Parkgate Farm Landfill

Extension of Time & Variations to Planning Conditions Applications

Chapter 5: Landscape & Visual Impact Assessment (LVIA)

ESP Ltd

July 2023

Knowledge - Insight - Consultancy - Training

Notice

This report was produced by ESP Ltd for Hills Waste Solutions Ltd to present the results of a Landscape and Visual Impact Assessment for a proposed extension of time at Parkgate Farm Landfill, Purton, Wiltshire.

This report may not be used by any person other than Hills Waste Solutions Ltd without express permission. In any event, ESP Ltd accepts no liability for any costs, liabilities or losses arising as a result of the use of or reliance upon the contents of this report by any person other than Hills Waste Solutions Ltd.

Document Control

Version	Date	Author / Checked by	Change Description
1	17.08.22	RD/KH	Various
2	21.09.22	RD/KH	Wilts and Swindon Waste DC Policies DPD added
3	24.07.23	RD/KH	Revisions to working phasing and restoration schemes

Contact Details:

Rupert Dugdale CMLI
tel: 01902 771311
email: rupert.dugdale @esp.uk.net
Web: www.esp.uk.net

Contents

1 Executive Summary 1

2 Introduction 3

Report author 3

Site location 3

Existing Situation 3

Development proposals 4

Potential Cumulative Effects 5

Local Plan - Wiltshire Core Strategy 5

Wiltshire and Swindon Waste Development Control Policies Development Plan Document 6

Purton Neighbourhood Plan November 2018 8

Great Western Community Forest Plan 10

3 Landscape Assessment 11

Scope of the Landscape Assessment 11

Introduction 11

Landscape study area 12

Baseline Landscape Studies 12

Description of the site and setting 12

Landscape Character 14

National Character Areas 15

County 15

District 15

Landscape value 19

Established value 19

Non-established value 19

Landscape receptors 20

Assessment of Landscape Effects and Mitigation 21

Interactions between the proposal and landscape receptors 21

Cumulative landscape effects 22

Predicted effects on landscape receptors 23

Summary of predicted landscape effects 28

Overall Significance 28

4 Visual Assessment 30

Scope of the Visual Assessment **30**
Introduction **30**
Study area **30**
Baseline visual studies **30**
Visual environment **30**
Assessment of visual effects and mitigation **33**
Interactions between the proposal and visual receptors **33**
Proposed visual mitigation incorporated into the proposal **33**
Overall Significance **34**
5 Policy Compliance **37**

Drawings

Reference	Title
314F/22A	Consented Phasing
P11_LAN_002	Existing situation
P11_LAN_003	Phasing
P11_LAN_004	Restoration proposals
P11_LVIA_001	Site Context and Designations
P11_LVIA_002	Landscape Character
P11_LVIA_003	Visual Analysis
P11_LVIA_004	Viewpoint A
P11_LVIA_005	Viewpoint B
P11_LVIA_006	Viewpoint C
P11_LVIA_007	Viewpoint D
P11_LVIA_008	Viewpoint E
P11_LVIA_009	Viewpoint F
P11_LVIA_010	Viewpoint G
P11_LVIA_011	Viewpoint H
P11_LVIA_012	Viewpoint I
P11_LVIA_013	Viewpoint J
P11_LVIA_014	Viewpoint K
P11_LVIA_015	Viewpoint L
P11_LVIA_016	Viewpoint M
P11_LVIA_017	Viewpoint N
P11_LVIA_018	Viewpoint O
P11_LVIA_019	Viewpoint P
P11_LVIA_020	Viewpoint Q
P11_LVIA_021	Viewpoint R
P11_LVIA_022	Viewpoint S

Appendices

Appendix A	Methodology for assessing landscape and visual impacts
Appendix B	References
Appendix C	Local Plan Policies relevant to landscape and visual amenity
Appendix D	Drawing P952 5A Approved restoration scheme (1996)

1 Executive Summary

1.1 This is a Landscape and Visual Impact Assessment prepared in support of planning applications for an extension of time to Planning Consent N.05.07021 and variations to planning conditions and an extension of time to Planning Consent N.05.07022 at an existing landfill site at Parkgate Farm, Purton, Wiltshire.

1.2 It is proposed that the existing hazardous waste landfill operation be extended by an additional 12 years of operation (Consent N.05.07021) ending operations by end August 2036 and subsequent restoration by end October 2037. It is also proposed to change the phasing of the non-hazardous landfill (Consent N.05.07022) and therefore the restoration of the landfill to reduce its footprint and also to extend the operational life and subsequent restoration to the same timescale as Consent N.05.07021.

1.2 The assessment of landscape and visual effects of the proposed development is limited to the extended duration of operation and any effects arising from the amended restoration scheme. Predicted effects are assessed against a landscape and visual baseline of existing and former landfill operation, renewable energy and other industrial development within the study area. The proposed development is largely screened to the west, south and north by mature vegetation and to the south by the higher land at Paven Hill and Purton Common.

1.3 Landscape effects have been assessed during operation, at completion of full restoration and at 15 years after completion of restoration for the *Thames Valley Lowland* landscape character area; for the *Braydon Forest Area* of the Great Western Community Forest; and the approved landscape restoration scheme for the proposal site which, although partly implemented, forms part of the landscape baseline as a consented scheme and which is required to be delivered. The effect on landscape character is predicted during operation to be *negligible adverse* and *minor adverse*, becoming *negligible beneficial* and *minor beneficial* in the long term. Long term beneficial effects are predicted to arise as a result of the enhanced restoration scheme which will add characteristic landscape elements to the scheme.

1.4 The visual effects of the development were assessed by considering 15 viewpoints from a range of distances, orientations and receptor types. Of these, 6 had no view of the site. Of the 9 that had visibility of the site, *minor adverse* visual effects were predicted for 7 receptors and *neutral* for 3 during the operational phase as a result of the proposed increase in duration of operation. At 15 years after operation all

predicted effects are either *negligible beneficial* or *neutral*, due to the enhanced restoration scheme.

1.5 Cumulative landscape and visual effects are predicted in the event of the continuing development and the proposed Purton Landfill solar farm proceeding.

1.6 The continuing development is considered to comply with local plan policy relating to landscape and visual matters, with the objectives of the Great Western Community Forest Plan and with the guidelines and actions of the Thames Valley Lowland landscape character area.

1.7 No effects are predicted to be significant.

2 Introduction

Report author

2.1 This Landscape and Visual Impact Assessment (LVIA) has been prepared by Rupert Dugdale BA (Hons), BLD, CMLI who has over 28 years' post chartership experience and is employed by ESP Ltd, an independent, multi-disciplinary consultancy undertaking Landscape Planning and Design, Estate Management, Environmental Impact Assessment and Environmental Management for the public and private sectors. As a landscape architect, Rupert has both directly practiced and managed a team Landscape Architects and support staff which delivered design and implementation of a range of environmental and public realm improvements including civic spaces, housing, highways and school landscapes, play areas, urban forestry, derelict land reclamation, feasibility studies and input into development management and planning policy. He has carried out assessment of landscape and visual impacts on mineral, energy, agricultural, residential, commercial and leisure developments at strategic, outline and detailed level and regularly reviews LVAs/LVIAs on behalf of local planning authorities. He is a member of the Landscape Institute's Advisory Council, is a member of the Appointments and Selection Committee and was an external examiner for the Institute for 5 years.

Site location

2.2 The site location is shown on drawing P11_LVIA_001 Site Context and Designations drawing. The overall landfill area measures approximately 18.3hectares and is located some 3km to the west of Swindon and 1km north of the village of Purton.

Existing Situation

(refer to Drawing P11_LAN_002 Existing Situation)

2.3 The site is currently used for landfill under planning permissions granted in 1996 and in 2005. The 2005 approvals established that approximately one third of the site specifically be used for hazardous waste disposal as a direct replacement for the adjacent Purton Landfill. This change resulted in 2 parallel planning consents for hazardous and non-hazardous waste, both time-limited to cessation in 2024. The current consents also allow for the export of up to 40,000 m^3 of Oxford Clays per annum.

2.4 Stable and non-reactive hazardous waste (primarily asbestos) are currently imported and placed in landfill cells formed from Oxford Clay won on site. The hazardous waste element comprises mainly contaminated soils from re-development of brownfield sites although a wider range of wastes may be imported under the terms of the Environmental Permits in place.

2.5 Under the current consented scheme, the cycle of void development, landfilling and restoration in typically covers 3 cells at any one time in both sectors of the site, with a 4th cell being used when adverse weather conditions delay the completion of topsoiling or cultivation. Restoration of completed cells to grassland has been undertaken on a progressive basis.

2.6 The hazardous waste site was divided into 9 phases on the eastern third of the wider site. It is estimated that Phase 6 of the hazardous landfill cells will be nearing completion by the time these planning applications are resolved. The non-hazardous landfill was divided into 8 phases. It is estimated by the time these planning applications are resolved, Phase C will be engineered and accepting waste.

Development proposals

2.7 The development proposals are shown on drawings P11_LAN_003 Phasing.

2.8 Planning permission is being sought for;

- An extension of the operational period of the landfill (both consents) by an additional 12 years of operation so that import of waste and export of clay ceases in 2036 and restoration is complete by 2037
- Change the phase boundaries of the non-hazardous landfill within the last 4 phases and reducing the footprint of the landfill in the northern sector
- An updated restoration plan to reflect the reduced footprint of the landfill, access to the adjacent composting facility and Local Plan Policy.

2.9 The application will maintain a maximum annual input of 150,000 tonnes per annum and export of 40,000$m^3$of clay and an updated phasing plan and restoration scheme.

Potential Cumulative Effects

2.10 A desktop search has shown that there is one planning permission within the study area which has the potential for cumulative effects which has not yet been constructed, and the details of this are set out below;

PL/2021/10405. Installation of a 20MW ground-mounted Photo Voltaic (PV) solar development on a restored landfill site with associated landscape mitigation and ecological/ecosystem services enhancements, Purton Landfill.

Policy Context

Local Plan - Wiltshire Core Strategy

2.11 The Wiltshire Core Strategy was adopted by Wiltshire Council in January 2015 and provides strategic planning policy for the County for the period up to 2016. The following policies are relevant to landscape and visual amenity matters. The policy wording for each is included in Appendix 3 to this LVIA

Core Policy 50: Biodiversity and geodiversity

2.12 This policy relates to the protection of nature conservation and geological features, and the enhancement of biodiversity and requires development proposals to demonstrate how they protect features of nature conservation and geological value as part of the design rationale. All developments should seek opportunities to enhance biodiversity and measures should contribute to the objectives and targets of Biodiversity Action Plan, or River Basin/Catchment Management Plan, and be relevant to the local landscape character

Core Policy 51: Landscape

2.13 This policy seeks to protect, conserve and enhance Wiltshire's distinctive landscape character. It requires applications for development which would by its nature, scale, appearance or location have the potential to change local landscape character must be accompanied by a Landscape and Visual Impact Assessment.

Core Policy 52: Green infrastructure

2.14 This policy supports the delivery of green infrastructure projects and initiatives. The planning and delivery of these projects will need to address any potential negative environmental impacts, particularly in relation to disturbance of wildlife, flood risk,

water quality, landscape character and tranquillity. Support is given to the delivery of the objectives of the Great Western Community Forest Plan and improvements to the rights of way network across Wiltshire.

Core Policy 58: Ensuring the conservation of the historic environment

2.15 This policy aims to ensure that Wiltshire's important monuments, sites and landscapes and areas of historic and built heritage significance are protected and enhanced in order that they continue to make an important contribution to Wiltshire's environment and quality of life.

Wiltshire and Swindon Waste Development Control Policies Development Plan Document

2.16 This Development Plan Document (DPD) was adopted by Wiltshire and Swindon Councils in September 2009 and sets out the policies on managing waste management development over a 20 year period. The DPD forms one element of the Wiltshire and Swindon Minerals and Waste Development Framework and applies detailed policies to deliver the strategic objectives in the Waste Core Strategy. The following policies are relevant to landscape and visual amenity matters. The policy wording for each is included in Appendix C to this LVIA

WDC1: Key criteria for ensuring sustainable waste management development

2.17 This policy aims to ensure that waste management development contributes to the delivery of sustainable development by ensuring that the social, economic and environmental benefits of waste management development are maximised and adverse kept to an acceptable minimum. Development is required to protect and enhance local biodiversity, geodiversity and cultural heritage and the Wiltshire Landscape Character Assessment is to be used in assessing impacts. The quality and appropriateness of the restoration, aftercare and after-use proposals is to be considered in the context of the UK, South West and/or Wiltshire, Swindon and Cotswold Water Park Biodiversity Action Plan targets.

WDC2: Managing the impact of waste management

2.18 This policy provides that proposals for waste management development in Wiltshire and Swindon will be permitted where it can be demonstrated that the proposal firstly

avoids, adequately mitigates against, or compensates for significant adverse impacts relating to, amongst other things, amenity, visual aspects, and the potential loss of best and most versatile agricultural land.

WDC4: Protection of recreational assets

2.19 This policy provides that waste management development will be permitted where it can be demonstrated that controls will be made available to safeguard and where appropriate enhance public rights of way on or adjacent to development sites.

WDC7: Conserving landscape character

2.20 This policy provides that proposals for waste management development should include an assessment of the adverse impacts upon Wiltshire and Swindon's landscape character and the landscape character of adjacent areas, as deemed appropriate to the scale and nature of the development. Proposals should include appropriate provisions to protect and where possible enhance the quality and character of the countryside and landscape.

WDC8: Biodiversity and Geological interest

2.21 This policy provides that proposals for waste management development should be accompanied by an objective assessment of impacts on areas of biodiversity and/or geological interest, with reference to designations including the Great Western Community Forest.

WDC9: Cultural Heritage

2.22 This policy provides that waste management development will be permitted where it can be demonstrated that archaeological or cultural heritage assets and their settings can be protected, enhanced and/or preserved

WDC10: Restoration of waste management sites

2.23 This policy provides that waste management development will be permitted where provision has been made for the appropriate restoration and reinstatement where appropriate to the development. Restoration proposals will be required to achieve a number of outcomes including community, biodiversity interest and landscape quality.

Purton Neighbourhood Plan November 2018

2.24 The Purton Neighbourhood Plan was made by Wiltshire Council as part of its Development Plan in November 2018 and its policies will be given full weight when assessing planning applications that affect land covered by the Plan. Part of the site lies within the Purton parish boundary, and that part of the site outside of the boundary has the potential for wider landscape character and visual effects within the parish.

2.25 The Vision set out in the Plan is:

- *To protect the distinct character and identity of the historic rural settlements of both Purton and Purton Stoke together with the hamlets of the Fox and Hayes Knoll within the plan area;*
- *To protect the beauty and intrinsic value of the surrounding countryside and resist the gradual and persistent erosion between the settlements and with the urban area of Swindon with development being managed and located to avoid coalescence; and*
- *To protect the health, safety and wellbeing of these rural communities whilst maintaining the quality of life.*

2.26 The following policies are relevant to landscape and visual amenity matters.

Purton Policy 3: Footpaths

- *New development shall retain and protect the quality and attractiveness of existing public Rights of Way (footpaths and bridle ways) but where this is not possible, compensation measures will be sought to improve rights of way. Footpaths in new developments shall provide links to existing pedestrian routes where appropriate.*

Purton Policy 4: Ecological Enhancements

- *Proposals for new development should in accordance with Core Policy 50 and the NPPF Chapter 11 seek to identify and implement ecological enhancements wherever possible, such as part of proposed developments, in order to work towards a net gain for biodiversity rather than just to protect existing ecological features/sites. Local sites of ecological interest are to be retained*

and enhanced wherever possible in any development proposal. They include the following:

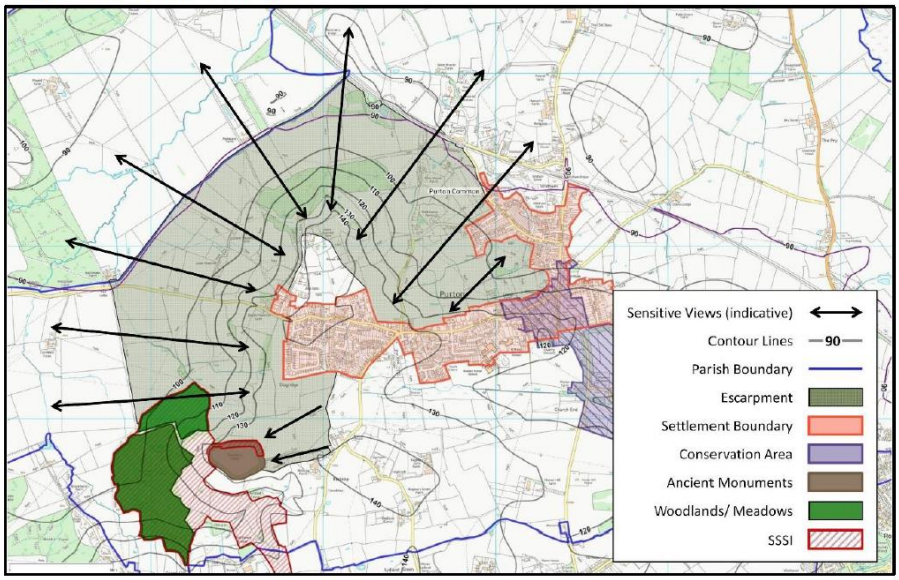
- *All County Wildlife Sites and Sites of Nature Conservation Interest.*
- *Areas of woodland and other wildlife sites shown on Map 3 (page 14).*

Purton Policy 5: To protect key local landscapes

- *The area shown in green on Map 5 designates an area in which locally important views are taken from the public footpath network, both to and from the escarpments to the north of the village, around Francombe Hill (known locally as High Hills), along the western side of the village up to and including the vista leading up to and around the ancient monument known as Ringsbury Camp. These views are shown on Map 5 which indicates sensitive public views related to the existing built areas. The area named as Purton Common also provides significant public views, as shown on Map 5. Any development in this designated area will be required to maintain the quality of these distinctive public views.*

Figure 1 - Map 5 from Purton Neighbourhood Plan

Map 5 - Key Local Landscapes



Date Created 26-1—2017 | Map Centre (Easting/Northing): 408731 / 187744 | Scale 1:12907 | © Crown Copyright and database right. All rights reserved (100038603) 2017
© Contains Ordnance Survey Data : Crown copyright and database right 2017

Great Western Community Forest Plan

2.27 One of 12 national Community Forests, the Great Western Community Forest (GWCF) covers an area of 39,000 hectares stretching from the North Wessex Downs Area of Outstanding Natural Beauty to the River Thames. A Forest Plan was prepared in 1994 and revised in 2002 for a plan period of 2002-2027, although no updates appear to have been made to the last 5 year action plan for 2002-2007.

2.28 The GWCF is divided into 6 Forest Areas which have defined characteristics. The site lies in the centre of the Braydon Forest. This area is described as;

> *Gently hilly with considerable remnants of the Ancient Royal Hunting Forest of Braydon. Interspersed with small scale, often unimproved, hedges meadows. Settlements are small scale and generally absorbed into the landscape.*

2.29 Key objectives listed for all Forest Areas, relevant to the proposed development, are;

- *To create new woodland in partnership with and for the enjoyment of the community*
- *To bring as much woodland and hedgerow as possible under active management, whilst retaining some areas as undisturbed woodland*
- *To promote significant landscape change and improvement, principally through the creation and management of woodland and through the creation of other habitats*
- *To preserve the character and special identity of towns and villages*

2.30 Key objectives listed for the Braydon Forest Area, relevant to the proposed development, are;

> *To increase tree cover to a minimum of 30% from a base of 5% particularly along hedgerows and roads in order to link existing woodlands together and increase planting in and around areas of planting, particularly Purton*

3 Landscape Assessment

Scope of the Landscape Assessment

Introduction

3.1 There are no statutory criteria or standards laid down for the assessment of landscape impacts. However, this report has been undertaken in general conformity with the 'Guidelines for Landscape and Visual Impact Assessment' 3nd Edition (GLVIA3), published by the Institute of Environmental Management and Assessment and the Landscape Institute in 2013 (Landscape Institute, 2013). This document defines landscape effects as follows;

> *An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern here is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character……*

3.2 The methodology for assessing the significance of landscape effects employed in this report is detailed in Appendix A to this report. GLVIA3 places greater importance on consultation and liaison with the Competent Authority than previous editions, particularly with regards to scoping and the identification of potential key and representative receptors.

3.3 A note on the planning strategy for the proposed development was submitted to Wiltshire Council in June 2022. This note proposed the submission of an Environmental Statement with the application and that, based on the approach accepted by the Council on other comparable developments, no formal scoping for Environmental Impact Assessment was being requested.

3.4 The operations at this location have been subject to 2 previous assessments of landscape and visual effects as part of the original 1995 planning application (Landscape and restoration issues, Philip Parker Associates, 1995) and the subsequent 2004 application (Landscape Assessment, Encor Consulting, February 2004). Practice in the assessment of landscape and visual impacts has developed since these assessments were undertaken and this has been reflected in revised editions of GLVIA and production of new Technical Guidance Notes. Whereas the content of these earlier assessments has been reviewed as part of this LVIA, the assessments of

impacts has been undertaken in accordance with current best practice set out in GLVIA3.

3.5 A landscape and visual appraisal (LVA) was also prepared in support of a planning application for a proposed solar farm development on a former landfill site to the north of the proposal site (Landscape and Visual Appraisal Report, Johns Associates, September 2021). The content of this LVA, prepared in compliance with GLVIA3, was also reviewed as part of the preparation of this LVIA.

Landscape study area

3.6 A study area of approximately 1.5km radius from the site boundary is proposed for the landscape assessment. This area reflects the heavily treed lowland pastoral setting, the low height of the approved raised landform and the radius from where the site is likely to have significant visual influence (*Refer to drawing P11_LVIA_002 Landscape Character*).

Range of potential landscape effects

3.7 Whereas the nature of the operations which are the subject of this planning application will not change, they will be present for a longer duration. The development may therefore be predicted to lead to an extended period of effects on landscape character, and a delay in the implementation of the approved restoration scheme, but a reduction in the ongoing operational area. No direct effects on existing landscape elements are predicted as these will have been covered in the 1995 assessment of landscape and visual effects.

Baseline Landscape Studies

Description of the site and setting

(*refer to Drawing P11_LVIA_001 Site Context and Designations*)

3.8 Adjacent and to the west of the landfill operation lies a green waste composting area comprising a number of windrows on a concrete base and a purpose built lagoon for the collection of waste water. A strip of woodland planted after the original grant of planning permission in 1996 for the landfill and a small pond adjacent to the northern boundary of the compost operation separates the two. To the south-west of the landfill operation lies the Parkgate Farm farmstead. Some of the buildings are used for storage of plant and equipment but the farmhouse and older barns are not

currently in use. Land to the east of the farm buildings is used for the temporary storage of excavated materials.

3.9 To the north-east the site boundary is adjoined by the Swindon-Stroud railway line, which separates the site from the former Purton Landfill. The north-west boundary is formed by a strip of woodland planted after the original grant of planning permission in 1996, pasture and the River Key. To the south-west and south-east lie further fields in pasture use. The south-eastern boundary is marked by the access road to the site, and the south-western by public bridleway BRAY7.

3.10 Public footpath PURT118 follows the line of the access road along the south-eastern boundary and, near the north-east corner of the site, joins public footpath BRAY10 which has been diverted from its original alignment across the site and exits via a pedestrian level crossing over the railway line. At the eastern corner, the site access road takes a 90° turn to the south-east before rising on an embankment to cross the railway line on an overbridge and join the highway network on Cricklade Road north of Widham.

3.11 Beyond the site boundaries, the landscape is predominantly a matrix of small-medium size low-lying and seasonally wet fields typically used as hay meadow pasture for cattle. Field boundaries, other than along watercourses, are distinctly rectilinear and marked by hedgerows and hedgerow trees.

3.12 There are several farmsteads and scattered properties within this area made from stone and local brick.

3.13 Immediately to the north-east of the site, across the railway line, lies the domed landform of the restored former Purton Landfill. A planning application for this site (reference PL/2021/10405) for a 20MW ground-mounted solar development was validated in November 2021. Pending the determination of this application, the landcover of this site comprises improved grazing pasture grassland containing a high percentage of sedge grasses due to poorly draining soils, native hedgerows, field edge trees and wetland and marginal vegetation associated with ditches and pond edges.

3.14 To the south of the Site, the land rises onto the lower pasture fields of Paven Hill and then more steeply into woodland on the hill's northern slopes.

3.15 To the west of the site, across a network of pasture fields on the valley floor of the River Key and on a low ridge, lies the large Redlodge Plantation (Forestry Commission) associated with Red Lodge and Red Lodge Farm.

3.16 To the north of the site lies the 8MW Bentham House Solar Farm for which planning permission was granted in December 2014 and which occupies land previously used as agricultural pasture.

3.17 The study area is characterised by a dense network of public rights of way which provide access to the countryside and links between settlements, especially to the south of the site in the vicinity of Paven Hill and Purton Common. Public bridleway BRAY7 follows the western boundary of the site and public footpaths PURT118 and BRAY10 follows the southern boundary. There are no long distance footpaths, promoted routes, National Cycle Routes or areas of Common Land or CROW Access Land within the study area.

3.18 Heritage assets in the study area comprise a number of listed buildings, predominantly in Purton village but also associated with isolated buildings and farmsteads outside of settlements, and the Purton Conservation Area. Scheduled monuments include earthworks at Paven Hill 500m to the south-east and a hillfort at Bury Hill 2 km to the north-east. Stoke Common Meadows SSSI lies 1.5km to the north-west of the site and Restrop Farm and Brockhurst Wood SSSI lies 1.5km to the south-west. There are 4 non-statutory designated local wildlife sites (LWS) within the wider local Area: South Pavenhill Farm Meadow, Red Lodge Wood, Blakehill Farm WWT Reserve and Stoke Common Meadows. The study area lies entirely within the Great Western Community Forest. There are no National Parks, Areas of Outstanding Natural Beauty, Registered Parks and Gardens or other landscape designations within the study area.

Landscape Character

(refer to Drawing P11_LVIA_002 Landscape Character Areas).

3.19 Landscape character assessments are written at regional, county or district scales. In general, the smallest scale assessments provide greater levels of accuracy when attempting to identify characteristic landscape patterns and features. However, all scales of assessment and landscape character types and areas are identified for the purposes of continuity and cohesion. GLVIA3 (Para 5.15 p79) recommends that;

Broad scale assessments at national or regional level can be helpful in setting the landscape context, but are unlikely to be helpful on their own as the basis for LVIA – they may be too generalised to be appropriate for the particular purpose. Local Authority assessments will provide more useful information about the landscape types that occur in the study area……they can be mapped to show how the proposals relate to them and the descriptions and definitions and definitions of key characteristics can be used to inform the description of the landscapes that may be affected by the proposal.

National Character Areas

3.20 The site lies within The National Character Area (NCA) 108 Upper Thames Clay Vale 46. Given the limited scale of the proposed development in the context of this large character area and the presence of more fine grained local assessments, this character assessment is not taken forward for assessment.

County

3.21 The Wiltshire Landscape Character Assessment was undertaken by Land Use Consultants for Wiltshire County Council and completed in 2005. This study intended to assimilate various assessments at District level and provide a character assessment for areas that had not previously been assessed. This assessment was carried out at 1:50 000 scale and given the existence of a more fine-grained assessment at District level this character assessment is not taken forward for assessment.

District

3.22 The North Wiltshire Landscape Character Assessment was undertaken by White Consultants for North Wiltshire District Council and completed in 2004. This study was prepared to support Local Plan production, set out a clear understanding of the District's landscape resource and provide management guidelines which will contribute to the environmental enhancement of the District. The study defines 17 Landscape Character Areas (LCAs) which are based on nationally identified Landscape Character Types.

3.23 The site lies within LCA 2 – Thames Valley Lowland, for which the main characteristics are described as:

- *Low, level or undulating ground at between 85m and 100m AOD.*

- *Wetland features on the lower ground, including open water ditches and mature willows.*
- *Continuous hedges with many mature oak and ash.*
- *Field sizes varying from small and irregular, to medium sized and regular shaped enclosures.*
- *Predominantly pasture, with some arable.*
- *Dispersed or nucleated settlement on higher ground, within a largely pastoral landscape, with a strong sense of place in the use of stone and local brick, which begins to break down in the southern approaches to Purton.*
- *A general absence of woodland, with the exception of a few smaller woodlands in the east of the area.*
- *Some wetland and meadow habitats of nature conservation interest.*
- *Generally contained views but with longer views and a sense of containment by high ground to the south.*

3.24 In addition to the defined main characteristics, the general description of this LCA contains a number of elements which are found in the study area. These are;

- *A transition between the flatter, wetter landscapes with some open water ditches and waterside willows, through to a more pastoral landscape of mixed pasture and arable with mature hedgerows and specimen oak trees.*
- *Heavy soils which support mainly permanent pasture.*
- *The lowland meadows are agriculturally unimproved grassland communities are usually (sic) hay meadows.*
- *Settlement is sparse and dispersed through the area*
- *Most vernacular buildings are built of limestone from the Cotswolds, with some brick and clay tile also in evidence.*
- *As the flatter land rises to meet the villages of Widham and Purton, a more urban fringe character begins to be evident, with some service land uses such as a waste disposal site, and a more eclectic mix of building styles*

- *A major railway line crosses the area in a north westerly direction from Swindon, with most of the minor roads in the area crossing it on bridges which afford slightly longer views over the landscape.*

- *Whilst woodland is largely absent from the area, the large plantation at Red Lodge containing the house and farm, forms a significant visual backdrop to many views in the west of the area. Other views are constrained by the intervening hedges in the largely level or gently undulating ground, although in many places one can see the higher ground to the south forming the hills of Purton and Broad Blunsdon, and to the north of the area there are opportunities to glimpse wide views over the Thames floodplain.*

3.25 Management guidelines for this LCA relevant to the proposed development are identified as:

- *The overall objectives for the area are to conserve and enhance its rural pastoral character. The diversity of the area should be maintained, reflecting how it gradually changes from the lowest areas with their open water, streamside vegetation and irregular fields, to the undulating higher ground with continuous hedgerows and mature trees.*

- *Biodiversity should be promoted, especially through the management of wetland areas, and through encouraging the planting of woodland copses and individual trees in farmland.*

3.26 Short term management actions for this LCA relevant to the proposed development are identified as:

- *Conserve wetland features including open ditches, meadows and associated tree species especially willow – in particular along the course of the River Key and River Ray.*

- *Enhance the wetland character by pollarding willows, planting new reed beds, and planting alder, willow and poplar along water courses in informal groups and broken lines.*

- *Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners etc.*

- *Encourage the planting of new woodland copses.*

- *Ensure development reinforces the locally distinctive character and respects the vernacular. The use of traditional building materials including limestone, red brick and clay tiles are important in this area.*

- *Discourage development which would detract from the tranquil, rural character.*

3.27 Strategic considerations for management of key views in this LCA are listed as;

- *The main consideration in respect of views is the maintenance of hedgerows and tree lines in order to contain views. Views to individual focal points such as the church spire at Cricklade should be opened up, however, in planning any changes which affect view corridors or vistas in the landscape.*

- *Indicators of change from chosen viewpoints within this character area might include;*

    - *Loss of waterside trees, especially pollarded willows*

    - *Loss of hedgerows and mature oak and ash*

    - *Loss of open ditches*

    - *Built form using traditional stone, brick and clay tile*

3.28 A narration is provided for the landscape sensitivity of this LCA as follows;

- *Whilst most of this area is relatively intact in its distinctive landscape elements, some areas have lost defining features such as hedgerow trees, and close to Purton, there is evidence of new land uses which are typical of the urban fringe. These two issues – the loss of hedgerows and mature trees and encroaching urban fringe land uses – are the main threats to the character of the landscape in this area, and will be an on-going issue in the Purton fringes and with regard to the future of Cricklade airfield.*

- *The proximity to Swindon brings with it particular pressure for development. The landscape is therefore vulnerable to change either through cumulative small scale development which over time will change the area's character or*

through larger scale developments which have a more obvious immediate effect.

- *The majority of the area has an essentially rural, agricultural character within which only small-scale, sensitively designed development, appropriately associated with existing built form, could be successfully accommodated without adverse landscape impacts.*

- *The area is not highly visible, being a quiet rural hinterland, but the railway line, the A419 and local traffic on B roads though the area, open the area up to views for many. There are also distant views over the area from housing at the edges of Purton and from suburban areas on the north-west edge of Swindon.*

- *The landscape is rich in features which contribute to its maturity, especially the mature trees and continuous hedgerows. These could be lost through intention or neglect, especially if agricultural futures for pastureland in particular become more uncertain. Similarly, the remaining ridge and furrow patterns could either be lost under the plough or disappear under invading scrub if marginal fields are abandoned. The riverside and wetland elements too, could easily be lost in future generations if not actively conserved and enhanced.*

3.29 LCA3 Swindon Fringe lies within the study area, 300m to the south at its closest point. LCA4 Braydon Wooded Plateau also lies within the study area and is 750m to the west at its closest point.

Landscape value

(Refer to Drawing P11_LVIA_001 Site Context and Designations)

Established value

3.30 There are no nationally recognised landscape designations such as Areas of Outstanding Natural Beauty within the study area.

Non-established value

3.31 In accordance with guidance contained within Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3) the following factors can help in the identification of valued landscapes:

- Landscape quality and condition;
- Scenic quality;
- Rarity and representativeness;
- Conservation interests;
- Recreational value;
- Perceptual aspects – wildness and tranquillity;
- Cultural associations.

3.32 The condition of the landscape within the study area is best described as mixed. Scenic quality is locally high, away from the various developments (industrial estates, solar farm, sewage works and active/former landfill sites) clustered around the edge of Purton and along the railway corridor. There are no particularly rare features present, and the scenic value is highly representative of the LCA. There are several features of conservation interest in the form of listed buildings, scheduled monuments, the Purton Conservation Area and the Swindon and Cricklade heritage railway. The recreational value of the area is limited to opportunities for access to the countryside via the locally dense rights of way network, and the Swindon and Cricklade Railway in the extreme west of the study area. There is limited opportunity to experience tranquillity.

Landscape receptors

3.33 The landscape receptors of this development comprise the fabric of the landscape and combinations of areas of distinctive landscape character, with valued landscape features and designations, namely:

- The character of *LCA 2 Thames Valley Lowland;*
- The character of LCA3 *Swindon Fringe*;
- The character of *LCA4 Braydon Wooded Plateau*;
- The *Braydon Forest Area* of the Great Western Community Forest
- The approved landscape restoration scheme

Assessment of Landscape Effects and Mitigation

Interactions between the proposal and landscape receptors

The character of LCA 2 *Thames Valley Lowland*

3.34 The landscape in the vicinity of the site is highly representative of this LCA as expressed by the low level, undulating topography, field and boundary patterns, pastoral landscape, dispersed settlement pattern and generally contained views. Although the proposed development will not lead to the loss of any landscape elements or the introduction of new uncharacteristic elements, the increased duration of operation and delay in full implementation of the restoration scheme has the potential to lead to character effects on this LCA.

The character of LCA3 *Swindon Fringe*

3.35 The site does not fall within this LCA and there will be no direct landscape effects on it. However, the potential exists for landscape character effects when viewed from this LCA, particularly from elevated locations in the vicinity of Paven Hill to the south of the site. As these effects are primarily visual they will be considered in the visual effects section of this LVIA and this receptor is not taken forward for assessment of landscape effects.

The character of LCA4 *Braydon Wooded Plateau*

3.36 The site does not fall within this LCA and there will be no direct landscape effects on it. Although the potential exists for potential exists for landscape character effects to be experienced when viewed from this LCA, field study has demonstrated that the sizeable block of forestry planting at Red Lodge effectively screens all views of the site, and this LCA is therefore not taken forward for assessment of landscape effects.

The *Braydon Forest Area* of the Great Western Community Forest

3.37 There will be no loss of or restriction of access to woodland due to the extension of time or the change in phasing and landfill footprint of the approved development. Previous phases of landscape enhancements and mitigation at the landfill have led to the creation of new woodland which support the GWCF target of increasing woodland cover, and these establishing woodlands now form part of the landscape baseline. The potential exists through a revised restoration scheme for additional woodland to be created with resultant beneficial effects for this receptor.

The approved landscape restoration scheme

3.38 The consented restoration scheme forms part of the landscape baseline and is being delivered on a progressive basis. The restored landform takes the shape of a shallow domed profile rising to a height of 96m aOD with perimeter hedgerow/woodland edge planting and hedgerow planting within the site to return it to a locally characteristic field pattern for pasture use. The proposed development will lead to a delay in the full restoration of the site by up to 12 years. The updated restoration proposals are shown on drawing P11_LAN_004 Restoration proposals. The proposals are based on the approved restoration scheme (Appendix D) but with some amendments, which have the potential for beneficial direct landscape effects over the approved scheme, as set out below;

- Reduction in footprint of landfill, omitting the northern triangular sector of the site
- Existing ponds retained from the operational period and connected to proposed perimeter ditches to attenuate surface water flows to the River Key, including the construction of blind, braided channels within the unfilled sector to create floodplain grazing marsh
- Planting of new broadleaved copse and central glade at the meeting point of the hedgerows within the site
- Addition of hedgerow trees to the hedgerows within the site
- Planting of native scrub along the steeper slopes created by the retention of the access road to the compost facility and along the toe of the northwest sector of the raised restoration landform.

Cumulative landscape effects

3.39 In accordance with the methodology appended to this report, consideration has been given to assessment of cumulative landscape effects arising from other developments under consideration. The baseline for assessing cumulative landscape effects includes any approved development or one that is under construction. The assessment then considers the effects on the baseline landscape of potential schemes that are at various stages of the development and consenting process including:

- schemes with planning consent;

- schemes that are the subject of a valid planning application that have not yet been determined.

3.40 A desktop search has shown that there is one planning consent within the study area which has the potential for adverse effects, and the details of this are set out below;

- PL/2021/10405. Installation of a 20MW ground-mounted Photo Voltaic (PV) solar development on a restored landfill site with associated landscape mitigation and ecological/ecosystem services enhancements, Purton Landfill. Application recently consented and awaiting construction.

Predicted effects on landscape receptors

Tables of predicted effects on landscape receptors

3.41 The following table assesses the predicted effects on the landscape receptors in accordance with the methodology described in Appendix A. Given that the development being assessed relates to an amendment of an existing operation, there is no initial construction period to assess for effects. Assessment is therefore undertaken for (a) the proposed operational period with progressive restoration underway (b) at completion of all restoration work after operation has ceased and (c) at completion of restoration + 15 years.

Table 1

<table>
<tr><td>Receptor</td><td colspan="4">The character of LCA 2 Thames Valley Lowland</td></tr>
<tr><td rowspan="2">Sensitivity</td><td>Susceptibility of receptor to specific change</td><td>The site has been disturbed and partially restored with landfill operations underway. Landfill, solar energy, the adjacent railway line and industrial estate are part of the landscape baseline of this LCA.
Low</td><td rowspan="2">Sensitivity of receptor to change
(Susceptibility x Value)</td><td rowspan="2">Medium/Low</td></tr>
<tr><td>Value attached to receptor</td><td>The pastoral character is valued at the local level but under pressure from development at the urban fringe and requiring protection and enhancement. There are limited recreational opportunities, a number of heritage assets and a limited sense of tranquillity.
Medium</td></tr>
<tr><td rowspan="2">Magnitude of change</td><td colspan="4">Interactions between proposals and landscape receptors</td></tr>
<tr><td colspan="2">Operation</td><td>Completion of restoration</td><td>Restoration + 15 yrs</td></tr>
</table>

	Size/scale, Duration and Reversibility	**Size/scale, Duration and Reversibility**	
	Small scale; long term; permanent. The development will continue the existing operation for an additional 12 years and, although restoration will continue on a progressive basis as landfill cells are completed, full restoration will be delayed by the same duration	The amended restoration proposals will be accompanied by new copse, scrub and hedgerow tree planting and creation of drainage ditches however this will be immature at completion of restoration	Copse, scrub and hedgerow tree planting and aquatic vegetation will be maturing and making a small contribution to landscape character
	Minor	***No effect***	***Negligible***
Potential significance of landscape effect	***Minor adverse***	***No effect***	***Negligible beneficial***
Effective mitigation measures	Mitigation measures are built into the proposals, including a reduction in the area disturbed at any one time	Mitigation measures are built into the proposals	Mitigation measures are built into the proposals
Magnitude after mitigation	***Minor***	***No effect***	***Negligible***
Predicted significance of residual landscape effect	***Minor adverse***	***No effect***	***Negligible beneficial***
Cumulative effects	Proposed Purton landfill solar farm		
	In the event of the Purton landfill solar farm proceeding, cumulative effects may be predicted for an additional 12 years over the baseline consented scheme. ***Moderate adverse***	Although the new planting associated with the Purton landfill solar farm will be maturing, the restoration of the proposed development will be immature at completion of restoration ***No cumulative effects***	The planting associated with both developments will be maturing and providing beneficial cumulative landscape character effects ***Negligible beneficial***

Table 2

Receptor	The *Braydon Forest Area* of the Great Western Community Forest			
Sensitivity	**Susceptibility of receptor to specific change**	Woodland blocks planted during earlier phases of development at the site make a small contribution to GWCF woodland cover and will not be affected by the proposed development. No other parts of the GWCF will be affected and the potential for experiential effects on users of the GWCF is very limited ***Low***	**Sensitivity of receptor to change** (Susceptibility x Value)	***Medium/Low***
	Value attached to receptor	The GWCF is valued locally and is part of a national suite of Community Forests. Its status as a priority in Local Plan Policy also gives it value **Medium**		

	Interactions between proposals and landscape receptors		
	Operation	**Completion of restoration**	**Restoration + 15 yrs**
	Size/scale, Duration and Reversibility	**Size/scale, Duration and Reversibility**	
Magnitude of change	Small scale; long term; permanent. The development will continue the existing operation for an additional 12 years and, although restoration will continue on a progressive basis as landfill cells are completed, full restoration will be delayed by the same duration.	The amended restoration proposals will be accompanied by new copse, scrub and hedgerow tree planting, however this will be immature at completion of restoration	Copse, scrub and hedgerow tree planting will be maturing and making a small contribution to tree cover
	Negligible	***No effect***	***Negligible***
Potential significance of landscape effect	***Negligible adverse***	***No effect***	***Negligible beneficial***
Effective mitigation measures	Mitigation measures are built into the proposals, including a reduction in the area disturbed at any one time	Mitigation measures are built into the proposals	Mitigation measures are built into the proposals
Magnitude after mitigation	***Negligible***	***No effect***	***Negligible***
Predicted significance of residual landscape effect	***Negligible adverse***	***No effect***	***Negligible beneficial***

Cumulative effects	Proposed Purton landfill solar farm		
	In the event of the Purton landfill solar farm proceeding, beneficial cumulative effects are likely as a result of the new woodland and tree planting which will accompany the solar farm. These effects are likely to be realised early in the operational period of the solar farm and will endure into the long term ***Negligible beneficial***	Woodland and tree planting will be maturing on the Purton landfill solar farm development but will be immature on the proposed development ***Negligible beneficial***	Woodland and tree planting will be maturing on both sites development and will be making a contribution to tree cover ***Negligible beneficial***

Table 3

Receptor	The approved landscape restoration scheme			
Sensitivity	**Susceptibility of receptor to specific change**	The restoration scheme approved under planning permission forms part of the landscape baseline and is being delivered on a progressive basis. The completed area of restoration is relatively young and can be readily remediated if necessary ***Low***	**Sensitivity of receptor to change** (Susceptibility x Value)	***Medium/Low***
	Value attached to receptor	The restoration scheme will return the site to a landscape which is locally characteristic and may therefore be considered to have a value commensurate with that in the vicinity of the site. **Medium**		

	Interactions between proposals and landscape receptors		
	Operation	**Completion of restoration**	**Restoration + 15 yrs**
	Size/scale, Duration and Reversibility	**Size/scale, Duration and Reversibility**	
Magnitude of change	Small scale; long term; permanent. The development will continue the existing operation for an additional 12 years and, although restoration will continue on a progressive basis as landfill cells are completed and the footprint of the landfill is reduced, full restoration will be delayed by the same duration	The amended restoration proposals will be accompanied by new copse, scrub and hedgerow tree planting and floodplain grazing marsh, however this will be immature at completion of restoration	Copse, scrub and hedgerow tree planting will be maturing and making a positive contribution to locally characteristic landscape elements
	Medium	***Negligible***	***Medium/Low***
Potential significance of landscape effect	***Minor adverse***	***Neutral***	***Minor beneficial***
Effective mitigation measures	Mitigation measures are built into the proposals, including a reduction in the area disturbed at any one time	Mitigation measures are built into the proposals	Mitigation measures are built into the proposals
Magnitude after mitigation	***Medium***	***Negligible***	***Medium/Low***
Predicted significance of residual landscape	***Minor adverse***	***Neutral***	***Minor beneficial***

effect			
Cumulative effects	Proposed Purton landfill solar farm		
	Although predicted to create wider landscape character benefits, the proposed Purton landfill solar farm will not lead to direct cumulative effects on the restoration scheme for the proposed development	Although predicted to create wider landscape character benefits, the proposed Purton landfill solar farm will not lead to direct cumulative effects on the restoration scheme for the proposed development	Although predicted to create wider landscape character benefits, the proposed Purton landfill solar farm will not lead to direct cumulative effects on the restoration scheme for the proposed development

Summary of predicted landscape effects

3.42 The predicted landscape effects for all receptors, moderated with the influence of proposed mitigation measures, are summarised below;

Landscape receptors			
Receptor	**Operation**	**Completion of restoration**	**Restoration + 15 yrs**
The character of LCA 2 *Thames Valley Lowland*	Minor adverse	No effect	Negligible beneficial
The character of LCA3 *Swindon Fringe*	*Scoped out of landscape assessment*		
The character of LCA4 *Braydon Wooded Plateau*	*Scoped out of landscape assessment*		
The *Braydon Forest Area* of the Great Western Community Forest	Negligible adverse	No effect	Negligible beneficial
The approved landscape restoration scheme	Minor adverse	Neutral	Minor beneficial

Overall Significance

3.43 Predicted adverse effects from the development are limited to the operational phase as a result of the increased duration of operation and the consequent delay in completion of the full restoration scheme. This is partially mitigated by the proposed reduction in the overall footprint of the landfill. After completion of restoration, up to 12 years later than under the consented scheme, beneficial effects are predicted as the implementation of an enhanced restoration scheme will lead to a more diverse landscape and which has more characteristic elements.

3.44 Beneficial cumulative landscape effects are predicted as a result of the combination of the enhanced restoration scheme for the proposed development and the landscape enhancements proposed as part of the proposed Purton landfill solar farm development.

3.45 Overall, the landscape effects of the proposal are not considered to be significant, being assessed as *minor and negligible adverse* up to completion of the restoration and increasing to *negligible beneficial* and *minor beneficial* thereafter.

4 Visual Assessment

Scope of the Visual Assessment

Introduction

4.1 The 'Guidelines for Landscape and Visual Impact Assessment' 3rd Edition, published by the Institute of Environmental Management and Assessment and the Landscape Institute in 2013 (Landscape Institute, 2013) (GLVIA3) defines visual effects as follows:

> *An assessment of **visual effects** deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.*

The methodology for assessing visual effects employed in this report is detailed in Appendix A.

Study area

4.2 A study area comprising a radius of approximately 1.5km from the site boundary was chosen for the visual assessment. This study area reflects the radius from where the site may have a significant visual influence. However, following site visits it is evident that the site's visual influence is much smaller due to the layering effect of hedgerows and woodland. Therefore, most of the viewpoints from which the site is assessed are within 1km of the site as shown on drawing P11_LVIA_003 Visual Analysis.

Range of potential effects

4.3 This proposal comprises an extension of the operational timescale and amended phasing of an existing landfill operation. It has a long term operational period, and potential short, medium and long term effects on the visual amenity of local residents and users of roads, public rights of way and the adjacent railway line.

Baseline visual studies

Visual environment

4.4 The assessment has identified the full range of potential visual receptors from settlements, dwellings, public rights of way and public roads and railways, but found that the key receptors were located in relatively close proximity to the site. This is partly because the site is well enclosed within a framework of woodland and

hedgerows, by the higher land to the south and partly because there are few publicly accessible locations with sufficient elevation to view the existing landform.

4.5 The viewpoint locations are shown on drawings P11_LVIA_003 Visual Analysis and the photographs from each viewpoint are included on drawings P11_LVIA_004 to P11_LVIA_018 inclusive. As detailed in GLVIA3 and the Methodology in Appendix A, the table below lists the Representative and Illustrative viewpoints. No Specific viewpoints were identified.

4.6 Photographs from the centre of the site are included for context and are shown on drawings P11_LVIA_019 to P11_LVIA_022 inclusive. Given that these locations are not publicly accessible, no assessment of visual effects has been undertaken for them.

4.7 The 1995 Philip Parker Associates assessment of landscape and visual impacts identified a number of viewpoints for the assessment of visual effects for the then proposed landfill operation. The predicted effects on receptors in these locations were reviewed in the 2004 Encor Consulting Landscape Assessment. These locations have formed the basis of the selection of viewpoints and receptors for this LVIA, with the addition of a number of viewpoints at a greater distance from the site to demonstrate the reduction in intervisibility over distance.

4.8 Regard has also been given to the Sensitive Views identified in the Purton Neighbourhood Plan. Given that these are illustrative and do not generally represent publicly available views it has not been possible to accurately reflect these in the selection of viewpoints. A number of viewpoints in the vicinity of Paven Hill are representative of these views and reference to this is made in the assessment of effects.

4.9 Photographic images have been taken in compliance with the guidelines set out in Landscape Institute Technical Guidance Note 06/19 (TGN 06/19), as summarised in Appendix A. Given the limited scale of the proposed development, the low level of predicted visual change, and the nature of the application, Type 1 annotated viewpoint photographs have been used for this study.

4.10 Photographs were taken in March 2022 when there was no leaf cover and therefore represent 'worst case' visibility.

Ref.	Type	Viewpoint location (view from)
A	Representative	View south-west from crossing of public footpath PURT34 and Swindon – Stroud railway line representative of partially

		filtered views to the proposed development for footpath users and rail travellers
B	Representative	View south-west from public footpath PURT13 on the restored Purton Landfill site representative of open views to the proposed development for footpath users
C	Representative	View north-west from public footpath PURT34 at the foot of Paven Hill representative of highly filtered views to the proposed development for footpath users. This view is representative of a Sensitive View identified in the Purton Neighbourhood Plan
D	Representative	View north-west from junction of public bridleways PURT43 and public footpaths PURT34 and PURT42 at Paven Hill representative of filtered views to the proposed development for footpath and bridleway users. This view is representative of a Sensitive View identified in the Purton Neighbourhood Plan
E	Representative	View north-east from junction of public bridleways PURT39 and PURT43 at Paven Hill representative of highly filtered views to the proposed development for bridleway users. This view is representative of a Sensitive View identified in the Purton Neighbourhood Plan
F	Representative	View south-east from public bridleway BRAY7 representative of highly filtered views to the proposed development for bridleway users
G	Illustrative	View south-east from public footpath BRAY9 near Pound Copse illustrative of no visibility of the proposed development
H	Illustrative	View east from public footpath BRAY5 near Pound Farm illustrative of no visibility of the proposed development
I	Illustrative	View north-east from public bridleway PURT43 at Lower Pavenhill Farm illustrative of no visibility of the proposed development. This view is representative of a Sensitive View identified in the Purton Neighbourhood Plan
J	Representative	View north from public footpath PURT34 at Pavenhill Farm representative of partially filtered views to the proposed development for footpath users. This view is representative of a Sensitive View identified in the Purton Neighbourhood Plan
K	Illustrative	View north-west from public footpath PURT110 at Paven Hill illustrative of no visibility of the proposed development
L	Representative	View north-west from junction of BOAT PURT109 and public footpath PURT42 at Row House Farm representative of highly filtered views to the proposed development for BOAT and footpath users
M	Representative	View west from public footpath PURT129 adjacent to Purton Industrial Estate representative of partial views to the proposed development for footpath users
N	Illustrative	View west from public footpath PURT14A near Bentham Lane illustrative of no visibility of the proposed development

O	Illustrative	View north-west from public footpath PURT46A from the edge of Purton illustrative of no visibility of the proposed development

Assessment of visual effects and mitigation

Interactions between the proposal and visual receptors

4.11 The potential interactions between the development and visual receptors during the operational phase comprise views of:

- Vehicles entering and leaving the site with imports of waste and export of clays
- Mobile plant forming landfill cells and placing waste and restoration materials
- Areas of disturbed land comprising excavations for clays, clay stockpiles, landfill cells and restored areas pending establishment of vegetation
- Perimeter fencing and signage
- Access roads
- Establishment of the grassland, woodland, hedgerows and aquatic areas
- Maturing woodlands, hedgerows, hedgerow trees and scrub planted as part of the restoration scheme

Proposed visual mitigation incorporated into the proposal

4.12 The following visual mitigation measures are incorporated into the development scheme, as set out on drawing P11_LAN_004 Restoration scheme:

- Retention of the existing mitigation woodland planting which provides effective screening of the site from the north and west and which will continue to mature and provide denser and taller screening in the future
- Continued progressive restoration as landfill cells are completed
- Planting of native hedgerows and hedgerow trees along part of the north-eastern boundary
- Proposed reduction in the area of land disturbed resulting from the reduction of the landfill footprint.

4.13 For each of the representative viewpoints, where the site is visible, a table describes assess the predicted effects in accordance with the methodology described in Appendix A. The sensitivity of each receptor, magnitude of effects and significance are included on the tables, as are cumulative effects. The site is not visible from the illustrative viewpoints G, H, I, K and N. Assessment of effects is undertaken during operation, at completion of restoration and at 15 years after restoration.

Cumulative visual effects

4.14 In accordance with the methodology appended to this report, consideration has been given to assessment of cumulative visual effects arising from other developments under consideration. The baseline for assessing cumulative landscape effects includes any approved development or one that is under construction. The assessment then considers the effects on the baseline landscape of potential schemes that are at various stages of the development and consenting process including:

- schemes with planning consent;
- schemes that are the subject of a valid planning application that have not yet been determined.

4.15 A desktop search has shown that there is one planning consent within the study area which has the potential for adverse effects, and the details of this are set out below;

- PL/2021/10405. Installation of a 20MW ground-mounted Photo Voltaic (PV) solar development on a restored landfill site with associated landscape mitigation and ecological/ecosystem services enhancements, Purton Landfill. Application recently consented and awaiting construction.

Overall Significance

4.16 The table below summarises the predicted visual effects at the defined stages with mitigation in place and working effectively.

Visual receptors			
Viewpoint	**During operation**	**At completion of restoration**	**At completion of restoration + 15 years**
A; Crossing of footpath PURT34 & railway line			
Footpath users	Minor adverse	Neutral	Negligible beneficial
Rail travellers	Neutral	Neutral	Neutral
B; Public footpath PURT13 on restored Purton Landfill site	Minor adverse	Neutral	Negligible beneficial
C; Public footpath PURT34 at the foot of Paven Hill	Minor adverse	Neutral	Neutral
D; Public bridleways PURT43 & public footpaths PURT34 and PURT42 at Paven Hill	Minor adverse	Neutral	Negligible beneficial
E; Public bridleways PURT39 and PURT43 at Paven Hill	Minor adverse	Neutral	Negligible beneficial
F; Public bridleway BRAY7	Minor adverse	Neutral	Negligible beneficial
G; Public footpath BRAY9 near Pound Copse	No visibility		
H; Public footpath BRAY5 near Pound Farm	No visibility		
I; Public bridleway PURT43 at Lower Pavenhill Farm	No visibility		
J; Public footpath PURT34 at Pavenhill Farm	Minor adverse	Neutral	Negligible beneficial
K; Public footpath PURT110 at Paven Hill	No visibility		
L; BOAT PURT109 and public footpath PURT42 at Row House Farm	Neutral	Neutral	Neutral
M; Public footpath PURT129 adjacent to Purton Industrial Estate	Neutral	Neutral	Negligible beneficial
N; Public footpath PURT14A near Bentham Lane	No visibility		
O; Public footpath PURT46A from the edge of Purton	No visibility		

4.17 The nature of the hedgerows and hedgerow trees, blocks of woodland (including those planted in the 1990's as part of mitigation for the consented landfill operation) and the screening effect of the higher land to the south at Paven Hill and Purton Common means that visibility of the proposed development is limited to the vicinity of the site.

4.18 Adverse visual effects are predicted during the operational phase of the proposed development as a result of up to 12 years additional duration of operation and the consequent delay in full restoration at completion of landfill, although progressive restoration will continue as at present as landfill cells are completed. The minor adverse visual effects of a longer operation life are partially mitigated by the proposed reduction in the total footprint of landfill operations. Beneficial visual effects are predicted in the long term as a result of the implementation of an enhanced restoration scheme which provides additional woodland, scrub planting and hedgerow trees in addition to the consented baseline restoration scenario.

4.19 All adverse effects during operation are predicted to be *minor adverse*, ceasing to be adverse at completion of full restoration, and becoming *neutral* or *minor beneficial* in the long term.

4.20 Viewpoints C, D, E, I and J are representative of Sensitive Views identified in the Purton Neighbourhood Plan. Of these, 1 has no visibility of the proposed development and the remainder are predicted to experience *minor adverse* visual effects during operation and becoming *neutral* or *minor beneficial* in the long term.

4.21 Cumulative visual effects are predicted to be experienced in the event of the development and the proposed Purton Landfill solar farm proceeding. Of those locations where the site is visible, 6 are predicted to experience cumulative effects ranging from *neutral* to *major adverse*. It should be noted however that the most adverse cumulative visual effects (such as at Viewpoint B – *major adverse*) are primarily related to the proposed solar farm which will result in a notably higher magnitude of change than the proposed development.

4.22 Overall, the visual effects of the development are not considered to be significant.

5 Policy Compliance

5.1 Sections 2 and 3 of this LVIA set out policy relating to Landscape and Visual matters and the guidance contained in published landscape character assessments. The compliance of the proposed development with these is set out below:

Policy	Compliance response
Wiltshire Core Strategy	
Core Policy 50: Biodiversity and geodiversity	Although there will be a delay of up to 12 years in the completion of the full restoration, the enhanced restoration proposals will bring biodiversity benefits and will enhance the characteristic local features of hedgerow trees, woodland and ditches. The landscape character of the vicinity of the proposed development has been considered and is predicted to experience beneficial effects in the long term. *The proposed development is considered to comply with Core Policy 50*
Core Policy 51: Landscape	This policy requires that applications for development which have the potential to change local landscape character must be accompanied by a Landscape and Visual Impact Assessment. The landscape character of the vicinity of the proposed development has been considered in the LVIA for the proposed development and is predicted to experience beneficial effects in the long term. *The proposed development is considered to comply with Core Policy 51*

Core Policy 52: Green infrastructure	The landscape character of the vicinity of the proposed development has been considered in the LVIA for the proposed development and is predicted to experience beneficial effects in the long term. The proposed development does not adversely impact on the Great Western Community Forest or any experiential aspects of it and makes a small beneficial contribution in the long term to tree cover in accordance with the aims of the GWCF. The proposed development does not adversely impact on the rights of way network. *The proposed development is considered to comply with Core Policy 52*
Core Policy 58: Ensuring the conservation of the historic environment	No adverse effects are predicted on historic landscape assets *The proposed development is considered to comply with Core Policy 58*

Waste Development Control Policies Development Plan Document

WDC1: Key criteria for ensuring sustainable waste management development	The enhanced restoration proposals will bring biodiversity benefits and will enhance the characteristic local features of hedgerow trees, woodland, ditches and floodplain grazing marsh. The landscape character of the vicinity of the proposed development has been considered with reference to the Wiltshire Landscape Character Assessment and is predicted to experience beneficial effects in the long term. *The proposed development is considered to comply with DPD Policy WDC1*

WDC2: Managing the impact of waste management	No significant adverse effects are predicted, and beneficial landscape effects are predicted in the long term. *The proposed development is considered to comply with DPD Policy WDC2*
WDC4: Protection of recreational assets	No adverse effects are predicted on the rights of way network, and the predicted beneficial landscape and visual effects will benefit users *The proposed development is considered to comply with DPD Policy WDC4*
WDC7: Conserving landscape character	The enhanced restoration proposals will bring biodiversity benefits and will enhance the characteristic local features of hedgerow trees, woodland, ditches and floodplain grazing marsh. The landscape character of the vicinity of the proposed development has been considered with reference to the Wiltshire Landscape Character Assessment and is predicted to experience beneficial effects in the long term. *The proposed development is considered to comply with DPD Policy WDC7*
WDC8: Biodiversity and Geological interest	The proposed development does not adversely impact on the Great Western Community Forest or any experiential aspects of it, and makes a small beneficial contribution in the long term to tree cover in accordance with the aims of the GWCF. The proposed development does not adversely impact on the biodiversity or geological assets

	The proposed development is considered to comply with DPD Policy WDC8
WDC9: Cultural Heritage	The proposed development does not adversely impact on any cultural heritage assets or their settings *The proposed development is considered to comply with DPD Policy WDC9*
WDC10: Restoration of waste management sites	The restoration proposals are predicted to lead to landscape character, visual amenity and biodiversity benefits *The proposed development is considered to comply with DPD Policy WDC10*

Purton Neighbourhood Plan

Purton Policy 3: Footpaths	No adverse effects are predicted on the rights of way network, and beneficial visual effects are predicted for footpath users in the long term *The proposed development is considered to comply with Policy 3*
Purton Policy 4: Ecological Enhancements	Although there will be a delay of up to 12 years in the completion of the full restoration, the enhanced restoration proposals will bring biodiversity benefits and will enhance the characteristic local features of hedgerow trees, woodland, ditches and floodplain grazing marsh *The proposed development is considered to comply with Policy 4*

Purton Policy 5: To protect key local landscapes	The Sensitive Views identified in the Neighbourhood Plan have been considered (from publicly accessible locations in accordance with the best practice in GLVIA3) and although adverse effects are predicted during the operational phase due to the delay in the completion of the full restoration, the enhanced restoration proposals are predicted to bring beneficial visual effects in the long term. *The proposed development is considered to comply with Policy 5*

Great Western Community Forest Plan

Key objectives for the Braydon Forest Area	The enhanced restoration proposals will increase the numbers of hedgerow trees, woodland and scrub in the Braydon Forest Area *The proposed development is considered to comply with the key objective of the Braydon Forest Area*

LCA 2 – Thames Valley Lowland

Management guidelines	The enhanced restoration proposals support the priority guidelines and actions for the LCA to conserve its rural pastoral character; the planting of copses and individual trees; conservation of open ditches along the course of the River Key, and planting new trees in existing hedges *The proposed development is considered to comply with the LCA management guidelines and actions*

Appendix A

Methodology for assessing landscape and visual effects

Introduction

The guidance for undertaking LVIA has been sourced principally from 'Guidelines for Landscape and Visual Impact Assessment' 3rd edition (GLVIA3), written for the Landscape Institute and the Institute of Environmental Management and Assessment, published by Routledge in 2013.

Definitions

Landscape and visual effects are separate, but closely linked. There is some overlap of methodology, but the two subjects are assessed separately.

*An assessment of **landscape effects** deals with the effects of change and development on landscape as a resource. The concern here is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character……* (GLVIA3_Para 5.1)

*An assessment of **visual effects** deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change to or loss of existing elements of the landscape and/or introduction of new elements.* (GLVIA3_Para 6.1)

Scoping

GLVIA3 (Para_1.16) recognises that the terms 'impact' and 'effect' can be used interchangeably but recommends that for clarity their use should be used separately and consistently. The LVIA will therefore use the term 'impact' for an action being taken, and 'effect' as the change resulting from that action.

Scoping is considered separately for landscape and for visual effects and includes consideration of:

- the extent of the study area and sources of information
- the possible effects that might occur
- the timescale of the study
- the main receptors to be considered
- the extent and appropriate level of detail for the baseline studies

- methods to be used in assessing significance
- the approach to assessment of cumulative effects.

Summary of the assessment method

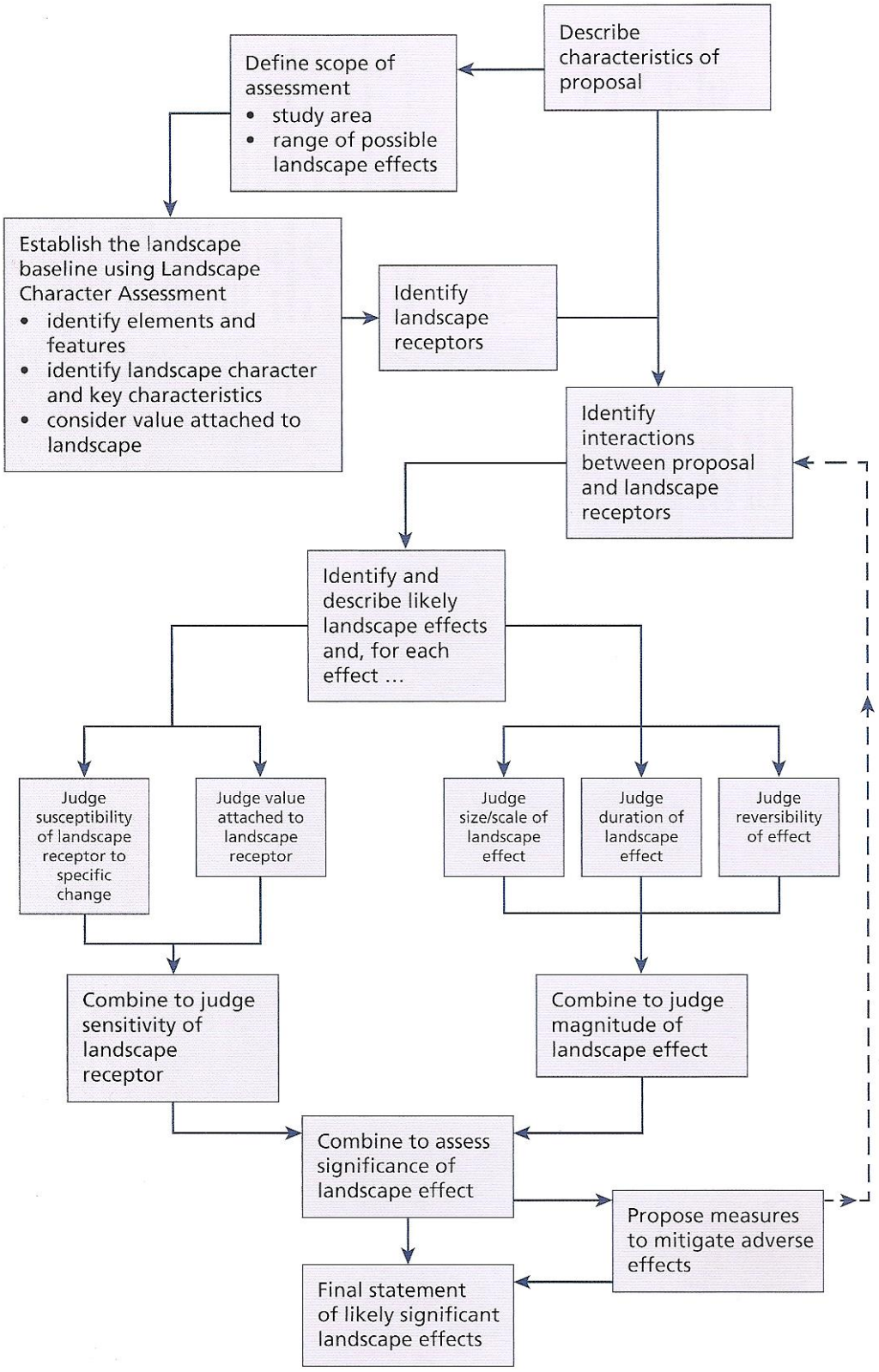
- 1 - The baseline conditions against which the effects of the proposed development will be assessed are established. This may include how the landscape and visual environment will change over time irrespective of the proposals. Landscape and visual receptors will be identified from this process.
- 2 - The sensitivity of the receptors likely to be affected is judged. This combines judgements about their susceptibility to change arising from the specific proposals with judgement about the relative values of the receptors.
- 3 - The magnitude of the effect likely to occur is judged. This combines judgements of the size and scale of change and the geographical extents likely to be affected. This judgement is then adjusted by consideration of the duration of effect and its potential reversibility.
- 4 - Judgements on the sensitivity of the receptors to specific change are combined with those on the magnitude of potential landscape and visual effects.
- 5 – Mitigation measures are considered and the assessment process repeated to derive potential residual landscape and visual effects.

Consultees

GLVIA3 places emphasis on consultation with the competent authorities, usually the Planning Authority's Landscape Advisor. Natural England is a statutory consultee for landscape matters, and it may be beneficial to invite their comments directly at pre-application stage, particularly given their dual role in advising on biodiversity matters and the likely Benefits Proposals.

ASSESSING LANDSCAPE EFFECTS

The following flowchart, taken from Figure 5.1 of GLVIA3, describes the fundamental process for predicting landscape effects of a development.



Scoping landscape effects

After identifying the characteristics of the proposal, the range of possible landscape effects are considered and agreed with the competent authority. Any that are not likely to be significant and may not need to be considered further are discounted. The study area that needs to be covered in assessing landscape effects is defined, including:

- the site itself;
- the extent of wider the landscape which the proposed development may influence:
    - this may be based on the extent of landscape character areas likely to be significantly affected either directly or indirectly;
    - the Zone of Theoretical Visibility may also inform the area selection.

Baseline landscape studies

These are appropriate to the context and in line with the current guidance and terminology for landscape character assessment (LCA), townscape character assessment and seascape character assessment as relevant.

The cultural heritage features and relevant aspects of the historic landscape are recorded and judgements made on their contribution to the landscape, townscape or seascape.

The condition of the landscape and evidence of pressures causing change are documented.

Classification of the landscape

Published LCAs are used, and supplemented where necessary with additional survey, the purposed being to identify the elements and features, landscape character and key characteristics. The purpose is to identify Local Landscape Character Areas appropriate to the scale of the proposed changes and their context within the landscape setting.

Use of published LCAs:

- existing assessments are critically reviewed in terms of quality, age and suitability for the task in hand;
- the scale of character assessment information is judged (published data is interpreted, not just copied);
- fieldwork checks the applicability and refines published data where necessary;
- and if necessary, new landscape surveys are undertaken of the whole study area or of the site and its immediate surroundings.

Landscape Receptors

Initially the landscape receptors are identified. These are the components of the landscape that are likely to be affected by the proposal, such as overall character and key characteristics, individual elements or features, and specific aesthetic or perceptual aspects.

Landscape impact assessment

Interactions

After identifying the landscape receptors, the interaction between the proposal and receptors and the likely effects are identified before judging the significance of predicted landscape effects.

Landscape Sensitivity

Each effect is considered in terms of the sensitivity of the receptor by judging its susceptibility to the type of change arising from the proposal and the value attached to the receptor. Existing sensitivity and capacity studies which deal with the same type of development may provide useful preliminary information. The relationship between the value of landscape and susceptibility to change is important, although the designation of a landscape does not automatically make it susceptible to all types of change. Receptor sensitivity is rated: as *negligible, low, medium, or high.* The criteria for each rating are specific to the landscape of the site. However they may follow the parameters listed in the table 5 below.

Determining Landscape Value

Paragraph 5.19 of GLVIA3 states that:

'This means the relative value that is attached to different landscapes by society, bearing in mind that a landscape may be valued by different stakeholders for a whole variety of reasons...a review of existing landscape designations is usually the starting point in understanding landscape value, but the value attached to undesignated landscape also needs to be carefully considered.'

Any established value of the landscape should be detailed, including:

- National or regional landscape designations – such as World Heritage Sites, National Parks, AONBs, Heritage Coasts, AGLV/AHLVs/SLAs;
- Local landscape designations – important hedgerows, TPOs, veteran trees
- Biodiversity and Geodiversity designations;
- Historic and cultural designations.

These values will influence judgements of overall value of each landscape receptor.

The following factors are also suggested to influence landscape value, based on the guidance set out in *Technical Guidance Note 02/21 Assessing landscape value outside national designations.*

- Natural heritage - ecological, geological, geomorphological or physiographic interest which contributes positively to the landscape
- Cultural heritage - archaeological, historical or cultural interest which contributes positively to the landscape
- Landscape condition – the physical state of individual elements and overall landscape structure
- Associations – connections with notable people, events and the arts
- Distinctiveness – the sense of identity of the landscape
- Recreational - recreational opportunities where experience of landscape is important
- Perceptual (Scenic) – the appeal to the senses, primarily the visual sense

- Perceptual (Wildness and tranquillity) – the perceptual value notably wildness, tranquillity and/or dark skies
- Functional - The identifiable and valuable function of the landscape

The above factors are recorded on a site survey sheet during fieldwork so that the assessment of value is carried out in a clear and transparent way. Any reliance on published material to establish value is made clear in the assessment and the information is treated in a critically reflective way.

Table 1 – Criteria for judging landscape natural heritage	
High	A landscape with many features of ecological, geological, geomorphological or physiographic interest. Natural heritage features are common and intact. The landscape has a number of statutory or local ecological and/or geological designations and/or active management plans in place.
Medium	A landscape with some features of ecological, geological, geomorphological or physiographic interest. Natural heritage features are in reasonable condition. The landscape may have local ecological and/or geological designations and/or active management plans in place.
Low	A landscape with few features of ecological, geological, geomorphological or physiographic interest. Occasional features remain that are often fragmented.
Negligible	A landscape with little or no ecological, geological, geomorphological or physiographic interest. Natural heritage value has been fragmented or lost.

Table 2 – Criteria for judging cultural heritage	
High	A landscape with many features of archaeological, historical or cultural interest which make a positive contribution to the landscape. The landscape makes a clear contribution to the significance of heritage assets and offers a dimension of time depth. The landscape has a number of statutory or local historic environment and/or archaeological designations and/or active management plans in place.
Medium	A landscape with some features of archaeological, historical or cultural interest which make a positive contribution to the landscape. Features are in reasonable condition. The landscape may have local historic environment and/or archaeological designations and/or active management plans in place.
Low	A landscape with few features of archaeological, historical or cultural interest. Occasional features remain that are often fragmented.
Negligible	A landscape with little or no archaeological, historical or cultural interest. Natural heritage value has been fragmented or lost

Table 3 – Criteria for judging landscape condition	
High	A landscape in which the individual elements and overall landscape structure are in consistently good condition. Characteristic features are

	common and intact. There is a complete absence of detracting or incongruous features.
Medium	A landscape in which the individual elements and overall landscape structure are in reasonably good condition. Some characteristic features remain intact. There may be some detracting or incongruous features, or they are commonly present but do not make a notable impact.
Low	A landscape in a generally poor condition. Occasional characteristic features remain that are often fragmented. Detracting or incongruous features are present.
Negligible	A landscape in a very poor condition. Few characteristic features remain. Detracting features dominate.

Table 4 – Criteria for judging landscape associations	
High	A landscape with strong connections with notable people, events and the arts. Connections which are documented in published guidebooks or trails.
Medium	A landscape with some connections with notable people, events and the arts.
Low	A landscape with few or limited connections with notable people, events and the arts.
Negligible	A landscape with no connections with notable people, events and the arts.

Table 5 – Criteria for judging landscape distinctiveness	
High	A landscape with a very distinctive character and strong sense of place. A notable presence of distinctive features which are identifiable as characteristic of a particular place. Presence of notable rare or unusual features which help confer a strong sense of place or identity. Presence of settlement gateways/approaches which provides a clear sense of arrival and contribute to the character of the settlement.
Medium	A landscape with a distinctive character and sense of place. Some distinctive features which are identifiable as characteristic of a particular place. Presence of common or everyday features which help confer a sense of place or identity. An identifiable identity or sense of place can be perceived.
Low	A landscape where occasional characteristic features remain that are often fragmented. Detracting features are present. There is little distinctive identity.
Negligible	A landscape with few or no characteristic features. Detracting features dominate. Any distinctive character has been fragmented or lost.

Table 6 – Criteria for judging recreational aspects	
High	A landscape with many open-air recreational facilities, such as Country Parks, Access Land, Common Land or town and village greens. The Rights of Way network is extensive, well maintained and well used and may include national or regional trails.

Medium	A landscape with some open-air recreation facilities; where the network of rights of way/access land is reasonably dense, maintained and in regular use.
Low	A landscape with a few open-air recreation opportunities; where the network of Rights of Way/Access land is sparse, poorly maintained but in occasional use.
Negligible	A landscape with few or no open-air recreation opportunities; where the network of Rights of Way/Access land is sparse, poorly maintained or rarely used.

Table 7 – Criteria for judging perceptual aspects – scenic	
High	An attractive landscape with many aesthetically pleasing features, possibly containing regionally important views or landmarks. A landscape with characteristic elements in harmonious composition. A regionally or nationally valued landscape.
Medium	A landscape with some aesthetically pleasing features. May include some visually conflicting characteristics. A landscape locally valued.
Low	A landscape with few aesthetically pleasing features, where some characteristics conflict to create a chaotic composition.
Negligible	An unattractive landscape with no aesthetically pleasing features. A landscape where many different characteristics conflict to create a chaotic composition

Table 8– Criteria for judging perceptual aspects – wildness and tranquillity	
High	A landscape which has a strong sense of tranquillity or wildness, with no detracting features and limited or only occasional levels of human activity/traffic
Medium	A landscape with some large scale development, but also with tranquil areas or areas perceived as remote or wild. There is infrequent human activity/traffic and little artificial lighting.
Low	A landscape of mostly large scale and visually intrusive development, with periodic or noticeable levels of human activity/traffic resulting in little sense of tranquillity. There may be some artificial lighting present.
Negligible	A landscape dominated by large scale and visually intrusive development, with high levels of human activity/traffic resulting in no sense of tranquillity. There may be high levels of artificial lighting present.

Table 9 – Criteria for judging landscape function	
High	A landscape which makes a notable contribution to biodiversity, hydrology, carbon capture and diversity of landcover. Makes a notable contribution to Green Infrastructure networks. Landscapes and landscape elements that have strong physical or functional links with an adjacent national landscape designation, or are important to the appreciation of the designated landscape and its special qualities.
Medium	A landscape which makes a moderate contribution to biodiversity, hydrology, carbon capture and diversity of landcover and to Green Infrastructure networks. Landscapes and landscape elements that have

	some physical or functional links with an adjacent national landscape designation, or add to the appreciation of the designated landscape and its special qualities.
Low	A landscape makes a small contribution to biodiversity, hydrology, carbon capture and diversity of landcover and to Green Infrastructure networks. Landscapes and landscape elements that have no physical or functional links with an adjacent national landscape designation, or do not contribute to the appreciation of the designated landscape and its special qualities.
Negligible	A landscape makes no or a negligible contribution to biodiversity, hydrology, carbon capture and diversity of landcover and to Green Infrastructure networks.

Determining Landscape Susceptibility

Paragraph 5.40 of GLVIA states that the susceptibility of a landscape to change is:

'..the ability if the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies'.

The susceptibility of each of the local Landscape Character Areas will be judged specifically in relation to potential effects from the type of proposed development, but with reference to potential changes to the following aspects:

- landform;
- land-cover;
- landscape scale;
- prominent landscape features;
- settlement pattern.

The criteria for judging the susceptibility of these aspects will vary with the type of development and the features of the local Landscape Character Areas.

Determining Landscape Sensitivity

Judgements on landscape value and susceptibility to change resulting from the specific type of proposed development will be combined for each landscape receptor. The relationship between value and susceptibility can be complex. A highly valued landscape such as an AONB may have a low susceptibility to a specific change because of the characteristics of the landscape and the type of proposed development. The final assessment of landscape sensitivity will an informed professional judgement supported by a narrative rationale. However, the basic criteria used for assigning ratings from *high* to *negligible* are as follows:

Table 5 – Criteria for judging overall sensitivity of landscape receptors	
High	Landscapes whose character, features, particular aesthetic or perceptual aspects are very vulnerable to change or loss and which offers few opportunities to accommodate the development. This may include landscapes designated for their national or regional value, such as AONBs, National Parks, Registered Parks and Gardens. Landscapes where there is a strong landscape structure, distinctive and characteristic patterns of landform and land

	cover. Landscapes where there are features in good condition that are worthy of conservation, a strong sense of place and few detracting elements.
Medium	Landscapes whose character, features, particular aesthetic or perceptual aspects are moderately vulnerable. They would be vulnerable to some change or loss, but may accommodate the proposed development in certain circumstances. Landscapes of local value, such as Special Landscape Areas, Green Belt or protected features such as the settings of heritage assets. Where there is a recognisable landscape structure and characteristic patterns of landform and land cover. Some character may be masked by developed land cover. Where there is a combination of features worthy of conservation and some detracting features.
Low	Landscapes whose character, features, particular aesthetic or perceptual aspects are reasonably robust. They would be tolerant to some change or loss and would accommodate the proposed development in most circumstances. Landscapes of no particular local value, where there is a minimal landscape structure and characteristic patterns of landform and land cover. Landscapes where landform and land-cover are masked by developed land cover. Landscapes where there are many detracting features.
Negligible	Landscapes of low quality whose character, features, particular aesthetic or perceptual aspects lack sensitivity, are tolerant to change and offer good opportunities to accommodate the development. Landscapes where no landscape features of value are found where little or no landscape pattern is evident. Landscapes where the landform and land cover are masked by land use. Landscape where a lack of management has resulted in a degraded appearance or where there are frequent detracting features.

Magnitude of change

The magnitude of effect is identified by combining judgements on:

- the size and scale of the effect; and
- the geographical extent of the area that will be affected;

This judgement is then adjusted up or down by further consideration of:

- the duration of the effect, generally defined as:
  - over 20 years – very long term
  - 10 to 20 years – long term
  - 3 to 10 years – medium term
  - 1 to 3 years – short term
  - Less than 1 year – very short term;
- and the degree of reversibility.

Long term developments, such as mineral operations will be assessed on a staged basis, including at 15 years post restoration, in order to consider the long term effects on character and land cover. Magnitude of effect is rated as: *negligible, small, medium or large.* The criteria for each rating are specific to the potential effects of the development. However they may follow the parameters listed in the following table.

Table 6 – Criteria for judging magnitude of effect on landscape receptors, based on size, scale and geographical extent	
High	Where the proposals would change several key landscape characteristics on a large scale. This may involve the total loss or major alteration to key elements or characteristics of the landscape, and/or the introduction of totally uncharacteristic elements. The development will fundamentally change the baseline landscape and may affect reasons for designation.

Medium	Where the proposals would change a small number of landscape characteristics on a medium scale. This may involve the partial loss or alteration to one or more of the key elements or characteristics, and/or the introduction of prominent, but not totally uncharacteristic elements. The development will form a conspicuous landscape feature and the baseline landscape may be noticeably changed, but is unlikely to affect reasons for designation.
Low	Where the proposals would change a small number of landscape characteristics on a small scale. This may involve the minor loss or alteration to one or more key elements, and/or the introduction of characteristic elements. The development will be perceptible, but the baseline landscape will be largely unchanged.
Negligible	Where the proposals would change a very small number of landscape characteristics on a very small scale. Where the degree of change is negligible to the perception of character.

Determining significance of Landscape effects

The ratings of sensitivity of the receptor and magnitude of the effect are combined to form an overall judgement of significance of effect rated as: *neutral, negligible, minor adverse or beneficial, moderate adverse or beneficial, or major adverse or beneficial.* The criteria for each rating are specific to the potential effects of the development.

Paragraph 5.56 of GLVIA3 describes the correct approach to judging significance:

'*There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and landscape context and with the type of proposal. At opposite ends of the spectrum it is reasonable to say that:*

- *major loss or irreversible negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes are likely to be of the greatest significance;*
- *Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value are likely to be of the least significance and may, depending on the circumstances, be judged as not significant;*
- *Where assessments of significance place landscape effects between extremes, judgements must be made about whether or not they are significant, with full explanations of why these conclusions have been reached.'*

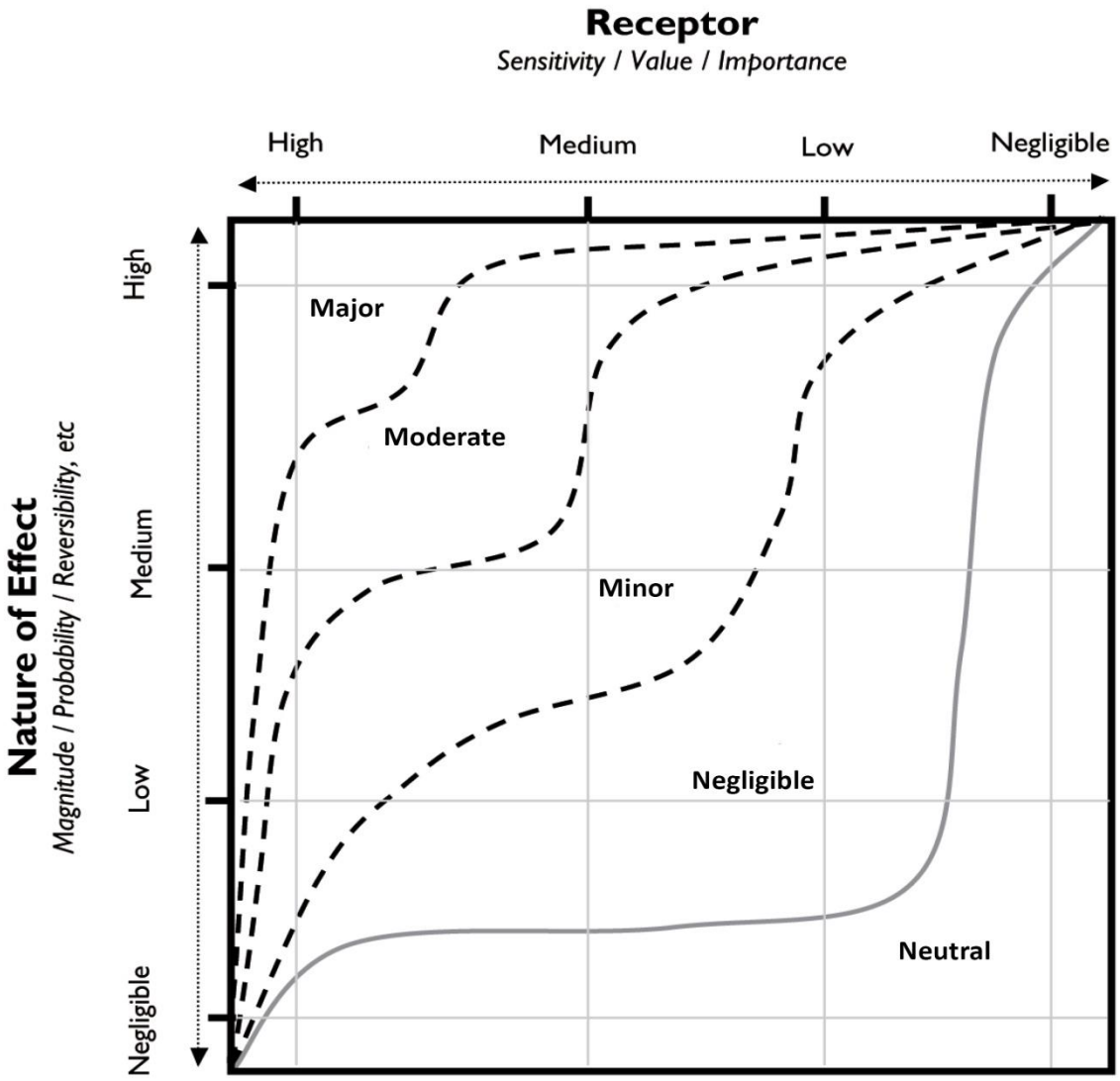
The rationale for each judgement should be clear, demonstrating:

- how susceptibility to change and value together contribute to the sensitivity of the receptor;
- how judgements about scale, extent and duration contribute to the magnitude of effects;
- how the resulting judgements about sensitivity and magnitude are combined to inform judgements about the overall significance of effects.

While all the individual professional judgements to assess the sensitivity of receptors and magnitude of effects require a narrative approach, the overall significance of effect can be rated within a matrix of judgements. The matrix in Table 7 below is adapted from 'EIA significance evaluation matrix' illustrated as Figure 6.3 of the 'Special Report – The state of Environmental Impact Assessment Practice in the UK', published by IEMA in 2011. This matrix

allows for a range of significance judgements within each box that is supported by a narrative describing the various sensitivity and magnitude elements that combine to form the judgement. All effects can be either adverse or beneficial in nature. Each landscape assessment will define in the conclusions what is considered to be a significant effect in terms the ratings tabled below.

Table 7 – Combining judgements of sensitivity with magnitude to derive broad ratings of landscape significance



The implications of the effects on the character or condition of the landscape resulting from the proposed development are described below. Adverse effects can be reduced or moderated by effective mitigation measures.

'Major adverse or beneficial' – Permanent or long term change to key elements such that the local or wider landscape character/condition is substantially affected in an adverse or beneficial way. Potential mitigation measures would be ineffective to prevent adverse effects, but very effective in promoting beneficial effects.

'Moderate adverse or beneficial' – Permanent or temporary detrimental or beneficial change to key elements, or permanent change to less important elements such that the landscape character/condition is moderately affected in an adverse or beneficial way. Potential mitigation measures would moderate effects to a minor degree.

‘Minor adverse or beneficial ‘– Permanent or temporary detrimental or beneficial change to minor elements such that the landscape character/condition is slightly affected in an adverse or beneficial way. Potential mitigation measures would moderate effects to a major degree.

‘Negligible’ – Minor change to minor elements such that the landscape character/condition is barely affected in either an adverse or beneficial way.

‘Neutral’ – Change that does not result in any perceptible effects on landscape character/condition.

Application of mitigation measures and Statement of Residual Effects

After the initial significance of effect is judged for each landscape receptor, measures are introduced to mitigate adverse effects in the design reiteration and the assessment process is repeated. Mitigation measures are proposed to prevent/avoid, reduce and where possible offset/remedy/compensate. This sequence forms the ‘mitigation hierarchy’. Mitigation or enhancement measures should be deliverable. When all mitigation measures are exhausted and the assessment of impacts re-run, the final statement of likely residual effects is prepared.

ASSESSING CUMULATIVE LANDSCAPE EFFECTS

Definitions

Paragraph 7.2 of GLVIA3 describes cumulative landscape and visual effects as those that:

'... result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other development (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the reasonable future'.

Paragraph 7.5 of GLVIA3 explains that cumulative landscape assessment is complex and evolving:

'... the challenge is to keep the task reasonable and in proportion to the nature of the project under consideration....it is always important to remember that the emphasis in EIA is on likely significant effects rather than on comprehensive cataloguing of every conceivable effect that might occur...'.

Methodology

Scoping

The scoping process determines what types of cumulative effect are considered:

- only those from projects of the same type as the main project under consideration;
- or include other types of development in the vicinity;
- and/or those that may arise as an indirect consequence of the main project under consideration;
- and/or, in the case of large complex projects, different scheme components or associated and ancillary development that in some cases may require their own planning consent.

The baseline for assessing cumulative landscape effects includes any existing development or one that is under construction. The assessment should then consider the effects on the baseline landscape of potential schemes that are at various stages of the development and consenting process including:

- schemes with planning consent;
- schemes that are the subject of a valid planning application that have not yet been determined.

Schemes that are at the pre-planning stage or 'scoping stage' are not generally considered because of the lack of certainty.

Defining a study area

The study area, which should be reasonable and proportional, is agreed with the competent authority at the scoping stage. The zone of visual influence or zone of theoretical visibility of each development potentially creating cumulative landscape effects will be overlaid to create a composite map of to define the study area. This can be adjusted to reflect the extents of character areas to be affected. Reasonable assumptions about the extents of the study area will be made where this information is not available.

Baseline cumulative landscape studies

This will be similar to the main assessment but adjusted to take account of any changes in the extents of the study area.

Predicting cumulative landscape effects

The assessment will consider the degree to which the main development will, in combination with other developments, change the existing key characteristics through an incremental effect on elements, features, patterns and quality, or by the addition of new features or the loss of existing features. Cumulative effects will be described in relation to the landscape receptors identified in the main assessment.

The methodology for assessing impact will essentially mirror that of the main assessment: identify the sensitivity of the receptors by combining judgements of susceptibility to specific change and values ascribed to those receptors; identify the magnitude of effect with reference to size/scale and geographical extents, adjusted by consideration of the duration and magnitude of effects; combine judgements of sensitivity and magnitude and reconsider these after the application of mitigation measure.

Determining the significance of cumulative landscape effects

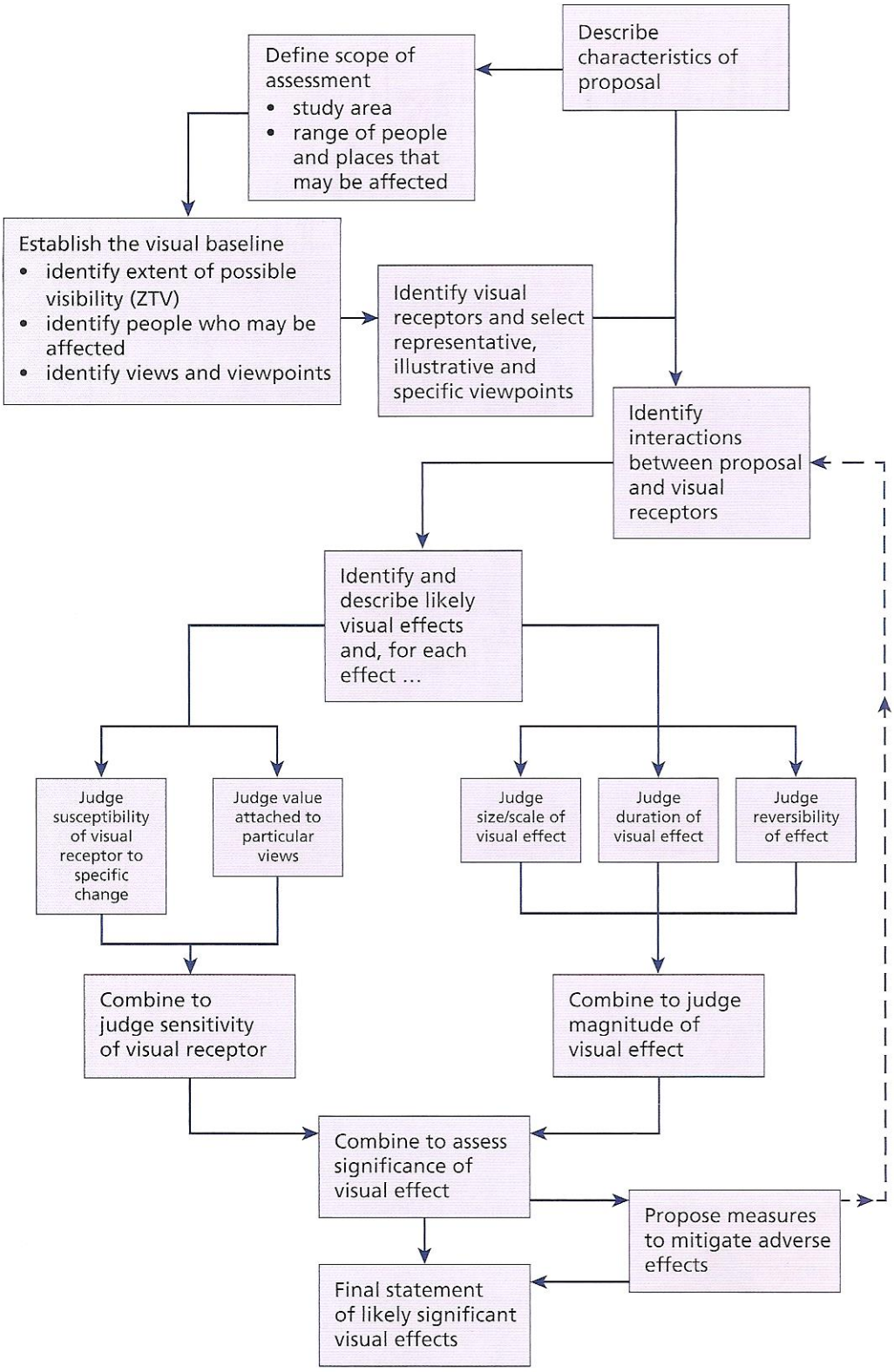
The ratings and matrix of broad ratings are the same for the main assessment. Cumulative adverse effects will always be equal to or greater than effects recorded to the main assessment, by application of the following principles:

- When a predicted significant landscape effect from the main development is added to a predicted significant effect from another proposed development, the overall effect is considered to be significant and cumulative;
- When a predicted significant landscape effect from the main development is added to a predicted non-significant effect from another proposed development, the overall effect is considered to be significant and cumulative, but is attributed to the main development only;
- When a predicted non-significant landscape effect from the main development is added to predicted significant effect from another proposed development, the overall effect is considered to be significant and cumulative, but is attributed to other proposed development only;
- When a predicted non-significant landscape effect from the main development is added to a predicted non-significant effect from another proposed development, the overall effect is still considered to be cumulative and greater than the level of effect for each development individually, but the combined effects may or may not be significant.

The supporting narrative will clearly set out how professional judgments have been made in the same manner as the main assessment.

ASSESSING VISUAL EFFECTS

The following flowchart, taken from Figure 6.1 of 'Guidelines for Landscape and Visual Impact Assessment' 3rd edition describes the fundamental process for predicting visual effects of a development.



Scoping visual effects

The following baseline elements are agreed with the competent authority:

- the extent of the study area, which is proportional to the scale and nature of the proposed development;
- the range of people who may be affected (receptors);
- and the representative or key viewpoints that need to be examined.

A Zone of Theoretical Visibility (ZTV) is created by a desktop study of the topography surrounding the development site and/or computer interrogation of digital terrain models based on an average eye height of 1.65m above ground level. This is followed by a walking survey to check full extents and to identify key or representative viewpoints.

The following groups of visual receptors are identified:

- residents, at home or going to and from;
- users of public open space, rights of way, access areas;
- visitors to attractions, leisure facilities;
- people at work, school, shopping;
- or people travelling on road, rail, waterway.

Baseline visual studies

Viewpoints are selected in part through discussions with the competent authority and other interested parties at the scoping stage. Selection is further informed by the ZTV analysis, fieldwork desk research on access and recreation. Selected viewpoints cover a range of situations sufficient to encompass the likely significant effects including:

- representative – for different types of receptor or from private dwellings
- specific – for key viewpoints from noteworthy locations
- illustrative – of a particular effect or issue, not necessarily a view of the development site itself.

Details of viewpoint locations, direction of view and area covered are accurately mapped and catalogued, sufficient for someone to return to the exact location and record the same view. It should be noted that few views from private residences can be accurately recorded and that these may be considered as part of a separate residential amenity assessment.

The use of photographs and sight-line sections or photomontages is generally considered to be suitable means to assessing and presenting visual assessment. The Landscape Institute Technical Guidance Note 02/17 is considered to help select the types of visualisation which are most appropriate for this assessment.

Photographs

Landscape Institute Technical Guidance Note 06/19 (TGN 06/19) provides guidance as to appropriate techniques to capture site photography and produce appropriate visualisations for development proposals. This is to be taken as the primary source of guidance in the preparation of the LVIA, unless targeted or authority-specific guidance is to be used, in which case the departure from TGN 06/19 will be made clear and the alternative methodology set out.

TGN 06/19 defines 4 Visualisation Types. The appropriate type for inclusion in the LVIA will be identified by a proportionate assessment of the following factors, in accordance with the detailed guidance set out in the guidance;

- the intended Purpose of the visualisation;
- the anticipated Users;
- the stage in the planning application process;
- the Sensitivity of the context/host environment, having regard to the landscape and visual receptors; and
- the likely overall Magnitude of effect of the development in terms of its 'size and scale', 'geographic extent' and 'duration and reversibility

The relationship between purpose, user and visualisation type is shown below

Category	Purpose and Users	Appropriate Visualisation Types
A	Evidence submitted to Public Inquiry, most planning applications accompanied by LVIA (as part of formal EIA), some non-EIA (LVA) development which is contrary to policy or likely to be contentious. Visualisations in public domain.	Type 2 3D wireline/model Type 3 photomontage/photowire Type 4 photomontage/photowire (survey/scale verifiable).
B	Planning applications for most non-EIA development accompanied by LVA, where there are concerns about landscape and visual effects and effective mitigation is required. Some LVIAs for EIA development. Visualisations in public domain.	Type 1 annotated viewpoint photographs Type 2 3D wireline/model Type 3 photomontage/photowire Type 4 photomontage/photowire (survey/scale verifiable).
C	Planning applications where the character and appearance of the development is a material consideration. LVIA / LVA is not required but supporting statements (such as Planning Statements and Design and Access Statements) describe how the proposal responds to landscape context and policies. Visualisations in public domain.	Type 1 annotated viewpoint photographs Type 2 3D wireline/model Type 3 photomontage/photowire
D	To inform the iterative process of assessment and design with client, and / or pre-application consultations with the competent authority. Visualisations mainly confidential.	Type 1 annotated viewpoint photographs Type 2 3D wireline/model

Details of appropriate locational accuracy, photographic equipment and presentational approaches will be applied for each Visualisation Type in accordance with the detailed guidance in TGN 06/19

The following camera specifications and settings will be used for all LVIA photography;

Camera specification	**Type 1 & 3 Visualisation** DSLR Cropped frame sensor + 35mm FL prime or zoom lens DSLR Full frame sensor + 50mm FL prime lens **Type 4 Visualisation** DSLR Full frame sensor + 50mm FL prime lens
Manual settings;	
ISO	100 - 200
Aperture	5.6
Shutter speed	No slower than 1/60
Focus	Manual set to middle distance of view being taken

TGN 06/19 sets the standard for a 'mathematically correct' image as one taken with a 50mm FL (or 50mm equivalent FL for a cropped frame sensor camera) with approximately 39.6 Horizontal Field of View (HFoV) image, printed at a size of 390mm x 260mm on an A3 sheet, and held at 542mm from the eye, and LVIA images will be presented at this standard.

Type 1 (Annotated Viewpoint Photographs) will be annotated to show the extents of the proposal site, and any key locations/objects that are of assistance in understanding the nature of the development and predicted change.

Panoramic images will be created by taking a series of overlapping photographs on a Pano head tripod at 20 degree intervals, which will provide a 50% overlap for each image. The photographs will be taken in portrait format and ‘stitched’ together using Microsoft Image Composite Editor software to form a single panoramic image with a field and depth of view similar to that seen by the human eye. Each image is then resized so that the individual photograph frames are 390mm high on an A2 paper sheet. A ‘Powerclip’ box is applied over the image in CorelDRAW Photopaint to ensure that the overall image was not resized in cropping it to a rectangular shape.

Photomontages

In order to gauge the specific levels of visual intrusion, computer generated visualisations may be generated from key viewpoints identified in the visual appraisal process located in various directions around the site. Panoramic photographs will be taken on a clear day to the specification described above. Digital terrain models of the restoration schemes were constructed using LSS software. The raw model is viewed from the same key viewpoints, matching the photographs in terms of: eastings, northings and elevations of the viewpoint location; the centreline angle of view; the distance, horizontal field and vertical field of view. Each proposed view is captured and exported in a format suitable for inserting within the photographs of the existing views. Photographs and photomontages assist in assessing the potential visual effects of the proposed development over a period of time. They are not virtual reality images and are subject to minor distortions and inaccuracies. A photograph or photomontage can only be a two dimensional representation and therefore can never provide the exact visual experience that a human observer would receive in the field.

The visual receptors along with key, specific or representative viewpoints are identified. The interaction between the proposal and receptors and the likely effects are then examined followed by judgement of the significance of predicted visual effects.

Visual impact assessment

Interactions

After identifying the visual receptors, the interaction between the proposal and receptors and the likely effects are examined before judging the significance of predicted landscape effects. This requires informed professional judgements about whether the effects are likely to be positive (beneficial), negative (adverse) or neutral (negligible), clearly stating the criteria used in reaching this judgement.

Sensitivity of visual receptors

Paragraph 6.31 of GLVIA3 states that the sensitivity of visual receptors *'... should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views'.*

The susceptibility of a visual receptor is defined in the glossary of GLVIA3 as the *'..ability of a defined visual receptor to accommodate the specific proposed development without undue negative consequences'.*

The susceptibility of a visual receptor is assessed according to:

- the occupation or activity of receptors,
- the extent to which their attention or visual interest is focussed on the views, and
- the visual amenity experienced at particular locations.

The value of a view to a receptor and the relative number of potential viewers also helps determine visual sensitivity. Tourist attractions, important landmarks, designated landscapes, heritage site, nationally designated trails that are used by relatively high number of people are likely to be highly sensitive to change. Equally, hill walkers are unlikely to be high in number, but their sensitivity is often high because the primary purpose of the visit is likely to be an appreciation of the landscape and views.

Receptor sensitivity is rated: as *negligible, low, medium, or high.* The criteria for each rating are specific to the type of viewer and the sensitivity of the visual environment or value

attached to specific views. However they may follow the parameters listed in the following table.

Table 8 – Criteria for judging overall sensitivity of visual receptors	
High	Where the view forms an essential component of the activity, such as those from: panoramic viewpoints; mountains and hilltops; tourist and visitor destinations; nationally designated walks, cycleways and bridleways; heritage destinations affording specific, highly valued views. Areas with very high expectations of visual amenity, although may not affect a high number of receptors.
Medium	Where the view forms a strong component of the activity, such as those from daytime residential rooms or private gardens, public rights of way, de facto footpaths and access land, particularly designated recreational paths, cycleways and bridleways. Includes views from Public houses, restaurants, parks etc. with outward views towards the development, promoted scenic drives. Open areas of recognised public access where primary enjoyment is obtained from views of the landscape. Areas with moderate to high expectations of visual amenity. May affect a high number of receptors
Low	Where views are noticeable, but not integral to the main activities; such as at sporting or active recreational facilities where amenity is gained from the landscape setting but is not essential to the activity. Includes views from residential rooms used primarily during night hours and from remote country lanes. Areas with moderate expectations of visual amenity.
Negligible	Where views are incidental to other activities, such as those from work in industrial or commercial settings, where visual amenity is currently lacking, or when travelling past the site by rail or road; where scenic attractions are not expected. Areas with low expectations of visual amenity.

Magnitude of change

As with landscape effects, the magnitude of change for visual effect is identified by combining judgements on:

- the size and scale of the effect;
- the geographical extent of the area that will be affected;

This judgement is then adjusted up or down by further consideration of:

- the duration of the effect, generally defined as:
  - over 20 years – very long term
  - 10 to 20 years – long term
  - 3 to 10 years – medium term
  - 1 to 3 years – short term
  - Less than 1 year – very short term;
- and the degree of reversibility.

Long term developments, such as mineral operations will be assessed on a staged basis, including at 15 years post restoration, in order to consider the long term visual effects of changes to land cover. Magnitude of effect is rated as: *negligible, low, medium or high.* The criteria for each rating are specific to the potential effects of the development. However they may follow the parameters listed in the following table. It is important to consider differences in effects caused by filtering or screening of views. Professional judgements are made to predict effects where photographs are not available.

Table 9 - Criteria for judging magnitude of effect on visual receptors, based on size, scale and geographical extent	
High	Where current open views are obtained of a major part of the site; or where close, but partially obscured views of the site dominate the location. Where the proposals would form a significant or dominant feature in a specific vista that would affect the overall impression of the place.
Medium	Where current views of the site are partially obscured by intervening landform, structures or vegetation. Where proposals would form a visible and recognisable new element within a wide field of view, but would not be dominant within the overall view.
Low	Where current views of the site are largely obscured by intervening landform, structures or vegetation; or where the angle or field of view is particularly narrow. Where proposals would constitute only a minor component of the wider view and do not affect the overall composition of the scene.
Negligible	Where views of the site are distant, incidental or barely distinguishable from its surroundings to the naked eye. Where the proposals are just visible within a wide field of view. The development would not change the character or quality of the existing view by any degree.

Determining significance of Landscape effects

The ratings of sensitivity of the receptor and magnitude of the effect are combined to form an overall judgement of significance of effect rated as: *neutral, negligible, minor adverse or beneficial, moderate adverse, or major adverse or beneficial.* The criteria for each rating are specific to the potential effects of the development.

Paragraph 6.44 of GLVIA3 states that *'There are no hard and fast rules about what makes a significant effect.....circumstances vary with the location and context and with the type of proposal'.*

The paragraph continues to describe the spectrum of potential significance as:

- *'Effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant;*
- *Effects on people at recognise and important viewpoints or from recognised scenic routes are more likely to be significant; and*
- *Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes involving feature which are already present within the view.'*

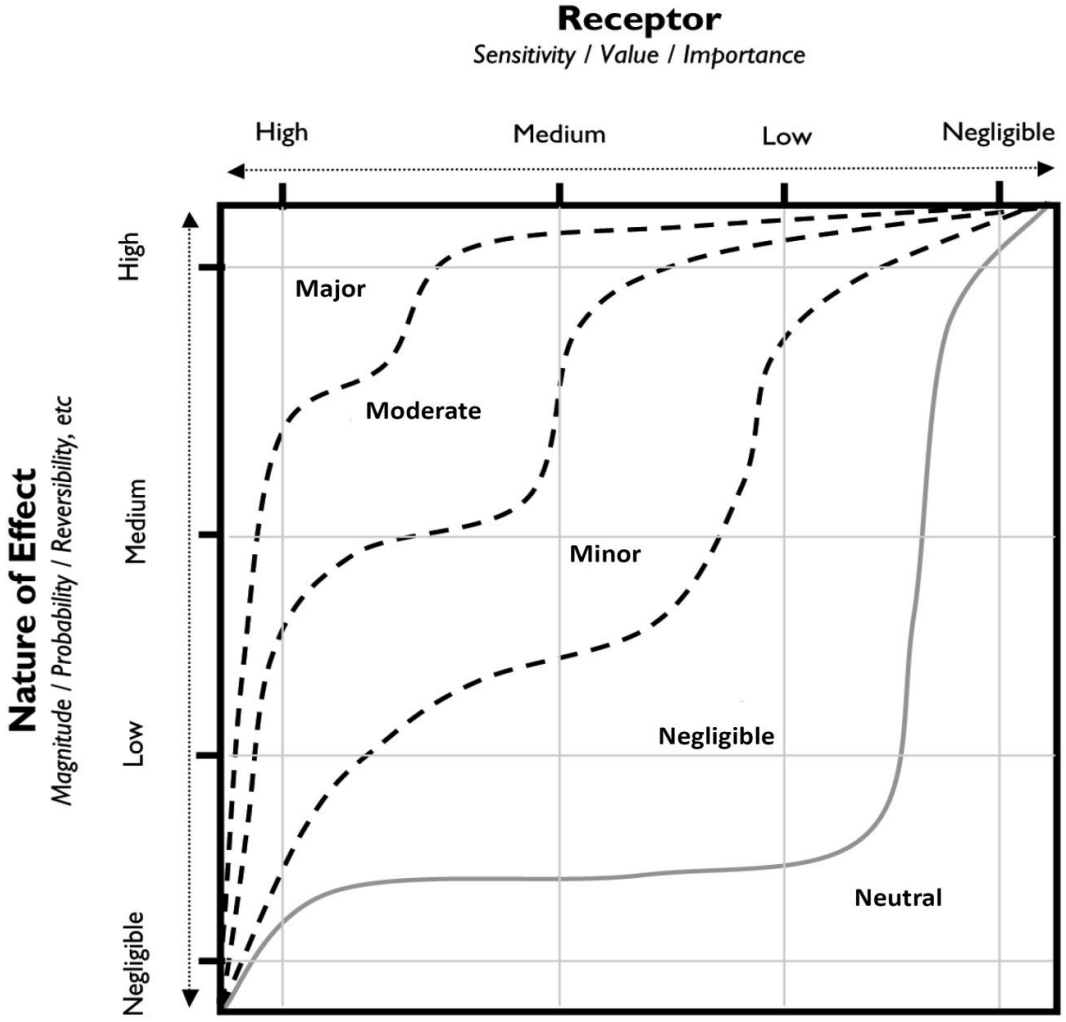
The rationale for each judgement should be clear, demonstrating:

- how susceptibility to change and value together contribute to the sensitivity of the receptor;
- how judgements about scale, extent and duration contribute to the magnitude of effects;
- how the resulting judgements about sensitivity and magnitude are combined to inform judgements about the overall significance of effects.

While all the individual professional judgements to assess the sensitivity of receptors and magnitude of effects require a narrative approach, the overall significance of effect can be rated within a matrix of judgements. The matrix in Table 10 below reflects the 'EIA significance evaluation matrix' illustrated as Figure 6.3 of the 'Special Report – The state of Environmental Impact Assessment Practice in the UK', published by IEMA in 2011. This matrix allows for a

range of significance judgements within each box that is supported by a narrative describing the various sensitivity and magnitude elements that combine to form the judgement. All effects can be either adverse or beneficial in nature. Each visual assessment will define in the conclusions what is considered to be a significant effect in terms the ratings tabled below.

Table 10 – Combining judgements of sensitivity with magnitude to derive broad ratings of visual significance



The implications of the effects on visual amenity resulting from the proposed development are described below. Adverse effects can be reduced or moderated by effective mitigation measures.

'Major adverse or beneficial' – Permanent or long term change to key elements such that the local or wider visual amenity is substantially affected in an adverse or beneficial way. Potential mitigation measures would be ineffective to prevent adverse effects, but very effective in promoting beneficial effects.

'Moderate adverse or beneficial' – Permanent or temporary detrimental or beneficial change to key elements, or permanent change to less important elements such that visual amenity is moderately affected in an adverse or beneficial way. Potential mitigation measures would moderate effects to a minor degree.

'Minor adverse or beneficial' – Permanent or temporary detrimental or beneficial change to minor elements such that visual amenity is slightly affected in an adverse or beneficial way. Potential mitigation measures would moderate effects to a major degree.

'Negligible' – Minor change to minor elements such that the visual amenity is barely affected in either an adverse or beneficial way.

'Neutral' – Change that does that result in any perceptible affects on visual amenity.

Application of mitigation measures and Statement of Residual Effects

After the initial significance of effect is judged for each visual receptor, measures are introduced to mitigate adverse effects in the design reiteration and the assessment process is repeated. Mitigation measures are proposed to prevent/avoid, reduce and where possible offset/remedy/compensate. This sequence forms the 'mitigation hierarchy'. Mitigation or enhancement measures should be deliverable. When all mitigation measures are exhausted and the assessment of impacts re-run, the final statement of likely residual effects is prepared.

ASSESSING CUMULATIVE VISUAL EFFECTS

Definitions

Paragraph 7.2 of GLVIA3 describes cumulative landscape and visual effects as those that:

'... result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other development (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the reasonable future'.

Paragraph 7.5 of GLVIA3 explains that cumulative landscape assessment is complex and evolving:

'... the challenge is to keep the task reasonable an in proportion to the nature of the project under consideration....it is always important to remember that the emphasis in EIA is on likely significant effects rather than on comprehensive cataloguing of every conceivable effect that might occur...'.

Methodology

Scoping

The scoping process determines what types of cumulative effect are considered:

- only those from projects of the same type as the main project under consideration;
- or include other types of development in the vicinity;
- and/or those that may arise as an indirect consequence of the main project under consideration;
- and/or, in the case of large complex projects, different scheme components or associated and ancillary development that in some cases may require their own planning consent?

The baseline for assessing cumulative visual effects includes any existing development or one that is under construction. The assessment should then consider the effects on the baseline landscape of potential schemes that are at various stages of the development and consenting process including:

- schemes with planning consent;
- schemes that are the subject of a valid planning application that have not yet been determined.

Schemes that are at the pre-planning stage or 'scoping stage' are not generally considered because of the lack of certainty.

Defining a study area

The study area, which should be reasonable and proportional, is agreed with the competent authority at the scoping stage. The zones of visual influence or zones of theoretical visibility of each development potentially creating cumulative visual effects will be overlaid to create a composite map of to define the study area. Reasonable assumptions about the extents of the study area will be made where this information is not available.

Baseline cumulative visual studies

This will be similar to the main assessment, but adjusted to take account of any changes in the extents of the study area.

Predicting cumulative visual effects

The assessment will consider the degree to which the main development will, in combination with other developments, change the existing key characteristics through an incremental effect on elements, features, patterns and quality, or by the addition of new features or the loss of existing features

Cumulative visual effects can be caused by combined visibility, which occurs where the observer is able to see two or more developments from one viewpoint; and/or sequential effects which occur where the observer has to move to another viewpoint to see different developments. These are likely significant effects rather than a comprehensive catalogue of all conceivable effects. Cumulative effects will be described in relation to the visual receptors identified in the main assessment.

Types of cumulative visual effect (summary based on SNH, 2012)

Generic	*Specific*	*Characteristics*
Combined		
Occurs where the observer is able to see two or more developments from one viewpoint	in combination	Where two or more developments are or would be within the observer's arc of vision at the same time without moving his/her head
	in succession	Where the observer has to turn his/her head to see the

		various developments – actual and visualised
Sequential		
Occurs when the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths	frequently sequential	Where the features appear regularly and with short time lapses between instances depending on speed of travel and distance between viewpoints
	Occasionally frequent	Where longer time lapses between appearances would occur because the observer is moving very slowly and/or there are larger distances between the viewpoints

The methodology for assessing impact will essentially mirror that of the main assessment: identify the sensitivity of the receptors by combining judgements of susceptibility to specific change and values ascribed to those receptors; identify the magnitude of effect with reference to size/scale and geographical extents, adjusted by consideration of the duration and magnitude of effects; combine judgements of sensitivity and magnitude and reconsider these after the application of mitigation measure.

Determining the significance of cumulative visual effects

High levels of significance may arise from cumulative visual effects related to:

- developments in close proximity to the main project and clearly visible together in views from selected viewpoints;
- developments that are highly inter-visible, with overlapping ZTVs – even though the individual developments may be at some distance from the main project and from individual viewpoints;
    - in such cases projects may not be particularly significant when viewed individually, but the overall combined cumulative effect at a particular viewpoint may be more significant.

The ratings and matrix of broad ratings are the same for the main assessment. Cumulative adverse effects will always be equal to or greater than effects recorded to the main assessment, by reasons of the following principles:

- When a predicted significant visual effect from the main development is added to a predicted significant effect from another proposed development, the overall effect is considered to be significant and cumulative;
- When a predicted significant visual effect from the main development is added to a predicted non-significant effect from another proposed development, the overall effect is considered to be significant and cumulative, but is attributed to the main development only;
- When a predicted non-significant visual effect from the main development is added to predicted significant effect from another proposed development, the overall

effect is considered to be significant and cumulative, but is attributed to other proposed development;

- When a predicted non-significant visual effect from the main development is added to a predicted non-significant effect from another proposed development, the overall effect is still considered to be cumulative and greater than the level of effect for each development individually, but the combined effects may or may not be significant.

The supporting narrative will clearly set out how professional judgments have been made in the same manner as the main assessment.

Appendix B

References

Landscape Institute and Institute of Environmental Management & Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment*. 3rd edn. London: Taylor & Francis

Landscape Institute (2019) *Visual Representation of Development Proposals*, Technical Guidance Note 06/19

Natural England (2014) National Character Area Profiles: Data for Local Decision Making[online] available from https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making

HM Government (2014) Magic [online] available from http://www.magic.gov.uk

Wiltshire Core Strategy; Wiltshire Council, January 2015. Available from https://www.wiltshire.gov.uk/media/372/Wiltshire-Core-Strategy-adopted-2015/pdf/Wcs.pdf?m=637099399373530000

Purton Neighbourhood Plan; Wiltshire Council & Purton Parish Council, November 2018. Available from https://www.wiltshire.gov.uk/media/581/Purton-Neighbourhood-Plan/pdf/sppnp-purton-neighbourhood-plan-made-november-2018.pdf?m=637102899404170000

The Landscape Character of Wiltshire; Wiltshire Council & Land Use Consultants. December 2005. Available from https://www.wiltshire.gov.uk/media/1008/Chapter-10-Landscape-Character-December-2005-2-0mb/pdf/lca-dec-05-chapter-10.pdf?m=637108900630600000

North Wiltshire Landscape Character Assessment; North Wiltshire District Council & White Consultants. June 2004. Available from https://www.wiltshire.gov.uk/planning-landscape-conservation

Purton Landfill Solar Farm Landscape and Visual Appraisal Report. Johns Associates, September 2021.

Landscape Assessment for Proposed Revised Phasing of Parkgate Farm Landfill for Hills Minerals & Waste Ltd. Encor Consulting, 20 February 2004

Proposed Extension to Purton Landfill Site – Landscape and Restoration Issues. Philip Parker Associates, 1995

Appendix C

Local Plan Policies relevant to landscape and visual amenity

Wiltshire Core Strategy

Core Policy 50

Biodiversity and geodiversity

Protection

Development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term. Where it has been demonstrated that such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity resource, and secure the integrity of local ecological networks and provision of ecosystem services.

All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development.

Any development potentially affecting a Natura 2000 site must provide avoidance measures in accordance with the strategic plans or guidance set out in paragraphs 6.75-6.77 above where possible, otherwise bespoke measures must be provided to demonstrate that the proposals would have no adverse effect upon the Natura 2000 network. Any development that would have an adverse effect on the integrity of a European nature conservation site will not be in accordance with the Core Strategy.

Biodiversity enhancement

All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan, particularly through landscape scale projects, and be relevant to the local landscape character.

Local sites

Sustainable development will avoid direct and indirect impacts upon local sites through sensitive site location and layout, and by maintaining sufficient buffers and ecological connectivity with the wider environment. Damage or disturbance to local sites will generally be unacceptable, other than in exceptional circumstances where it has been demonstrated that such impacts:

i. cannot reasonably be avoided

ii. are reduced as far as possible

iii. are outweighed by other planning considerations in the public interest

iv. where appropriate compensation measures can be secured through planning obligations or agreements.

Development proposals affecting local sites must make a reasonable contribution to their favourable management in the long-term.

Core Policy 51

Landscape

Development should protect, conserve and where possible enhance landscape character and must not have a harmful impact upon landscape character, while any negative impacts must be mitigated as far as possible through sensitive design and landscape measures. Proposals should be informed by and sympathetic to the distinctive character areas identified in the relevant Landscape Character Assessment(s) and any other relevant assessments and studies. In particular, proposals will need to demonstrate that the following aspects of landscape character have been conserved and where possible enhanced through sensitive design, landscape mitigation and enhancement measures:

i. The locally distinctive pattern and species composition of natural features such as trees, hedgerows, woodland, field boundaries, watercourses and waterbodies.

ii. The locally distinctive character of settlements and their landscape settings.

iii. The separate identity of settlements and the transition between man-made and natural landscapes at the urban fringe.

iv. Visually sensitive skylines, soils, geological and topographical features.

v. Landscape features of cultural, historic and heritage value.

vi. Important views and visual amenity.

vii. Tranquillity and the need to protect against intrusion from light pollution, noise, and motion.

viii. Landscape functions including places to live, work, relax and recreate.

ix. Special qualities of Areas of Outstanding Natural Beauty (AONBs) and the New Forest National Park, where great weight will be afforded to conserving and enhancing landscapes and scenic beauty.

Proposals for development within or affecting the Areas of Outstanding Natural Beauty (AONBs), New Forest National Park (NFNP) or Stonehenge and Avebury World Heritage Site (WHS) shall demonstrate that they have taken account of the

objectives, policies and actions set out in the relevant Management Plans for these areas. Proposals for development outside of an AONB that is sufficiently prominent (in terms of its siting or scale) to have an impact on the area's special qualities (as set out in the relevant management plan), must also demonstrate that it would not adversely affect its setting.

Core Policy 52

Green Infrastructure

Development shall make provision for the retention and enhancement of Wiltshire's green infrastructure network, and shall ensure that suitable links to the network are provided and maintained. Where development is permitted developers will be required to:

i. retain and enhance existing on site green infrastructure

ii. make provision for accessible open spaces in accordance with the requirements of the adopted Wiltshire Open Space Standards

iii. put measures in place to ensure appropriate long-term management of any green infrastructure directly related to the development

iv. provide appropriate contributions towards the delivery of the Wiltshire Green Infrastructure Strategy

v. identify and provide opportunities to enhance and improve linkages between the natural and historic landscapes of Wiltshire.

If damage or loss of existing green infrastructure is unavoidable, the creation of new or replacement green infrastructure equal to or above its current value and quality, that maintains the integrity and functionality of the green infrastructure network, will be required.

Proposals for major development[107] should be accompanied by an audit of the existing green infrastructure within and around the site and a statement demonstrating how this will be retained and enhanced through the development process.

Development will not adversely affect the integrity and value of the green infrastructure network, prejudice the delivery of the Wiltshire Green Infrastructure Strategy, or provide inadequate green infrastructure mitigation.

Green infrastructure projects and initiatives that contribute to the delivery of a high quality and highly valued multi-functional green infrastructure network in accordance with the Wiltshire Green Infrastructure Strategy will be supported. Contributions (financial or other) to support such projects and initiatives will be required where appropriate from developers.

Core Policy 58

Ensuring the conservation of the historic environment

Development should protect, conserve and where possible enhance the historic environment.

Designated heritage assets and their settings will be conserved, and where appropriate enhanced in a manner appropriate to their significance, including:

i. nationally significant archaeological remains

ii. World Heritage Sites within and adjacent to Wiltshire

iii. buildings and structures of special architectural or historic interest

iv. the special character or appearance of conservation areas

v. historic parks and gardens

vi. important landscapes, including registered battlefields and townscapes.

Distinctive elements of Wiltshire's historic environment, including non-designated heritage assets, which contribute to a sense of local character and identity will be conserved, and where possible enhanced. The potential contribution of these heritage assets towards wider social, cultural, economic and environmental benefits will also be utilised where this can be delivered in a sensitive and appropriate manner in accordance with Core Policy 57 (Ensuring High Quality Design and Place Shaping).

Heritage assets at risk will be monitored and development proposals that improve their condition will be encouraged. The advice of statutory and local consultees will be sought in consideration of such applications.

WDC1: KEY CRITERIA FOR ENSURING SUSTAINABLE WASTE MANAGEMENT DEVELOPMENT

Proposals for waste management development must contribute to the delivery of sustainable development in Wiltshire and Swindon by ensuring that the social, economic and environmental benefits of waste management development are maximised and adverse impacts - including cross-boundary and cumulative impacts - are kept to an acceptable minimum. All proposals for waste management development will be assessed using the following key criteria where appropriate:

- The extent to which adverse environmental impacts and cumulative impacts associated with other local development, are avoided, and the adequacy of mitigation and/or compensation for the proposals
- The impact of transporting waste to and from the site is minimised
- The extent to which adverse impacts on the water environment and flood risk are avoided
- The extent to which the development ensures protection and enhancement of local biodiversity, geodiversity and cultural heritage
- The extent to which the impact of any structures and buildings is minimised in terms of the appropriate use of scale and form, informed by the Wiltshire Landscape Character Assessment
- The quality and appropriateness of the restoration, aftercare and after-use proposals (where applicable), considering the contribution that could be made to the UK, South West and/or Wiltshire, Swindon and Cotswold Water Park Biodiversity Action Plan targets.

WDC2: MANAGING THE IMPACT OF WASTE MANAGEMENT

Proposals for waste management development in Wiltshire and Swindon will be permitted where it can be demonstrated that the proposal firstly avoids, adequately mitigates against, or compensates for significant adverse impacts relating to:

- amenity
- visual aspects
- noise and light emissions
- vibration
- transportation of waste
- air emissions and climate change
- the water environment
- contaminated land
- the potential loss of best and most versatile agricultural land.

Proposals for waste management development should be accompanied, where necessary, by assessments of the impacts relating to the issues listed above.

WDC4: PROTECTION OF RECREATIONAL ASSETS

Proposals for waste management development will be permitted where it can be demonstrated that controls will be made available to safeguard and where appropriate enhance public rights of way on or adjacent to development sites.

Proposals that would have a significant adverse impact upon tourism or recreational facilities will not be permitted unless mitigation measures are adopted.

WDC7: CONSERVING LANDSCAPE CHARACTER

Proposals for waste management development should include an assessment of the adverse impacts upon Wiltshire and Swindon's landscape character and the landscape character of adjacent areas, as deemed appropriate to the scale and nature of the development, and in particular in relation to the following designated areas:

- The New Forest National Park
- The Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty
- The Cotswolds Area of Outstanding Natural Beauty
- The North Wessex Downs Area of Outstanding Natural Beauty.

The assessment should be informed by the Wiltshire Landscape Character Assessment, as a minimum, and where the proposed development falls within or in proximity to an AONB or the New Forest National Park, the relevant Management Plan.

Proposals for waste management development should include appropriate provisions to protect and where possible enhance the quality and character of the countryside and landscape. Proposals in proximity to settlements must safeguard their character, setting and rural amenity through the implementation of mitigation measures that incorporate an acceptable separation distance, landscaping and planting, appropriate to the existing landscape setting.

WDC8: BIODIVERSITY AND GEOLOGICAL INTEREST

Proposals for waste management development in Wiltshire and Swindon must be accompanied (where appropriate) by an objective assessment of the potential effects of the development on areas of biodiversity and/or geological interest, taking into account cumulative impacts with other development and the potential impacts of climate change.

The assessment must have particular regard to the need to maintain and / or enhance, sites and species of international and national importance in accordance with the relevant statutory requirements.

The assessment must also consider carefully the need to maintain and / or enhance the following features of local and regional importance:

- Local Biodiversity Action Plan habitats and species
- County Wildlife Sites (including Semi Natural Ancient Woodlands)
- Regionally Important Geological and Geomorphological Sites
- Local Nature Reserves
- The Great Western Community Forest.

Proposals for waste management development will only be permitted where adverse impacts will be:

a. Avoided
b. Where an adverse impact cannot be avoided, the impact will be adequately mitigated
c. Where adverse impacts cannot be avoided or adequately mitigated, compensation measures will, as a last resort, be designed and implemented to ensure the maintenance or enhancement of biodiversity/geodiversity.

WDC9: CULTURAL HERITAGE

In the interest of protecting the rich historic character of Wiltshire and Swindon, proposals for waste management development will be permitted where it can be demonstrated that the following areas of archaeological or cultural heritage importance and their settings can be protected, enhanced and/or preserved.

- Scheduled Ancient Monuments
- Registered Battlefields
- Listed buildings
- Conservation Areas
- Locally important archaeological remains
- Historic parks and gardens.

Proposals affecting sites of known or potential archaeological importance must be accompanied by an appropriate archaeological evaluation. Where the findings of the initial assessment indicates necessary, preservation in situ of nationally important remains may be necessary, or developers will be required to agree to a scheme of further archaeological mitigation prior to commencement of the development or as part of the overall development scheme. In the interests of recording, preserving and the future management of important archaeological features affected by a proposal the Councils may seek contributions from the developer in the form of a planning agreement.

Proposals affecting the setting of the World Heritage Site of Stonehenge and Avebury will not be permitted.

Purton Policy 3: Footpaths

New development shall retain and protect the quality and attractiveness of existing public rights of Way (footpaths and bridle ways) but where this is not possible, compensation measures will be sought to improve rights of way. Footpaths in new developments shall provide links to existing pedestrian routes where appropriate.

Overall Objective	Objectives
To seek opportunities for landscape, recreational and ecological gain whilst minimising the environmental impact of new development	• To protect and enhance the historical environment and landscape setting of the villages and of the parish • To identify and implement ecological enhancements wherever possible, such as part of proposed developments, in order to work towards a net gain for biodiversity rather than just to protect existing ecological features/sites. • To protect and conserve the key sensitive landscape and views around the village • To maintain, protect and enhance existing open and recreation spaces in the villages and to provide more safe places to play to support new development • To retain and protect the existing green infrastructure from inappropriate development • Development proposals to demonstrate how they protect features of nature conservation and geological value of the villages and the parish • To retain and protect the green, open undeveloped space around the villages and to prevent coalescence with the major urban area of Swindon

Purton Policy 4: Ecological Enhancements

Proposals for new development should in accordance with Core Policy 50 and the NPPF Chapter 11 seek to identify and implement ecological enhancements wherever possible, such as part of proposed developments, in order to work towards a net gain for biodiversity rather than just to protect existing ecological features/sites.

Local sites of ecological interest are to be retained and enhanced wherever possible in any development proposal. They include the following:

- All County Wildlife Sites and Sites of Nature Conservation Interest.
- Areas of woodland and other wildlife sites shown on Map 3 (page 14).

Much of the village of Purton sits on an escarpments overlooking open countryside in a wide sweep from Swindon in the east around to Fairford and Cirencester in the north and to Malmesbury in the west and with the hills near Stroud in the background. Purton Parish Plan identified the need to protect these magnificent views and to reduce the impact of development on the visually-sensitive skyline at the top of the village.

Purton Policy 5: To protect key local landscapes

The area shown in green on Map 5 designates an area in which locally important views are taken from the public footpath network, both to and from the escarpments to the north of the village, around Francombe Hill (known locally as High Hills), along the western side of the village up to and including the vista leading up to and around the ancient monument known as Ringsbury Camp. These views are shown on Map 5 which indicates sensitive public views related to the existing built areas. The area named as Purton Common also provides significant public views, as shown on Map 5. Any development in this designated area will be required to maintain the quality of these distinctive public views.