



Heidelberg Materials

WESTDOWN QUARRY REVISED SCHEME OF WORKING

Environmental Statement Addendum





Heidelberg Materials

WESTDOWN QUARRY REVISED SCHEME OF WORKING

Environmental Statement Addendum

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 62280202

OUR REF. NO. 62280202-WSPE-RP-MD-00002_P01.1

DATE: OCTOBER 2023



Heidelberg Materials

WESTDOWN QUARRY REVISED SCHEME OF WORKING

Environmental Statement Addendum

WSP

Canon Court West

Abbey Lawn

Shrewsbury

SY2 5DE

Phone: +44 1743 342 000

WSP.com



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Final			
Date	October 2023			
Prepared by	Nienke Pengelly			
Signature				
Checked by	Claire Brown			
Signature				
Authorised by	Claire Brown			
Signature				
Project number	62280202			
Report number	V3final			
File reference				

CONTENTS

1	WESTDOWN REVISED SCHEME OF WORKING	1
1.1	BACKGROUND	1
1.2	WESTDOWN REVISED SCHEME OF WORKING	1
1.3	THE APPLICANT AND THE PROJECT TEAM	2
1.4	PURPOSE OF THE ENVIRONMENTAL STATEMENT ADDENDUM	2
1.5	DEVELOPER AND PROJECT TEAM	2
1.6	STRUCTURE OF THE ES ADDENDUM	2
1.7	OTHER DOCUMENTS	3
1.8	REFERENCES	3
2	DEVELOPMENT NEED AND ALTERNATIVES	5
2.1	NEED FOR THE PROJECT	5
2.2	CONSIDERATION OF ALTERNATIVES	5
2.3	EVOLUTION OF THE REVISED PREFERRED SCHEME	5
3	LANDSCAPE AND VISUAL	7
3.1	OVERVIEW	7
3.2	RELEVANT LEGISLATION, PLANNING POLICY, TECHNICAL GUIDANCE	7
3.3	DATA GATHERING METHODOLOGY	8
3.4	OVERALL BASELINE	9
3.5	ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS	9
3.6	ASSESSMENT METHODOLOGY	12
3.7	ASSESSMENT OF EFFECTS: LANDSCAPE ELEMENTS	13
3.8	ASSESSMENT OF EFFECTS: LANDSCAPE CHARACTER	15
3.9	ASSESSMENT OF EFFECTS: LANDSCAPE DESIGNATIONS	18



3.10	ASSESSMENT OF EFFECTS: VISUAL RECEPTORS	20
3.11	CONCLUSIONS OF SIGNIFICANCE EVALUATION	21
4	NOISE	30
4.1	OVERVIEW	30
4.2	LEGISLATION, POLICY AND GUIDANCE	30
4.3	BASELINE CONDITIONS	30
4.4	EMBEDDED ENVIRONMENTAL MEASURES	30
4.5	ASSESSMENT OF EFFECTS	30
5	BLASTING AND VIBRATION	31
5.1	OVERVIEW	31
5.2	LEGISLATION, POLICY AND GUIDANCE	31
5.3	BASELINE CONDITIONS	31
5.4	EMBEDDED ENVIRONMENTAL MEASURES	31
5.5	ASSESSMENT OF EFFECTS	31
6	AIR QUALITY	32
6.1	OVERVIEW	32
6.2	LEGISLATION, POLICY AND GUIDANCE	32
6.3	BASELINE CONDITIONS	32
6.4	SCOPE OF ASSESSMENT	33
6.5	EMBEDDED ENVIRONMENTAL MEASURES	34
6.6	ASSESSMENT OF EFFECTS: DUST EFFECTS	34
6.7	ASSESSMENT OF EFFECTS: NO ₂ EFFECTS FROM TRAFFIC	35
7	WATER ENVIRONMENT	36
7.1	OVERVIEW	36
7.2	LEGISLATION, POLICY AND GUIDANCE	36
7.3	BASELINE CONDITIONS	36
7.4	EMBEDDED ENVIRONMENTAL MEASURES	37



7.5	ASSESSMENT OF EFFECTS	37
8	BIODIVERSITY	38
8.1	OVERVIEW	38
8.2	SCOPE OF BIODIVERSITY ASSESSMENT	38
8.3	ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS	43
8.4	ASSESSMENT OF EFFECTS	43
8.5	ASSESSMENT OF CUMULATIVE EFFECTS	46
8.6	IMPLEMENTATION OF ENVIRONMENTAL MEASURES	46
9	TRAFFIC AND TRANSPORT	47
10	HISTORIC ENVIRONMENT	48
10.1	OVERVIEW	48
10.2	RELEVANT LEGISLATION, PLANNING POLICY, TECHNICAL GUIDANCE	48
10.3	DATA GATHERING METHODOLOGY	48
10.4	OVERALL BASELINE	48
10.5	CONSULTATION	49
10.6	SCOPE OF THE ASSESSMENT	51
10.7	ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS	51
10.8	ASSESSMENT METHODOLOGY	51
10.9	ASSESSMENT OF EFFECTS	51
10.10	CONCLUSION OF SIGNIFICANCE EVALUATION	51
10.11	IMPLEMENTATION OF ENVIRONMENTAL MEASURES	51
11	SOCIO-ECONOMICS	52
11.1	OVERVIEW	52
11.2	LEGISLATION, POLICY AND GUIDANCE	52
11.3	BASELINE CONDITIONS	52
11.4	EMBEDDED ENVIRONMENTAL MEASURES	52

11.5	ASSESSMENT OF EFFECTS	52
12	AGRICULTURAL LAND AND SOILS	53
<hr/>		
12.1	OVERVIEW	53
12.2	BASELINE	53
12.3	LIKELY SIGNIFICANT EFFECTS	53
12.4	ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS	53
12.5	ASSESSMENT METHODOLOGY	54
12.6	ASSESSMENT OF SOILS AND AGRICULTURAL LAND QUALITY EFFECTS	54
12.7	ADDITIONAL MITIGATION OR COMPENSATION	57
13	CUMULATIVE EFFECTS	58
<hr/>		
13.1	OVERVIEW	58
13.2	LEGISLATION, POLICY AND GUIDANCE	58
13.3	BASELINE CONDITIONS	58
13.4	ASSESSMENT OF EFFECTS	58

TABLES

Table 3-1 - Updated planning policy relevant to the LVIA	7
Table 3-2 - Summary of the updated embedded environmental measures and how they influence the LVIA	10
Table 3-3 - Updated assessment of landscape effects: LCA A10.4 Whatley Bottom (Including Asham Woods)	16
Table 3-4 - Updated assessment of landscape effects on the special qualities of the Asham Wood Special Landscape Feature	19
Table 3-5 - Updated assessment of visual effects: recreational visual receptors using Bridleway SM 8/9	20
Table 3-6 - Comparison between the conclusions of the 2021 ES and the Revised Proposed Development	22
Table 6-1 - Defra mapped background concentrations for PM ₁₀ and PM _{2.5}	33



Table 8-1 - Scoped in ecological features and rationale	39
Table 8-2 - Summary of significance of predicted biodiversity effects	43
Table 10-1 - Planning policy issues relevant to historic environment	48
Table 10-2 - Summary of issues raised during consultation regarding historic environment	50
Table 12-1 - Summary of agricultural land and soil effects for the Westdown Revised Scheme	56

FIGURES

Figure 1.1 – Site location plan After page 4

APPENDICES

APPENDIX A

WESTDOWN REVISED SCHEME HABITATS EVALUATION PROCEDURE (HEP)
UPDATE TECHNICAL NOTE

1 WESTDOWN REVISED SCHEME OF WORKING

1.1 BACKGROUND

1.1.1. Westdown Quarry has the benefit of planning permission for mineral extraction but has been unworked since the 1980s. Hanson Quarry Products Europe Ltd, part of the wider Heidelberg Materials group and since October 2023 rebranded as Heidelberg Materials (hereafter referred to as Heidelberg), is seeking to reopen the quarry. To achieve this a consolidated planning submission was made to Somerset County Council, now Somerset Council, in January 2021 and remains with Somerset Council for determination and comprises:

- Two Interim Development Order (IDO) submissions for the determination of planning conditions under the Planning and Compensation Act 1991;
- A Review of Old Minerals Planning Permission (ROMP) planning submission for the determination of planning conditions under the Environment Act 1995; and
- An application made under the Town and Country Planning Act (TCPA) 1990 for works ancillary to the operation of Westdown Quarry, including the construction of an upgraded access, on land that sits outside the ROMP and IDO boundaries.

1.1.2. The consolidated planning submission was validated and registered by Somerset Council in June 2021 as four planning applications:

- **SCC/3838/2021/ROMP** – An application in respect of the following Review of Mineral Planning Permission (ROMP) consent for the determination of mineral planning conditions made under the Environment Act 1995 at Hanson’s Westdown Quarry: - ROMP reference 016248/0051 for the winning and working of limestone – Approval of Schedule of Conditions dated 4 November 1998. This ROMP consolidated two separate parcels of land to the north-east of IDO/M/1/A and an area within the south-west of IDO/M/1/A, collectively covering an area of~14ha.
- **SCC/3837/2021/IDO** – IDO permission reference IDO/M/4/A (original planning reference 1492 - dated 28 June 1948) registered as an IDO on 27 October 1992. This permission covers the Asham Wood Void area and extends across an area of~32.3ha.
- **SCC/3836/2021/IDO** – IDO permission reference IDO/M/1/A (original planning reference 70 - dated 1 November 1947) registered as an IDO on 23 October 1992. This covers the main Westdown Quarry area and extends across an area of ~54ha.
- **SCC/3795/2021** – Works ancillary to the operation and restoration of Westdown Quarry, including the construction of an upgraded access, on land that sits outside the ROMP and IDO boundaries.

1.2 WESTDOWN REVISED SCHEME OF WORKING

1.2.1. Heidelberg are submitting a revised scheme of working for Westdown Quarry which seeks to concentrate all mineral working and associated works within Westdown Quarry and not use Asham Wood Quarry Void. The submission of the revised scheme of working, hereafter referred to as the **Westdown Revised Scheme** (Revised Proposed Development), has been necessary following concerns raised by the Somerset Council legal team regarding the validity of the extant Asham Wood IDO consent (ref. IDO/M/4/A), which Heidelberg continue to dispute. The submission of the revised scheme of working thus seeks to decouple the reopening of Westdown Quarry with any legalities related to the Asham Wood IDO consent.



1.2.2. The Westdown Revised Scheme submission is accompanied by an addendum to the original Environmental Impact Assessment (EIA), the results of which are reported in this Environmental Statement (ES) Addendum.

1.2.3. A site location plan is provided as **Figure 1.1**.

1.3 THE APPLICANT AND THE PROJECT TEAM

1.3.1. The Westdown Revised Scheme submission has been prepared by WSP UK Ltd¹ (hereafter referred to as WSP), on behalf of Hanson Quarry Products Europe Ltd, part of Hanson UK which is part of the wider Heidelberg Materials group. At the start of October 2023, Hanson UK announced it has rebranded to Heidelberg Materials in a move that will further align the business with its parent company.

1.3.2. WSP is registered with the Institute of Environmental Management and Assessment (IEMA)'s EIA Quality Mark scheme. The scheme allows organisations that lead the co-ordination of EIAs in the UK to make a commitment to excellence in their EIA activities and have this commitment independently reviewed.

1.4 PURPOSE OF THE ENVIRONMENTAL STATEMENT ADDENDUM

1.4.1. This ES Addendum has been prepared as part of an EIA relating to the revised scheme of working for the consolidated planning submission for Westdown Quarry. EIA is required for certain developments under *The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017 No. 571)* (hereinafter referred to as the EIA Regulations). This ES Addendum has been prepared for the purpose of meeting those requirements of the EIA Regulations that pertain to ESs. The ES Addendum provides part of the information that will be used by Somerset Council and others to inform the process of determining the consolidating planning submission.

1.4.2. This ES Addendum revisits the relevant sections of the original ES (Wood, 2021) that accompanied the x4 applications – SCC/3838/2021/ROMP, SCC/3837/2021/IDO, SCC/3836/2021/IDO, and SCC/3795/2021 – to determine whether the Westdown Revised Scheme would materially impact the conclusions of the original assessment.

1.5 DEVELOPER AND PROJECT TEAM

1.5.1. Heidelberg has engaged WSP to produce the documentation associated with the EIA Addendum and revised scheme of working for the consolidating planning submission for Westdown Quarry.

1.6 STRUCTURE OF THE ES ADDENDUM

1.6.1. The ES Addendum comprises:

- A standalone Non-Technical Summary (NTS).

¹ Formally Wood UK plc

- **Chapter 2** explains the need for the minerals development, outlines the main alternatives considered for meeting this need and indicates the main reasons for the choice of the preferred alternative.
- **Chapters 3 to 12** set out the technical assessment for the environmental topics that need to be assessed in the ES Addendum.
- **Chapter 13** considers the cumulative effects arising from the development and other developments in the locality.

- 1.6.2. The development description of the Westdown Revised Scheme for minerals development and supporting revised phasing and restoration plans are detailed in the accompanying Westdown Revised Scheme Planning Statement (Chapter 2 and Figures 2.1 to 2.6). These replace the development description and supporting figures previously detailed in the originally submitted 2021 ES and 2021 Planning Statement.
- 1.6.3. The approach and methodology that has been adopted in preparing the ES Addendum is unchanged from that outlined in Chapter 4 of the originally submitted 2021 ES.
- 1.6.4. An overview of the planning policies that are relevant to the ES Addendum are detailed in the accompanying Westdown Revised Scheme Planning Statement (Chapter 4). This replaces the policy overview previously detailed in the originally submitted 2021 ES (Chapter 5).

1.7 OTHER DOCUMENTS

- 1.7.1. The Westdown Revised Scheme consolidated planning submission is informed by this ES Addendum, but is also informed by other documents, the contents of which are of direct relevance to the findings of this ES Addendum. These other documents are:
- Westdown Revised Scheme Planning Statement; and
 - Report to Inform Habitats Regulations Assessment (HRA) Update for the Revised Scheme of Working.
- 1.7.2. Unless otherwise updated by this ES Addendum, all other previously submitted documentation, as listed below, remain relevant:
- Planning Statement (Wood 2021);
 - Environmental Statement (Wood 2021);
 - Flood Risk Assessment (Wood 2021);
 - Transport Assessment (Wood 2021); and
 - Regulation 25 Additional Information Report (Wood 2022).

1.8 REFERENCES

Wood, Westdown Quarry – Environmental Impact Assessment (EIA): Scoping Report. 40380-WOOD-XX-XX-RP-O-0001_S3_P02 May 2020.

Wood, Westdown Quarry – Planning Statement. 40380-WOOD-ZZ-XX-RP-OP-0001_S0_P01 January 2021.

Wood, Westdown Quarry – Environmental Statement. 40380-WOOD-ZZ-XX-RP-O-0001_S0_P02 January 2021.

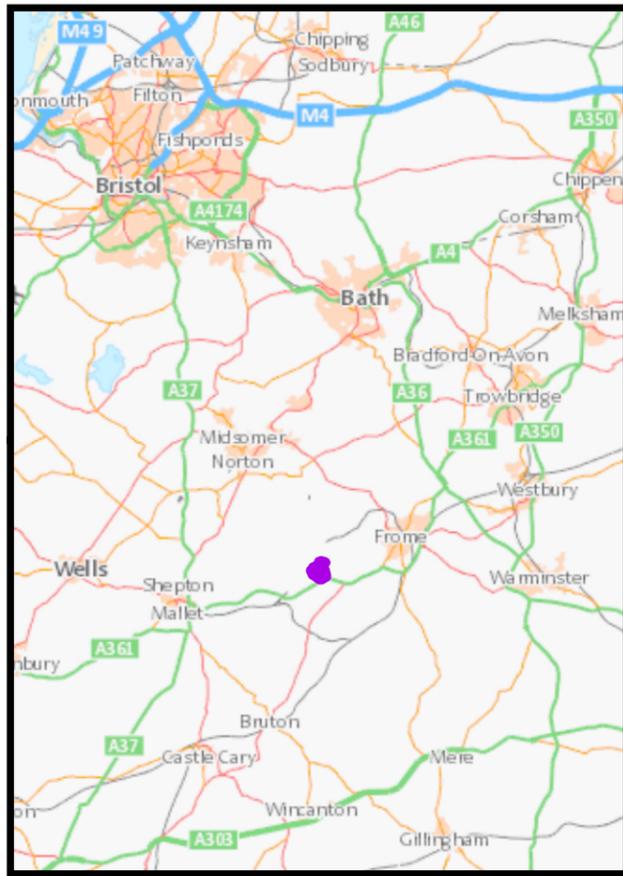
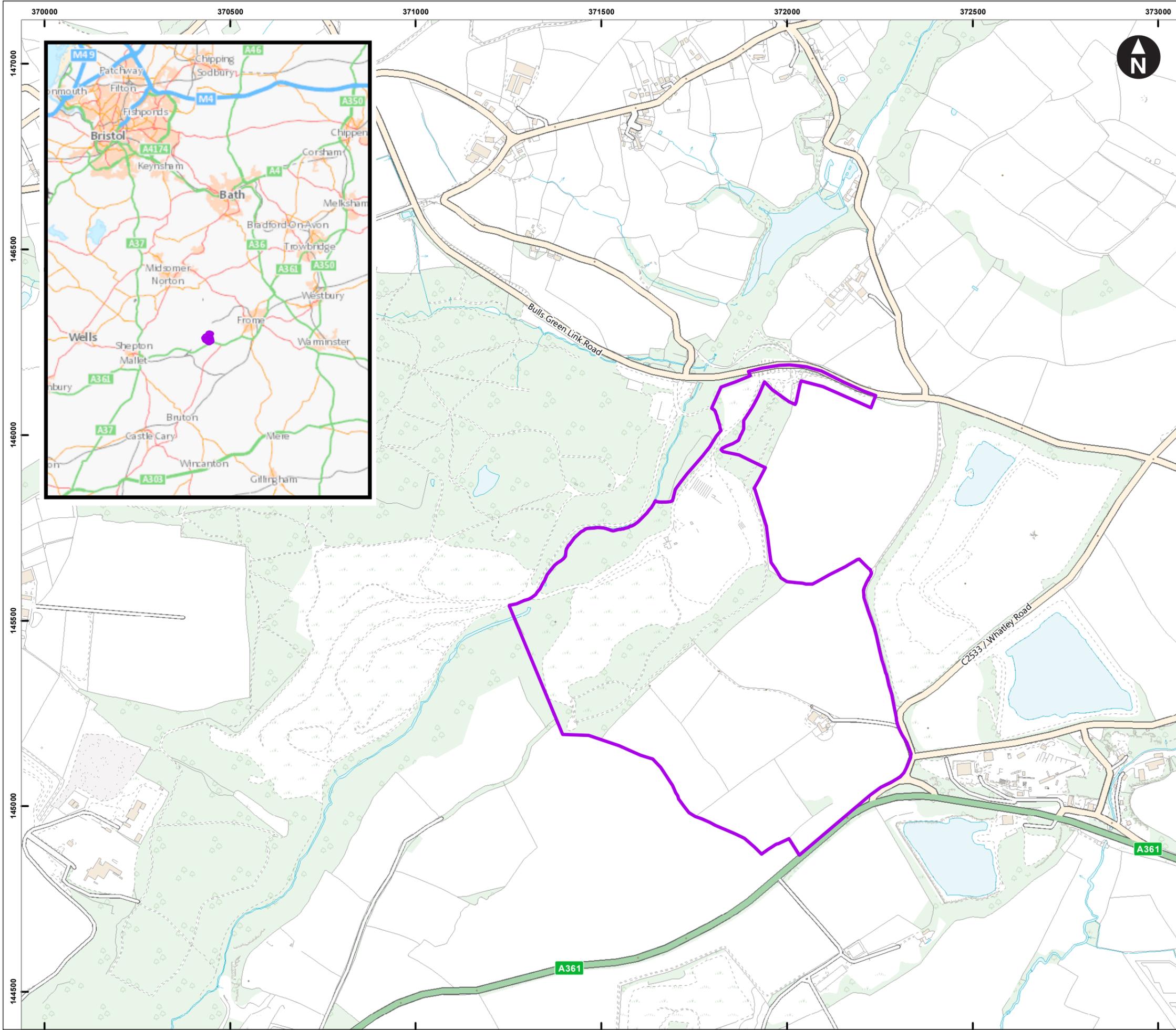
Wood, Westdown Quarry – Flood Risk Assessment. 40380-WOOD-ZZ-XX-RP-OW-0001_S0_P01 January 2021.



Wood, Westdown Quarry – Report to Inform Habitats Regulations Assessment. 40380-WOOD-ZZ-XX-RP-OE-0001_S0_P01 January 2021.

Wood, Westdown Quarry – Transport Assessment. 40380-WOOD-XX-XX-RP-OT-0003_S0_P02 January 2021.

Wood, Westdown Quarry – Regulation 25 Additional Information. 40380-WOOD-XX-XX-RP-J-0002_S2_P01 June 2022.



Key

Westdown Revised Scheme of Working consolidated planning submission area

0 100 200 300 400 500 600 m

Scale at A3: 1:10,000

Contains OS data © Crown Copyright and database right 2020
© Crown copyright and database rights 2023 Ordnance Survey
0100031673

Westdown Quarry Revised Scheme of Working
Environmental Statement Addendum

Figure 1.1
Site location map

October 2023



2 DEVELOPMENT NEED AND ALTERNATIVES

2.1 NEED FOR THE PROJECT

- 2.1.1. In planning policy terms, the ‘need’ for the development detailed in the ES Addendum requires little, if any, justification. This is because quarrying activities at Westdown already have planning consent, and this ES Addendum is simply a mechanism to establish the range and type of up-to-date planning conditions that will ensure the site is worked and restored in an environmentally acceptable manner.
- 2.1.2. Notwithstanding this, the need to recommence working at Westdown Quarry now, rather than in 10/20 years’ time, is considered in some detail in the Westdown Revised Scheme Planning Statement. Allied to this however, this chapter of the ES Addendum considered the alternatives to the recommencement of quarrying activities (for which need for the overall scheme is an implicit consideration), how the design of the overall project has evolved, and details of the final scheme.

2.2 CONSIDERATION OF ALTERNATIVES

- 2.2.1. An ES should include details of any alternatives to the development considered by the applicant. In this context, the applicant has looked at alternatives to the scheme proposals.
- 2.2.2. One alternative to the proposals is to simply not update the current planning permission, and consequently, not work the consented mineral resource that remains at Westdown. This would not only result in the sterilisation of significant limestone reserves at this site – which would be contrary to adopted minerals policy at both a national and local level – but would also fail to facilitate the restoration of the quarry, where historic working has left parts of the site in a condition that does not easily allow for any beneficial after use within reasonable timescales.
- 2.2.3. The Westdown Revised Scheme is itself an alternative to the originally submitted consolidated planning submission for Westdown Quarry. The reasons for this revised scheme have previously been set out in Section 1.2 above, with further detail provided in the Westdown Revised Scheme Planning Statement.
- 2.2.4. Further discussion on alternatives is provided in the Westdown Revised Scheme Planning Statement.

2.3 EVOLUTION OF THE REVISED PREFERRED SCHEME

- 2.3.1. Even before the start of the EIA process, many development proposals are informed by environmental considerations. For example, early decisions might be made to avoid direct effects to designated nature conservation or cultural heritage features and there will often be recognition of the need to implement standard measures to control noise and dust emissions, and to minimise the risk of pollution incidents. Further opportunities to avoid or reduce potential adverse effects, or to deliver environmental enhancements, may be identified whilst preparing the scoping report.
- 2.3.2. A design led approach has at all stages sought to acknowledge and mitigate potential environmental effects as well as incorporate and where possible enhance, environmental features and assets. Measures to minimise potential environmental effects, alongside enhancement measures where possible, are identified within each individual chapter.



- 2.3.3. The Westdown Revised Scheme submission has been informed by extensive desk study consultations previously undertaken with Somerset Council and statutory consultees including the Environment Agency, Natural England and the relevant environmental health and highway authorities. This has included all consultee responses made in response to the original consolidating planning submission (x4 planning applications) as well as further consultee comments made in response to the consultation on the Regulation 25 Additional Information Report (June 2022), submitted in response to Somerset Council's request for additional information under Regulation 25 of the EIA Regulations.
- 2.3.4. Further details on the evolution of the Westdown Revised Scheme are set out in Chapter 2 of the Westdown Revised Scheme Planning Statement.

3 LANDSCAPE AND VISUAL

3.1 OVERVIEW

- 3.1.1. This chapter assesses the landscape and visual effects relating to the Westdown Revised Scheme (the Revised Proposed Development). It forms an addendum to Chapter 6: Landscape and Visual of the Westdown Quarry Environmental Statement² (hereafter referred to as the 2021 ES) and details how the assessment may differ from the Landscape and Visual Impact Assessment (LVIA) of the original submitted scheme, when considering the revised proposals.
- 3.1.2. The chapter should be read in conjunction with Chapter 2: Minerals Operations Westdown Revised Scheme of Working of the Westdown Revised Scheme Planning Statement. This replaces the development description previously detailed in the originally submitted 2021 ES (Chapter 3).

3.2 RELEVANT LEGISLATION, PLANNING POLICY, TECHNICAL GUIDANCE LEGISLATION

- 3.2.1. The relevant legislative context for the Revised Proposed Development is detailed in the Chapter 6 of the 2021 ES and remains valid.

PLANNING POLICY

- 3.2.2. The planning policy relevant to the Revised Proposed Development is set out in Section 6.3 of Chapter 6 of the 2021 ES. This remains unchanged with the exception of:
 - National planning policy, which was updated in 2023; and
 - Mendip District Local Plan Part II, which was adopted in December 2021. The relevant Policy NN1: Land at Green Pits Lane which allocates land for residential development in Nunney is summarised in Chapter 4: Planning Policy Appraisal of the Westdown Revised Scheme Planning Statement.
- 3.2.3. The relevant paragraphs of the revised National Planning Policy Framework³ (NPPF) are set out in **Table 3.1**.

Table 3-1 - Updated planning policy relevant to the LVIA

Policy reference	Summary
National Planning Policy Framework	
Paragraph 130	Planning policies and decisions should ensure that development (amongst other criteria):

² Wood, 2021, *Westdown Quarry Environmental Statement (Doc Ref. 40380-WOOD-ZZ-XX-RP-O-0001_S0_P02)*

³ Department for Levelling Up, Housing & Communities (2023). *National Planning Policy Framework*. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Policy reference	Summary
	<p><i>“b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping; and</i></p> <p><i>c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities).”</i></p>
Paragraph 174	Planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and recognising the intrinsic character and beauty of the countryside.

TECHNICAL GUIDANCE

3.2.4. The technical guidance relevant to the Revised Proposed Development is set out in Section 6.3 of the 2021 ES. These documents remain unchanged with the exception of the following:

- *Technical Guidance Note (TGN) 02/21 Assessing landscape value outside national designations*⁴ was published in 2021 and provides information and guidance to landscape professionals and others who need to make judgments about the value of a landscape (outside national landscape designations) in the context of the UK Town and Country Planning system.
- Draft Technical Guidance Note 05/23 Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3)⁵. This Technical Guidance Note is a draft version for consultation and provides a compilation of clarifications on the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3)⁶.

3.3 DATA GATHERING METHODOLOGY

STUDY AREA

3.3.1. The LVIA Study Area is described in Section 6.4 of the 2021 ES and remains unchanged as part of this ES Addendum.

DESK STUDY

3.3.2. The data sources used in the original LVIA are set out in Table 6.1 of the 2021 ES. At the time of the original LVIA, the Mendip Landscape Character Assessment had been published for consultation with a final version released in October 2021.

⁴ Landscape Institute (2021). *Technical Guidance Note 02/21 Assessing landscape value outside national designations*. [online]. Available at: <https://www.landscapeinstitute.org/news/new-guidance-assessing-landscape-value-outside-national-designations/>

⁵ Landscape Institute (2023). *Draft Technical Guidance Note 05/23 Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3)*. [online]. Available at: <https://www.landscapeinstitute.org/technical-resource/notes-and-clarifications-on-aspects-of-the-3rd-edition-guidelines-on-landscape-and-visual-impact-assessment-glvia3-consultation/>

⁶ Landscape Institute and Institute of Environmental Management & Assessment (LI and IEMA). (2013). *Guidelines for Landscape and Visual Impact Assessment*. 3rd Ed. Third Edition. Routledge, London and New York.

3.3.3. All other data sources remain valid.

Zone of Theoretical Visibility (ZTV)

3.3.4. The ZTV shown in Figures 6.2i and 6.2ii of the 2021 ES utilised the perimeter screening bunds and existing landform across fields to the south of the Fordbury Water as parameters for the modelling. These remain unchanged as part of the Revised Proposed Development and as a consequence the ZTVs remain valid as part of this ES Addendum.

SURVEY WORK

3.3.5. The viewpoint photography presented in the 2021 ES has been used to support the updated visual assessment presented in this chapter. The photography was obtained during the winter months, thereby representing a worst-case scenario and is presented in accordance with best practice (the Landscape Institute's *Technical Guidance Note 06/19 Visual Representation of Development Proposals*⁷), which remains the current technical guidance for visualisations.

3.4 OVERALL BASELINE

3.4.1. The overall baseline detailed in Section 6.5 of the 2021 ES remains valid.

3.5 ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS

OVERVIEW

3.5.1. A range of environmental measures and how they influenced the landscape and visual assessment are set out in Table 6.5 of the 2021 ES. These have been developed further as part of the *Regulation 25 Additional Information Report*⁸ and have been revisited in light of the Westdown Revised Scheme consolidated planning submission area and associated Revised Development Proposals. The updated environmental measures which are relevant to the LVIA addendum are set out in **Table 3.2**.

⁷ Landscape Institute (2019). Technical Guidance Note 06/19 Visual Representation of Development Proposals. [online]. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf

⁸ Wood (2022). *Westdown Quarry – Regulation 25 Additional Information (Doc Reference: 40380-WOOD-XX-XX-RP-J-0002_S2_P01)*

Table 3-2 - Summary of the updated embedded environmental measures and how they influence the LVIA

Receptor	Changes and effects	Embedded measures and influence on assessment
Landscape elements	The loss of key landscape elements which either play a strong landscape role and consequently their loss would dilute the local landscape character, or a strong visual and screening role.	<p><u>Phases 1-5</u></p> <ul style="list-style-type: none"> ■ Retention of perimeter hedgerows with a change to the management regime where appropriate to allow an increase in height and therefore screening role. Gradual removal of internal hedgerows on a phased basis to allow their role to be maintained for as long as possible. Hedgerows to be translocated to within the 30m wide perimeter screenbank corridor. ■ Areas of woodland, particularly semi-natural ancient woodland within the site boundary to be avoided, retained, and appropriately managed throughout Phases 1-5. ■ 8m wide belt (1.5ha) of dense scrub planting to be created along the south-western, southern, eastern and northern boundaries of the site in the first planting season to provide enhanced boundaries. ■ Perimeter screenbanks to be planted with mixed native broadleaved trees and shrubs in the first planting season following their phased completion in Phases 1 and 2. Together with the 8m wide belt of dense scrub planting and translocated hedgerows, this would provide a 30m wide wooded corridor along the south-western, southern, eastern and northern boundaries of the site. <p><u>Restoration:</u></p> <ul style="list-style-type: none"> ■ New scrub and calcareous grassland to be progressively introduced across the worked benches of Westdown Quarry during Phases 1-5. ■ Exposed quarry faces, scrub, woodland, areas of water body, marginal habitat and lakeside grassland also contribute to a diverse landscape within the site boundary as part of the final restoration.
Landscape character	Direct landscape effects on The Mendip South Eastern Farmlands (A11), Whatley Bottom (A10.4) and a small part of the Nunney Brook / Egford Valley (A10.5)	<p><u>Operational phases:</u></p> <ul style="list-style-type: none"> ■ Perimeter screenbanks to be planted with mixed native broadleaved trees

Receptor	Changes and effects	Embedded measures and influence on assessment
	<p>(host Landscape Character Areas (LCAs)) and indirect effects upon other LCAs within the study area as a result of extraction and implementation of the restoration scheme.</p>	<p>and shrubs to help assimilate these landforms into the surrounding landscape and minimise the presence of the operational quarry from within the host and adjacent LCAs.</p> <p>Restoration:</p> <ul style="list-style-type: none"> ■ 10ha of woodland to be introduced as part of the restoration scheme to reinforce the ‘heavily wooded’ character of LCA A10.4 Whatley Bottom. ■ Woodland and scrub mixes are based on a National Vegetation Classification (NVC) W8 type woodland reflecting that which is found locally within Asham Wood. The species list has been extended to include other species that are present within Asham Wood, even though they are not typical of NVC W8, to ensure that robust and diverse woodland is created.
<p>Landscape designation (Asham Wood Special Landscape Feature (SLF))</p>	<p>Direct landscape effects which may alter the special qualities of the Asham Wood SLF</p>	<p>Operational phases:</p> <ul style="list-style-type: none"> ■ Woodland within the small area of the SLF which coincides with the Westdown Revised Scheme consolidated planning submission area would be retained and appropriately managed throughout Phases 1-5. <p>Restoration:</p> <ul style="list-style-type: none"> ■ The revised restoration scheme would introduce 10ha of native broadleaved woodland within the Westdown Revised Scheme consolidated planning submission area which would reinforce the links between woodlands on either side of the valley and consequently the Quality Criteria relating to ‘Features which contribute to local sense of place, identity, or particular landscape character’.
<p>Visual receptors</p>	<p>Changes to receptors views as a result of extraction and new visual components introduced as part of the restoration scheme.</p>	<p>Operational phases:</p> <ul style="list-style-type: none"> ■ Soil storage mounds would be grassed to reduce any contrast in texture and colour with the surround colours and textures in the landscape. ■ Perimeter screenbanks (3m high) would be placed behind an 8m wide

Receptor	Changes and effects	Embedded measures and influence on assessment
		<p>perimeter belt of woodland shrub planting and would be to be planted with mixed native broadleaved trees and shrubs to provide greater screening benefits and help assimilate these landforms into views.</p> <ul style="list-style-type: none"> ■ Views across the site would intentionally be made available to members of the public during the latter phases of operation (and following restoration) via an elevated viewing platform and accompanying information board which would be sited on the crest of the eastern perimeter screenbank and accessed via bridleway FR12/43. ■ The formation of a 5m high linear soil store along the southern edge of Level 2 to reduce views from elevated middle distance locations across the active Level 2 area. The 1:5 southern face of the linear mound which comprises the relocated former soils store, to remain fixed during the remainder of operations (Phases 3 to 5) whilst soils along the northern side are added to or removed for use in progressive restoration. <p>Restoration:</p> <ul style="list-style-type: none"> ■ Landscape elements and patterns to reflect those found locally within the landscape to reduce the contrast in visual receptors views.

RESTORATION STRATEGY

- 3.5.2. The restoration strategy, including proposed woodland and hedgerow species mixes, and environmental measures relating to lighting are set out in Section 6.8 of the 2021 ES. These remain valid as part of this ES Addendum.
- 3.5.3. The final restoration scheme for the Revised Proposed Development is described in Chapter 2: Minerals Operations Westdown Revised Scheme of Working and illustrated in Figure 2.6 of the Westdown Revised Scheme Planning Statement.

3.6 ASSESSMENT METHODOLOGY

- 3.6.1. The LVIA methodology is summarised in Section 6.9 and set out in detail in Appendix 6A of the 2021 ES. The methodology remains valid as part of this ES Addendum.
- 3.6.2. 3.6.2 Whilst *TGN 02/21 Assessing landscape value outside national designations*³ has been published since the 2021 ES was submitted, the TGN supplements and broadly presents the same factors as Box 5.1 from GLVIA3⁵. These Box 5.1 factors were used to inform the methodology for

determining landscape value presented in Table 6A.1 of Appendix 6A and the subsequent assessment of landscape character sensitivity in Appendix 6C of the 2021 ES. As such, the conclusions on landscape sensitivity presented in the 2021 ES remain valid and do not require updating to accord with this TGN.

3.7 ASSESSMENT OF EFFECTS: LANDSCAPE ELEMENTS

BASELINE CONDITIONS

Current baseline

- 3.7.1. The landscape elements within the Westdown Revised Scheme consolidated planning submission area are described in Section 6.10 of the 2021 ES. These remain valid with the exception of the descriptions of woodland and scrub which include that present within Asham Wood Quarry Void. This part of the original Westdown consolidated planning submission area no longer forms part of the Revised Development Proposals, and the baseline descriptions are therefore updated as follows:

Woodland

- 3.7.2. The northern boundary of the Westdown Revised Scheme consolidated planning submission area lies adjacent to and includes part of Asham Wood, which comprises an extensive area of semi-natural broadleaved woodland, a proportion of which is Ancient and Semi-Natural Woodland (ASNW). As detailed in the Asham Wood Woodland Management Plan (Forestry Commission EWGS) and Chapter 11: Biodiversity of the 2021 ES, woodland within the site primarily falls within National Vegetation Classification (NVC) community W8 (*Fraxinus excelsior* - *Acer campestre* - *Mercurialis perennis* woodland).
- 3.7.3. Beyond Asham Wood and within the Westdown Revised Scheme consolidated planning submission area, other small pockets of woodland have naturally regenerated. This includes an area across the existing soils storage mound located close to the southern edge of the existing Westdown Quarry void.

Scrub

- 3.7.4. Scrub habitats (dense continuous or scattered scrub) are present within the existing Westdown Quarry void. The dense continuous scrub areas are concentrated around the perimeter of the existing void and on historic soil and overburden stores, having been left to regenerate since operations ceased.
- 3.7.5. Scattered scrub is frequent across the existing Westdown quarry floor and is dominated by buddleia and silver birch saplings, with occasional dogwood and bramble.

PREDICTED EFFECTS AND THEIR SIGNIFICANCE

- 3.7.6. An assessment of the sensitivity of landscape elements within the site boundary is included in Appendix 6B of the 2021 ES and remains valid as part of this ES Addendum.
- 3.7.7. The assessment of landscape effects that would be generated due to the operational and the restoration phases of Westdown Quarry is set out in Section 6.10 of the 2021 ES. This also remains valid with the exception of the assessments relating to woodland, hedgerows, grassland and scrub which have been reassessed. The changes are primarily related to the quantities of landscape

elements which would be created as part of the Revised Development Proposals which is reflected in the narrative below.

Woodland

Operational Phases 1-5

- 3.7.8. All areas of ASNW would be retained during the operational phases of the development and would continue to be managed in accordance with the Asham Wood Woodland Management Plan. The majority of other, non-designated woodland would also be retained with a total of 5ha of broadleaved woodland retained during Phases 1-5.
- 3.7.9. Two small areas of woodland totalling ~1ha (or 13% of the total area of woodland within the site) would be progressively removed during the operational phases. The felled woodland comprises regenerated woodland which has developed across the existing soils storage mound which would be displaced by the void in Phase 3 and from along the southern edge of the existing Westdown Void which would be lost in Phase 1 as soil stripping and the void progress southwards.
- 3.7.10. Woodland planting would be introduced across the perimeter screenbanks during Phases 1 and 2, to provide an almost continuous 20m wide belt (3.4ha) of tree and shrub planting around the south-western, southern, eastern and northern sides of the site. This would lead to a net gain of woodland habitat across the site of 2.4ha during the operational phases.
- 3.7.11. Whilst the woodland introduced during the operational phases would require time to mature and fulfil a comparable mature or semi-mature role of the lost woodland, this increase in woodland would generate a Low magnitude of change at a site level which would reinforce and extend the wooded character of Asham Wood. This would give rise to a Moderate level of effect which would be beneficial, permanent, and assessed as being Significant given the highly valued role of woodland within and surrounding the Westdown Quarry site.

Restoration Phase

- 3.7.12. A further ~6.6ha of woodland would be introduced as part of the restoration of the site once extraction ceases at the end of Phase 5. This would be concentrated across the former office area, Level 2 (the existing Westdown Quarry void) and the oolite store within the north-western corner of the site as illustrated in Figure 2.8 of the Westdown Revised Scheme Planning Statement. It is assessed that the Low magnitude of change would increase to a Medium magnitude of change as the woodland introduced during the operational and restoration phases matures and plays a greater landscape role and that the permanent, beneficial landscape effects within the site would be Significant.

Scrub

Operational Phase 1-5

- 3.7.13. The majority of scrub present within the Westdown Revised Scheme consolidated planning submission area would be progressively removed to accommodate the operational Westdown Quarry during Phases 1-5 of the Revised Proposed Development. Scrub habitat introduced within the site during this time includes ~1 ha as part of the progressive restoration of quarry benches and 1.5ha of scrub in an 8m wide belt of planting around the perimeter of the site which would partially compensate for that lost. The magnitude of change is assessed as Medium and landscape effects would be Minor, long-term, neutral and Not Significant.

Restoration Phase

- 3.7.14. Additional scrub habitat would be introduced across the site as part of the final restoration comprising 1.4ha of scrub on Level 2 (the existing Westdown Quarry void) and the oolite store within the north-western corner of the site. This further provision of scrub habitat would reduce the magnitude of change to Low, when compared to the baseline conditions and permanent landscape effects would be Negligible, neutral and Not Significant.

Hedgerows

Operational Phase 1-5

- 3.7.15. The assessment of effects presented in the 2021 ES remains valid with the exception of:
- The 2.1km of hedgerows which would be removed on a phased basis as soil stripping and the extraction in the void progresses across the site, would be translocated to within the perimeter screenbank corridor. Whilst the hedgerows would therefore not be lost, landscape patterns would continue to be altered and the magnitude of change and level of effects on a site level would continue to be Medium and locally Significant.
 - The total length of hedgerow that would be planted as part of the off-site habitat creation would be 1,880m.

Restoration Phase

- 3.7.16. The assessment of effects presented in the 2021 ES remains valid.

Grassland

Operational Phase 1-5

- 3.7.17. Approximately 0.6ha of the 1.3ha of unimproved calcareous grassland, and 0.4ha of the 0.5ha of semi-improved neutral grassland which is present grassland within the site under baseline conditions would be lost during Phases 1 to 5. Grassland introduced within the site during this time comprises approximately 2.8ha of calcareous grassland created through the progressive restoration of quarry benches, with a net gain of 2.2ha of calcareous grassland thereby compensating for that lost. The magnitude of change for the operational phase is assessed as Low and landscape effects would be Negligible, long-term, neutral and Not Significant.

Restoration Phase

- 3.7.18. Further grassland types would be introduced as part of the final restoration of the site post Phase 5. This includes a further ~7.2ha of calcareous grassland and ~1.5ha of lakeside grassland across the lowest bench which would tolerate damper conditions. The magnitude of change when assessed against baseline conditions would be Medium and landscape effects would be Minor, beneficial and permanent.

3.8 ASSESSMENT OF EFFECTS: LANDSCAPE CHARACTER

BASELINE CONDITIONS

- 3.8.1. The 2021 ES utilised the Landscape Character Areas and accompanying descriptions from the consultation issue of the Mendip District Landscape Character Assessment as part of the baseline reporting. The final version of this report has been reviewed as part of the ES Addendum which has

confirmed that the descriptions and key characteristics reported in Section 6.11 of the 2021 ES remain valid.

PREDICTED EFFECTS AND THEIR SIGNIFICANCE

- 3.8.2. The assessment of effects presented in Section 6.11 of the 2021 ES remain valid for LCAs A7 (The Leigh, Stoke and Oakhill Northern Flank), A10.5 (The Nunney Brook / Egford Valley) and A11 (The Mendip South Eastern Farmlands). The infilling within Asham Wood Quarry Void, which no longer forms part of the Revised Development Proposals, would occur beyond the boundaries of the three LCAs, and therefore has very limited influence on the original assessment in the 2021 ES. Any references to this infilling in Tables 6.10, 6.12 and 6.13 of the 2021 ES should be disregarded.
- 3.8.3. The assessment for LCA A10.4 (Whatley Bottom (Including Asham Woods)) within which the Asham Wood Quarry Void infilling would have taken place has been updated in **Table 3.3** below.

Table 3-3 - Updated assessment of landscape effects: LCA A10.4 Whatley Bottom (Including Asham Woods)

LCA A10.4 Whatley Bottom (Including Asham Woods)		Minimum distance to the site: Host LCA
Overall landscape sensitivity (see Appendix 6C of the 2021 ES): High		
Assessment of the magnitude of landscape change		
Phase	Commentary	Assessment of effects
Phase 1 (end of Year 3)	<p>During Phase 1 there would be very small-scale losses of widespread landscape elements from within the northern parts of the Quarry as assessed in Section 6.10 of the 2021 ES and updated in Section 6.7 of this ES Addendum. This area would largely coincide with the existing Westdown Quarry void thereby re-establishing the working of one of the <i>'Extensive mineral operations active and abandoned within and adjoining LCA'</i> which is a noted characteristic of LCA A10.4. The activities taking place along the haul road, office area and upper part of the main quarry would give rise to disturbance and direct changes within a small part of the LCA which is already influenced by former mineral extraction.</p> <p>Beyond the Quarry, the small fragments of the ZTV (as illustrated in Figure 6.2ii of the 2021 ES), and hence the visual effects pathway, would be limited to close to the north of the Quarry. The field survey and baseline views from Viewpoint 1 (Figure 6.13 of the 2021 ES) demonstrates how even close to the Quarry in winter conditions, the coalescence of woodland, and individual trees screen views towards and into the site. Consequently, proposed Phase 1 activities such that soil stripping, perimeter bund construction, and progression of the void would only potentially visible across a small proportion of the LCA in rare partial and filtered views.</p> <p>In the closest part of this LCA, a small degree of aural disturbance arising from these activities may affect</p>	<p>Magnitude of change: Medium (within the site boundary) Low to None (remainder of the LCA A10.4)</p>
		Type of effect: Adverse
		<p>Level of effect: Major/Moderate (within the site boundary) Moderate to No Effect (remainder of the LCA A10.4)</p>
		<p>Significance of effect: Significant (within the site boundary) Not Significant or No Effect (remainder of the LCA A10.4)</p>

LCA A10.4 Whatley Bottom (Including Asham Woods)		Minimum distance to the site: Host LCA
	<p>perceptual characteristic of tranquillity within the closest parts of this LCA although this would be incremental to the localised lower levels of tranquillity associated with the existing quarries. The increase in quarry traffic would not be routed through the LCA and any traffic noise would be incremental to baseline traffic noise. The magnitude of change within the LCA is assessed as varying from being Medium within the Quarry to Low within the closest parts of the LCA to the Westdown Quarry site and much more extensively No Change across a high proportion of LCA A10.4 with the Revised Proposed Development having a very limited influence on the character and key characteristics of this LCA, even in its southern part.</p>	
Phase 3 (end of Year 10)	<p>The progression of the void into LCA A11 to the south would be visually screened by intervening vegetation of Asham Wood thereby minimising the potential for the operation of a visual effects pathway. Consequently, changes to the character of LCA would be restricted to the direct changes within a small proportion of LCA A10.4 which is already influenced by previous quarrying activities, and the small-scale perceptual changes associated with the continued aural influence of mineral extraction on already locally disrupted levels of tranquillity. The magnitude of landscape change would continue to be Medium within the small part of the LCA within which the northern part of the Quarry is located. The magnitude of landscape change would reduce to Low or Very Low within parts of the LCA sited close to Westdown Quarry and there would continue to be No Change across the remaining large majority of the LCA A10.4.</p>	<p>Magnitude of change: Medium (within the site boundary) Low to None (remainder of the LCA A10.4)</p>
		<p>Type of effect: Adverse</p>
		<p>Level of effect: Major/Moderate (within the site boundary) Moderate to None (remainder of the LCA A10.4)</p>
Phase 5 (end of Year 20)	<p>The continuation of extraction operations would be to the south and outside LCA A10.4 so direct landscape effects in Phase 5 would be restricted to the continued use of the haul road and stocking area. Consequently, the magnitude of landscape change would continue to be Medium in the small part of the LCA which coincide with the Westdown Revised Scheme consolidated planning submission area. It would remain Low or Very Low beyond the boundaries of the site when assessed against the baseline, with the Revised Proposed Development having little influence upon the key characteristics of</p>	<p>Magnitude of change: Medium (within the site boundary) Low to None (remainder of the LCA A10.4)</p>
		<p>Type of effect: Adverse</p>
		<p>Level of effect: Major/Moderate (within the site boundary)</p>

LCA A10.4 Whatley Bottom (Including Asham Woods)		Minimum distance to the site: Host LCA
	closest parts of the LCA reducing to No Change upon the more distant central and northern parts of the LCA.	Moderate to None (remainder of the LCA A10.4) Significance of effect: Significant (within the site boundary) Not Significant (remainder of the LCA A10.4)
Restoration	<p>The cessation of quarrying activities means that perceptual characteristics would rapidly return to those experienced under baseline conditions, i.e. Very Low transitioning to No Change. The restoration of the northern part of the Westdown Revised Scheme consolidated planning submission area would see the creation of approximately 5.5ha of woodland thereby extending and reinforcing the key characteristic relating to a 'Heavily wooded' landscape.</p> <p>From all parts of the LCA outside of the Westdown Revised Scheme consolidated planning submission area, the characteristic high levels of woodland allied with individual tree cover and hedgerows would ensure that the restoration waterbody, landforms, and planting within LCA A11 to the south would not be discernible. The magnitude of change would be Low within the revised site boundary reducing to None elsewhere within LCA A10.4.</p>	Magnitude of change: Low (within the site boundary) None (remainder of the LCA A10.4) Type of effect: Beneficial Level of effect: Minor (within the site boundary) None (remainder of the LCA A10.4)) Significance of effect: Not Significant (within the site boundary) Not Significant (remainder of the LCA A10.4)

3.9 ASSESSMENT OF EFFECTS: LANDSCAPE DESIGNATIONS

BASELINE CONDITIONS

- 3.9.1. The baseline description of the Asham Wood Special Landscape Feature (SLF) is provided in Table 6.14 of the 2021 ES and remains valid as part of this LVIA Addendum.
- 3.9.2. A small proportion of this local landscape designation continues to coincide with the Westdown Revised Scheme consolidated planning submission area but comprises existing woodland which would be retained. As such, and in contrast to the original application, there would be no direct landscape effects upon the Asham Wood SLF.

PREDICTED EFFECTS AND THEIR SIGNIFICANCE

- 3.9.3. The updated assessment of effects upon the Asham Wood SLF is set out in **Table 3.4**.

Table 3-4 - Updated assessment of landscape effects on the special qualities of the Asham Wood Special Landscape Feature

Asham Wood Special Landscape Feature			
Overall landscape sensitivity: High			
Minimum separation distance to Westdown Quarry: SLF is within the site boundary			
Quality criteria: Scenic beauty Views of Asham Wood would remain unchanged.			
Quality criteria: Rarity or interest No vegetation in the ancient semi-natural woodland would be lost as part of the Revised Proposed Development.			
Quality criteria: Acknowledged wildlife or ecological value There would be no effect upon the Mendip Woodlands SAC and Asham Wood SSSI as a consequence of the Revised Proposed Development as concluded in Chapter 8: Biodiversity of this ES Addendum.			
Quality criteria: Archaeological value All extraction would take place beyond the boundary of the Asham Wood SLF. There would be no direct effects upon archaeological sites or features of interest and no effects upon this landscape quality.			
Quality criteria: Viewpoints, vistas or landmarks Asham Wood would continue to play the same role as a prominent feature in the landscape during the operation and restoration of Westdown Quarry as it does under baseline conditions.			
Quality criteria: Places noted for their local amenity, popular walks, contribution to countryside recreation, or tranquillity The short section of the Mendip Way which passes through the northern part of the woodland would not be affected by the extraction and restoration within Westdown Quarry. Users of Bridleway SM 8/9 would experience some incremental audible disturbance as they use the route (works within Torr Quarry are an existing audible influence from within Asham Wood Quarry Void) but there would be no views of the Revised Proposed Development from this route.			
Quality criteria: Features which contribute to local sense of place, identity, or particular landscape character Asham Wood would retain its prominence in the landscape. The revised restoration scheme seeks to introduce 10ha of native broadleaved woodland within the Westdown Revised Scheme consolidated planning submission area which would reinforce the links between woodlands on either side of the valley.			
Summary The assessment concludes that six of the seven quality criteria which underpin this local landscape designation would remain unchanged as a result of the Revised Proposed Development. The exception relates to incremental aural disturbance from a section of Bridleway SM 8/9, which may disrupt local amenity and levels of tranquillity. The woodland proposed as part of the revised restoration scheme would provide additional connectivity with existing woodlands within the wider landscape.			
Overall assessment of landscape effects upon the Asham Wood Special Landscape Feature			
Magnitude of change:	Type of effect:	Level of effect:	Significance

Asham Wood Special Landscape Feature			
Very Low (all phases)	Long term adverse (Phases 1-5) Permanent beneficial (Restoration onwards)	Minor (all phases)	Not Significant (all phases)

3.10 ASSESSMENT OF EFFECTS: VISUAL RECEPTORS

3.10.1. The visual assessments presented in Tables 6.16 to 6.27 of the 2021 ES for residential, recreation and vehicular visual receptors remain valid in light of the Revised Development Proposals. The exception are users of Bridleway SM 8/9 (receptor group RR2 presented in Table 6.19 of the 2021 ES) and an updated assessment is presented in **Table 3.5** for this visual receptor group.

Table 3-5 - Updated assessment of visual effects: recreational visual receptors using Bridleway SM 8/9

Recreational visual receptors using Bridleway SM 8/9
<p>Visual receptor sensitivity: Medium due to recreational visual receptors using a bridleway being assessed as possessing medium or high susceptibility in accordance with GLVIA3 and the likelihood that these recreational receptors attach a medium value to the views with appreciation of views being a factor in their use of Bridleway SM 8/9 in the context of the bridleway being substantially routed through the moribund existing Asham Quarry as illustrated in baseline viewpoint photographs in Figures 6.14 & 6.15 of the 2021 ES</p>
<p>Relevant Figures: The location of this group of visual receptors is shown on Figures 6.4 & 6.12 of the 2021 ES, whilst baseline winter photographs from the sections of the bridleway are shown in Figures 6.13, 6.14 & 6.15 of the 2021 ES.</p>
<p>Minimum separation distance to boundary of Westdown Revised Scheme: Less than 10m along the northern boundary of the site</p>
<p>Assessment of effects – Operation Phases 1-5</p> <p>Commentary: There would be no views of the Revised Proposed Development from Bridleway SM 8/9 as intervening landform and woodland would heavily restrict receptors’ views southwards towards the quarrying activities.</p> <ul style="list-style-type: none"> ■ The Magnitude of Change is assessed as No Change. ■ The Type of Effect would be Neutral. ■ The Level of Effect is assessed as None. ■ The visual effect for this receptor group would be Not Significant.
<p>Assessment of effects –Restoration Phase</p> <p>Commentary: There would be no views of the restored site for users of Bridleway SM 8/9.</p> <ul style="list-style-type: none"> ■ The Magnitude of Change is assessed as No Change. ■ The Type of Effect would be Neutral. ■ The Level of Effect is assessed as None. ■ The visual effect for this receptor group would be Not Significant.

3.11 CONCLUSIONS OF SIGNIFICANCE EVALUATION

- 3.11.1. **Table 3.6** presents the conclusions of the landscape and visual assessment for the Revised Proposed Development alongside the conclusions of the original 2021 ES for ease of comparison.

Table 3-6 - Comparison between the conclusions of the 2021 ES and the Revised Proposed Development

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
Landscape elements							
Woodland	High	Low to Medium	Significant	High	Low to Medium	Significant	Changes to the quantities of woodland proposed with beneficial effects continuing to be locally significant.
Hedgerows	High	Medium	Significant	High	Medium	Significant	Whilst existing hedgerows would be translocated rather than lost, this would not alter the assessment of effects.
Arable land	Low	High	Not Significant	Low	High	Not Significant	No change to the assessment of effects
Individual trees	High	Low	Not Significant	High	Low	Not Significant	No change to the assessment of effects

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
Scrub	Low	Medium	Not Significant	Low	Medium	Not Significant	Changes to the quantities lost/proposed although effects would continue to be Not Significant.
Grassland	Low	Medium	Not Significant	Low	Medium	Not Significant	Changes to the quantities lost/proposed with a reduced magnitude of change from Medium to Low during the operational phase and an increase in the magnitude from Very Low to Medium during the restoration phase although effects would continue to be Not Significant.
Buildings	Low	High	Not Significant	Low	High	Not Significant	No change to the assessment of effects

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
Other features	Low	High	Not Significant	Low	High	Not Significant	No change to the assessment of effects
Landscape character							
LCA A7: The Leigh, Stoke and Oakhill Northern Flank	Medium	Very Low	Not Significant	Medium	Very Low	Not Significant	No change to the assessment of effects
LCA A10.4 Whatley Bottom (Including Asham Woods)	High	High within site boundary. Maximum of Low beyond site boundary	Significant within the site boundary. Not Significant outside site boundary.	High	Medium within site boundary. Maximum of Low beyond site boundary	Significant within the site boundary. Not Significant outside site boundary.	Reduced magnitude of change from High to Medium due to the absence of infilling activities within Asham Wood Quarry Void.
LCA A10.5: The Nunney Brook / Egford Valley (East Mendip Valleys)	High	High within site boundary (Phases 4 & 5). Maximum of Low beyond site boundary	Significant within the site boundary (Phases 4 & 5). Not Significant outside site boundary.	High	High within site boundary (Phases 4 & 5). Maximum of Low beyond site boundary	Significant within the site boundary (Phases 4 & 5). Not Significant outside site boundary.	High

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
LCA A11: The Mendip South Eastern Farmlands	Medium	High within site boundary. Maximum of Low beyond site boundary	Significant within the site boundary. Not Significant outside site boundary.	Medium	High within site boundary. Maximum of Low beyond site boundary	Significant within the site boundary. Not Significant outside site boundary.	Medium
Landscape designations							
Asham Wood Special Landscape Feature	High	Low (Phases 1-3) Very Low (Phase 4 onwards)	Significant (Phases 1-3). Not Significant (Phase 4 onwards)	High	Very Low (all phases)	Not Significant	Reduced magnitude of change from Low to Very Low due to the absence of infilling activities within Asham Wood Quarry Void.
Visual receptors							
CR1: Residential and recreational visual receptors in the community of Chantry	High	Very Low	Not Significant	High	Very Low	Not Significant	No change to the assessment of effects
CR2: Residential and recreational visual receptors in	High	Very Low	Not Significant	High	Very Low	Not Significant	No change to the assessment of effects

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
the community of Nunney Catch							
RR1: Recreational visual receptors using long distance promoted routes: East Mendip Way	High	Very Low	Not Significant	High	Very Low	Not Significant	No change to the assessment of effects
RR2: Recreational visual receptors using Bridleway SM 8/9	High	High	Significant	High	No Change	Not Significant	Visual effects would be reduced and there would be no views of the Revised Proposed Development.
RR3: Recreational visual receptors using Bridleway FR 12/43	High	High (from start of Phase 2)	Significant (from start of Phase 2)	High	High (from start of Phase 2)	Significant (from start of Phase 2)	No change to the assessment of effects
RR4: Recreational visual receptors using PRowS to the south-east of Nunney	High	Very Low	Not Significant	High	Very Low	Not Significant	No change to the assessment of effects

Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
RR5: Recreational visual receptors using PRowS and Cloford Common Open Access Areas to the south of the A359	High	Low	Not Significant	High	Low	Not Significant	No change to the assessment of effects
RR6: PRowS which cross elevated land south of Wanstrow	High	Very Low	Not Significant	High	Very Low	Not Significant	No change to the assessment of effects
VR1: Vehicular visual receptors using the A361 (eastbound)	Medium	Very Low	Not Significant	Medium	Very Low	Not Significant	No change to the assessment of effects
VR2: Vehicular visual receptors using the A361 (westbound)	Medium	Very Low	Not Significant	Medium	Very Low	Not Significant	No change to the assessment of effects
VR3: Vehicular visual receptors using the Bulls Green Link Road and southern	Medium	Low	Not Significant	Medium	Low	Not Significant	No change to the assessment of effects



Receptor	Original assessment (2021)			Revised Proposed Development assessment			Rationale
	Sensitivity	Magnitude of change	Level of effect	Sensitivity	Magnitude of change	Level of effect	
section of the C2533							
VR4: Vehicular visual receptors using Old Wells Road	Medium	Very Low	Not Significant	Medium	Very Low	Not Significant	No change to the assessment of effects

- 3.11.2. To conclude, there would be a change to the magnitude of change for the following receptors as a consequence of the Revised Development Proposals:
- Grassland: There would be changes to the quantities of grassland lost and created within the Westdown Revised Scheme consolidated planning submission area. This would reduce the magnitude of change from Medium to Low during the operational phase and increase the magnitude from Very Low to Medium during the restoration phase although effects would continue to be Not Significant.
 - LCA A10.4: The magnitude of change would reduce from High to Medium during the operational phases with a corresponding level of effect which would change from Major to Major/Moderate but would still be locally Significant within the area of LCA which coincides with the Westdown Revised Scheme consolidated planning submission area.
 - Asham Wood SLF: The magnitude of change would reduce from Low during Phases 1-3 to Very Low for all phases. The level of effect would therefore reduce from Moderate and Significant during Phases 1-3 to Minor and Not Significant for all phases.
 - Users of Bridleway SM 8/9: The magnitude of change would reduce from High to No Change during the operational and restoration phases and the level of effect would change from Significant to Not Significant.
- 3.11.3. There would also be changes to the assessments for the following receptors, however, these changes are primarily associated with the quantities of landscape elements lost and created as a consequence of the Revised Development Proposals and would not be of a sufficient scale to alter the conclusions of the 2021 ES:
- Woodland: There would be changes to the quantities of woodland created within the Westdown Revised Scheme consolidated planning submission area although the overall magnitude of change and corresponding level of effect would not alter from that concluded in the 2021 ES.
 - Scrub: There would be changes to the quantities of scrub lost and created within the Westdown Revised Scheme consolidated planning submission area although the overall magnitude of change and corresponding level of effect would not alter.
 - Hedgerows: Whilst hedgerows would be translocated to within the screenbank corridor during Phases 1-5 rather than lost, landscape patterns would continue to be disrupted and the translocation would not alter the magnitude of change and level of significance concluded in the 2021 ES.

4 NOISE

4.1 OVERVIEW

- 4.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment potential effects from the original Chapter 7 of the 2021 ES to inform this ES Addendum.

4.2 LEGISLATION, POLICY AND GUIDANCE

- 4.2.1. There have been no notable changes in legislation and guidance. The only amendment to policy relates to the National Planning Policy Framework (NPPF) 2021, which has since been replaced by a 2023 update. However, this update does not have any impact on the assessment or outcome of the ES as no material changes have been made within the updated policy document with regards to noise receptors.

4.3 BASELINE CONDITIONS

- 4.3.1. There have been no changes in the baseline assessment as set out in the 2021 ES (Chapter 7).

4.4 EMBEDDED ENVIRONMENTAL MEASURES

- 4.4.1. There have been no changes to the embedded environmental measures which are set out in the 2021 ES relating to noise.

4.5 ASSESSMENT OF EFFECTS

- 4.5.1. It remains the case that no significant effects are anticipated in relation to Noise. Moreover, two receptors (NSR4 - Leighton and NSR5 - Lodge Hill Manor and Downhead) were removed for this iteration of assessment in that the Revised Proposed Development is further away from these receptors, and these were already subject to low magnitude noise.

5 BLASTING AND VIBRATION

5.1 OVERVIEW

- 5.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment potential effects from the original Chapter 8 of the 2021 ES to inform this ES Addendum.

5.2 LEGISLATION, POLICY AND GUIDANCE

- 5.2.1. There have been no notable changes in legislation and guidance. The only amendment to policy relates to the National Planning Policy Framework (NPPF) 2021, which has since been replaced by a 2023 update. However, this update does not have any impact on the assessment or outcome of the ES as no material changes have been made within the updated policy document with regards to noise receptors.

5.3 BASELINE CONDITIONS

- 5.3.1. There have been no changes in the baseline assessment as set out in the 2021 ES (Chapter 8).

5.4 EMBEDDED ENVIRONMENTAL MEASURES

- 5.4.1. There have been no changes to the embedded environmental measures which are set out in the 2021 ES relating to blasting and vibration.

5.5 ASSESSMENT OF EFFECTS

- 5.5.1. It remains the case that no significant effects are anticipated in relation to Blasting and Vibration.

6 AIR QUALITY

6.1 OVERVIEW

- 6.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment of potential effects from the original Chapter 9 of the 2021 ES to inform this ES Addendum.

6.2 LEGISLATION, POLICY AND GUIDANCE

LEGISLATION

- 6.2.1. The legislative context relevant to the Revised Proposed Development is reported within Chapter 9 of the 2021 ES and remains valid.

POLICY

- 6.2.2. Relevant planning policies are reported within Table 9.2 of the 2021 ES Chapter 9 and each remain valid with the exception of the NPPF which has been updated in 2023. However, the updated NPPF3 does not include any additional information relevant to air quality to that which is already reported within the 2021 ES Chapter 9.

TECHNICAL GUIDANCE

- 6.2.3. Table 9.3 of the 2021 ES Chapter 9 reports relevant technical guidance. Each remain valid, with the exception of the following technical guidance documents which have now been updated:
- The Institution of Air Quality Management's (IAQM) Guidance on the Assessment of Dust and Demolition from Construction: This guidance document has been updated during 2023⁹ and should be considered for this ES Addendum; and
 - The Local Air Quality Management (LAQM) Technical Guidance 2018. This has been updated during 2022¹⁰ and should be considered for this ES addendum.

6.3 BASELINE CONDITIONS

CURRENT BASELINE

- 6.3.1. Mendip District Council (MDC) continue to report that they do not monitor concentrations of PM₁₀ or PM_{2.5}, therefore, as reported within Section 9.5 of the 2021 ES Chapter 9, there is no baseline data available for these pollutants.
- 6.3.2. The dust deposition monitoring results collected for the 2021 ES Chapter 9 remains valid.
- 6.3.3. Background concentrations of PM₁₀ and PM_{2.5} were collected for the site area for years 2018 – 2020 and are reported within Table 9.6 of the 2021 ES Chapter 9. These concentrations remain valid.

⁹ IAQM, 2023. *Guidance on the assessment of dust from demolition and construction*. (Online). Available at: [Construction-dust-2023-BG-v6-amendments.pdf \(iaqm.co.uk\)](https://www.iaqm.co.uk/construction-dust-2023-BG-v6-amendments.pdf)

¹⁰ Department for Environment Food & Rural Affairs, 2022. *Local Air Quality Management Technical Guidance (TG22)*. (Online). Available at: [UK Regions \(exc. London\) Technical Guidance | LAQM \(defra.gov.uk\)](https://www.defra.gov.uk/uk-regions-excl-london-technical-guidance-laqm)

Table 6.1 reports the background concentrations of PM₁₀ and PM_{2.5} for the site area for years 2021 and 2022 which should now also be considered. As reported in the 2021 ES Chapter 9, there is a slight decrease in background concentrations for future years due to the progressive penetration of more efficient vehicles in the UK fleet.

Table 6-1 - Defra mapped background concentrations for PM₁₀ and PM_{2.5}

Centre 1km ² cells		Concentrations (µgm ⁻³)			
X (m)	Y (m)	2021		2022	
		PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
370500	146500	12.5	7.7	12.4	7.5
371500	146500	12.2	7.6	12.1	7.5
372500	146500	12.0	7.6	12.0	7.5
370500	145500	12.7	7.8	12.6	7.7
371500	145500	12.5	7.7	12.4	7.6
372500	145500	14.7	8.0	14.5	7.8
370500	144500	13.7	9.0	13.5	8.9
371500	144500	13.2	7.9	13.0	7.8
372500	144500	12.9	7.8	12.8	7.7
372500	144500	12.9	7.8	12.8	7.7

FUTURE BASLINE

6.3.4. The future baseline reported within the 2021 ES Chapter 9 remains valid.

6.4 SCOPE OF ASSESSMENT

6.4.1. The scope of the assessment of dust impacts is reported within Section 9.6 of the 2021 ES Chapter 9 and remains valid. It was reported that the following elements are included in the assessment of dust impacts:

- Description of the existing PM₁₀ concentration;
- Description of the location of receptors and their relative sensitivities to PM₁₀ concentration and dust deposition;
- Details of potential dust sources associated with the proposed development, including the activities and materials involved and the resulting potential for releasing dust;
- Description of the control/mitigation measures incorporated into the scheme;
- Prediction of the likely PM₁₀ and dust deposition impacts and resulting effects at relevant sensitive receptors, and considering the following:
 - The likely magnitude of dust emissions;

- The likely meteorological characteristics at the site, and definition of ‘high risk’ criteria for the development of specific management processes;
 - The dispersion and dilution afforded by the pathway to the receptors, considering distance, orientation, local terrain and features, and other relevant factors;
 - The sensitivity of the receptors to disamenity, health and/or ecology effects and any likely interactions;
- The residual PM₁₀ and dust deposition impacts and their disamenity, health and/or ecology effects;
 - A conclusion on the significance of the overall residual air quality effect.

6.4.2 After a review of this section with the Westdown Revised Scheme in mind, it can be deduced that the scope of assessment reported in the 2021 ES Chapter 9 remains valid.

6.5 EMBEDDED ENVIRONMENTAL MEASURES

6.5.1. Environment measures that will be incorporated into the Revised Proposed Development operations are reported within Table 9.11 of the 2021 ES Chapter 9 and remain valid.

6.6 ASSESSMENT OF EFFECTS: DUST EFFECTS

6.6.1. Table 9.27 of the 2021 ES Chapter 9 reports the summary of significance of predicted air quality effects. This assessment of dust effects reported within the 2021 ES Chapter 9 remains valid for this ES Addendum which considers the Westdown Revised Scheme. The rationale behind the validity of the assessment of dust effects is reported below and considers each of the elements which make up the scope of the assessment of dust impacts listed above in Section 6.4.

EXISTING PM₁₀ CONCENTRATIONS

- 6.6.2. As discussed in Section 6.3 above, dust deposition monitoring for a nearby quarry is reported within Section 9.5 of the 2021 ES Chapter 9 and remains a valid representation of existing survey results of dust deposition monitoring.
- 6.6.3. Section 9.5 of the 2021 ES Chapter 9 also reports ambient background concentrations of PM₁₀ and those reported within Table 9.6 of the 2021 ES Chapter 9 remain valid. Section 6.3 now also reports ambient background concentrations of PM₁₀ for years 2021 and 2022.

LOCATIONS OF RECEPTORS AND THEIR SENSITIVITIES

6.6.4. Table 9.7 of the 2021 ES Chapter 9 reports the receptors included in the assessment of dust impacts and those reported remain valid. The sensitivity of each receptor reported in Table 9.7 of the 2021 ES Chapter 9 also remains valid.

DETAILS OF POTENTIAL DUST EMISSIONS

6.6.5. The Westdown Revised Scheme retains all activities but now within Westdown Quarry and will not use Asham Wood Quarry Void. Therefore, the operational activities and associated potential dust emissions used to inform the assessment of dust impacts in the 2021 ES Chapter 9 remains valid.

DESCRIPTION OF CONTROL/MITIGATION MEASURES

6.6.6. As reported within Section 6.5, the embedded environmental measures reported within the 2021 ES Chapter 9 remains valid. These include relevant mitigation measures to ensure impacts from dust effects are controlled.

PREDICTION OF THE LIKELY PM₁₀ AND DUST DEPOSITION IMPACTS

Likely magnitude of dust emissions

6.6.7 The material that would be extracted at Westdown Quarry is not expected to change despite the activities now occurring within Westdown quarry alone. Therefore, the source emission that was considered as large in the 2021 ES Chapter 9 remains valid.

Likely meteorological conditions and pathway effectiveness

6.6.8 The 2021 ES Chapter 9 calculated the frequency of wind in each direction based on meteorological data for five years from Bristol Airport meteorological station. This remains valid and therefore the estimations of pathway effectiveness at the receptors reported within Table 9.21 of the 2021 ES Chapter 9 remains valid.

RESIDUAL PM₁₀ AND DUST DEPOSITION IMPACTS

- 6.6.7. Residual PM₁₀ and dust deposition impacts were concluded within the 2021 ES Chapter 9 by first concluding the dust impact risk and considering this alongside the receptor sensitivities to provide a descriptor for the magnitude of dust impacts expected at each receptor.
- 6.6.8. The dust impact risk was concluded by considering the source emission magnitude and the pathway effectiveness at each receptor. Since the magnitude of dust emissions and the pathway effectiveness reported at each receptor remains valid (as discussed above), the dust impact risk reported within Table 9.22 of the 2021 ES Chapter 9 also remains valid.
- 6.6.9. Since the dust impact risk reported within Table 9.22 of the 2021 ES Chapter 9 remains valid and since the sensitivities of receptors reported within Table 9.7 of the 2021 ES Chapter 9 remains valid, the magnitude of dust effects also remains valid. These are reported within Table 9.24 of the 2021 ES Chapter 9.

CONCLUSION OF SIGNIFICANCE OF DUST EFFECTS

- 6.6.10. After consideration of each of the components of the assessment of dust impacts that is reported within the 2021 ES Chapter 9, and with the conclusion that the Westdown Revised Scheme will not alter these components, it can be deduced that the summary of significance of predicted air quality effects reported within Table 9.27 of the 2021 ES Chapter 9 remains valid.

6.7 ASSESSMENT OF EFFECTS: NO₂ EFFECTS FROM TRAFFIC

6.7.1 Traffic movements to be generated as a result of the operation of Westdown Quarry are not expected to change as a result of the Westdown Revised Scheme. Therefore, the Annual Average Daily Flows (AADT) utilised in the 2021 ES to assess the impacts from traffic remains valid.

- 6.7.1. Cumulative NO₂ concentrations were predicted at sensitive receptors within the 2021 ES Chapter 9 and were found to be below the Air Quality Standard of 40µg/m³.

7 WATER ENVIRONMENT

7.1 OVERVIEW

- 7.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment of potential effects from the original Chapter 10 of the 2021 ES to inform this ES Addendum.

7.2 LEGISLATION, POLICY AND GUIDANCE

- 7.2.1. There have been no notable changes in legislation and guidance. The only amendment to policy relates to the National Planning Policy Framework (NPPF) 2021, which has since been replaced by a 2023 update. However, this update does not have any impact on the assessment or outcome of the ES as no material changes have been made within the updated policy document with regards to water environment receptors.

7.3 BASELINE CONDITIONS

- 7.3.1. There have been no substantive changes in the baseline assessment. The following paragraphs consider each of the sub-sections in turn.

HYDROLOGY, GEOLOGY, AND HYDROGEOLOGY

- 7.3.2. There have been no changes to the baseline characteristics which were set out in the 2021 ES. There has been some ongoing hydrometric monitoring carried out on-site (post 2021) however, this additional data is not judged to cause any material alteration to the baseline assessment or overall assessment of effects.

AQUATIC ENVIRONMENT

- 7.3.3. There have been no changes to the baseline condition and scoping in of receptors including water dependent conservation sites, waterbodies, and springs. On the Water Framework Directive (WFD) sub section, the 2021 ES was based on 2016 classifications, and the WFD water body status of water bodies has since been re-evaluated by the Environment Agency. There has been deterioration reported in the overall status for five water bodies, and an improvement in the overall status of one water body, as follows:

- Mells from Source to Confluence with Somerset Frome – deterioration in overall status from Moderate to Poor on the basis of the Chemical status deteriorating from Good – Fail;
- Whatley Brook from Source to Confluence with Mells River – deterioration in overall status from Moderate to Poor on the basis of the Chemical status deteriorating from Good – Fail;
- Nunney Brook from Source to Confluence with Mells River – deterioration in overall status from Moderate to Poor on the basis of the Chemical status deteriorating from Good – Fail;
- Somerset Frome Confluence with Mells River to Confluence Bristol Avon – deterioration in overall status from Moderate to Poor on the basis of the Chemical status deteriorating from Good – Fail;
- Mendips groundwater – Overall status deteriorated from Good to Poor; and
- Avon Bristol Forest Marble groundwater – Overall status improved from Poor to Good.

WATER RESOURCES

- 7.3.4. There have been no significant changes the water resources including licensed abstractions, private water supplies and consented discharges described in the 2021 ES.

FLOOD RISK

- 7.3.5. There are no significant changes to the baseline flood risk section in the 2021 ES. The only change is that the Revised Proposed Development sits entirely outside of Flood Zones 2 and 3 of the Fordbury Water, and all proposed works will now be situated within Flood Zone 1. As such, there is a lower overall risk of fluvial flooding in relation to the Revised Proposed Development.

7.4 EMBEDDED ENVIRONMENTAL MEASURES

- 7.4.1. There have been no substantive changes to the embedded environmental measures which were set out in the 2021 ES. The only detail which has changed relates to Section 10.8 of the 2021 ES which mentioned site-specific mitigation measures for site working and restoration phases, adjacent to Flood Zone 2 and 3 within the Asham Wood Quarry Void area. Those measures are no longer required given that there are no longer proposals to either excavate or restore soil in the Asham Wood Quarry Void area. As stated in paragraph 7.3.5 above, it can be confirmed there will no longer be any works within Flood Zone 2 and 3 or in close proximity to the Fordbury Water.

7.5 ASSESSMENT OF EFFECTS

- 7.5.1. The minor alterations to baseline conditions and embedded environmental measures do not alter the significance outcomes of the various elements or overall conclusions of the 2021 ES Water Environment assessment. It remains the case that no significant effects are anticipated in relation to the Water Environment.

8 BIODIVERSITY

8.1 OVERVIEW

- 8.1.1. This chapter presents an assessment of whether significant environmental effects are likely on biodiversity, which encompasses terrestrial and aquatic ecology and ornithology, as a result of a proposed revised scheme of working for Westdown Quarry. The revised scheme concentrates all mineral working and associated works within Westdown Quarry and does not use the Asham Wood Quarry Void.
- 8.1.2. A consolidated planning submission and supporting ES was submitted to Somerset Council in January 2021 and remains with the Council for determination. Therefore, this assessment uses the 2021 ES Biodiversity Chapter 11 and the additional information and assessments provided as part of the 2022 Regulation 25 submission as the baseline condition and assesses how the revised scheme of working alters the Biodiversity assessment presented in 2021.
- 8.1.3. The use of the 2021 assessment as the baseline has been agreed with the Planning Officer.
- 8.1.4. Based on this, the current chapter does not revisit the following sections from the 2021 ES Chapter 11 Biodiversity as these are all considered to remain valid for this updated assessment:
- Limitations of this assessment;
 - Relevant legislation, planning policy, technical guidance, albeit noted that the National Planning Policy Framework referred to has since been updated (2023) and paragraph numbers previously stated are now incorrect. Nonetheless the points made remain valid;
 - Data gathering methodology;
 - Overall baseline; and
 - Assessment methodology.
- 8.1.5. An updated Westdown Revised Scheme Habitats Evaluation Procedure (HEP) technical note is appended at **Appendix A** which replaces the 2021 ES Appendix 11E as well as the previously updated HEP calculations for greater and lesser horseshoe bats provided as Appendix C of the 2022 Regulation 25 submission.

8.2 SCOPE OF BIODIVERSITY ASSESSMENT

- 8.2.1. The key consideration in revisiting the scope, and also the subsequent assessment, for this revised scheme of working, is that it is located within the area that was previously assessed but covers a much smaller area.
- 8.2.2. Following review of the revised scheme no new features are scoped in relative to the 2021 ES Biodiversity Chapter 11 and the additional information and assessments provided as part of the Regulation 25 submission. Although the working area is reduced and works are now restricted to the east of Fordbury Water which now avoids any direct impacts on the Mendip Woodlands SAC and Asham Wood SSSI (works now 135m distant at the nearest point across the wooded valley of Fordbury Water), it is concluded that these sites should remain in the assessment due to the potential for indirect effects. The scoped in ecological features and rationale for the revised scheme are therefore detailed in **Table 8.1**, which is an updated version of Table 11.8 from the 2021 ES Biodiversity Chapter 11.

Table 8-1 - Scoped in ecological features and rationale

Ecological feature	Importance – Legislation and policy	Importance – Proposed Development	Environmental changes and likely significant effects	Zone of Influence	Scoped in justification
Mendip Woodland SAC	International	International	Land cover change.	The SAC boundary is now 135m from the Site Boundary at its nearest point.	Potential for hydrological and air quality effects.
Mells Valley SAC	International	International	Effects on qualifying species.	~5km from the operational and restoration area.	A colony of greater horseshoe bats, which are the primary reason for designation of the SAC, makes use of habitats within the Site Boundary. Natural England (NE) have indicated that the SAC should be considered in the assessment.
Asham Wood SSSI	National	National	Land cover change.	The SSSI boundary is now 135m from the Site Boundary at its nearest point.	Potential for hydrological and air quality effects.
Old Ironstone Works, Mells SSSI (See Mells Valley SAC)	National	National	Effects on qualifying species.	~5km from the operational and restoration area.	A colony of greater horseshoe bats, which are reason for designation of the SSSI, makes use of habitats within the Site Boundary. Natural England (NE) have indicated that the SAC should be considered in the assessment.
St Dunstan's Well Catchment SSSI	National	National	Effects on qualifying species.	~5km from the operational and restoration area.	A colony of greater horseshoe bats, which are reason for designation of the SSSI, makes

Ecological feature	Importance – Legislation and policy	Importance – Proposed Development	Environmental changes and likely significant effects	Zone of Influence	Scoped in justification
(See Mells Valley SAC)					use of habitats within the Site Boundary. Natural England (NE) have indicated that the SAC should be considered in the assessment.
Vallis Vale SSSI (See Mells Valley SAC)	National	National	Effects on qualifying species	~5km from the operational and restoration area.	A colony of greater horseshoe bats, which are reason for designation of the SSSI, makes use of habitats within the Site Boundary. Natural England (NE) have indicated that the SAC should be considered in the assessment.
Asham Wood East LWS	Local	Local	Land-take/Land cover change.	Within operational/restoration area.	The LWS crosses the site and includes the habitats alongside Fordbury Water
Lowland Mixed Deciduous Woodland (including Ancient Woodland)	National	Local	Land-take/Land cover change.	Within operational/restoration area.	Lowland Mixed Deciduous Woodland, including Ancient Woodland, is within the Site Boundary.
Hedgerows: Including native hedgerows and Important Hedgerows	National	Local	Land-take/Land cover change.	Within operational/restoration area.	Important hedgerows are located within the Site Boundary and some will be lost to quarry operations.
Lowland calcareous grassland	National	Local	Land-take/Land cover change.	Within operational/restoration area.	Lowland calcareous grassland is located within the Site Boundary



Ecological feature	Importance – Legislation and policy	Importance – Proposed Development	Environmental changes and likely significant effects	Zone of Influence	Scoped in justification
					and some will be lost to quarry operations.
Open mosaic habitat on previously developed land	National	Local	Land-take/Land cover change.	Within operational/restoration area.	Habitat type is located within the Site Boundary and some will be lost to quarry operations.
Badger	National	Local	Land-take/Land cover change. Changing levels of light, noise and vibration.	Within operational/restoration areas. Within ~30m of operational/restoration areas.	Operation of the quarry will result in the loss of badger setts and supporting habitat. Badger could be excluded from retained habitats as a result of increased light, noise and vibration during the operation and restoration phase.
Bats: Foraging, commuting and roosting	International	National	Land-take/Land cover change. Changing levels of light, noise and vibration.	Within operational/restoration areas. Within ~100m of operational/restoration areas.	Operation of the quarry will result in the direct loss of supporting habitat. Bats could be excluded from retained habitats, including roost sites, as a result of increased light, noise and vibration during the operation and restoration phase.
Dormouse	International	County	Land-take/Land cover change.	Within operational/restoration areas. Within operational/restoration areas.	Operation of the quarry will result in the direct loss of supporting habitat.

Ecological feature	Importance – Legislation and policy	Importance – Proposed Development	Environmental changes and likely significant effects	Zone of Influence	Scoped in justification
			Changing levels of light, noise and vibration.		Dormouse could be excluded from retained habitats as a result of increased light, noise and vibration during the operation and restoration phase.
Great crested newt	International	Local	Land-take/Land cover change. Change in vehicle movements.	Within ~500m of the operational area and restoration area. Within the operational area and restoration area.	Operation of the quarry will result in the direct loss of supporting habitat. Vehicle movements across the site could harm sheltering GCN.
Otter	International	County	Changing levels of light, noise and vibration.	Within operational/restoration areas.	Otter could be excluded from retained habitats as a result of increased light, noise and vibration during the operation and restoration phase.
Brown trout	National	Local	Change in water flow and quality.	On boundary of operational / restoration areas.	Potential for trout in Fordbury Water to be affected by changes in stream flow and quality during the operational phase.
Invertebrates – Terrestrial	National	Local	Land-take/Land cover change.	Within operational/restoration areas.	Operation of the quarry will result in the direct loss of supporting habitat.

8.3 ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS

- 8.3.1. An extensive suite of general measures providing incidental mitigation for ecological features and receptor-based measures providing mitigation for ecological features was presented in the 2021 ES Biodiversity Chapter 11 and the 2022 Regulation 25 submission.
- 8.3.2. The measures implemented with the revised scheme are identical where they still apply to the worked areas, although any measures planned for the Asham Wood Quarry Void (specifically the provision of additional bat roosting opportunities through provision of concrete tunnels to be buried in tipped material in Asham Wood Quarry Void) will not be pursued as this area is now outside of the Revised Proposed Development boundary.

8.4 ASSESSMENT OF EFFECTS

- 8.4.1. As indicated earlier, the revised scheme concentrates all mineral working and associated works within Westdown Quarry and does not use the Asham Wood Quarry Void.
- 8.4.2. In practice therefore, effects on receptors are all either the same or reduced compared to the 2021 ES Biodiversity Chapter 11 and 2022 Regulation 25 submission. However, for clarity, a summary of biodiversity receptors, significance evaluation and rationale as amended from Table 11.19 of the 2021 ES Biodiversity chapter is presented in **Table 8.2** below, along with an indication (bold text) of whether the assessment is changed or unchanged with the revised scheme.

Table 8-2 - Summary of significance of predicted biodiversity effects

Receptor and Summary of Effects	Significance Evaluation	Rationale
Mendip Woodland SAC	Not significant	<p>Changed</p> <p>There is now no potential for direct effects through land take. Additionally, the previously predicted small positive effect will also not take place.</p> <p>There are not predicted to be significant hydrological or air quality effects on the SAC, and therefore there can be no consequent significant ecological effects.</p> <p>As a result, effects on the SAC are considered to be Not Significant.</p>
Mells Valley SAC	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to the SAC would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Old Ironstone Works SSSI (component of Mells Valley SAC)	Not significant	<p>Unchanged</p> <p>Given the distance from the site the assessment focussed on the qualifying species for the SAC. Environmental measures and site-specific</p>

Receptor and Summary of Effects	Significance Evaluation	Rationale
		mitigation in relation to the SAC qualifying features would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.
St. Dunstan's Well and Catchment SSSI (component of Mells Valley SAC)	Not significant	<p>Unchanged</p> <p>Given the distance from the site the assessment focussed on the qualifying species for the SAC. Environmental measures and site-specific mitigation in relation to the SAC qualifying features would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Asham Wood SSSI (component of Mendip Woodland SAC)	Not significant	<p>Changed</p> <p>There is now no potential for direct effects through land take and hence now no predicted significant (negative in short-medium term) impact. Additionally, the previously predicted longer term positive effect will also not take place.</p> <p>There are not predicted to be significant hydrological or air quality effects on the SAC, and therefore there can be no consequent significant ecological effects.</p> <p>As a result, effects on the SSSI are considered to be Not Significant.</p>
Hedgerows, including Important Hedgerows	Significant (negative)	<p>Unchanged</p> <p>A total of 1,921m of important hedgerow will be lost on site over a period of 20 years. A total of 1,660m of species-rich hedgerow will be created at project commencement and therefore will have a significant period to mature before all the hedges are lost site. Additionally, enhancement of 1,557m of retained hedgerows will be undertaken. However overall, this is not considered sufficient to balance the net loss of 261m of important hedgerow as a result of the scheme. As a result, this is considered to be a significant negative effect.</p>
Lowland calcareous grassland	Significant (negative in short-medium term) Significant (positive in long term)	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation would render residual negative effects to a level which would not affect the receptor's Favourable Conservation Status. Large-scale enhancement and creation of new habitat would result in a significant positive effect.</p>

Receptor and Summary of Effects	Significance Evaluation	Rationale
Semi-natural broadleaved woodland / Lowland Mixed Deciduous Woodland / Ancient Woodland	<p>Semi-natural broadleaved woodland / Lowland Mixed Deciduous Woodland</p> <p>Significant (negative in short-medium term)</p> <p>Not significant (long term)</p> <p>Ancient Woodland</p> <p>Not significant (short, medium or long term)</p>	<p>Changed</p> <p>The proposals represent a loss of 1.9ha of the 7.5ha of the semi-natural broadleaved woodland habitat. This is considered to be an adverse effect on the priority habitat in the short-medium term (20 years) and hence is considered to be a significant negative effect. However, in the longer term, this effect is expected to be compensated by the restoration activities, such that the area of semi-natural broadleaved woodland habitat proposed is 8x the area that will be lost, which is considered of sufficient magnitude to result in a significant positive effect in the long term.</p> <p>No areas of ancient woodland are affected in the revised scheme of working. Therefore, no significant effects are predicted.</p>
Open mosaic habitat on previously developed land/brownfield sites	Significant (negative)	<p>Unchanged</p> <p>Open mosaic habitat is expected to be lost to the proposed scheme. Although small areas of this habitat will be created during the operation of the quarry, and on retained habitats (such as the quarry benches), this is not quantifiable and would be expected to be smaller than the original extent. Therefore, an adverse effect on the receptor's Favourable Conservation Status is predicted in the short, medium and long term.</p>
Badger: land take / land cover change; disturbance	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to badger would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Bat assemblage: foraging and commuting; injure/kill; impair ability to survive	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to bats would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Dormouse: land take / land cover change; disturbance	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to dormouse would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Great crested newts: land take / land cover	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to great crested newts would</p>

Receptor and Summary of Effects	Significance Evaluation	Rationale
change, change in vehicle movements		render residual effects to a level which would not affect the receptor's Favourable Conservation Status.
Otter: land take / land cover change; disturbance	Not significant	<p>Unchanged</p> <p>Environmental measures and site-specific mitigation in relation to otter would render residual effects to a level which would not affect the receptor's Favourable Conservation Status.</p>
Brown trout	Not significant	<p>Unchanged from Regulation 25 submission</p> <p>Brown trout would be found in Fordbury Water. Chapter 10 Water Environment of the 2021 ES concluded that there would be no significant adverse effects on Fordbury Water. Consequently, it is considered there would be no reason why trout populations should be adversely affected. Indeed, the quarry de-watering water, from both Westdown and Torr Works) would ensure stream flows are maintained at all times.</p>
Terrestrial invertebrates: Land take / land cover change resulting in decline in population size.	Not significant	<p>Unchanged</p> <p>Site-specific mitigation and retention of appropriate habitats support the priority species during the operational phase and these persist through restoration. Although a negative effect on numbers of individuals is predicted, this is not sufficient to be considered to result in an adverse effect on conservation status and hence a significant negative effect is not predicted. Large-scale enhancement and creation of new habitat as part of the restoration would ensure the site supports a diverse community in the long term.</p>

8.5 ASSESSMENT OF CUMULATIVE EFFECTS

8.5.1. The assessment of cumulative effects is unchanged from the 2021 ES Biodiversity Chapter 11.

8.6 IMPLEMENTATION OF ENVIRONMENTAL MEASURES

8.6.1. The summary of environmental measures, responsibilities, and compliance mechanism for implementing these remains unchanged relative to the 2021 ES Biodiversity Chapter 11 (Table 11.20) and Regulation 25 submission.

9 TRAFFIC AND TRANSPORT

- 9.1.1. As detailed in Chapter 2: Minerals Operations Westdown Revised Scheme of Working of the Westdown Revised Scheme Planning Statement, the proposed revised scheme of working does not affect or alter the proposed traffic and transport detailed in the original proposed scheme. As such, the conclusions of the original 2021 ES (Chapter 12) remain valid, i.e. that the Revised Proposed Development's traffic and transport effects would be not significant.

10 HISTORIC ENVIRONMENT

10.1 OVERVIEW

- 10.1.1. Chapter 13: Historic Environment of the 2021 ES considered the potential changes arising from the proposed design amendments on the historic environment.
- 10.1.2. This ES Addendum should be read in conjunction with the 2021 ES.

10.2 RELEVANT LEGISLATION, PLANNING POLICY, TECHNICAL GUIDANCE

- 10.2.1. The legislation, policy, and technical guidance for the Historic Environment has changed since the publication of the 2021 ES. The NPPF was updated 20 July 2021 and 5 September 2023. **Table 10.1** below summarises the change in the NPPF since the submission of the 2021 ES. It should be noted that the paragraph numbers for the relevant section (Section 16) of the NPPF changed from paragraphs 184 to 202 in the 2019 version to paragraphs 189 to 208 in the 2021 and 2023 versions. There are no changes to the historic environment policies between the 2021 version and the 2023 version.

Table 10-1 - Planning policy issues relevant to historic environment

Policy Reference	Policy Issue	ES Addendum Section Ref.
NPPF 2023 16. Conserving and enhancing the historic environment	Paragraph 189 is an addition to the 2019 NPPF policies and states the requirement that local planning authorities consider the importance of the retention in situ of historic statues, plaques, memorials or monuments (whether listed or not), explaining their historic and social context rather than allowing removal.	10.5, 10.7, 10.9 to 10.10

10.3 DATA GATHERING METHODOLOGY

- 10.3.1. The data sources and gathering methodology for Historic Environment has not changed since the publication of the 2021 ES. Therefore, the text within Section 13.3 of the 2021 ES Chapter 13 regarding these aspects remains valid.
- 10.3.2. The study areas of 1km and 5km from the original site boundary as described in paragraphs 13.3.1 and 13.3.2 of Section 13.3 of the 2021 ES Chapter 13 remain valid.

10.4 OVERALL BASELINE

- 10.4.1. As the site boundary has been reduced in the west, it no longer includes an area of Asham Wood (semi-natural ancient woodland) or the disused Asham Wood quarry which was in operation during the mid-20th century (PRN 18890), as described in Section 13.4 of the 2021 ES Chapter 13. There are no other changes to the historic environment baseline for the site boundary.
- 10.4.2. Although the site boundary has changed, the original study area boundaries have been retained as part of this ES Addendum and therefore the baseline for the Historic Environment assessment within Section 13.4 of the 2021 ES Chapter 13 is still relevant to the assessment in this ES Addendum.



10.5 CONSULTATION

- 10.5.1. A response letter to the January 2021 applications from the South West Heritage Trust, Somerset Council's archaeological advisors, was received 30 June 2021. **Table 10.2** is an updated version of Table 13.3 in Section 13.5 of the 2021 ES Chapter 13 providing a summary of the response.

Table 10-2 - Summary of issues raised during consultation regarding historic environment

Issue raised	Consultee	Response and how considered in this chapter	ES Addendum Section Ref
Scope of surveys required in advance of EIA submission	Somerset County Council	Unchanged Communications with County Archaeologist to confirm scope of geophysical survey, and the need for trial trenching.	10.2 and 10.4
Historic Environment Impact Assessment, Archaeological Assessment and Heritage Statement requirements	Somerset County Council	Unchanged Incorporated into the EIA.	10.5, 10.9 to 10.13
Setting of nearby registered Parks and Gardens and other features should be dealt with as part of a Cultural Heritage Assessment	Somerset County Council	Unchanged Incorporated into the EIA.	10.5, 10.9 to 10.12
Advice on the recommended Conditions set as part of the planning decision	South West Heritage Trust	Added Communications South West Heritage Trust confirming the need for further work as part of a condition.	10.10

10.6 SCOPE OF THE ASSESSMENT

- 10.6.1. The scope for Historic Environment assessment has not changed and the text within Section 13.6 of the 2021 ES Chapter 13 regarding this aspect remains valid.

10.7 ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS

- 10.7.1. The environmental measures embedded into the development proposals have not changed since the publication of the 2021 ES. Therefore, the text within Section 13.7 of the 2021 ES Chapter 13 regarding these aspects remains valid.

10.8 ASSESSMENT METHODOLOGY

- 10.8.1. The assessment methodology for Historic Environment, as described in Section 13.8 of the 2021 ES Chapter 13, has not changed.

10.9 ASSESSMENT OF EFFECTS

DIRECT EFFECTS

- 10.9.1. The assessment of the direct effects, as described in Section 13.9 of the 2021 ES Chapter 13, has not changed as a result of the Westdown Revised Scheme.

INDIRECT EFFECTS

- 10.9.2. The assessment of the Indirect effects, as described in Section 13.10 of the 2021 ES Chapter 13, has not changed as a result of the Westdown Revised Scheme.

HISTORIC LANDSCAPE CHARACTER

- 10.9.3. The assessment of the Historic Landscape Character, as described in Section 13.11 of the 2021 ES Chapter 13, has not changed as a result of the Westdown Revised Scheme.

CUMULATIVE EFFECTS

- 10.9.4. The assessment of the cumulative effects, as described in Section 13.12 of the 2021 ES Chapter 13, has not changed as a result of the Westdown Revised Scheme.

10.10 CONCLUSION OF SIGNIFICANCE EVALUATION

- 10.10.1. The conclusion of significance evaluation, as described in Section 13.14 of the 2021 ES Chapter 13, has not changed as a result of the Westdown Revised Scheme.

10.11 IMPLEMENTATION OF ENVIRONMENTAL MEASURES

- 10.11.1. The method of implementation of the additional mitigation or compensation recommendations for Historic Environment has not changed since the publication of the 2021 ES. Therefore, the text within Section 13.15 of the 2021 ES Chapter 13 regarding these aspects remains valid.

11 SOCIO-ECONOMICS

11.1 OVERVIEW

- 11.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment of potential effects from the original Chapter 14 of the 2021 ES to inform this ES Addendum.

11.2 LEGISLATION, POLICY AND GUIDANCE

- 11.2.1. There have been no notable changes in legislation and guidance. The only amendment to policy relates to the National Planning Policy Framework (NPPF) 2021, which has since been replaced by a 2023 update. However, this update does not have any impact on the assessment or outcome of the ES as no material changes have been made within the updated policy document with regards to water environment receptors.

11.3 BASELINE CONDITIONS

- 11.3.1. The baseline line conditions are described in Section 14.5 of the 2021 ES. These remain valid with the exception of descriptions of the Public Rights of Way (PRoWs) which include Bridleway SM 8/9 and Footpath SM 8/11 both located within Asham Wood Quarry Void. This part of the original Westdown consolidating planning submission area no longer forms part of the Revised Development Proposals. Instead, both these PRoWs are now routed outside the Westdown Revised Scheme site.

11.4 EMBEDDED ENVIRONMENTAL MEASURES

- 11.4.1. There have been no substantive changes to the embedded environmental measures which were set out in the 2021 ES. The only detail relates to Section 14.8 of the 2021 ES which mentioned mitigation measures relating to users of bridleway SM 8/9 and footpath FR 12/43. These measures are no longer required given that there are no longer proposals to either excavate or restore soil in the Asham Wood Quarry Void area.

11.5 ASSESSMENT OF EFFECTS

- 11.5.1. The minor alterations to baseline conditions and embedded environmental measures do not alter the significance outcomes of the various elements or overall conclusions of the 2021 ES Socio-economics assessment. It remains the case that no significant effects are anticipated in relation to Socioeconomics.

12 AGRICULTURAL LAND AND SOILS

12.1 OVERVIEW

- 12.1.1. This section provides an update to the baseline and likely significant effects of the Westdown Revised Scheme with respect to soils and agricultural land quality. The chapter should be read in conjunction with the development description provided in Chapter 2 of the Westdown Revised Scheme Planning Statement and Chapter 15 of the original 2021 ES.

12.2 BASELINE

- 12.2.1. The spatial scope of the assessment covers the agricultural land required for the Westdown Revised Scheme and soils within the site as shown on Figure 1.3 of the Westdown Revised Scheme Planning Statement.
- 12.2.2. A detailed Agricultural Land Classification (ALC) survey in line with Natural England guidance¹¹ was undertaken in October 2020 to provide the baseline of agricultural land and soils resource types. This was reported in:
- Land Research Associates Ltd, Soil Resources and Agricultural Quality of Land at Westdown Farm: Report number 1731, dated November 2020.
- 12.2.3. A copy of the ALC survey report was included in Appendix 15A of the 2021 ES.
- 12.2.4. All agricultural land included in the Westdown Revised Scheme has had been subject to an ALC survey (Appendix 15A of the 2021 ES). An area of land known as Asham Wood Quarry Void, is no longer part of the revised scheme of working; this was (and remains) non-agricultural land and was therefore not included in the ALC survey.
- 12.2.5. Consequently, there are **no changes to the baseline** in respect of agricultural land and soils within the site from that presented in the 2021 ES.

12.3 LIKELY SIGNIFICANT EFFECTS

- 12.3.1. No new or different activities from those identified in the 2021 ES will be undertaken because of the Westdown Revised Scheme. Consequently, the likely significant soil and agricultural land quality effects remain **unchanged** from those presented in Table 15.4 of the 2021 ES.

12.4 ENVIRONMENTAL MEASURES EMBEDDED INTO THE REVISED DEVELOPMENT PROPOSALS

- 12.4.1. The environmental measures described in Table 15.5 of the 2021 ES (which include measures to prevent loss of soil resources and measures to minimise damage to soil structure) remain embedded within the Westdown Revised Scheme.

¹¹ <https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land>

- 12.4.2. These embedded measures will be secured through development of a Soil Management Plan, which will form a condition of the Westdown Revised Scheme.

12.5 ASSESSMENT METHODOLOGY

- 12.5.1. There are no changes to the assessment methodology outlined in Section 15.9 of the 2021 ES.

12.6 ASSESSMENT OF SOILS AND AGRICULTURAL LAND QUALITY EFFECTS

- 12.6.1. The primary difference between the Westdown Revised Scheme and the original scheme of working comprises the removal of working of the Asham Wood Quarry Void and, as a result of this removal, revised phasing and restoration plans.
- 12.6.2. Given that Asham Wood Quarry Void is not agricultural land, there are no changes to the quantum and type of agricultural land and soils identified in the original 2021 ES that will be permanently lost to the development as the quarry working is extended into land around Westdown Farm. A total of 21.6ha of Best and Most Versatile (BMV) agricultural land and associated soil functions¹² will still be permanently lost. The use of a worst-case temporal assumption that all of this BMV agricultural land will be taken at the outset of the development is considered to remain appropriate.
- 12.6.3. The soils identified in the 2020 soil survey were indicated to be relatively resistant to structural damage. The Westdown Revised Scheme includes the same best practice measures for the stripping and handling of soils embedded into the development as the original scheme of working. Consequently, changes to soil structure due to inappropriate storage and/or handling of soils or due to the use of heavy machinery which causes compaction are still likely to be limited as described in the 2021 ES.
- 12.6.4. The Westdown Revised Scheme, like the original scheme of working, will see soils progressively stripped as quarrying progresses. In the first two phases of quarrying (years 1 to 3 and to the end of year 5) the topsoil and subsoil will be stockpiled separately and used to create screening bunds around the perimeter of the site, similar to the proposals in the original scheme of working. From phase 3 onwards, the original scheme of working proposed that the stripped soils would be used to cap and restore the infilled Asham Wood Quarry Void. However, with this area removed from the Westdown Revised Scheme, the revised phasing and restoration plans show that topsoil and subsoil will remain stockpiled separately within the main quarry area until the end of phase 5 (end of year 20) when they will be used as part of the final restoration of the site including creation of woodland, scrubland and calcareous grassland.
- 12.6.5. Consequently, all existing soil resources on the site will still be appropriately reused to provide ecosystem benefits for nature conservation and amenity land use within the site during final

¹² Soil functions on agricultural land include supporting food production, filtering water and reducing flood risk, nutrient cycling and regulation of greenhouse gases. Soil is integral to terrestrial ecosystems and healthy soil is in itself rich in biodiversity.



restoration, and there will be no permanent loss of soil resources because of the Westdown Revised Scheme.

- 12.6.6. However, it is noted that because stripped soils from phase 3 onwards will no longer be used in restoring the Asham Wood Quarry Void, the duration over which they may need to be stockpiled onsite before they can be used for restoration activities increases from between 1 to 5 years to over 5 years. This results in the magnitude of the effect increasing from medium to high which given the medium sensitivity of the soil resources increases the level of effect from moderate (potentially significant) to high (significant).
- 12.6.7. **Table 12.1** summarises the assessment of effects for the Westdown Revised Scheme against those reported in the 2021 ES.



Table 12-1 - Summary of agricultural land and soil effects for the Westdown Revised Scheme

Receptor and Predicted Effects	Significance – Original 2021ES	Significance – Westdown Revised Scheme	Summary Rationale
Best and Most Versatile (BMV) Agricultural Land			
Permanent or temporary loss of BMV agricultural land	Major and Significant	Major and Significant	There is no change to the quantum of BMV agricultural land (21.6ha) lost to the development.
Soils (topsoil and subsoil)			
Permanent or temporary loss of soils	Moderate and Potentially Significant	Major and Significant	No permanent loss of soil resources, but maximum temporary loss of soil resources increased from between 1 to 5 years to over 5 years.
Changes to soil structure due to inappropriate storage and/or handling of soils or due to the use of heavy machinery which causes compaction	Minor and Not Significant	Minor and Not Significant	Soil survey indicates soils relatively resistant to structural damage and best practice mitigation measures for stripping and handling remain embedded into the development.

12.7 ADDITIONAL MITIGATION OR COMPENSATION

- 12.7.1. As detailed in the 2021 ES, which also reported significant effects, all of the relevant and implementable measures had already been embedded into the design of the development and considered as part of the of the 2021 ES.
- 12.7.2. The change in significance for temporary loss of soil resources and soil functions in the Westdown Revised Scheme is a consequence arising solely from the loss of the Asham Wood Quarry Void resulting in the potential for longer periods of stockpiling of soils being required before they can be used for restoration. Consequently, there remain no further measures that could be employed to mitigate this significant effect.

13 CUMULATIVE EFFECTS

13.1 OVERVIEW

- 13.1.1. A review has been carried out to identify any changes in the baseline, policy and legislation and the assessment of potential effects from the original Chapter 16 of the 2021 ES to inform this ES Addendum.

13.2 LEGISLATION, POLICY AND GUIDANCE

- 13.2.1. There have been no notable changes in legislation and guidance. The only amendment to policy relates to the NPPF, which has since been replaced by a 2023 update. However, this update does not have any impact on the assessment or outcome of the ES as no material changes have been made within the updated policy document with regards to cumulative receptors.

13.3 BASELINE CONDITIONS

- 13.3.1. The baseline conditions are described in Section 16.4 of the 2021 ES and paragraph 16.4.8. identifies the receptors (human and other) considered in the cumulative effects' assessment. These receptors remain valid with the exception of Mendip Woodland SAC and Asham Wood SSSI and Asham Wood Special Landscape Feature. The LVIA and Biodiversity assessments, as detailed in Chapters 3 and 8 respectively of this ES Addendum, have concluded that in respect of these three receptors there will be no significant effects in that the Asham Wood Quarry Void area no longer forms part of the Revised Proposed Development.

13.4 ASSESSMENT OF EFFECTS

- 13.4.1. As previously indicated, the Westdown Revised Scheme concentrates all mineral working and associated works within Westdown Quarry and does not use the Asham Wood Quarry Void. Consequently, the cumulative effects on receptors are all either the same or reduced compared to the 2021 ES Cumulative Effects Chapter 16.
- 13.4.2. The assessment of cumulative effects therefore remains unchanged and concludes that no significant long-term cumulative effects would occur.

Appendix A

WESTDOWN REVISED SCHEME
HABITATS EVALUATION
PROCEDURE (HEP) UPDATE
TECHNICAL NOTE





TECHNICAL NOTE 1

DATE:	26 October 2023	CONFIDENTIALITY:	Public
SUBJECT:	WESTDOWN REVISED SCHEME HABITATS EVALUATION PROCEDURE (HEP) UPDATE		
PROJECT:	62280202	AUTHOR:	Alan Kirby, Logika
CHECKED:	Andy Brooks	APPROVED:	Nienke Pengelly

OVERVIEW

Following the revised scheme of working for the Westdown Quarry application (known as the Westdown Revised Scheme) to exclude the Asham Wood Quarry Void and neighbouring habitats, updated Habitats Evaluation Procedure (HEP) calculations have been undertaken for greater and lesser horseshoe bats. These have used the latest available spreadsheets and guidance as obtained from the Somerset Council website¹ and the North Somerset Council website².

The calculations are based on the following parameters:

- Westdown Revised Scheme consolidated planning submission area boundary being 70.9 hectares (ha) in extent;
- Area of habitat to be lost to mineral extraction being 56.45ha in extent;
- Area of habitat retained within the revised consolidated planning submission area boundary being 12.7ha;
- Off-site mitigation area being 18.7ha in extent.

The HEP for greater horseshoe bats has been carried out assuming a density band of B. This is because the nearest maternity roost is more than 2,200m away. This is still considered conservative as the score for the band has not been reduced, despite the bat surveys showing that the activity of greater horseshoe bats is outside of the Westdown Revised Scheme being along Fordbury Water. Band A has been assumed to apply to lesser horseshoe bats, although some of the area is greater than 600m from the identified maternity roost on the Site.

GREATER HORSESHOE BAT

The HEP for greater horseshoe bat calculates that following habitat losses, 11.95ha of suitable habitat is required as compensation. The restoration scheme and the off-site mitigation area between them provide habitat with an equivalence of 15.84ha. This provides a gain that has a habitat equivalence of 0.77ha. The HEP calculation therefore suggests that following quarrying activity the amount of suitable habitat for greater horseshoe bat will be greater than present. The gain is modest, although it is noted that the records of greater horseshoe bat are focused on the corridor of the Fordbury Water corridor which will not be subject to habitat loss.

LESSER HORSESHOE BAT

The HEP for lesser horseshoe bat calculates that following habitat losses, 15.98ha of suitable habitat is required as compensation. The restoration scheme and the off-site mitigation area between them provide

¹ Somerset Council Habitat Evaluation Process – available at <https://www.somerset.gov.uk/planning-buildings-and-land/biodiversity-and-planning/habitat-evaluation-process/>

² North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document (adopted January 2018) – available at <https://www.n-somerset.gov.uk/sites/default/files/2020-02/NSC%20and%20Mendip%20Bats%20SAC%20guidance%20-%20supplementary%20planning%20document.pdf>



TECHNICAL NOTE 1

DATE:	26 October 2023	CONFIDENTIALITY:	Public
SUBJECT:	WESTDOWN REVISED SCHEME HABITATS EVALUATION PROCEDURE (HEP) UPDATE		
PROJECT:	62280202	AUTHOR:	Alan Kirby, Logika
CHECKED:	Andy Brooks	APPROVED:	Nienke Pengelly

habitat with an equivalence of 27.09ha. This provides a gain that has a habitat equivalence of 8.80ha. The HEP calculation therefore suggests strongly that following quarrying activity the amount of suitable habitat for lesser horseshoe bat will be greater than present. This change is primarily driven by the conversion of arable fields to more suitable habitat.

Greater Horseshoe Bats HEP Worksheet

Field No	Habitat	Primary Habitat		Matrix		Formation		Management / Land use		HSI Score	Density Band Score	Hectares	Habitat Units	Species / Notes	Band
		Code	Score	Code	Score	Code	Score	Code	Score						
	Arable and horticulture		1		0		1.00		1.00	1.00	2.0	34.17	68.34	J1.1: Arable	B
	Housing / Domestic Outbuildings		1		0		1.00		0.10	0.10	2.0	0.3	0.06	J3.6: Buildings	B
	Calcareous grassland		6		1		1.00		1.00	6.00	2.0	0.74	8.88	B3.1: Calcareous grassland - unimproved	B
	Quarry		1		0		1.00		1.00	1.00	2.0	4.35	8.70	J4: Bare ground	B
	Semi-improved grassland		4		0		1.00		1.00	4.00	2.0	7.06	56.48	J1.3: Ephemeral/short perennial	B
	Broadleaved woodland		6		1		1.00		1.00	6.00	2.0	1.95	23.40	A1.1.1: Broadleaved woodland - semi-natural	B
	Semi-improved grassland		6		1		1.00		1.00	6.00	2.0	0.38	4.56	B2.2: Neutral grassland - semi-improved	B
	Semi-improved grassland		4		-3		1.00		1.00	1.00	2.0	3.29	6.58	A2.1: Scrub- Dense/Continuous	B
	Semi-improved grassland		4		1		1.00		1.00	5.00	2.0	3.42	34.20	A2.2 Scrub - scattered	B
	Semi-improved grassland		4		0		1.00		1.00	4.00	2.0	0.44	3.52	A3.1 Parkland and Scattered trees - broadleaved	B
	Semi-improved grassland		4		0		1.00		1.00	4.00	2.0	0.05	0.40	C3.1 Tall ruderal	B
	Transport corridor		0		0		1.00		1.00	0.00	2.0	0.29	0.00	Hard standing	B

56.44	
Habitat Units	215.12
Hectares Required	11.95

Value from 'Replacement Habitat' worksheet

Equivalent Hectares Provided	15.84
------------------------------	-------

Note: Where there is significant residual replacement habitat that cannot be accommodated within the proposed development site off site enhancement will be needed. The amount required will be increased by the value of the existing habitat on the receptor site (see A5.54 in the Technical Guidance)

If required, Value from Receptor Habitat Worksheet

Equivalent Hectares of Existing Habitat on Receptor	3.12
---	------

If deficit then further input is required into either 'Replacement Habitat' and/or Off-site Replacement Habitat' worksheets until an equal or gain is provided. (Non-significant amounts of loss need to be agreed with planning authority ecologist)

Gain/ Deficit	0.77
----------------------	-------------

Greater Horseshoe Bats Replacement Habitat

Habitat	Primary Habitat		Matrix		Formation		Management /		HSI Score	Hectares	Delivery Risk	Temporal Risk	Spatial Risk		Equivalent Hectares	Notes
	IHS Code	Score	Code	Score	Code	Score	Code	Score					Replacement Site Band Score	Development Site Band Score		
Broadleaved woodland		6		1		1.00		1.00	6.00	10	0.67	0.50	2.0	2.0	20.10	
Semi-improved grassland		4		1		1.00		1.00	5.00	3.9	0.67	0.71	2.0	2.0	9.28	
Calcareous grassland		6		1		1.00		1.00	6.00	10.000	0.67	0.71	2.0	2.0	28.54	
Semi-improved grassland		6		1		1.00		1.00	6.00	1.500	0.67	0.71	2.0	2.0	4.28	B2.2: Neutral grassland - semi-improved
Quarry		1		0		1.00		1.00	1.00	1.100	1.00	0.97	2.0	2.0	1.07	Quarry faces and track
Standing water		4		1		0.25		1.00	1.25	30.600	1.00	0.83	2.0	2.0	31.75	
Marginal and inundation vegetation		1		1		1.00		1.00	2.00	0.500	0.67	0.83	2.0	2.0	0.56	
Transport corridor		0		0		1.00		1.00	0.00	0.600	0.00	0.00	2.0	2.0	0.00	
Semi-improved grassland		6		1		1.00		1.00	6.00	16.830	0.67	0.71	2.0	2.0	48.04	habitat within off-site mitigation area
Pond		6		1		1.00		1.00	6.00	0.500	1.00	0.83	2.0	2.0	2.49	habitat within off-site mitigation area
Semi-improved grassland		4		1		1.00		1.00	5.00	1.000	0.67	0.71	2.0	2.0	2.38	habitat within off-site mitigation area
Hedgerows		6		0		1.00		1.00	6.00	0.370	1.00	0.71	2.0	2.0	1.58	hedgerows added by assuming 2m width, with area subtracted from semi-improved grassland to maintain overall area
										76.900						
Value of Habitat Provided in Hectares															15.836	

Greater Horseshoe Bats Receptor Habitat

Habitat	Primary Habitat		Matrix		Formation		Management / Land use		HSI Score	Development site	Receptor Site	Hectares	Equivalent Hectares
	IHS Code	Score	Code	Score	Code	Score	Code	Score		Density Band Score	Density Band Score		
Arable and horticulture		1		0		1.00		1.00	1.00	2.00	2.00	18.700	3.12
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
Equivalent Value of Habitat on Receptor Site													3.12

Use this sheet where some or all of the replacement habitat is not provided within the development site. The value of the existing off site habitat needs to be taken away from the value of that provided.

Lesser Horseshoe Bats HEP Worksheet

Field No	Habitat	Primary Habitat		Matrix		Formation		Management / Land use		HSI Score	Density Band Score	Hectares	Habitat Units	Species / Notes	Band
		Code	Score	Code	Score	Code	Score	Code	Score						
	Arable and horticulture		1		0		1.00		1.00	1.00	3.0	34.17	102.51	J1.1: Arable	A
	Housing / Domestic Outbuildings		1.0		0		1.00		0.10	0.10	3.0	0.3	0.09	J3.6: Buildings	A
	Calcareous grassland		3		1		1.00		1.00	4.00	3.0	0.74	8.88	B3.1: Calcareous grassland - unimproved	A
	Quarry		2		0		1.00		1.00	2.00	3.0	4.35	26.10	J4: Bare ground	A
	Semi-improved grassland		3		0		1.00		1.00	3.00	3.0	7.06	63.54	J1.3: Ephemeral/short perennial	A
	Broadleaved woodland		6		1		1.00		1.00	6.00	3.0	1.95	35.10	A1.1.1: Broadleaved woodland - semi-natural	A
	Semi-improved grassland		3		1		1.00		1.00	4.00	3.0	0.38	4.56	B2.2: Neutral grassland - semi-improved	A
	Semi-improved grassland		3		-3		1.00		1.00	0.00	3.0	3.29	0.00	A2.1: Scrub- Dense/Continuous	A
	Semi-improved grassland		3		1		1.00		1.00	4.00	3.0	3.42	41.04	A2.2 Scrub - scattered	A
	Semi-improved grassland		3		1		1.00		1.00	4.00	3.0	0.44	5.28	A3.1 Parkland and Scattered trees - broadleaved	A
	Semi-improved grassland		3		1		1.00		1.00	4.00	3.0	0.05	0.60	C3.1 Tall ruderal	A
	Transport corridor		0		0		1.00		1.00	0.00	3.0	0.29	0.00	Hard standing	A
												56.44			
												Habitat Units	287.70		
												Hectares Required	15.98		

Value from 'Replacement Habitat' worksheet

Equivalent Hectares Provided	27.90
------------------------------	-------

Note: Where there is significant residual replacement habitat that cannot be accommodated within the proposed development site off site enhancement will be needed. The amount required will be increased by the value of the existing habitat on the receptor site (see A5.54 in the Technical Guidance) If required, Value from Receptor Habitat Worksheet

Equivalent Hectares of Existing Habitat on Receptor	3.12
---	------

If deficit then further input is required into either 'Replacement Habitat' and/or Off-site Replacement Habitat' worksheets until an equal or gain is provided. (Non-significant amounts of loss need to be agreed with planning authority ecologist)

Gain/ Deficit	8.80
---------------	------

Lesser Horseshoe Bats Receptor Habitat

Habitat	Primary Habitat		Matrix		Formation		Management / Land use		HSI Score	Development site	Receptor Site	Hectares	Equivalent Hectares
	IHS Code	Score	Code	Score	Code	Score	Code	Score		Density Band Score	Density Band Score		
Arable and horticulture		1		0		1.00		1.00	1.00	3.00	3.00	18.700	3.12
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
		0		0		1.00		1.00	0.00	1.00	1.00	0.000	0.00
Equivalent Value of Habitat on Receptor Site													3.12

Use this sheet where some or all of the replacement habitat is not provided within the development site. The value of the existing off site habitat needs to be taken away from the value of that provided.



Canon Court West
Abbey Lawn
Shrewsbury
SY2 5DE

wsp.com

PUBLIC