGs proposed - necessary safeguards have already been included.

Receptors [18]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	10. To conserve and safeguard mineral resources. **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of minerals to meet society's needs.** The SA notes that the site would make an important contribution to the supply of building stone but does not promote the use of alternative materials.									
Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** There are no indications of likely archaeological impacts. There are no indications that the location has any particular historic significance, although it might form part of the view from locations such as Sherborne New Castle and its grounds. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected, apart from potential impacts on setting of Sherborne Castle(s). This must be taken into consideration, and appropriate mitigation applied. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working. Residual non-significant negative impacts, if they occur, expected to be short-term, during the life of the site.		No further DGs proposed - necessary safeguards have already been included. - need for evaluation of impacts on setting of Sherborne Castle(s) is already included.

Receptors [18]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** The nearest listed buildings are within a settlement and the current quarry lies between them and the proposed extension. There are other listed buildings some 500 m to the south east. It is not expected that the proposed extension will have unacceptable impacts on these listed buildings. Impacts on the setting of Sherborne Castle and Old Castle must be considered, and the site designed/worked with any appropriate mitigation in place. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected, apart from potential impacts on setting of Sherborne Castle(s). This must be taken into consideration, and appropriate mitigation applied. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working. Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.	Mitigation and restoration to be designed to minimise all impacts to acceptable levels, during and after working.		No further DGs proposed - necessary safeguards have already been included. - need for evaluation of impacts on setting of Sherborne Castle(s) is already included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** Potential exists for impacts on the amenity of users of the adjacent bridleway but apart from that the landscape and visual impacts will be limited. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential for impacts beyond the site boundary without appropriate mitigation.	No impacts expected.	No impacts expected.	Any potential impact would primarily occur during extraction.	Any potential impact would primarily occur during extraction.	Any potential impact would primarily occur during extraction.	Depending on restoration, some elements of the impacts on the landscape could be permanent; however mitigation is expected to satisfactorily mitigate these.		To minimise impacts, the scale of development should be minimised where possible and extraction should take the form of short campaigns and progressive restoration. Stockpiles and other infrastructure

Receptors [18]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
										must not be placed on skyline, which must be protected. No further DGs proposed - necessary safeguards have already been included.
Amenity NB this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Closest properties are approximately 430m, to edge of Sherborne. The Gryphon School is also approximately 430m at edge of Sherborne. Blackmarsh Farm to south east is approximately 500+m and Oborne to north/east is approximately 600m. Rising ground screens views of the existing site. Further assessment will be required to accurately assess potential impacts from the proposed extension and can be undertaken at the appropriate stage. A bridleway runs to the south west of the site, touching it at one point. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Impact on Existing Settlements Sherborne is closest settlement, within 500m. Although impacts are expected to be minimal,	Limited potential for impacts on residences; Potential for impacts on users of the bridleway Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Yes - limited impacts during preparation and working. Mitigation during working and restoration to ensure impacts are not significant. If there may be permanent impacts on visual amenity, these must not be significant., depending on restoration; appropriate mitigation to be required to minimise these impacts.		Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptors [18]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		further assessment will be carried out as required. Site traffic will be required to use Castle Town Way and could have an impact on Sherborne but amount of traffic expected to be low. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									

BS04 Frogden **Possible in-combination effects.**	There is potential for cumulative effects in relation to climate. There are also expected secondary effects for human health; water; air (noise/dust); cultural heritage; amenity and landscape. No in-combination effects between receptors are expected. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the quarries are small, at a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.

BS05 Whithill Quarry Extension

Receptors [19]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
BC05 Whithill Quarry Extension	**Biodiversity (incl. flora and fauna)**	**2. To maintain, conserve and enhance biodiversity** No impacts on biodiversity are expected.	None expected	None expected	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.
	Human health (incl. noise)	**8. To protect and improve air quality and reduce the impacts of noise** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Any dust resulting from working will be controlled through normal dust-suppression measures. **17. To sustain the health and quality of life of the population** <u>Sensitive Human Receptors</u> Residential properties within 500m. School approximately 1km away, to south/east. Site is screened by hedges and by the topography. No intensification of traffic expected. Site will be screened as required and worked on a campaign basis to limit impacts. Further evaluation	Potential for noise and dust impacts beyond boundary of site; these will be minimised through mitigation measures imposed at the planning application stage. Traffic movements generated are low, and proposal will be worked as an extension to the current operation. Further assessment at the planning application stage will determine whether any	As the proposal is an extension of an existing site, cumulative impacts are not expected. Traffic generation from these relatively small building stone quarries (including Frogden to the north-east of Sherborne) is not expected to contribute to significant cumulative impact impacts.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

[19] Receptors are environmental features (for the purposes of Strategic Environmental Assessment) identified through Plan & Sustainability Appraisal preparation that could potentially be affected by the proposal

Receptors [19]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	likely to be required to accurately assess potential impacts from the proposed extension and can be undertaken at the appropriate stage. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Existing Settlements Lillington approximately 500m to south, Longburton approximately 1.5 km south east, Thornford approximately 2km to south west. Visual impacts not expected. Potential for traffic impacts on Longburton if mineral is taken to A352 for distribution. No intensification expected. Site is likely to be worked on a campaign basis, to limit impacts. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	impacts are likely and appropriate mitigation to ensure impacts are not significant.								
Soil	**9. To maintain, conserve and enhance soil quality.** Site is 'Good to Moderate' agricultural land. Soils will be stripped and protected during preparation and working and reused on site as part of restoration. Best practice for soil protection to be followed.	None expected.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	, No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during	Impacts will be temporary - mitigation during stripping/storage will assist in protecting soil		No further DGs proposed - necessary safeguards have already been included.

Receptors [19]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
						preparation and working.	preparation and working.	preparation and working. , but restoration will improve soil condition.			
	Water	**4. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.** <u>Ground Water</u> Site is on a Secondary Aquifer and is not within any Source Protection Zone area. Not known whether there are any licensed extraction facilities in the vicinity. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. <u>Surface Water</u> Watercourse within 50m of the site. This site lies uphill and immediately across the road from springs feeding tributaries of the River Wriggle. Hydrological assessment required to determine potential impacts on water quality/flow of these if the site is developed. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential for ground/surface water leaving the site to have impacts beyond the site; full hydrological evaluation will be required to determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	None expected.	None expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	LSE not expected;		No further DGs proposed - necessary safeguards have already been included.

Receptors [19]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	5. To reduce flood risk and improve flood management. Entire site is within Flood Risk Zone 1, no expected risk of flooding or contributing to flooding.									
Air	**8. To protect and improve air quality and reduce the impacts of noise.** Impacts on air quality expected to be negligible. No AQMAs will be affected by the working of this site proposal. Dust or noise could be generated by extracting and working the stone. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	There is potential for noise and dust to impact beyond site boundary, but this is expected to be limited and to be satisfactorily mitigated through normal noise and dust controls applied at the planning application stage. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Impacts from quarry related traffic will occur until completion of workings.	Timescale for potential for impacts would be expected to be temporary, during preparation and working.	Long-term or permanent impacts not expected.	No further DGs proposed - necessary safeguards have already been included.
Climatic factors	**14. To adapt to and mitigate the impacts of climate change.** Developing land as a quarry is expected to have some negative impacts regarding climate change, due primarily to machinery used and transportation of mineral away from site. However, these will in relative terms be negligible.	*Potential for secondary effects resulting from the production of greenhouse gases (GHGs) beyond site boundary.*	*Potential for cumulative impacts of GHG production, in combination with nearby quarry.*	None expected - emissions expected to be relatively low	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the	Impacts not expected to be significant. If any negative impacts were to occur they would be expected during and after preparation and working. It is not known how long the	Impacts not expected to be significant. If any impacts were to occur they would be expected during and after preparation and working.	It is expected that effects would be temporary, and associated with the production of GHGs . However it is not known how long the effects of the GHGs may last following their production.		Policy CC1 of the Bournemouth, Dorset and Poole Minerals Strategy seeks to address and minimise such impacts through requiring operators to take into consideration climate change impacts and their possible mitigation

Receptors [19]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
						effects of the GHGs are felt after they are produced.	effects of the GHGs are felt after they are produced.	It is not known how long the effects of the GHGs are felt after they are produced.			for any proposed minerals development. The development management policies, e.g. DM 1, also address the issue of sustainable development and seek to minimise climate change. Restoration to some form of vegetation will offer benefits in the form of climate change mitigation, but again these benefits will be relatively small. No further DGs proposed - necessary safeguards have already been included.
	Material Assets	**NB** - The term 'material assets' for the purposes of this assessment is taken to refer to Natural Assets including minerals and land. Built assets are considered to be covered through other aspects of this assessment. The Sustainability Appraisal includes the following Sustainability Objectives: **10. To conserve and safeguard mineral resources.** **11. To promote the use of alternative materials.** **12. To provide an adequate and affordable supply of**	None expected.	None expected.	None expected.	Benefits of mineral supply while site is working.	Benefits of mineral supply while site is working.	Benefits of mineral supply decrease as site is worked and restored.	Benefits are temporary and will decrease as site is worked and restored.		No further DGs proposed - necessary safeguards have already been included.

Receptors [19]		Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		minerals to meet society's needs. The SA notes that the site would make an important contribution to the supply of building stone but does not promote the use of alternative materials.									
	Cultural heritage - archaeology and historic landscapes	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** <u>Archaeology</u> Human burials were found in the adjacent existing quarry a few years ago. It is expected that an archaeological watching brief for future development of the site would be adequate to mitigate damage to known and potential deposits. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. <u>Historic Landscapes</u> The site is on the north-eastern end of Lillington Hill, which is also known at Knighton Hill at the opposite end by Knighton village, on the western side of the Blackmore Vale. Seemingly much of the Vale remained wooded until the Middle Ages, and so the field system	No impacts expected.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Mitigation and restoration to be designed to minimise any impacts that may arise to acceptable levels, during and after working.		No further DGs proposed - necessary safeguards have already been included.

Receptors [19]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
	on and around the site may well be Medieval in origin. The Mineral Planning Authority is not aware of anything particularly significant about these fields. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									
Cultural heritage - historic buildings	**6. To maintain, conserve and enhance the historic environment (including archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings).** Listed buildings are too far away to be affected. No significant impacts on historic buildings expected.	No impacts expected.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No impacts expected, but if any arose it is expected that they could be permanent, depending on restoration. Mitigation and restoration would be designed to minimise all impacts to acceptable levels, during and after working.		No further DGs proposed - necessary safeguards have already been included.
Landscape	**7. To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.** The proposed development may be open to expansive views in this rural landscape so mitigation measures will be critical to its integration. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	Potential for impacts beyond the site boundary without appropriate mitigation. It is recommended that the scale of development is minimised where possible through measures such as small scale campaigns with progressive restoration. Further assessment at the planning	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Depending on restoration, some elements of the impacts on the landscape could be permanent; however mitigation is expected to satisfactorily mitigate these.		Scale of development should be minimised where possible and extraction take the form of short campaigns and progressive restoration. No further DGs proposed - necessary safeguards have already been included.

Receptors [19]	Is there a risk of likely significant effects (LSE) without mitigation ?				If following mitigation there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
	Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.								
Amenity NB this section relates primarily to visual amenity; noise is considered separately above under Human Health above.	**17. To sustain the health and quality of life of the population** Impact on Sensitive Human Receptors Residential properties within 500m. School approximately 1km away, to south/east. Site is screened by hedges and by the topography. Traffic levels expected to be as at present. Site will be screened as required and worked on a campaign basis to limit impacts. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant. Impact on Existing Settlements Lillington approximately 500m to south, Longburton approximately 1.5 km south east, Thornford approximately 2km to south west. No visible impacts. Site will be screened as required. Site likely to be worked on a campaign basis, to limit impacts. As an extension, there would be no intensification.	Limited potential for visual impacts. No intensification expected. Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.	No impacts expected.	No impacts expected.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	No significant impacts expected. If residual/non-significant negative impacts following mitigation were to occur they would be expected during preparation and working.	Potential for limited impacts during preparation and working. Appropriate mitigation to be required to minimise these impacts.		Impacts will be addressed at the planning application stage as required by planning policy, e.g. Policy DM2 of the Minerals Strategy 2014. No further DGs proposed - necessary safeguards have already been included.

Receptors [19]		Is there a risk of likely significant effects (LSE) <u>without</u> mitigation ?				If <u>following mitigation</u> there is still a risk of negative LSE, or of non-significant negative impacts, or of beneficial impacts, what is the timescale?					Comments
		Direct	Secondary	Cumulative	Synergistic	Short-term (<5 yrs)	Medium-Term (5-10 yrs)	Long-term (10+ yrs)	Temporary	Permanent	
		Further assessment at the planning application stage will determine whether any impacts are likely and appropriate mitigation to ensure impacts are not significant.									

BS05 Whithill **Possible in-combination effects.**	There is potential for cumulative effects in relation to climate. There are also expected secondary effects for human health; water; air (noise/dust); amenity and landscape. No in-combination effects between receptors are expected. Impacts are expected to be primarily during preparation/working, i.e. short to medium term; However the quarries are small, at a traditional scale in the landscape setting. Restoration would maintain open landscape and provide ecological enhancement. The MPA is satisfied that identified impacts can be addressed by DGs and existing/proposed policy.