

6.0 LANDSCAPE AND VISUAL

6.1 This section addresses the potential landscape and visual impacts that may be caused by the proposed development of an 'Energy from Waste' plant (EfW) and the consequent amendments to the landform of the existing Ardley Landfill site. The minor extension to the HWRC was also considered but no significant landscape and visual effects were identified. Full details of the proposed development are contained within Chapter 3 – Description of Development and the Design and Access Statement.

6.2 The nature of landscape and visual impact is outlined below:

“Landscape and Visual assessments are separate, although linked procedures”

“Landscape effects derive from changes in the physical landscape, which may give rise to changes in its character and how it is experienced.”

“Visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people’s responses to the changes, and to the overall effects with respect to visual amenity.”¹

6.3 This section is split into five main sub-sections as follows:

- an **INTRODUCTION, OUTLINE METHODOLOGY** and identification of potential landscape and visual receptors;
- a **BASELINE** assessment of the existing landscape and visual amenity;
- a review of the potential landscape and visual effect sources within the **DEVELOPMENT PROPOSALS**;
- an examination of the likely **RESIDUAL IMPACTS** for both landscape and visual; and
- a **CONCLUSION** on the likely landscape and visual impact of the proposed development.

Full details of the methodology are included in Appendix 1 at the end of this section.

Methodology

6.4 A site visit to assess the baseline conditions and take photographs from the majority of the viewpoints was carried out on 21st February 2008.

1 Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph 2.13, 2.14 and 2.15

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- 6.5 A second summer visit was undertaken on 2nd September 2008 to assess the potential impacts of the proposed development in summer.
- 6.6 The Landscape and Visual Impact Assessment has helped to shape the proposed development from an early stage in the design process, and leading through to the formulation of the final proposals.

Consultations

- 6.7 A consultation meeting was undertaken with Oxford County Council (OCC) on Monday 2nd June 2008. This meeting was attended by:
- John Duncalfe and Emily Green of OCC;
 - Peter Wishart of Viridor;
 - David Butterworth (Architect);
 - Chris Herbert (SLR Planner); and
 - Mark Jones (SLR Landscape Architect).

The building design concept was presented by David Butterworth at the meeting, as well as the proposed amendments to the Ardley Landfill permitted restoration landform. The visual implications of these two elements within the local landscape were illustrated by Mark Jones through the use of a 3D model of the building, proposed landform and the surrounding landscape. In addition, Mark Jones presented a plan and photographs illustrating the proposed viewpoints to be used in this Landscape and Visual Impact Assessment. John Duncalfe and Emily Green advised that Craig Blackwell (OCC) and Jeremy Sacha of Cherwell District Council (CDC) should be contacted with regard to final viewpoint choice and landscape issues.

- 6.8 A copy of the plan and viewpoint photographs were sent to Craig Blackwell on the 4th June 2008 and email correspondence was commenced. Craig Blackwell stated that he had previous experience of a similar consultation exercise with the developers looking at EfW proposals at Sutton Courtney.
- 6.9 An attempt was made to contact Jeremy Sacha at CDC. However, he was no longer employed by CDC and contact was made with Paul Almond instead. A copy of the proposed viewpoint location plan and photographs from these viewpoints were sent to Paul Almond on 9th June 2008.
- 6.10 Early responses from Craig Blackwell (email 11th June 2008) stated that;

“As far as I can tell without visiting the area, they (the proposed viewpoints) appear to be suitable and comprehensive, however it is still difficult to imagine just what the visual impact of the proposed development might be from these various viewpoints at some point it would be helpful to have some sort of photo-montage which shows the scale and height of the proposed development. I assume you are working on something like this as part of your brief and it may be helpful to meet up with myself and other planning colleagues to review the situation as soon as you have something to present.”

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- 6.11 A virtual model of the proposed development and photomontages have been prepared and are included within the Building Design Statement. Additional visualisations of the proposed development within the surrounding landscape have been prepared for and are included within this section.
- 6.12 Reference was also made in the preparation of this section to the Scoping/screening Opinion received from Oxfordshire County Council (July 2008).

Documents Referenced

- 6.13 A full list of documents relevant to the landscape of the local area and the proposed development, and standard texts used in the assessment process are listed in the methodology section of Appendix 6/1 at the end of this report.
- 6.14 Direct reference to the Ardley site and its potential use for waste management development is contained within the Environmental Resources Management (ERM) Report conducted for Oxford County Council (Interim Report on Site Selection for Strategic Waste Management Facilities – Stage 2 Report, Detailed Assessment, September 2007). This report identifies the following relevant factors in relation to designations:
- There are no landscape designations for the site;
 - The site is located within the landscape character area of the Cotswolds; and
 - Public Rights of Way run through the site. The necessary diversion orders have been achieved.

- 6.15 The ERM report also assessed the current landscape and visual impact as:

“The site is well screened by trees and hedgerows along the B430, this hedging also extends along the southern boundary. The site is visible from the M40 to the east. Where quarrying is currently ongoing the land level is significantly lower than the surrounding land; consequently, the land is higher where filling is completed.”

- 6.16 The ERM report also identifies the value of certain dinosaur footprints located within the basal limestone deposit of the current mineral extraction areas.

- 6.17 The ERM report continues with preliminary conclusions, within these various conclusions aspects related to landscape and visual issues include the following:

“The site itself is quite open, although bunding, tree plantation and hedging provide a good screen from the B430 and surrounding agricultural land. Much of the landfill operations are visible from the M40. This raised land would provide a screen for any substantial buildings located north of the filled land, although it is likely that any chimney stack would remain visible across a wide area.”

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“Substantial development at the site may be expected to bring enhanced facilities to enable scientific and educational access to the geological features of interest.”

“Substantial development will detract from the current restoration requirements for the site, which is situated in a rural area, albeit adjacent to the M40.”

And

“It is distant from any SAC and would be unlikely to impact on local residential or recreational amenities. Furthermore, development would be expected to bring added benefits, such as an enhanced restoration scheme which could include enabling maximum benefit to be gained from the geological features of interest.”

Potential Landscape and Visual Receptors

- 6.18 The initial study area for the landscape and visual assessment has been resolved by the Zone of Theoretical Visibility studies and the area chosen is shown on drawing 6/1 – Landscape Receptors. This area has been chosen to reflect the nature of the proposed development and has been defined with the benefit of professional experience of similar projects.
- 6.19 A desktop review has been undertaken to identify all landscape and visual receptors that might be sensitive to the proposals within the study area, as well as identifying the nearest landscape designations. Table 6.1 below includes a list of these receptors, and their approximate direction and distance from the nearest application boundary. The positions of the receptors that are present within the study area are marked on drawings 6/1 – Landscape Receptors, 6.2 – Regional and District Landscape character Assessment and 6/3 – County Landscape Character Assessment.

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**Table 6.1
POTENTIAL RECEPTORS**

Potential Landscape and Visual Receptor	Location	Distance (km)	Comment
National Landscape Designations			
National Parks (NT)			None within study area
Areas of Outstanding Natural Beauty (AONB)			None within study area. Cotswolds AONB is located 10km to southwest
Local Landscape and Landscape Related Designations			
No local landscape designation present within study area.			
Regional Character Assessment (Countryside Agency/English Nature)			
Cotswolds	n/a	0	Includes application site
Upper Thames Clay Vales	SE	2.5	Within study area
Bedfordshire and Cambridgeshire Claylands	NE	5.5	Within study area
District Character Assessment (Oxford Wildlife and Landscape Study)			
Wooded Estatelands	n/a	0	Includes application site.
Farmland Plateau	NW	0	Adjacent to application site
Farmland Slopes and Valley Sides	W	3.7	Within study area
River Meadowlands	W	4.1	Within study area
Vale Farmland	NW	4.5	Within study area
Clay Vale	SE	4.5	Within study area
Rolling Clayland	SW	5.0	Within study area
Alluvial Lowlands	SE	5.1	Within study area
Estate Farmlands	SW	5.5	Within study area
Wooded Hills	SE	5.5	Within study area
Upstanding Village Farmlands	NW	6.5	Within study area
Rolling Farmland	E	7.0	Within study area
Pasture Hills	SE	7.7	Within study area
District Character Assessment (Cherwell Countryside Design Summary)			
Ploughley Limestone Plateau	n/a	0	Includes application site.
Cherwell Valley	W	2.8	Within study area
Clay Vale of Otmore	SE	4.7	Within study area
Ironstone Downs	NW	6.8	Within study area
Register of Parks and Gardens of Historic Interest			
Middleton Park	SW	1.4	Country house with remains of pleasure gardens based on medieval park.

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Potential Landscape and Visual Receptor	Location	Distance (km)	Comment
Rousham	W	5.4	Country house with pleasure gardens.
Kirtlington Park	SW	4.0	Pleasure grounds and park surrounding country house.
Aynho Park	NW	5.3	Country house with parkland.
Blenheim Palace	SW	12	House with circa 10sq Km extensive and complex park and pleasure grounds. Designated as a world Heritage Site. Boundary of grounds over 12km from application boundary.
Scheduled Ancient Monuments			
None present within application site, locations within study area shown on drawing 6/1			
Recreational Receptors			
Oxford Canal Walk	W	4.3	Follows the canal along the base of Cherwell Valley.
Oxfordshire Way	SW	6.5	Passes through the study area and the Village of Kirtlington, crossing the Cherwell Valley.
Cross Bucks Way	E	6.0	Route starts at Stratton Audley and runs southeast away from the application site.
Bernwood Jubilee Way	E	9.8	Passes along the far eastern edge of the study area.
Westbury Circular Walk	NE	10	Short section in far northeast of study area.
National Cycle Route 51	SE	4.5	

- 6.20 A number of viewpoints are used to assess the significance of potential landscape and visual effects caused by the proposed development. These viewpoints are listed below in Table 6.2. These 16 viewpoints were chosen from a total of 27 viewpoints identified by field work on 21st February 2008 and in relation to the criteria set out in paragraph 6.94 below. The position of these viewpoints is illustrated on drawing 6/4 – Landscape Setting.
- 6.21 In addition, consultation on these viewpoints was carried out as per paragraphs 6.7 – 6.12 above to ensure they constituted a true and fair representation of potential views within the surrounding landscape.

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**Table 6.2
VIEWPOINTS**

Viewpoint		Grid Reference		Description
		Easting	Northing	
A	Right of Way, near Upland Cottage	454395	226949	View from public right of way looking across farmland.
B	Ardley Road, M40 road bridge	454932	227179	View from road bridge over M40, looking south across farmland.
C	Right of Way, off Middleton Road	455552	225317	View looking west from public right of way running along edge of railway line.
D	Middleton Road, M40 road bridge	454908	224660	View looking northwest from road bridge over M40 towards Water Tower.
E	Right of Way, near Gagle Brook	454353	225096	View from public right of way on southern application boundary looking northwest.
F	B4030, M40 road bridge	454757	223309	View from road bridge looking north along line of M40.
G	Right of Way, near Trow Pool Spinney	454390	224681	View looking north from public right of way running across open farmland.
H	Middleton Road, Bucknell Lodge	454312	224031	View from public road adjacent to Bucknell Lodge looking north.
I	B4030, Middleton Stoney	453765	223505	View looking north from edge of Stoney Middleton across enclosed farmland.
J	Right of Way, Dewars Farm	453528	224218	View from public right of way adjacent to farmstead north of Middleton Stoney
K	Ardley Road, B430	453497	224433	View looking northeast from public road over trimmed hedgerows and agricultural land
L	B4030, near Middleton Park	452544	224393	Restricted view from gap in hedgerow vegetation, looking northeast across open farmland.
M	Ardley Road, B430	453687	225216	View opposite proposed site entrance, partly screened by hedgerow vegetation.
N	Chilgrove Drive, Upper Heyford	452327	226254	View from edge of Upper Heyford Airfield looking southeast across farmland.
O	Camp Road, near Right of Way	453204	225815	View from public road adjacent to right of way looking south east across farmland.
P	Public road, off Summerton Road	453377	227338	View from edge of Upper Heyford Airfield looking southeast across open farmland.

LANDSCAPE DESIGNATIONS AND POLICIES

Introduction

- 6.22 Landscape designations and the value attached to particular landscapes are two of a number of criteria considered in identifying the relative sensitivity of the landscape to a proposed development (See Table 6.4) any such designations are identified below.
- 6.23 Aspects of planning guidance and policy which are of particular relevance to this landscape and visual assessment are also examined below, as these also reflect value within the landscape. Full details of the planning context are set out in Chapter 4 – Planning Policy Context.

National Landscape Designations

- 6.24 There are no National Parks or Areas of Outstanding Natural Beauty (AONB) within the study area.
- 6.25 The Cotswolds AONB is located approximately 10km to the southwest. Field work was under taken to identify potential viewpoints from the edge of the study area in this direction, but no clear open views were identified due to intervening woodland and vegetation. The A 4260 which runs along the western edge of the study area above the Cherwell Valley has extensive screen planting and adjacent woodlands and forms a general limit to visibility in the southwest and west. In addition, given the intervening distance, little change looking out towards the application site from the edge of the AONB is anticipated for any limited views that may exist. Closer to the site the extensive mature woodland around Middleton Park creates a dense screen to the southwest of the application site. Viewpoint L is located to the southwest of the proposed development and identifies the type of visual change from that orientation, although obviously more distant views would have perceive much less visual effects due to the greater distance.

Local Landscape Designations

- 6.26 No local landscape designations have been identified within the study area.

Landscape Policies

- 6.27 The Oxford Structure Plan 2016 (Adopted 21 October 2005) refers to landscape character in Policy EN1 and states that:

“Local planning authorities will ensure that proposals for development contribute to the protection, maintenance and, where possible, enhancement of Oxfordshire’s landscape character, and in particular the natural beauty of Areas of Outstanding Natural Beauty to reflect their national importance. Development will be permitted only if it does not unacceptably damage the local landscape.”

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6.28 The Structure Plan continues in section 5.2 to state:

“Oxfordshire has an attractive and diverse landscape. Government policy in PPS7 (Sustainable Development in Rural Areas) is to protect the countryside for the sake of its intrinsic character and beauty and diversity of its landscape, heritage and wildlife, and that development plans should seek to protect, and where possible, enhance the character of the landscape.”

6.29 Section 5.3 of the Structure Plan states:

“In line with the character based approach to landscape protection, the County Council has undertaken work on the Oxfordshire Wildlife and Landscape Study (OWLS), which provides local planning authorities, developers and other organisations with greater understanding of Oxfordshire’s landscape and biodiversity resource, from joint countryside character areas at national level, down to information on wildlife habitats and landscape character at a parish level. Landscape character assessments have also been carried out by the district councils in Oxfordshire and should be taken into account in preparing development plans and considering development proposals.”

6.30 Details of these and other landscape character studies are outlined in paragraphs 6.39 - 6.48 below.

Landscape Related Designations and Policies

6.31 In addition to the above designations that relate directly to the landscape, a number of other designations can be affected through impacts upon their setting and perceived character. Such areas often represent attractions within the surrounding landscape, and thus concentrations of potential receptors (visitors) that may be sensitive to landscape and visual impact. Local policies may have similar effects in concentrating or creating new or future receptors.

Registered Parks and Gardens

6.32 Drawing 6/1 – Landscape Receptors indicates the position of a number of Registered Parks and Gardens as identified in Table 6.1. Policy EN4 of the Oxfordshire Structure Plan states the following;

“The fabric and setting of listed buildings including Blenheim Palace and Park, a World Heritage Site, will be preserved and the character or appearance of conservation areas and their settings will be preserved or enhanced. Other elements of the historic environment, including historic parks and gardens, battlefields and historic landscapes will also be protected from harmful development.”

6.33 The settings of such areas are defined by the nature and function of the historic asset, and can be affected by visual impacts created by developments within the local area. Table 10.1 identifies the location of such

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sites within and adjacent to the study area. It is thus important to assess what views of the proposed development may occur so that informed assessment of impacts on their settings can be made in Chapter 12 - Cultural Heritage, where considered appropriate.

- 6.34 However, Chapter 12 identifies (paragraph 12.18) a study area of 2km around the development site as being appropriate for the collection of baseline heritage data and assessment. The distance of Blenheim Palace site is 12km, from the south western boundary of the application area to the north eastern boundary of the World Heritage Site. In addition, significant screening vegetation exists towards the southwest of the site as identified above in paragraph 6.25.

Conservation Area Policies

- 6.35 Chapter 12 – Cultural Heritage identifies the importance of Conservation Areas and their settings in paragraph 12.10. Details of the Ardley Conservation Area and Upper Heyford Conservation Area are identified in paragraph 12.45 and 12.53 respectively. Potential visual impacts upon these areas are assessed through the use of Viewpoints A, B, N and P.
- 6.36 The Non Statutory Cherwell local Plan 2011 states that:

“EN39 development should preserve listed buildings, their features and settings, and preserve or enhance the character or appearance of designated conservation areas, as defined on the proposals map. Development that conflicts with these objectives will not be permitted.”

Scheduled Ancient Monuments

- 6.37 Drawing 6/1 – Landscape Receptors indicates the position of Scheduled Monuments found within the study area. The Oxford Structure Plan includes Policy EN6 in relation to these features, it states:

“There will be a presumption in favour of preserving in situ nationally and internationally important archaeological remains, whether scheduled or not, and their settings. Development affecting other archaeological remains should include measures to secure their preservation in situ or where this is not feasible, their recording or removal to another site.”

- 6.38 The settings of such areas are defined by the nature and function of the historic asset, and can be affected by visual impacts created by developments within the local area. It is thus important to assess what views of the proposed development may occur so that informed assessment of impacts on their settings can be made in the Cultural Heritage Chapter, where considered appropriate.

EXISTING ENVIRONMENT - LANDSCAPE BASELINE

Introduction

- 6.39 The landscape baseline represents a study of the existing and developing landscape, against which changes caused by the proposed development can be assessed.
- 6.40 Current landscape assessment practice utilises landscape character assessment as the methodology for analysing and assessing the potential impacts of any development upon the local landscape.
- 6.41 The former Countryside Agency (now Natural England) guidelines make a clear distinction between the characterisation process (in which the attributes of the landscape are described) and the judgement making process. This section of the assessment examines existing character studies and undertakes a characterisation process, to form the landscape baseline. Later sections make judgements about the potential effects of the proposed development based upon the landscape.

Existing Landscape Appraisals of the Application Site and its Surroundings

- 6.42 The Countryside Agency guidelines identify three main levels of Landscape Character Assessment:
- National and regional scale;
 - County, district and unitary authority scale; and
 - Local, parish and site scale.

Regional Character Assessment

- 6.43 At the regional level landscape character is defined by the Countryside Commission and English Nature (now both part of Natural England) in their 1996 Character of England landscape character assessment. This work identifies the study area as including three Regional Character Area (RCAs), including the 'Cotswolds' (Area 107), within which the application site is located and which forms the majority of the study area. The other RCAs include, to the north-east the 'Bedfordshire and Cambridgeshire Claylands' (Area 88), and to the southeast the Upper Thames Clay Vales' (Area108). The boundary between these RCAs is shown on Drawing 6/2 – Regional and District Landscape Character.
- 6.44 The 'Cotswolds' RCA is based upon the belt of upland stretching from Bath in the southwest to the area around the application site in the northeast. The relevant key characteristics of this area are as follows;
- Defined by its underlying geology: a dramatic scarp rising above adjacent lowlands with steep combes, scarp foot villages and beech woodlands;

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- Rolling, open, high wold plateaux moulded by physical and human influences, with arable and large blocks of woodland, divided up by small, narrow valleys;
- Incised landscapes with deep wide valleys;
- Flat, open dip slope landscape with extensive arable farmland;
- Prominent outliers within the lowlands;
- Honey-coloured Cotswold stone in walls, houses and churches; and
- Attractive stone villages with a unity of design and materials.

6.45 The RCA does not refer directly to the study area but includes a general description which states that;

“Finally, there is the dip slope which is yet more gentle than the high Wolds. The valleys, like those of the Windrush and Coln, are much broader and sometimes give the impression that they are simply undulations in the plateau. Arable predominates, but marshy valley bottoms with willows, alders and watermeadows still survive.”

County and District Character Assessment

6.46 The Cherwell Countryside Design Summary (June 1998) included a more detailed district assessment of the landscape character for the Cherwell area. This included five Local Character Areas (LCAs) within the study area, as shown on Drawing 6/2 – Regional and District Landscape Character , these being:

- Ironstone Downs - to the far west of the study area;
- Cherwell Valley – following the line of the River Cherwell north to south and to the west of the application area;
- Ploughley Limestone Plateau – including the site and a large part of the study area;
- Clay Vale of Otmore – to the southeast; and
- Urban Area (Bicester).

6.47 The ‘Ploughley Limestone Plateau’ covers the central part of Cherwell to the east of the Cherwell Valley. This LCA has the following characteristics:

- A number of exposed upland plateaux in the north and west dip gently into rolling undulations and shallow valleys to the Southeast;
- Extensive remains of 18th century parkland and estate farmland characterise the area. Six parklands survive containing woodland and pasture with fine specimens of single trees such as beech, oak, lime and horse chestnut, enclosed by limestone walls and groups of Corsican and Scots Pine. Adjacent to the parklands, farmland displays estate farm characteristics such as railings and avenues of trees;
- Woodland cover is comparatively extensive in some parts of this area, either as long plantation belts bordering streams or roads adjacent to arable farmland, or in association with historic parkland;

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- Arable is the primary agricultural land use of the area. Scale varies from a patchwork of fields with well-defined hedgerows and copses, to large-scale fields on the well-drained loams of the open plateaux;
- The former RAF airbase at Upper Heyford is a large and prominent feature situated on an exposed plateau in the west of the character area;
- Views are often broken by woodlands, e.g. Stoke Wood near Stoke Lyne. However, in places, gentle rises in the arable landscape can afford views for a couple of kilometres; and
- A network of roads criss-cross the entire area, avoiding valleys, and often lined by walls and trees relating to the extensive areas of parkland.

6.48 A more recent Landscape Character Assessment was undertaken by Oxfordshire County Council, English Nature and the Countryside Agency. This was the jointly funded 'Oxfordshire Wildlife and Landscape Study' (April 2001) to explore the relationship between landscape character and biodiversity, and to produce a strategic framework for decision making. This project resulted in the identification of 24 different 'Landscape Types' within Oxfordshire. The location the 'Landscape Types' found within the study area are shown on drawing 6/3 – County Landscape Character Assessment. The two principal types within the study area are the 'Farmland Plateau' and 'Wooded Estatelands'. The application site is located entirely within the 'Wooded Estatelands', although the 'Farmland Plateau' type is present very close to the northwest corner of the application site.

6.49 The 'Wooded Estatelands' landscape type is described as follows:

"A wooded estate landscape characterised by arable farming and small villages with a strong vernacular character."

and

"This landscape type includes parklands at the eastern end of the Cotswolds, ranging from the area around Blenheim Park, Steeple Barton, Middleton Park and as far as Shelswell Park to the north of Bicester. Further south it includes Eynsham Hall Park and Bladon Heath Wood and also covers the majority of the wooded and parkland areas in the undulating landscape of the Corallian Ridge."

6.50 The key characteristics of this type include:

- Rolling topography with localised steep slopes;
- Large blocks of ancient woodland and mixed plantations of variable sizes;
- Large parklands and mansion houses;
- A regularly shaped field pattern dominated by arable fields; and
- Small villages with strong vernacular character.

6.51 The 'Farmland Plateau' landscape type is described as follows:

"This landscape type is characterised by a high limestone plateau with a distinctive elevated and exposed character, broad skies and long distance

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views. Large scale arable fields dominate the landscape, with some medium-sized plantations partially obscuring the otherwise open views.”

and

“This landscape type covers the plateau across the elevated northern part of the county. It extends across the areas between Chipping Norton and Banbury and is dissected by the rivers Evenlode, Glyme and Dorn. To the east of the Cherwell Valley the plateau continues northeast of Upper Heyford and Fritwell. The most southern part lies to the northwest of the River Windrush.”

6.52 The key characteristics of this type include

- Level or gently rolling open ridges dissected by narrow valleys and broader vales;
- Large, regular arable fields enclosed by low thorn hedges and limestone walls;
- Rectilinear plantations and shelterbelts;
- Sparsely settled landscape with a few nucleated settlements; and
- Long, straight roads running along the ridge summits.

Local, Parish and Site Character Assessments

6.53 No character assessments have been identified for the site and its surroundings at this scale. However, the following section assesses the components of the landscape and attempts to identify the important aspects to enable a characterisation process to be undertaken.

Landscape Appraisal of the Application Site and its Surroundings

6.54 The Countryside Agency guidance on landscape appraisal recommends that landscapes are initially characterised, and that judgements about the nature and sensitivity of these landscapes are then based on this characterisation process. The Agency’s guidance recommends that the characterisation process should be based on an assessment of natural factors, cultural social factors and aesthetic and perceptual factors.

6.55 These factors have been examined for the application site and the local landscape within the study area. Each of these factors is assessed below. Drawing 6/4 – Landscape Setting is based on an aerial photograph of the local area and provides additional information not present on the Ordnance Survey (O.S.) 1:25,000 map used as the base for many of the other drawings.

Natural and Semi-natural Characteristics

6.56 The topography of the study area is illustrated in Drawing 6/5 – Topography which also shows the extent of the study area as illustrated by the Ordnance Survey 1:25,000 map data.

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- 6.57 The local topography is defined by the remaining plateau land of the 'Cotswolds' as it dips to the southeast and towards the 'Clay Vale' lands. Ground levels peak towards the north at around 150m AOD, dipping down to 130m AOD around Upper Heyford Airfield, 118m AOD around the northwest corner of the application site, down to around 100m in the southeast corner of the application site and then falling further to around 60m AOD in the southeast corner of the study area. This general northwest to southeast fall has been modified by the valley of the River Cherwell, which cuts down through the plateau on its north to south course, to the west of the application site.
- 6.58 Drawing 6/5 also illustrates the drainage pattern of the study area with the River Cherwell approximately 4.5 km to the west of the application site. The River Cherwell runs north to south, with tributaries branching to the east and west to form a grid type drainage pattern. The steeper local slopes along the edges of valleys within the study area are shown in drawing 6/6 – Slope Analysis, Including those of the Permitted Landfill.
- 6.59 Prior mineral extraction has modified the topography at the application site creating a mineral void with a basal level of around 5-6m below the natural ground level. This void is currently being landfilled to create a final domed landform as per the permitted restoration plans.(see paragraph 6.73 below)
- 6.60 A small section of the south eastern corner of the site is within flood zones for the Gagle brook. Water currently present in that area is also considered to be in continuity with the ground water and the major aquifer present below.
- 6.61 The underlying deposit within Ardley Quarry is limestone, removal of mineral above this strata through the quarrying process, revealed extensive dinosaur footprints from the Jurassic period. Some of these footprints have been removed and/or recorded.
- 6.62 The nature of the local character has resulted in areas of extensive woodland within the study area, linked to various large country estates. This woodland cover is increased by a number of small rectilinear woodlands around the application site such as Birch Spinney to the southwest of the application site, and The Plantation to the northeast. In addition, a number of linear woodland belts are present following the paths of local streams, such as Burntclose Copse and Trow Pool Spinney along Gagle Brook. The extensive agricultural land is divided by low hawthorn hedgerows with scattered hedgerow trees, adding an additional layer of vegetation to the woodland.

Cultural and Social Factors

- 6.63 The application site is located within an area of open predominantly arable farmland. The field pattern is rectilinear, with medium to large field sizes.
- 6.64 The majority of settlements are of agricultural origin, and include many individual lodges and farmsteads, as well as scattered farm workers cottages. Three small nucleated villages (Ardley, Middleton Stoney and Bucknell) form a triangle around the application site. The edge of the Roman

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town of Bicester is located around 3km to the southeast, and is the main settlement within the study area.

- 6.65 The town of Bicester has a radial network of roads spreading out from its centre in all directions. This network includes, the B4030 which passes through Middleton Stoney and continues to Lower Heyford, and a local unclassified road that runs northwest out of Bicester to Bucknell and then on to Ardley. The B430 cuts across this radial pattern, generally at the location of settlements, running south through Ardley and Middleton Stoney, and along the western boundary of the application site. The M40 motorway also cuts across the radial network of roads from north to south, but is located east of the application site. The M40 is located between 200-400m from the eastern site boundary, with the intervening land including agricultural fields and Gagle Brook. A number of long distance footpaths and part of the National Cycle Way are present within the study area as shown in drawing 6/1. However, none of these lie close to the application area.
- 6.66 A railway line runs northwest from Bicester, passing along the northern side of the application site and eventually descending into the Cherwell Valley and heading north. The railway line is generally in cutting passing beneath the M40 and the B430. A large section of the railway cutting is designated as a Site of Special Scientific Interest (SSSI), including the section adjacent to the northern site boundary (see drawing 6/1).
- 6.67 The application site is located within the 'Wooded Estatelands' character type, referring to the presence of a number of estates such as Middleton Park, Kirtlington Park, Rousham Park, and Aynho Park as illustrated on Drawing AL 10/1 – Landscape Receptors. The nearest such estate is Middleton Park which is located some 1.4km to the southwest of the application site.
- 6.68 Upper Heyford Airfield is located just over 1km from the northwest edge of the application site, and stretches over 505ha of the study area. The airfield was a former RAF base and contains many remnants of its prior use, as an airfield to the north and east, while extensive buildings are present to the south, these being residential quarters and support facilities for RAF personnel. Proposals exist to redevelop the airfield site as a new settlement as illustrated on drawing 6/1

Aesthetic and Perceptual Aspects

- 6.69 The aesthetic qualities of the background landscape of the local area are summarised in Table 6.3, divided into the main categories identified within the guidance²

² Landscape Character Assessment – Countryside Agency and Scottish Natural Heritage (2002) – Paragraph 5.12 and Box 5.1

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Table 6.3
AESTHETIC ATTRIBUTES OF THE GENERAL
LANDSCAPE AND APPLICATION SITE

Aesthetic Factors	
Enclosure	The surrounding landscape is generally open due to the gently undulating landform and large field size. However, the degree of woodland cover does provide a level of enclosure at the larger scale. In contrast, the extraction void, landfill landform and vegetation of Gagle Brook provide higher levels of enclosure within the southern parts of the application site.
Balance	The locality of the application site is generally balanced, within a typical agricultural landscape of arable fields and woodland. The gently undulating landform helps to emphasis the simple nature of the landscape. However, the prominent and busy nature of the M40 in places introduces a more chaotic nature to parts of the study area. The nature of the landfill and mineral extraction operations extends this nature westwards to the B430.
Pattern	There is a strong rectilinear field pattern and a strong radial road network through the study area.
Diversity	The general agricultural backdrop of the area and extensive estatelands creates a simple local landscape. However, certain areas such as the airfield, M40 and Ardley Landfill site increase the diversity in particular areas
Scale	The level of exposure and plateau landscape lead to a medium scale landscape within the local area.
Form and Line	The rectilinear field pattern and radial road network creates a landscape of straight lines and regular form.
Colour	The colour palette includes a mixture of green crops and yellow brown arable fields throughout the year. This is backed by dark green and brown woodland colours. The predominant use of Cotswold stone as the vernacular building material is a defining feature of buildings and settlements. In areas of diversity brighter more garish colours are present generally in the form of vehicular traffic.
Movement	The M40 creates a strong sense of movement within the local landscape, and movement is also high towards the town of Bicester and it's 'A' road network. However, away from the main roads and within the agricultural areas, the landscape is generally much calmer with local traffic using the smaller roads and only the slow movement of livestock and agricultural vehicles within the agricultural land.

Landscape Dynamics and Potential for Landscape Enhancement

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- 6.70 It is recognised that most landscapes are constantly evolving and changing. Given the potential timescale of the proposals it is important to identify these aspects as part of the baseline against which to assess potential impacts.
- 6.71 The Cotswolds RCA identifies the loss of semi-natural habitats through conversion to arable farming, with much of the species-rich limestone grassland having been lost. However, these changes in the landscape have now more or less abated. The RCA does identify the pressure for new settlements and the expansion of existing villages, and the continuing pressure for landfill, quarrying and extraction of gravel and minerals.
- 6.72 The Ploughley Limestone Plateau LCA identifies the following issues with regard to the implications of proposed development:
- Development should avoid exposed and prominent locations. The protection given by a valley location, existing buildings or woodland, should be used where this does not undermine the character of these existing landscape features;
 - Development in historic parklands or within their setting must maintain or enhance the specific character, which defines this part of the District; and
 - Extensive areas of woodland may be appropriate in certain locations, e.g. in association with existing plantations and away from exposed plateau locations.
- 6.73 The landscape guidelines from the OWLS study includes the following guidance for mitigation and enhancement measures:
- Conserve and maintain semi-natural and ancient semi-natural woodland. Where appropriate, replace non-native conifer species with native species such as oak and ash. Promote the establishment and management of medium to large-scale deciduous and mixed plantations in areas where the landscape structure is particularly weak.
 - Strengthen the field pattern by planting up gappy hedges using locally characteristic species such as hawthorn and hedgerow trees such as oak and ash.
 - Promote environmentally-sensitive maintenance of hedgerows, including coppicing and layering when necessary, to maintain a height and width appropriate to the landscape type.
 - Conserve and sympathetically maintain species-rich hedgerows and, where appropriate, replant gappy hedges using species such as hawthorn, blackthorn, wayfaring tree, dogwood and spindle.
 - Enhance and strengthen the character of tree-lined watercourses by planting willows and ash and where appropriate, pollarding willows.
 - Minimise the visual impact of intrusive land uses such as quarries, landfill sites, airfields and large-scale development, such as new barns and industrial units, with the judicious planting of tree and shrub species characteristic of the area. This will help to screen the development and integrate it more successfully with its surrounding countryside.
- 6.74 Proposals for a new settlement of 1075 dwellings together with associated facilities at Upper Heyford have been submitted. The eastern edge of this

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proposed settlement would be approximately 2km from the proposed EfW development site. The position of this proposed development is shown on drawing 6/1 – Landscape Receptors. This drawing also identifies various policies within the Cherwell Local Plan linked to the airfield site.

- 6.75 The existing permitted landfill development is currently working towards the south western corner of the site, with a designated area of inert disposal working south along the eastern site boundary towards the south eastern corner. The current landfill operations are currently permitted until 2027, however based on current levels of infill, the landfill will be completed by 2019. The final permitted restoration scheme is illustrated on drawing ESID5.
- 6.76 The final restoration of the permitted landfill would be completed circa 2019, due to the waste streams proposed and loss of void due to the EfW, the final restoration of the proposed landfill would be within the same timeframe.
- 6.77 Permission has been granted for the extraction of mineral directly to the south of the existing landfill development. This permission includes for the retention of the hedgerow along the southern boundary, and the creation of a 3m high environmental bund around the quarrying activities. In addition, this permission includes for the retention of the boundary hedgerow along the B430 and the bulking up of this existing vegetation through a belt of additional planting to the east of the boundary hedgerow and within the mineral development area. The timescale for the extraction of the mineral and subsequent restoration of the site is estimated at 12 years, final extraction being completed after the completion of landfill operations. Currently (as at January 19th 2010) the mineral extraction is slightly behind program with some stripping operations and mound creation having taken place, along with the excavation of the weighbridge area. Actually mineral extraction is currently taking place in the Northern Quarry (north of the landfill site and railway line).
- 6.78 A waste treatment facility is currently being constructed to the west of the land fill site adjacent to an existing covered reservoir. The site is referred to as Ashgrove Farm (although the farm of this name lies some 500m to the north of the site) and includes the treatment of food waste through in-vessel composting.
- 6.79 The comparative timescales assumed for the landfill, EfW and mineral extraction are outlined below.

Year	Operations Active
2010	Landfill and permitted mineral extraction
2014	Landfill, mineral extraction and EfW operational
2019	Landfill completed, mineral extraction and EfW
2021	EfW, final mineral extraction/restoration, landfill restored
2045/9	EfW reaches end of design life

Landscape Character, Classification and Evaluation

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6.80 The detailed landscape appraisal has further identified the main components of the landscape in the locality of the site and is sufficient to allow an accurate assessment to be conducted. The appraisal suggests that the currently designation of the application site as part of the 'Wooded Estatelands' landscape type is generally correct. Elements of the 'Ploughley Limestone Plateau' character area are also present within the local landscape. The key characteristics of the existing character assessments that are considered present within the local landscape adjacent to the site are summarised below:

- Exposed upland plateau in the north and west dipping gently into rolling undulations and shallow valleys to the Southeast;
- Rolling topography with localised steep slopes;
- Woodland cover is comparatively extensive with long plantation belts bordering streams or in association with historic parkland;
- Views are often broken by woodlands; and
- A regularly shaped field pattern dominated by arable fields. Scale varies from a patchwork of fields with well-defined hedgerows and copses, to large-scale fields on the well-drained loams of the open plateaux.

Conclusions on the Landscape Appraisal of the Existing Site

6.81 The landscape of the study area is a relatively simple mixture of agricultural land and estateland, diversified by the mineral extraction, landfilling operations and busy nature of the M40.

VISUAL BASELINE

Introduction

- 6.82 Visual Impact Assessment relates to “changes that arise in the composition of the available views as a result of changes to the landscape, to peoples’ responses to the changes and to the overall effects with respect to visual amenity”, (“Guidelines for Landscape and Visual Impact Assessment”, Second Edition, *op.cit*). Initially, it is necessary to define the extent of visibility both within and outside the site.
- 6.83 The theoretical extent of visibility was initially identified by Zone of Theoretical Visibility (ZTV) studies for the proposed building mass and stack, using basic heights and dimensions from other ‘Energy from Waste’ buildings. These initial studies were used to guide the selection of viewpoints, identified the potential visual effects of such a development, and were fed into the iterative design process of the building and site design.
- 6.84 These initial studies were updated at a latter stage using the final resolved building details. The ZTV studies are based on Ordnance Survey ‘Profile’ height data and the existing site survey (February 2008), combined with a model of the final building design (up to 36m high, with a twin stack height of 82m, and located at an elevation of 100m AOD. The results of the updated studies are illustrated on drawings 6/7 – Zone of Theoretical Visibility, Chimney Stack, and 6/8 – Zone of Theoretical Visibility, Energy from Waste Buildings.
- 6.85 These studies are based on a bare earth landform and take no account of the screening effects of vegetation. In addition, because they use the existing site survey as a base they do not allow for the mitigating effect of the proposed completed landfill screening or planting. However, they do illustrate the worst case scenario, as if the building was constructed at this stage of the landfill development. The individual viewpoint assessments describe the effects of mitigation of the views achieved. The full methodology used in the production of these ZTV studies is described in Appendix 6/1.

Field Work

- 6.86 Analysis of the initial ZTV studies and Ordnance Survey 1:25,000 maps were then made to identify potential viewpoints and areas for field investigation based on the following criteria:
- Identified as potential receptors in the baseline;
 - Proximity to the site;
 - High concentrations of viewers, such as settlements, local recreational facilities etc;
 - Views from designated areas, private properties, footpaths and other receptors;

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- Views illustrating the visual character of the surrounding area;
- Views illustrating the range and type of views present; and
- Areas identified as having a high potential for visual impact from the ZTV.

General Visibility

- 6.87 The field work identified the importance of the existing landform and the surrounding vegetation in limiting the extent of the visual envelope of the proposed development. The natural landform is illustrated on drawing 6/5 – Topography and drawing 6/4 – Landscape Setting illustrating the level of adjacent woodland and vegetation, which further mitigates views.
- 6.88 The rising land to the north and northwest helps to contain views in those directions. Although theoretically views of the building would be visible as shown on the ZTV for the EfW buildings (drawing 6/8). The theoretical visibility of the proposed stacks would be greater and also extend further north. Various areas of vegetation are present to the north of the application site, especially around Ardley Village. These areas of vegetation would help to screen any views towards the site, and include Ardley Wood, Stoke Wood and planting around Cherwell Valley motorway services. Viewpoints A, B and P illustrate the types of view from this direction.
- 6.89 To the west the valley of the River Cherwell cuts across the plateau and views from within the valley area are prevented by the landform of the eastern valley side. The higher ground on the western valley side allows potential views to be regained. The areas of visibility for the stack are generally greater than for the building by itself. Vegetation likely to aid screening in this direction is located along a small brook running past Ashgrove Farm about 400m west of the application site. This is augmented by areas of woodland such as ‘The Heath’ and ‘Birch Spinney’. Viewpoints M, N and O illustrate the types of view from this direction.
- 6.90 To the east and south, the gently falling landform allows the potential for extensive views from a wide area of the study area for both the stack and building alone. In this direction vegetation is likely to be the main form of visual screening for the existing site. This includes the dense and mature woodland around Middleton Park, vegetation along Gagle Brook to the south. In addition the permitted mineral extraction south of the application site will provide 3m high screen bunds in this direction. Viewpoints E, G, H, I, J, K and L illustrate the types of view from this direction.
- 6.91 To the east across the M40 the landscape is more open with small areas of woodland such as ‘Grunthill Copse’, ‘The Plantation’, ‘Great Copse’ and ‘Nettle Copse’, providing intermittent screening. Some vegetation also exists along Gagle Brook to the east of the application site. Viewpoints C, D and F illustrate the types of view from this direction.

Choice of Final Viewpoints

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- 6.92 The final choice of viewpoints was made to illustrate the general visibility and visual character of the landscape and represent the most important visual receptors. The viewpoints chosen illustrate:
- views from adjacent housing areas;
 - views from important communication routes;
 - views from adjacent receptors; and
 - potential views from sensitive but distant receptors.
- 6.93 The location of the selected viewpoints are shown on drawing 6/4 – Landscape Setting, based on the above factors in paragraph 6.86 and after consultation as outlined in paragraph 6.19. A photograph of each existing view, and a description, are included on the individual viewpoint drawings 6/10 - 25. Table 6.2 lists the viewpoints and their grid reference. The viewpoints are also shown on drawing 6/9 in relation to the ZVI of the proposed EFW buildings.

Viewpoint Photographs

- 6.94 The viewpoint photographs have been mathematically scaled to match the actual view. To achieve this effect the viewer should hold the photograph at a distance of 300mm from his/her eye. Photos reproduced without this methodology will either under represent elements of the view because the photograph is too small or over represent them because the photograph enlarges the view.

Viewpoints

- 6.95 **Viewpoint A – Public Right of Way, near Upland Cottage.** This viewpoint is located to the north of the existing landfill site at Ardley. It represents the types of view from the area of Upland Cottage, Nevilles Farm and the type of glimpsed partial views that may be possible from taller buildings on the southern edge of Ardley. The view looks south across farmland and the railway line that borders the landfill site. A large, recently built agricultural barn forms a dominant element within the view and was constructed after the original choice of viewpoints. Vegetation along the line of the railway and adjacent hedgerows filters views of the M40 to the east and the landfill site to the south. The landfill gas flare associated with the landfill site is visible to the west, with the landform of the landfill rising above the filtering vegetation.
- 6.96 **Viewpoint B – Ardley Road, M40 Road Bridge.** This viewpoint is located on the local road between the villages of Ardley and Bucknell, where it bridges the M40 motorway. This elevated location looks south along the line of the motorway, with open views across farmland to the southwest. The elevation of the viewpoint allows views over intervening hedgerows to the disturbed area of the Northern Quarry at Ardley (south of Nevilles Farm) and the landfill landform and access road beyond. The landfill gas flare stack is visible within the view further to the west. The intervening hedgerows would restrict views from the level of the motorway limiting views of the landfill and quarry activities.

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- 6.97 **Viewpoint C – Right of Way off Middleton Road.** This viewpoint is located on a public right of way just north of Middleton Road along the edge of the railway which runs northwest and along the northern edge of the Ardley landfill site. The viewpoint looks west across open farmland towards the M40 motorway, beyond which the active landfill operations and partly restored sections of landfill are visible. Vegetation along the line of the railway partly screens views further east, however where views are possible from Homelands Farm and Bucknell Village, they would be similar to this viewpoint.
- 6.98 **Viewpoint D – Middleton Road, M40 Road Bridge.** This viewpoint is located on the bridge over the M40 and illustrates a glimpsed view for traffic crossing the M40 on a local road. In addition it illustrates the type of view visible from the M40 looking northwest, although the lower elevation and vegetation along the motorway restricts views towards the site. The view looks out across the motorway and agricultural land towards the active landfill area at Ardley. Visually significant vegetation is present along the line of the Gagle Brook that forms the eastern edge of the landfill site. The area of the permitted mineral extraction is visible in winter through this vegetation screen. To the north of the viewpoint a water tower is visible adjacent to the motorway, this is a landmark feature along the side of the M40.
- 6.99 **Viewpoint E – Public Right of Way near Gagle Brook.** This viewpoint is located on the southern edge of the site on the diverted line of a right of way that originally crossed the landfill site. The view looks out across the remaining quarry void, which is partly flooded towards the raised landform of the previous landfill phases and current landfill operations. The construction of a new landfill cells is visible to the south of the currently active landfill areas. The permitted mineral excavation is located directly south, screened by hedgerow vegetation where present.
- 6.100 **Viewpoint F – B4030, M40 Road Bridge.** This viewpoint is located on the bridge over the M40, to the east of the village of Middleton Stoney. The bridge allows open, elevated views northwards along the line of the motorway. Views also exist to the northeast across farmland to Bucknell Lodge and Middleton Road. Woodland and hedgerows restrict views beyond Middleton Road, although the existing raised sections of Ardley Landfill site are visible above this intervening vegetation.
- 6.101 **Viewpoint G – Public Right of Way, near Trow Pool Spinney.** This viewpoint is located on a right of way that runs from Dewars Farm (north of Middleton Stoney) to Trow Pool Spinney. The view is wide and open in all directions, looking across flat farmland. To the north the partly restored and operational area of Ardley Landfill is visible, rising above low, intervening hedgerows and occasional trees. To the northeast the woodland around Trow Pool and Gagle Brook forms a partial screen to the M40. Permission exists for mineral extraction from adjacent land to the west and north of the viewpoint. This permission includes the erection of a 3m tall screen bund which will obscure views towards the Ardley Landfill site in the near future.
- 6.102 **Viewpoint H – Middleton Road, Bucknell Lodge.** This viewpoint is on Middleton Road, a local road between the villages of Middleton Stoney and

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Bucknell. The viewpoint is located at a field access point adjacent to Bucknell Lodge, and looks northwards across open farmland towards vegetation along Gagle Brook. Older vegetated phases of the Ardley Landfill site are visible above a section of lower vegetation in the direction of Viewpoint G. Newer sections of the landfill are partly screened by taller riparian vegetation along Gagle Brook to the south.

- 6.103 **Viewpoint I – B4030, Middleton Stoney.** This viewpoint is located on the edge of Middleton Stoney and looks north across farmland. The slightly raised landform and woodland vegetation to the north of Middleton Stoney prevents views of the existing landfill site from the village. However, properties to the north of Stoney Middleton can be seen located on the higher ground to the north, such properties would have more open and clearer views. Such views would look north across open farmland towards the recently permitted mineral extraction area directly south of the Ardley landfill site.
- 6.104 **Viewpoint J – Public Right of Way, Dewars Farm.** This viewpoint is located on the same right of way as Viewpoint G, but further south adjacent to Dewars Farm. Traffic on the B430 is visible above hedgerows to the north, with views extending out across open farmland towards Ardley Landfill site in the northeast. Traffic on the M40 is visible in the distance beyond the riparian vegetation along Gagle Brook. The top of older, vegetated phases of the landfill are visible above an intervening hedgerow, with the operation landfill area visible below this. The permitted mineral extraction to the north will be screened by the natural landform, although screen bunds to the southern edge of the mineral workings are likely to screen views of the landfill site from this location.
- 6.105 **Viewpoint K – Ardley Road, B430.** This viewpoint is located on Ardley Road between the villages of Middleton Stoney and Ardley, and runs along the western boundary of Ardley Landfill site. Recently trimmed roadside hedgerows allow views out to the east across open farmland to vegetation along Gagle Brook and the water tower on the edge of the M40. To the northeast the view is limited by hedgerows and hedgerow trees, although the existing landfill site can be seen rising through vegetation, close to the line of the B430. The permitted mineral extraction will be screened from this location by intervening hedgerow, but screen bunds would be visible rising above this and partly screening the landfill operations. Future growth of the roadside hedgerow is also likely to limit views prior to further close cutting.
- 6.106 **Viewpoint L – B4030, near Middleton Park.** This viewpoint is on the road between the villages of Middleton Stoney and Lower Heyford (4km further west). It is located at a gap in the roadside hedgerow close to a junction with a minor local road heading north towards 'The Heath'. The boundary of Middleton Park runs along the edge of the road to the west. This glimpsed view looks northeast across open farmland towards Manor Farm, which is backed by the vegetation of Birch Spinney. Ardley Landfill is partly screened by the intervening vegetation of Birch Spinney and riparian vegetation along a minor un-named brook to the north.

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- 6.107 **Viewpoint M – Ardley Road, B430.** This viewpoint is on Ardley Road close to the southwest corner of Ardley Landfill site and looks east along the southern boundary of the site. The tall hedgerow and screen planting along the western site boundary is visible following the line of the road northwards, greatly restricting views into the current landfill area. Shorter hedgerow vegetation along the road to the south and a farm access opposite the viewpoint allow partial views of the agricultural land to the east, and the hedgerow along the southern boundary of the Ardley Landfill site. The permitted mineral extraction will occur directly south of the southern Ardley Landfill boundary, including a 3m screen bund and landscape planting directly behind the roadside hedgerow south of the viewpoint.
- 6.108 **Viewpoint N – Chilgrove Drive, Upper Heyford.** This viewpoint is located adjacent to the Upper Heyford airfield site and looks east across open farmland towards the Ardley landfill site. To the northeast the remains of bunkers and defensive earthworks on the airfield are visible, to the southeast dense woodland exists around 'The Heath'. A tributary of the Gagle Brook runs across the view, with various belts of woodland present, creating filtered views of the landfill landform. The landfill landform can be seen between intervening vegetation on the skyline, the permitted woodland planting along its crest will help blend the final permitted landfill landform into the surrounding landscape.
- 6.109 **Viewpoint O – Camp Road, near Public Right of Way.** This viewpoint is located on a local road running west from the B430 to Upper Heyford, adjacent to the start of a public right of way running across farmland towards the Upper Heyford Airfield. Hedgerow and tree vegetation to the north and south direct the view eastwards. However, a slight rise in ground levels to the east screens the current Ardley Landfill operations from view.
- 6.110 **Viewpoint P – Public Road, off Summerton Road.** The view is located near the end of public road to the east of the airfield and adjacent to the railway line that runs along the northern boundary of Ardley Landfill site. The view is across open farmland to the southeast. Distant vegetation partial screens the raised sections of the Ardley Landfill site, which are visible on the skyline.

Potential for Visual Enhancement

- 6.111 The potential exists for visual enhancement of the local landscape through the permitted restoration of the existing mineral extraction and landfill sites. This includes the establishment of grassland, scrub and woodland habitats.

Conclusions of the Visual Assessment of the Existing Site

- 6.112 The visual baseline illustrates the visual character of the study area and landscape adjacent to the application site. The main conclusions are as follows:
- Potential visibility of the proposed building is widespread especially to the south and east;

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- Actual visibility is modified greatly by vegetation within the surrounding landscape (see paragraph 6.112 below);
 - The existing landfill landform would help screen the potential development from the north and west; and
 - The permitted mineral extraction to the south of the application site will provide a measure of screening in the short to medium term, prior to any restoration of the mineral site.
- 6.113 To illustrate the significant effect of existing vegetation and the proposed screen planting upon the visual envelope of the proposed EfW building, ZTV studies have been prepared has been prepared using standard heights for surrounding and visually significant woodland within the local area. These drawings are numbered 6/36 and 6/37 and are presented later.
- 6.114 The chosen viewpoints illustrate the range of views of the application site within the study area, as well as illustrating the main conclusions identified above.

DEVELOPMENT PROPOSALS

Potential Landscape and Visual Elements of the Proposed Development

6.115 The extent of the proposed development is described in Chapter 3 – Description of Development, with Drawings 3/3 to 3/8 illustrating the nature, phasing and extent of the proposed development. Drawings 3/10 to 3/13 illustrate the proposed landfill restoration and EfW landscape works. The following items have been examined in detail due to their specific landscape and visual implications and potential to generated landscape and visual effects.

Main Elements of the Proposed Development

6.116 The proposed EfW development consists of five distinct stages as summarised below and detailed in the development section

- Groundworks (six months)
- main construction April 2011 to July 2013 (2 years);
- commissioning (4 months); and
- operation.

6.117 The proposed development area is almost entirely within the existing quarry void, and therefore no existing landscape elements would be lost as a direct result of the proposed building and its operational space. Note, the loss of the exposed dinosaur footprints is not considered a landscape effect as permission already exists for landfilling over them and thus they would be lost with or without the development. Exposure to weather has also degraded their quality. Detailed study and removal of part of these features has already occurred to ensure a good record of this valuable feature exists, as outlined elsewhere in this Environmental Assessment. It is thought similar features may exist within the mineral extraction to the south, where their retention insitu may be a more realistic option.

6.118 Some landscape impacts would occur due to the alteration of the permitted landfill restoration landform. These would relate to the altered footprint of the landfilling, amended height to the south section and steepened contours. The perception of these changes is likely to be low, as the overall height of the landfill would not be increased and the increase in gradients would be obscured by woodland planting and existing screening. The proposed revised phasing of the landfill is illustrated on drawings 3/3-8.

6.119 Some ancillary work connected with the proposed development would also have a direct impact on landscape elements. This would include the proposed EfW access road and amended landfill access. This would include the removal of vegetation for the access and visibility requirements, and amendment of the existing road layout. The proposed amendments to the HWRC would not have any significant effects.

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- 6.120 The mostly likely causes of potential visual change are the activities involved in the construction, and operation of the EfW.

Ground Works

- 6.121 Cut and fill operations would be required to adjust the levels within the base of the mineral extraction to 100m AOD, to form a level base for the building development. Inert fill would also be required along the southern boundary of the mineral void to facilitate the development of the proposed access road.
- 6.122 Once the access road was constructed, this would provide access to the site for construction traffic from the B430. The route of such traffic beyond the site is assessed in Chapter 7 – Traffic and Transport. The access road has been designed to curve and drop down in elevation after entering the site to reduce views into the EfW development area. The access road would start with an elevation of circa 110m AOD at the new site entrance, descending to circa 103.9m AOD at the weighbridge area. The southern flank of the landfill and associated planting would screen the lower sections of the EfW from the start of the access road. The existing screen planting along the B430 would screen views either side of the access point (where such vegetation would need to be cleared).
- 6.123 A surface water management scheme of attenuation ponds would be required to provide greater control of surface water runoff from the landfill area. In the short term this may be facilitated by a temporary flood attenuation lagoon located within the quarry void. The final scheme would include the development of a number of surface water attenuation lagoons around the edge the landfill site and within the southeast corner of the proposed development area. These lagoons would be part of the amended landfill development and would consist of seeded bowls, only retaining water within period of excess surface runoff.
- 6.124 The proposed ground works would include the retention of sections of rock face along the southern mineral void boundary as part of the overall landscaping scheme.

Main Construction

- 6.125 The main building, integrated offices, bottom ash storage area and air cooled condenser would then be constructed over a period of 26 months. This construction would necessitate the use of several tall cranes and construction equipment especially for the higher levels of the building and proposed chimney stack. Details of the construction lay down area, proposed building layout, and associated hard surfacing, are shown on drawings EfW-POR-09-20 and described in the Design and Access Statement produced by Architecture and Planning Solutions as part of the planning application.
- 6.126 The proposed new building would measure circa 229m by 70m at its longest and widest points. It would have a curved roof form and a tallest height of 36m. The stack itself will be 82 metres high, consisting of two chimneys. The proposed building has been designed to have an organic shape to compliment the surrounding landscape.

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- 6.127 The proposed building would be encircled by a one way road system, with two opposite direction lanes running from a round-a-bout at the southwest corner of the building, past a weighbridge area and gatehouse, to the access on the B430. During the life of the landfill a second access road and weigh bridge would run in parallel from the gatehouse area to allow separate access to the landfill operational area.
- 6.128 Once building construction was completed and the lay down and others ancillary areas no longer required the proposed landscape planting works would be carried out around the periphery of the building.

Commissioning

- 6.129 Commissioning of the building would mostly take place from the inside of the building and thus additional landscape and visual impacts from this stage would be unlikely. The 4 month commissioning period has thus been assessed as part of the construction period for the purpose of this landscape and visual assessment.

Operation

- 6.130 Landscape and visual change would relate to the dimensions, form and colour of the proposed building and associated elements. The stack would be the most prominent part of the proposed development extending 82m up to 182m AOD, but would be two narrow structures circa 2m in width. The size and shape of the building would have a different effect on the character and visual amenity of the area due to its stronger visual bulk but lower height (136m AOD).
- 6.131 A certain amount of activity would be present around the site due to waste deliveries, staff and visitor access, and general maintenance of the building and its surroundings. The majority of this disturbance would be connected to the regular delivery of waste to the site. In addition, existing landfill traffic entering the current landfill site to the north would be diverted to the proposed southern access instead. This would potentially generate landscape and visual effects on the site, along the access road to the B430, and on the local road network. Details of the number and frequency of this proposed traffic and routing is contained in Chapter 7 – Traffic and Transport. which identifies a very low perceived increase in terms of effects on the existing road structure of around 2% on the B430 Southern approach to the Middleton Stoney signalised junction, and around 4% at the B430 approach to the M40 southern roundabout. Proposed traffic movements along the B430 are therefore considered part of general traffic movement for the purposes of this assessment and its potential minor visual effect is not assessed further. In terms of the landscape and visual assessment, the key aspect is therefore likely to be movement around the site and movement along the access road. The level of the majority of the access road is below the surrounding ground level and therefore well screened from most directions. Where it approaches the B430 it is level with the surrounding landform but screened by the existing planting along the B430. Circulation around the EfW building would be at a level of 100m AOD within the existing mineral void, utilising the

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screening benefits of the existing landforms and hedgerow and woodland screening provided by existing vegetation around Gagle Brook and the southern site boundary.

Landfill Development.

- 6.132 The proposed development includes modification of the permitted landfill restoration. Details of the new phasing are included in Chapter 3 – Description of Development.
- 6.133 The restoration of the landfill site would be modified to include revised contours to maximise screening potential and minimise landfill void loss due to the position of the EfW. The proposed new contours are illustrated in drawings 3/10, 3/11 and 3/12 (and include an increase of 5m in height to the southern landfill post-settlement restoration landform, from 122m AOD to 127m AOD. The northern section of the landfill is permitted to a post settlement height of 128m AOD, so there would not be an increase in the highest level of the landfill restoration landform overall. The slopes of the landfill landform would be increased within the southern area from around 1:20 to around 1:10, with some steeper internal slopes of 1:5.
- 6.134 It is also proposed to revise the field pattern and woodland planting on the restored landfill areas. The basic character of the permitted field pattern and planting would be maintained but amended to reflect the proposed new landform. Levels of planting would also be increased to provide greater levels of screening to the north and west. More formal planting around the EfW building would be extended onto the landfill to integrate the building with its surroundings.
- 6.135 The phasing of the landfill would be varied to accommodate the construction of the EfW and the proposed new phasing is illustrated on drawings 3/3 to 3/8 in the Development Section. The main landscape and visual issues of the revised phasing include a slight delay to the completion of tipping along the western site boundary due to the development of Phase 2 (to the north of the EfW) ahead of Phase 3 (the final cell along the western boundary). This would delay completion of the restoration along the western side of the site, although visually this area is well screened by an existing tree belt. However, this proposed alteration would also bring forward the final landfill restoration to part of the eastern boundary. The other main alteration would be the infilling of Phase 4 ahead of the permitted sequence of landfilling, this would allow completion of the entire northern landfill restoration at an earlier stage, while delaying the completion of landfilling to the central area of Phase 5. The EfW development would in itself reduce the visual effect of the landfill to the south and southeast by firstly removing the landfill cells within that area and secondly screening the remaining landfill operations through the position and size of the main building, and associated screening measures.

Lighting

- 6.136 The proposed site access and internal access roads would be illuminated to allow working at times of darkness, mainly within the winter period. The

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building itself would also be illuminated, resulting in a degree of visible light within the surrounding area. Use would be made of translucent facades as identified in paragraph 1.77 to 1.80 in the Design and Access Statement.

- 6.137 All external lighting would be designed to minimise the effect of light within the surrounding rural landscape and would follow the recommended guidance³.

Form and Colour of EfW

- 6.138 The proposed EfW buildings have been carefully designed as a result of an iterative design process. The Design and Access Statement and accompanying drawings give full details of this process and the resultant building. The design strategy has been not to camouflage the building but to integrate it with its surroundings.

- 6.139 The main roof of the EfW has been designed as a long slow double curve to form an organic shape in character with the rolling Oxfordshire landscape and 'Ploughley Limestone Plateau'. The façade of the main buildings have been layered to help reduce the apparent size and bulk of the structure. The EfW access is orientated towards the southeast so that the closest views identified look along its narrowest elevation.

- 6.140 The proposed colour of the building is complex due to the materials which would be used. Details of these are shown in Drawings (Volume 2) of the Design and Access Statement and the 3D model of the building and described within Chapter 3 - Description of Development, paragraph 3.19. The various components of the proposed development are briefly summarised below:

- The proposed stack would consist of two flues in light grey;
- The air cooler condenser is designed as a large free standing piece of sculpture draped in a "champagne" coloured perforated screen;
- The main building would include a grey aluminium standing seam roof with translucent panels, parts of the façade will vary in colour due to the materials used, giving a grading of colour through delicate greens to yellow. The translucent panels are designed to minimise light spillage to the outside of the building during the periods of dark. The opaque façades of the main building would consist of stucco embossed aluminium allowed to oxidise over time. Lower levels would consist of concrete walls concealed behind 'walls' of climbing plants on wire support structures.
- The proposed offices and visitors centre would contrast with the pale and translucent colours of the main building, consisting of a copper-aluminium alloy shingle, with a pale gold colour.

³ Lighting in the Countryside: Towards Good Practice – DETR (20.02.2001)

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The end result would be a light coloured main building, contrasting with a stronger offices section, reducing the physical bulk and scale of the overall development.

Stack Plume

- 6.141 The proposed stack would create a plume under certain conditions, normally low temperature and high relative humidity. The plume would be visible within the surrounding landscape at such times.

Grid Connection

- 6.142 A preliminary route has been identified for undergrounding of such a connection. This would minimise potential effects for the grid connection in the short term, with some minor loss of small sections of hedgerow possible and short term disturbance visible. In the long term effects are likely to be limited due to restoration works along the route.

Landscape Proposals

- 6.143 An outline of the proposed landscape components for the entire application site is illustrated on drawing 3/10. These proposals would include structural woodland planting and hedgerows on the landfill site, linking the EFW to the landform and landfill areas. Temporary ornamental planting around the site roads, car park and buildings is also shown on drawing 3/10. This latter planting would include exotic and non-native species consisting of specimen trees, climbers and mixed shrub planting. Drawing 3/12 illustrates the type of species and planting that would be used for the detailed proposals that would be submitted at a latter date for this area.
- 6.144 Drawing 3/13 illustrates the relationship between the landform of the landfill area and the EFW planting and building.

Nature of Effects

- 6.145 The sources identified above can have a variety of effects as follows.⁴

“Effects can be negative (adverse) or positive (beneficial); direct, indirect, secondary or cumulative and can be permanent or temporary (short, medium or long term). They can also arise at different scales (local, regional or national) and have different levels of significance (local, regional or national).”

Type of Effect

- 6.146 The type of effect caused by changes to the landscape can be described as beneficial, neutral or adverse.

⁴ Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph 7.6
Ardley Waste Management Facility

Direct and Indirect Effects

- 6.147 Most effects are direct effects, but sometimes the proposals may lead to indirect effects on the surrounding landscape. Direct and indirect effects are defined as⁵;

“A direct (or primary) effect may be defined as an effect that is directly attributable to a defined element or characteristic of the proposed development, for example the loss or removal of an element or feature, “such as a hedgerow or a prominent group of trees”

“An indirect (or secondary) effect is an effect that is not a direct result of the proposed development but is often produced away from the site of the development or as a result of a complex pathway or secondary association.”

Cumulative Effects

- 6.148 Cumulative effects are described in the guidance on landscape and visual impact assessment as;

“Cumulative landscape and visual effects result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future.”⁶

and

“However the emphasis of the assessment process is on the changes the proposal would bring to the existing landscape, to inform the decision making process. Nevertheless extensions or additions to existing developments do need to take account of changes in scale and the potential for the receiving landscape to accommodate the larger composite feature. This may be addressed in an assessment of cumulative effects”

Timescales of Effect

- 6.149 For this assessment effects caused to the landscape can be short term medium term, or long term.

Scale and Level of Impact

- 6.150 Landscape effects can also be caused at different scales and may have different significance at different scales. The main scales likely to require consideration are local, regional and national.

⁵ Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph 7.7-7.8

⁶ Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraphs 7.12 and Box 7.1

Proposed Mitigation Measures

- 6.151 The proposed mitigation measures and final landscaping of the site are illustrated on drawings 3/9 to 3/12 and described in detail in Section 3 – Description of Development.
- 6.152 They include the following measures in relation to landscape mitigation, and to match with local landscape character assessments:
- the creation of a rolling landfill landform;
 - large blocks of planting;
 - rectangular field pattern;
 - an organic curved building form;
 - a ‘natural’ palette of building colours; and
 - a high standard of building design and material.
- 6.153 The mitigation measures relating to visual effects are:
- design of the final landfill landform to maximise screening;
 - additional planting to increase long term screening;
 - preservation of existing boundary hedgerows and tree planting ;
 - a building base level close to the base of the existing extraction void;
 - orientation of the building to reduce its bulk when viewed from the south and southwest;
 - a curved organic design to the proposed building;
 - a curved access road to reduce views into the development area; and
 - a landform screened access road, gatehouse and weighbridge area.

Screening Proposals

- 6.154 The proposed building would be partially screened by the proposed amended landfill landform and the proposed planting around the building itself. The landfill landform would screen all but the highest sections of the building from the north and west. Woodland planting on the restored landfill would eventually screen all the building with the exception of the chimney stacks once it reached a height of 10m.
- 6.155 The landfill woodland planting would be extended down the landform to encircle the proposed EfW to the southwest and northeast. This would restrict views of the proposed building to the higher sections of its walls and the curved roof structure. When the proposed planting reached maturity and provided a screen height of around 20m, only the very top section of roof would be visible from these directions.
- 6.156 The landfill landform leaves the proposed EfW open to views from the south, southeast and east, due to its form. Additional planting is thus proposed along the site boundaries, on sections of inert fill and within the attenuation lagoon area to the southeast of the EfW.

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- 6.157 The existing planting along the site boundaries would be supplemented by additional planting along the southern boundary and adjacent to the Gagle Brook. In addition, a belt of long term woodland species including Ash and Oak would be planted around the south eastern corner of the application site to screen the EfW in the long term from this direction.
- 6.158 Woodland planting would also be included on the spur of inert fill, directly to the east of the EfW plant. This would combine with the woodland planting and mature planting along the Gagle Brook and within the southeast corner of the application site to screen the lower sections of the EfW.
- 6.159 The area between the proposed attenuation lagoon to the southeast and the EfW would be planted with a 30m wide screen of wet woodland. The wet woodland would include non native clone varieties of poplar and willow, designed to provide maximum screening in the shortest possible time frame. It is estimated that this woodland could reach heights of around 20m in 15 years, eventually reaching 30m in height. At this height it would hide almost all the building from the southeast. The native woodland planting screen to the southeast of the willow and poplar belt would consist of slower growing long term species. The poplar and willow screening belt would be removed and replaced with native woodland species, once the native woodland planting screen achieved sufficient height (circa 30 years).

SIGNIFICANCE OF THE RESIDUAL IMPACTS

Predicted Residual Landscape Impacts

- 6.160 Having assessed the landscape baseline and identified the potential elements of the development likely to cause change to that baseline, a detailed assessment of the potential changes can be made to identify any significant effects.

Landscape Sensitivity

- 6.161 Landscape sensitivity is defined by a number of factors and it does not necessarily follow that a highly valued landscape or landscape feature, such as a National Park or long distance right of way, will always be defined by a high sensitivity.

“Landscape designation (as a reflection of value to society) is thus only one of a number of criteria that are considered in identifying the relative ‘sensitivity’ of the landscape to a proposed development. It should not be used in isolation.”⁷

- 6.162 The overall sensitivity of the existing landscape resource is based on the following criteria, which are taken from the stated guidance⁸:

- the value placed on the landscape;
- compatibility of the proposed development with the existing land-uses and landscape character;

- condition of the landscape;
- contribution of the landscape within the site to the overall landscape character;

- the scope for mitigation of the proposed development; and
- degree to which landscape elements and characteristics can be replaced or substituted.

- 6.163 The overall sensitivity of a landscape is categorised as high, medium, low or negligible for the purposes of this assessment.

- 6.164 Table 6.4 compares the various criteria effecting landscape sensitivity to identify a final overall level of sensitivity for the local landscape.

7 Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph 2.32

8 Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph .7.16 & 7.17

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Table 6.4
SENSITIVITY OF THE LOCAL LANDSCAPE
TO THE PROPOSED DEVELOPMENT

Landscape Element	Description
Value	No specific landscape designations are present within the area of the site, such as National Parks, AONBs or Areas of Great Landscape Value. The Cotswolds AONB and Blenheim Palace World Heritage Site are located 10km and 12km to the southwest of the application site outside the study area. The value of the current landscape within the study area is therefore mainly linked to its landscape character.
Incompatibility	Mineral extraction is permitted to the south of the application site and proposals have been developed for a significant housing development at the Upper Heyford Airfield site. The M40 motorway causes movement and distraction within the remaining rural environment. A railway cutting forms the northern boundary to the application site, creating an artificial landform and communication corridor. A permitted waste treatment facility is currently under construction at Ashgrove Farm to the west of the landfill site. These factors give the landscape greater capacity to absorb the proposed development, although the local area does not include buildings of the same scale and form.
Condition	The existing landscape character assessments identify the previous loss of semi-natural habitats and conversion to arable farming.
Contribution to Character	The surrounding landscape is an important part of the 'Farmland Plateau' and 'Wooded Estatelands' and includes the majority of these areas.
Inability to Mitigate	The local landscape contains estate woodlands, riparian vegetation, hedgerows and a rolling landscape. Options to mitigate visual impact, and thus indirect landscape impact would be possible.
Difficulty of replication or substitution	The re-creation of arable farmland would be possible in the short term. Replication of woodland would also be possible but with be a medium to long term timescale.
Overall Landscape sensitivity	
MEDIUM	

- 6.165 The sensitivity of the adjacent landscape to the proposed development is considered to be medium and chiefly relates to the potential effect of the development on the local landscape character.

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- 6.166 The sensitivity of the individual Landscape Character Areas as identified in the baseline section of this chapter are assessed in Table 6.5 below. The more detailed and most recent Oxfordshire Wildlife and landscape Study has been used to record landscape sensitivity across the study area.

Table 6.5
SENSITIVITY OF THE LOCAL LANDSCAPE CHARACTER
TO THE PROPOSED DEVELOPMENT

Oxfordshire Wildlife and Landscape Study			
Character Area	Details of Area	Key Receptors	Sensitivity
Alluvial Lowlands	Flat lowland river valleys	Low level informal recreational users	Medium
Clay Vale	Low lying vale landscape of small pasture fields, water courses and villages	Residential, National Cycle Way, and informal recreation users	Medium
Estate Farmlands	Rolling agricultural landscape characterised by parklands with important views	Parkland visitors, residential, recreation Route users	High
Farmland Plateau (adjacent to site)	High limestone plateau with elevated and exposed character	Residential and low level informal recreation users	Medium
Farmland Slopes and Valley Sides	Prominent slopes along edges of Cherwell Valley, long distant views across valley	Residential and low level informal recreation	High
Pasture Hills	Isolated remote hill of pasture enclosed by prominent hedges, woodland and scrub	Informal recreation users	Medium
River Meadowlands	Linear riverine landscape along floodplain of River Cherwell	Recreation Route users.	High
Rolling Farmland	Rolling landform with distant views across low lying vales, large open fields and blocks of woodland	Residential and low level informal recreation users	Medium
Upstanding Village Farmland	Hilly landscape with strong hedgerow pattern and nucleated villages	Residential and low level informal recreation users	Medium
Vale Farmland	Regular arable fields enclosed by hedgerows and trees. Nucleated villages	Residential and low level informal recreation users	Medium
Wooded Estatelands (includes site)	Wooded estate landscape with arable character and small villages	Residential and low level informal recreation users	Medium
Wooded Hills	Prominent hills of ancient	limited recreation	Low

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Rolling Clayland	woodland Prominent rolling landform, scattered woodland, trees and water courses	use Residential, recreation Route users	Medium
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6.167 Table 6.6 examines the sensitivity of the application site alone to the proposed development. This includes its current status as a disturbed mineral and landfill site and permitted restoration.

**Table 6.6
SENSITIVITY OF THE APPLICATION SITE
TO THE PROPOSED DEVELOPMENT**

Landscape Element	Description
Value	The disturbed nature of the existing site gives it little landscape value.
Incompatibility	The existing site is a combination of prior mineral extraction and current landfill operations, although it is still classed as open countryside.
Condition	The prior mineral extraction has removed the previous agricultural landscape and left a disturbed and un-vegetated landscape as a result. The existing landfill development has increased the site elevation to the north and allowed some re-vegetation to occur. The permitted landfill restoration will improve the condition of the site in the long term and thus its sensitivity to the proposed development.
Contribution to Character	The existing site makes little positive contribution to the landscape character of the area. However, the permitted landfill restoration will merge with the surrounding landscape and help reinforce the natural character.
Inability to Mitigate	Modification of the final landfill landform and woodland planting, along with additional planting and the preservation of boundary vegetation would mitigate the proposed development.
Difficulty of replication or substitution	The permitted landfill prevents the site from returning to its original character, although the components of both the permitted and proposed restorations would be in character with the local landscape.
Overall Landscape sensitivity	
LOW to MEDIUM	

6.168 The sensitivity of the landscape of the application site to the proposed development is considered to be low and chiefly relates to the disturbed nature of the existing site and lack of contribution to landscape character at

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present. The sensitivity could rise to medium after the restoration of the landfill site is sufficiently established.

Magnitude of Landscape Change

- 6.169 The magnitude of landscape impacts depends upon the following factors⁹:
- The scale or degree of change to the existing landscape resource;
 - The nature of the change caused by the proposed development (for example, beneficial or adverse?); and
 - The timescale, or phasing, of the proposed development
- 6.170 The magnitude of change is categorised as high, medium, low or negligible.
- 6.171 The proposed development is illustrated on drawings 3/10 to 3/13 and described within Chapter 3 – Description of Development. These drawings shows the proposed final landfill contours, woodland planting, the EfW buildings, landscape and road network.
- 6.172 The ZTV drawings 6/36 and 6/37 illustrate the anticipated extent of the visual envelope for the proposed development. Drawing 3/36 takes account of a conservative estimate of existing screening vegetation in the form of woodland (10m) and scrub vegetation (5m). In reality many areas of existing woodland are mature and of greater height (such as the parkland woodland) or are taller species such as the poplars along Gagle Brook. Drawing 3/37 uses a greater height for existing woodland (15m) to represent the taller areas of woodland and also includes the proposed woodland and screen planting proposed as part of the development (at 10m height). The true final visual envelope is likely to be a combination of the two ZTVs shown in these drawings.

Changes in Natural Characteristics

- 6.173 The permitted landfill restoration would infill the existing mineral void and would reflect the rolling undulations of the 'Ploughley Limestone Plateau' (see paragraph 6.43) and the rolling topography with localised steep slopes of the 'Wooded Estatelands' (see paragraph 6.46).
- 6.174 The proposed landform would also reflect the surrounding landscape character, although the post settlement landfill would be 5m higher in the south compared with the permitted scheme. This would still place it lower than the completed northern sections of the landfill.
- 6.175 Pre-settlement landfill levels would be higher for both the existing and proposed landfill landforms. Given the proposed increase in level by 5m for the proposed development, presettlement levels of the amended landfill development would be around 1-2m greater at the most.

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- 6.176 The development of the mineral void at a level of 100m AOD would result in an open bowl facing southeast. The natural fall of the landscape occurs in that direction towards the southeast corner of the application site and Gagle Brook.
- 6.177 The steepness of the proposed outer landfill slopes (circa 1:10) is greater than the permitted landfill (circa 1:20), but within the range of natural slopes found in the surrounding landscape. These slopes would be divided by hedgerows and the taller sections planted with woodland, resulting in restored farmland which would merge with the existing landscape of rolling undulations and woodland blocks. The internal slopes around the EfW would be steeper at 1:5; although this type of slope is still present within the local landscape it is not readily apparent. Drawing 6/26 shows the proposed slope gradients set against those found in the surrounding landscape, and illustrates how these gradients would be in character with the valley sides of the local landscape.
- 6.178 The proposed woodland and hedgerow planting on the northern, north-eastern and western slopes of the landfill landform is based on the permitted landfill restoration scheme and would blend with the local landscape hedgerows and woodland character (See drawings 6/4 & AL/3) Tree and shrub planting would be continued down the edges of the landfill landform and along the southern and south eastern site boundaries.
- 6.179 The proposed development would include a series of attenuation lagoons around the edges of the application site to control surface water runoff from the landfill site. Wetland habitats would be included within these areas in the form of small ponds, ditches, ground water infiltration zones, adding to wetland habitats linked with Gagle Brook.
- 6.180 An area of wet woodland is proposed within these lagoons, consisting of fast growing non-native willow and poplar species. This woodland is designed to provide the maximum screening value, but will still possess a measure of wildlife value. In the long term, when other woodland provides screening, this woodland could be replanted with native wet woodland species.
- 6.181 A 15m wide belt of native woodland planting would be planted between two of the attenuation lagoons to provide long term screening and form valuable wildlife habitat.

Changes in Cultural and Social Factors

- 6.182 The proposals for the landfill restoration would match existing field patterns and the range of field sizes found within the surrounding landscape. (See drawing AL/3)
- 6.183 The design and materials proposed for the construction of the EfW are designed to achieve a high quality building. The proposed layout, landform and planting would create a setting for the EfW, not dissimilar to the designed landscapes of the various historic parks and gardens which punctuate the basic agricultural landscape of the area.

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- 6.184 However, the EfW would be a substantial building within open countryside and would therefore be at odds with the essential agricultural nature of the immediate landscape surroundings. In addition the 82m tall chimneys would be a significant feature within the adjacent landscape and visible to a lesser extent across most of the study area.

Changes in Aesthetic and Perceptual Aspects

- 6.185 The proposed alterations to the permitted landfill restoration would result in steeper slopes to the landfill. However, slopes of similar gradient are present within the local area and it is not thought that any particular change to the aesthetics of the local area would be caused by these changes. The proposed planting along the upper slopes of the landfill would match with similar woodland blocks creating woodland enclosure at the large scale and the curtailment of views within the local landscape.
- 6.186 The final form of the building with its curved roof façade and broken massing of the elevations would help to reduce the overall visual impact of the building's mass within the surrounding landscape. The curved structure would be in character with the rolling and undulating natural landforms and permitted and proposed landfill landforms. Where the building would be visible within the local landscape it would tend to form another curve above or between these curving landforms and thus be sympathetic to the surrounding landscape. However, the building would be visible from a number of locations and the main mitigation in the short to medium term would be the high standard of design and construction proposed. Full information on the design strategy and methodology used are contained in the Design and Access Statement (paragraphs 1.36 onwards).
- 6.187 The mass and scale of the proposed EfW would be large given the large specified dimensions of the building (229m long, up to 70m wide and up to 36m tall). Locating the building within a 'bowl' created by the proposed landfill landform, and at a lower level than the previous ground level would help to reduce the apparent size and scale. The upper height of the main EfW building would thus be at a level of 136m AOD. Features of note within the surrounding landscape are the poplar trees along Gagle Brook, which is estimated to be 20-30m tall and the water tower to the southeast of the site adjacent to the M40, which is approximately 18m tall with a ridge elevation of 121.8m AOD. (see drawing 6/13)
- 6.188 The proposed stack would introduce a tall vertical element to the local landscape, which would rely greatly upon its standard of design and construction to form an acceptable feature within the landscape.
- 6.189 The proposed colour of the building is illustrated on drawings EfW-POR-17 to 20 within the Design Statement. The building uses greys, browns, pale greens and harvest colours to blend with the agricultural background.
- 6.190 The use of translucent panels within the design would allow the illumination of these panels during periods of darkness. However, the type of material proposed is designed to limit light transmission and minimise light spillage outside of the building, details of this material can be found in paragraph 1.78

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of the Design and Access Statement. The performance of these panels would be critical in avoiding direct light pollution. Other 'direct' lighting such as road lighting and security lighting within the site would be at low level, and to the latest guidelines. The surrounding landform would provide a high level of screening to these lower light sources. Visible light is most likely to be seen from the south and east, in both cases the lights from traffic on the M40 would be visible within the context of the view.

- 6.191 The existing movement within the landscape created by the landfill operations would continue. However, overall movement within the landscape is likely to be increased due to the additional vehicle movements involved with the EfW development, and extended due to the working hours of the proposed building. The majority of this movement within the application site would be screened from most directions due to the 'sunken' nature of the proposed building and road layout. The increased levels of movement would be most visible at the proposed site access point on the B430.

Landscape Character, Classification and Evaluation

- 6.192 The proposed amendments to the landfill landform and planting would be in character with the existing local landscape.
- 6.193 The setting of the proposed buildings and adjacent landscape proposals would compare with the designed landscapes of the various historic gardens and houses within the study area in terms of woodland nature, if not style.
- 6.194 The proposed building is well integrated into its surroundings, through the modifications to the landfill landform, woodland screen planting and the proposed landscape setting. However, scale and position of the building within open countryside are the main issues, and effects on the local character are unavoidable due to these factors. As a result, the design and materials proposed have been chosen to add positively to the local character by introducing a strong sculptural element to the locality. This aims to ensure that views of the buildings are positive and pleasant in nature.

Summary of Magnitude of Landscape Change

- 6.195 No designated landscapes or features of value, within the surrounding landscape or site, would be directly affected by the proposed changes to the permitted landfill development and/or proposed buildings.
- 6.196 Table 6.7 summarises the identified changes, with respect to the criteria for the magnitude of landscape impacts set out above for the general surrounding landscape. Table 6.8 summarises the levels of landscape effect considered likely for the identified Oxfordshire Wildlife and Landscape Study character areas found within the study area.
- 6.197 Table 6.9 summarises the identified changes, with respect to the criteria for the magnitude of landscape impacts set out above for the application site alone.

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Table 6.7
MAGNITUDE OF CHANGE CAUSED BY THE PROPOSED
DEVELOPMENT WITHIN THE LOCAL LANDSCAPE

Landscape Element	Description
Scale of Change	The scale of the proposed building is offset by the proposed landfill alterations and building position, however a noticeable change to the existing adjacent landscape would occur. This change would diminish with distance and time as the proposed woodland planting matured and intervening vegetation screened the changes.
Nature of Change	This would be negative in terms of the introduction of a large building into a semi rural landscape. However, the standard of design and materials used would be high producing a positive impression aesthetically.
Timescale	The proposed development is permanent.
Overall magnitude of landscape change	High

- 6.198 The worst case magnitude of landscape change would be high for the landscape adjacent to the proposed development, however this would reduce with distance from the site. It is estimated that a medium magnitude of change is likely to be the experienced with distances over 2km from the EfW or where the restored landfill and planting provide good levels of screening.

Table 6.8
POTENTIAL MAGNITUDE OF LANDSCAPE CHANGE TO
THE LOCAL LANDSCAPE CHARACTER

Oxfordshire Wildlife and Landscape Study		
Character Area	Potential visual effects	Landscape Change
Alluvial Lowlands	Very limited potential for slight views of building at distance. Distant view of stack possible (5.5km).	Negligible
Clay Vale	Possible glimpsed views of building Distant view of stack possible (4.5km).	Negligible
Estate Farmlands	No views of building Very limited view of stack possible (5.5km).	Negligible
Farmland Plateau	Glimpses of top of building gradually screened as woodland planting matures. Views of stack likely (500m)	Medium to Low
Farmland Slopes and Valley Sides	No views of building likely Views of stack mostly screened	Negligible
Pasture Hills	Possible glimpsed views of building from northwest slopes at distance Distant views of stack at distance likely (7.5km)	Negligible
River	No views of building likely	Negligible

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Meadowlands	Possible some distant views of stack (6.5km)	
Rolling Farmland	Possible very minor distant glimpse of building Possible some distant views of stack (6.5km)	Negligible
Upstanding	Views of building unlikely	Negligible
Village Farmland	Some restricted views of stack possible at distance (8.5km)	
Vale Farmland	No views of building or stack likely	None
Wooded Estatelands	Close views of building likely, although broken by vegetation. Views becoming more glimpsed with distance. Possible views of stack across large part of character area dependent upon level of woodland cover.	High to Medium
Wooded Hills	Potential distant views of stack and glimpsed views of building (6km)	Negligible
Rolling Clayland	No views of stack or building likely	None

- 6.199 The worst case magnitude of landscape change would be high for the landscape adjacent to the proposed development; however this would reduce with distance from the site. It is estimated that a medium magnitude of change is likely to be the experienced with distances over 2km from the EfW or where the restored landfill and planting provide good levels of screening.

**Table 6.9
MAGNITUDE OF CHANGE CAUSED BY THE PROPOSED
DEVELOPMENT TO THE APPLICATION SITE**

Landscape Element	Description
Scale of Change	The scale and mass of the proposed building would dominate the southeast corner of the application site.
Nature of Change	The proposed building and landscape is assessed against the permitted landfill development. Overall the proposals are regarded as positive, not only in terms of building design but also in terms of improved opportunities for habitat creation and the creation of a parkland type landscape.
Timescale	The proposed development is permanent.
Overall magnitude of landscape change	High

- 6.200 The magnitude of landscape change within the area of the EfW on the site would be high. It would also remain high when judged against the baseline of the completed restored landfill.

Predicted Residual Visual Impacts

Introduction

- 6.201 The potential visual effects of the proposed development on the surrounding landscape, and in particular the views from the identified viewpoints, have been assessed with the aid of plans and computer models, and are described in detail below.

Sensitivity of Viewpoints

- 6.202 The list of the identified viewpoints set out below also includes a brief assessment of their sensitivity. Sensitivity depends on the following factors¹⁰:

- the location and context of the viewpoint. For example, viewpoints which are perceived to be closer to the site are generally more sensitive;
- the number of viewers who commonly use the viewpoint. Some viewpoints are commonly used by the public, such as formal viewing platforms, picnic areas or recreational rights of way. Other viewpoints may be difficult to gain access to;
- the nature of the viewpoint. Residential properties are sensitive to visual impacts as the residents experience the impacts on a regular and prolonged basis. Public footpaths can also be sensitive, since the users' attention is often focused on the landscape. By contrast, views from outdoor sport facilities, transport routes or places of work are less sensitive;
- movement of viewers at the viewpoint. More transitory views, for example from a motorway, are generally less sensitive than views experienced from residential properties and footpaths; and
- the cultural significance of the viewpoint, including its appearance in guidebooks and tourist maps, or cultural and historical associations.

- 6.203 The sensitivity of viewpoints is categorised as high, medium, low or negligible.

Magnitude of Visual Impacts

- 6.204 For each of the viewpoints the potential magnitude of the residual visual impacts, taking into account the proposed mitigation, is assessed. The magnitude of visual impacts is mainly dependent upon the following factors¹¹:

- What proportion of the existing view would change as a result of the development proposals;

¹⁰ Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraphs 7.31 and 7.32

¹¹ Guidelines for Landscape and Visual Impact Assessment (Second Edition) Paragraph 7.36

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- How many features or elements within the view would be changed;
- How appropriate is the proposed development in the context of the existing views;
- How many viewers would be affected by the changes in the view;
- What is the timescale of the proposed development? Also, is it continuous or intermittent; and
- What is the angle of the view in relation the main activity of the receptor?

6.205 The magnitude of change is categorised as high, medium, low or negligible.

Viewpoint Visualisations

6.206 A number of visualizations have been produced to illustrate the potential visual effects. These have been scaled to match the actual view in the same way as the photographs on the viewpoint sheets. Thus, when viewed at 300mm distance, these visualizations represent a true interpretation of the scale of the effect of the proposals. The visualisations are based on the existing site survey with representations of surrounding vegetation included. However, the potential screening effects of the final proposed landfill landform and planting are not shown. Thus the visualisations portray the worst case scenario for their relevant viewpoints. Details of the effects of the proposed changes to the landfill operations are also noted within this section.

In addition, visualisations for all viewpoints have been prepared and are included in Volume 2 - Drawings.

Viewpoints

6.207 **Viewpoint A – Public Right of Way, near Upland Cottage.** This viewpoint is located approximately 1.5km from the proposed chimney stack, with the existing landfill landform and railway line between. The viewpoint is on a local footpath most likely used by the residents of the village of Ardley. Viewers would tend to be moving, and no particular cultural heritage value is attached to this viewpoint. The **sensitivity** of the viewpoint also reflects the potential residential views from Ardley and is assessed as **Medium**.

6.208 The proposed main EfW building would be visible above the existing landfill landform as illustrated in drawing 6/26 – Viewpoint A Visualisation, with the stack also visible as a separate element. The visible components would be viewed above the skyline, thus adding to the elements of the view. The proposed curved roof structure would be visible as a light coloured element above the landfill and would become screened by woodland planting on the landfill. The stack would consist of two narrow 2m wide chimneys in pale grey and although visible they are unlikely to dominate the view due to their thin and fragile appearance. The change would be long term and viewed away from the direction of travel. The **magnitude** of change is assessed as **High** in the short to medium term, but would reduce to **Medium** in the long term as the proposed woodland planting on the final landfill landform screened the main building, leaving only the stack visible.

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- 6.209 **Viewpoint B – Ardley Road, M40 Road Bridge.** This viewpoint is located on a bridge over the M40 and viewers are likely to be part of local traffic movements crossing the motorway. The viewpoint has no cultural significance and viewers are likely to be moving quickly. **Sensitivity** is considered to be **Low**.
- 6.210 The view is away from the direction of travel, but the open nature of the view attracts the eye to look out either to the north or towards the application site in the south. The proposed building would be seen on the skyline towards the east of the landfill landform above vegetation along Gagle Brook, adding additional elements to the view. The building would be seen side on and would have a curved rounded appearance with light green and grey facades breaking up the bulk of the building. The stack would appear at the northern tip of the building and would consist of two thin light grey chimneys. The structures would be seen in the context of the M40 and the **magnitude** of change is assessed to be **Medium**. Proposed planting on the landfill would eventually encircle the northern end of the building reducing its apparent height above the surrounding landscape.
- 6.211 **Viewpoint C – Right of Way off Middleton Road.** This viewpoint looks across open agricultural fields to the M40, with the existing landfill site located beyond. The view is from a local footpath that follows the line of the railway, passing beneath the M40 to the north-eastern edge of the application site. The viewpoint also represents views from the edge of the village of Bucknell and users of the local road from Bucknell to Middleton Stoney. The **sensitivity** of the viewpoint is assessed as **High**.
- 6.212 The main EfW building would be seen adjacent to the landform of the landfill, with only the taller sections rising above the skyline, the proposed stack would appear to rise from the central part of the main building. The rolling form of the building would be evident from this direction, complementing the final landfill landform, although contrasting with the flatter background ridge of the Farmland Plateau. The extension of the landfill to the south and proposed planting on the landfill would eventually form part of the backdrop to the building. The **magnitude** of change is assessed to be **High**, but would reduce to **Medium** as the proposed planting on the final landfill and screen planting matured. Drawing 6/28 illustrates the worst case level of change anticipated at this viewpoint. The potential effect to this viewpoint is further illustrated on drawing 6/35 which shows a section drawn from this viewpoint and through the centre of the EfW building and stack. The section illustrates the proposed planting on the landfill and screen planting around the EfW and the position of the EfW within a bowl formed by the proposed landfill operations. It also illustrates the intervening hedgerows and M40 motorway.
- 6.213 The changes to the phasing of the landfill would again be beneficial from this location, due to the earlier completion of the northern and north eastern landfill restoration in Phases 2 and 4. The delay to Phase 3 would have less effect as it is screened from this viewpoint by vegetation along the Gagle Brook, in theory its delay may have a similar negative effect to other views within this area.

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- 6.214 **Viewpoint D – Middleton Road, M40 Road Bridge.** This viewpoint is located on a local road where it bridges the M40, allowing open views due to the elevated position. Viewers are most likely to be moving and experience the view for a short period of time. The water tower on the edge of the M40 has some cultural value due to its landmark presence. Views towards the landfill site are partly obscured by existing vegetation along the Gagle Brook. Overall **sensitivity** is assessed as **Medium**.
- 6.215 The proposed stack would appear behind the main EfW building from this angle, with the higher sections of the EfW projecting above the skyline formed by the landfill landform. The curved roof form of the EfW would blend in well with the undulating landscape perceived from this viewpoint. The twin chimneys of the stack would appear as one from this viewpoint due to their orientation, and thus their thin nature would appear further reduced. The water tower and tall vegetation along the Gagle Brook would reduce the apparent size and mass of the building. The magnitude of change is assessed as **Medium**. The development of the landfill woodland planting would help to further absorb the main building into its setting in the long term. The size and form of the building visible is illustrated by the visualisation on drawing 6/29 and the section from the viewpoint through the EfW building shown on drawing 6/35.
- 6.216 The changes to the landfill phasing would have only marginal effects to this viewpoint as most of the landfill activities are partially screened by vegetation. The change to the landfill area to accommodate the EfW would be beneficial from this viewpoint, as the nearest section of the proposed landfill area would be more distant by some 200m. In addition the EfW itself would screen a large proportion of the proposed Phase 5 landfill area, further reducing the visual effects of the landfill operations.
- 6.217 **Viewpoint E – Public Right of Way near Gagle Brook.** This viewpoint is located on the southern edge of the site and currently looks across a flooded area of prior mineral extraction towards the current landfill. Although the viewpoint is from a public right of way the current context of the view reduces its **sensitivity** to **Medium**.
- 6.218 Changes to this view would be extensive with the foreground water feature removed and replaced with a short bank. Beyond this the flood attenuation area would extend out towards the main EfW development. The proposed main EfW building would be visible almost end on from this location, with the bottom ash storage areas visible off to each side. The light green, grey and translucent façade visible would blend with the natural browns and greens of the surrounding agricultural landscape. The proposed stack would be visible rising above the southern ash storage area. Tree planting around the EfW and climbing plants to the walls of the ash storage areas would gradually reduce the impact of the building as they matured. The proposed belt of hybrid poplars and willows would result in a significant screen of vegetation adjacent to the EfW, this would be further strengthened by the proposed native screen belt planting in the immediate foreground. The **magnitude** of change is assessed as **High** and would remain high in the long term due to

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the level of change, although this would quickly become dominated by the change caused by the intervening screen vegetation.

- 6.219 Changes to the landfill phasing would have little effect on this viewpoint due to the dominance of the EfW development, although in theory the increase in distance between the viewpoint and active landfill operations should be considered beneficial.
- 6.220 **Viewpoint F – B4030, M40 Road Bridge.** This viewpoint is from the B4030 road bridge over the M40. The view would be experienced by higher levels of viewers than the other two road bridge positions, although traffic may be moving faster due to the higher standard of road. The **sensitivity** of the viewpoint is assessed as **Low**.
- 6.221 The proposed building and stack would be visible off to the side of the motorway on the skyline with the existing and proposed landfill landform visible beyond. The main EfW building would form a curved structure within the view, mirroring the undulating nature of the background landscape, and more strongly undulating M40 cutting. The break in façade colour and use of pale green would help to break up the mass of the building and blend parts of it into the background landfill restoration. The pale grey chimneys of the stack are likely to fade into the general view and background sky in most situations. Intervening hedgerows and trees would provide some screening. The proportion of visible change would be low from this distance with the motorway traffic forming the focus of the view. The **magnitude** of change is assessed as **Low**.
- 6.222 Differences in the proposed landfill phasing are unlikely to effect this viewpoint due to partial screening and distance.
- 6.223 **Viewpoint G – Public Right of Way, near Trow Pool Spinney.** This viewpoint would have a **Low sensitivity** to the proposals during the life time of the permitted mineral extraction between the viewpoint and the application site. The permitted mineral extraction would include 3m tall screen banks adjacent to the viewpoint. After removal of the screen banks and the restoration of the mineral site, the sensitivity would rise to **Medium** with the foreground occupied by the mineral restoration.
- 6.224 The **magnitude** of change caused by the proposed development is likely to be largely screened by the mineral permission screen banks. However, it is likely that the stack and possibly the very top of the building may be visible above the mineral screen bank. Therefore the magnitude of change is assessed to be **Medium** for the period of the mineral extraction, but would increase to **High** when the full size and scale of the building was revealed, after removal of the mineral screen bank and restoration of the mineral site. The size and form of the building visible is illustrated by the visualisation on drawing 6/29, with the curved nature of the building flowing well with the landform of the landfill, and façade colours breaking up the bulk of the building. Drawing 6/35 illustrates a section drawn from this viewpoint through the EfW building and to the B430 the other side of the landfill site.

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- 6.225 The proposed changes to most of the landfill phasing are unlikely to effect this viewpoint with the exception that the extent of landfill operations would appear less due to the positioning of the EfW. Balanced against this would be the screening of the latter landfill (Phase 5) by the EfW development and proposed screening.
- 6.226 **Viewpoint H – Middleton Road, Bucknell Lodge.** This viewpoint is on Middleton Road and also represents the type of view possible from Bucknell Lodge. The **sensitivity** of the viewpoint is considered to be **High** from a residential point of view, but lower for passing traffic.
- 6.227 The proposed building and stack would be partly screened by intervening vegetation. The intervening vegetation forms most of the skyline and would help to reduce the apparent scale of the proposed development, although the upper section of the stack would project above the highest section of vegetation. The overall **magnitude** of change is assessed as **Low**. A section drawn from the viewpoint and through the EfW building is illustrated on drawing 6/35, and shows the effect of the proposed screen planting, as well as the number of intervening hedgerows.
- 6.228 The majority of the landfill is screened from this viewpoint, with the exception of the proposed Phase 2 area. The proposed working of Phase 2 would result in the completion of clear views of landfilling at an earlier stage, this being considered as positive.
- 6.229 After the eventual removal of the EfW, the changes relating to the proposed permanent changes to the landfill landform and planting likely to be perceived are **None**.
- 6.230 **Viewpoint I – B4030, Middleton Stoney.** This viewpoint is located on the edge of the village of Ardley and represents the type of views from that area. The sensitivity of the viewpoint is assessed as **High** to reflect the residential context of this viewpoint.
- 6.231 The vegetation of Burntclose Coppice would screen almost the entire development from view, with only a few glimpses of the proposed building through the woodland vegetation visible. The very top of the proposed stack would be at the same level as the top of the woodland and may be visible above the very top branches of the woodland. The overall **magnitude** of change is assessed to be **Negligible**.
- 6.232 The proposed changes to the landfill phasing would have no effect on this viewpoint and little effect on nearby properties with clearer views due to distance. These properties may experience a delay in the apparent completion of the landfilling due to the proposed phasing.
- 6.233 **Viewpoint J – Public Right of Way, Dewars Farm.** This viewpoint is located on a public right of way adjacent to a private residence. The permitted mineral development would create a distraction in terms of movement, soil stripping and disturbance in the short term, until the permitted screen bunds had been constructed. The **sensitivity** of the viewpoint is

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assessed as **Medium** while the mineral development is active, rising to **high** after restoration of the mineral site to acceptable after use.

- 6.234 The magnitude of change would vary, in the short to medium term views of the proposed development, from the right of way, would be mostly screened by the mineral development screen bunds. Although, views may be possible from the adjacent residence over the screen bunds. In the long term, clear views would be possible across the intervening land, with the proposed EfW and stack visible on the skyline. Drawing 6/31 illustrates the position of these elements within the existing landscape, and shows the developments position on the skyline, with the curved nature of the building helping to and façade colours helping to break up the bulk of the building and relate it to the surrounding landscape. In the medium to long term the completed landfill landform and planting would screen the lower levels of the building around the position of the stack. Thus the **magnitude** of change for the short to medium timescale is assessed as **Low**, but would potentially rise to **Medium** in the long term.
- 6.235 The changes to the landfill phasing would delay the completion of the Phase 3 landfill area, thus causing a negative visual effect by delaying visible restoration. However, this is likely to be minimal in comparison to the permitted, foreground mineral extraction.
- 6.236 **Viewpoint K – Ardley Road, B430.** This viewpoint is located on Ardley Road and its sensitivity is related to it's position, adjacent to the permitted mineral development, and the fact viewers are likely to be travelling past in vehicles. The permitted mineral development would result in both screen bunds and additional planting between the viewpoint and proposed development in the short to medium term. The overall **sensitivity** is assessed to be **low** during the mineral development, possibly increasing to **medium** assuming the mineral development planting allowed views through towards the proposed development in the long term.
- 6.237 The proportion of change visible related to the proposed development in the short to medium term would be restricted due to the partial screening and intervening disturbance of the mineral operations. This proportion of change is likely to be limited to the addition of the proposed stack to the skyline. Viewers are likely to be more effected by the nearer mineral development, with views obscured and directed away by the permitted screen bunds. Thus the **magnitude** of change in the short to medium term is assessed as **Low**. In the long term proposed planting between the roadside hedgerow and the mineral extraction area should provide a screen to the proposed development. Assuming a view through the screen is present in the long term or the mineral development does not occur, the magnitude of change is likely to be **Medium**. Drawing 6/35 illustrates a section drawn from the viewpoint and through the EfW building. The section shows existing ground levels for the areas outside the application site and therefore does not reflect the changes that will be caused by the permitted mineral extraction and restoration.
- 6.238 The changes to the landfill phasing would delay the completion of the Phase 3 landfill area, thus causing a negative visual effect by delaying visible

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restoration. However, this change is likely to be either offset by the permitted mineral development and/or screened by the advance planting along the western boundary of the mineral extraction area.

- 6.239 **Viewpoint L – B4030, near Middleton Park.** This viewpoint is a glimpsed view through a roadside hedgerow close to the boundary of Middleton Park. Significant woodland vegetation is present on the boundary and within the grounds of Middleton Park. In combination with the hedgerow to the east of the road, this forms a strong visual barrier. The sensitivity of the viewpoint is therefore related to its position on the edge of a secondary road and off to one side of the direction of travel. The overall **sensitivity** is therefore assessed as **Medium**.
- 6.240 The background of this view is comprised of a large proportion of woodland and tree vegetation. The existing landfill landform is located beyond the buildings of Moor Farm, the proposed landform and buildings would be mostly screened by the woodland within the view (Birch Spinney), beyond the farm. The stack would appear above the skyline partly screened by intervening vegetation from this direction. The **magnitude** of change at this stage is assessed to be **Medium**. In the long term the final landfill landform and proposed woodland planting would screen a large proportion of the main building reducing the magnitude of change down to **Low**.
- 6.241 The proposed changes to the landfill phasing would not be perceived from this area.
- 6.242 **Viewpoint M – Ardley Road, B430.** The sensitivity of this viewpoint is linked to its position on a secondary road and viewers likely to be travelling past in vehicles. The diverted public right of way that runs along the southern edge of the site joins the B430 opposite the location of this viewpoint. The sensitivity of the right of way is linked to that of Viewpoint E described above. The overall **sensitivity** for this viewpoint is assessed to be **Medium**.
- 6.243 Although the majority of the proposed development would be hidden by existing vegetation the proposed building would be visible through the vegetation and hedgerow along the southern edge of the application site. This view would be partly screened by the permitted screen bund associated with the permitted mineral extraction to the south of the proposed development. However, the proposed site access would still be visible and the overall **magnitude** of change would be **Medium**. The proposed access would become integrated within the view over time and with the benefit of the proposed planting around the access point. In addition existing advance planting associated with the mineral extraction would add to the current screening of views of the building in the long term. The long term magnitude of change is therefore assessed as **Low**, and would consist of views of the permanent access junction and winter time glimpses of the proposed building and stack through the screening vegetation for the life time of the EfW development.
- 6.244 The proposed delay to the Phase 3 landfill area and subsequent delay to its restoration would result in minimal visual effects due to the existing

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vegetation screening, advance planting and screen bunds for the permitted mineral development.

- 6.245 **Viewpoint N – Chilgrove Drive, Upper Heyford.** This viewpoint is located adjacent to the Upper Heyford airfield site which has some cultural value due to its historic use. Views are open across intervening farmland with tall security fencing and barbed wire on the airfield boundary. The viewpoint is not on a public right of way, although maybe used as such. The overall **sensitivity** is assessed to be **Medium**.
- 6.246 Views of the proposed buildings would be limited to a distant glimpse over the top of the landfill landform, but with the stack rising above. The **magnitude** of change is assessed to be **Low** in the short to medium term. After the completion of the proposed landfill landform and maturing of the planting, views would be restricted to the stack alone, with the intervening landfill landform blending into the overall landscape. The long term magnitude of change is therefore assessed to be **Negligible**.
- 6.247 The proposed changes to the landfill phasing would not be perceived from this area due to intervening vegetation and distance.
- 6.248 **Viewpoint O – Camp Road, near Public Right of Way.** This viewpoint is from the edge of a minor public road and public right of way. The natural intervening landform screens views towards the site. Viewers are likely to be travelling towards the B430 and application site in vehicles or maybe local right of way users. The Agrivert waste treatment development at Ashgrove Farm is likely to be visible on the skyline, forming a focus for the view. The overall **sensitivity** is assessed as **Low** for the viewpoint.
- 6.249 The **magnitude** of change would consist of a view of the proposed stack rising above the existing roadside hedgerow, within the context of the new waste treatment facility. The overall level of change is assessed as **Medium**, given that the stack would be in the direction of movement when travelling east along this road.
- 6.250 **Viewpoint P – Public Road, off Summerton Road.** The view is located on a dead-end public road close to the local railway line and looks across open farmland. The overall **sensitivity** is assessed to be **Medium**.
- 6.251 The proposed main building would be viewed end on, with the stack to the western side of the building. The building and stack would project above the level of the existing landfill landform and skyline. The **magnitude** of change would be **Low** due to the distance of the view and would reduce further to **Negligible** in the long term when the building would become entirely screened by the proposed woodland planting.
- 6.252 The proposed changes to the landfill phasing would not be perceived from this area due to intervening vegetation and distance.

General Visibility of the Proposed Development

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- 6.253 The assessment of the above viewpoints illustrates the nature of the general visibility of the proposed development. This assessment is summarised on drawing 6/34 which illustrates the initial and medium term visual effects compared with the long term visual effects in a series of colour coded circles at each viewpoint.
- 6.254 Visibility of the proposed EfW development would be restricted by the existing and proposed landfill landform restricting views of the main building to the upper levels. Proposed planting on the landfill would reduce long term visibility by screening the building further, and in many cases only the stack would remain visible. Viewpoints A, O, N and P illustrate this effect. The design of the proposed landfill landform would allow views of the proposed EfW building to extend out to the east and south to a greater extent, and with resultant higher levels of effect as illustrated by Viewpoints C, D, E and G. The importance of the permitted mineral extraction is illustrated by the description of the visual effects on Viewpoints G, J, K and M.
- 6.255 The screening importance of vegetation along Gagle Brook to the south of the application site is illustrated by Viewpoints D, H and I.
- 6.256 The stack is 82m tall and is visible over a large section of the study area, typically visible rising above intervening landforms and vegetation. The height of the stack prevents it being screened by the proposed landfill and planting proposals. However, the visual effect of the stack tends to reduce due to distance, due to its limited width. This reduction in visual effect due to distance is considered to occur at distances of beyond 1.5km, although this is a subjective judgement. The effect of plumes from the stack is likely to be visible to a greater extent at certain times dependent upon weather conditions.
- 6.257 The extent of impact from the EfW buildings alone is illustrated by the ZTVs shown on drawings 6/36 and 6/37. The first of these (drawing 6/36) illustrates the likely impact of the proposed EfW building within the study area when existing woodland is taken into account. Visually significant woodland and vegetation within the area of the site has been digitised in and given a basic height of 10m for woodland (i.e. mature planting around Middleton Park, The Heath, Burntclose Copse etc) and 5m for scrub (along the railway line and the existing screen planting along the B430). This drawing is regarded as illustrating the minimal level of likely screening expected to occur.
- 6.258 The ZTV on drawing 6/37 uses an increased existing woodland height of 15m and also includes the proposed woodland and screen planting on the landfill and around the EfW (at a height of 10m). This drawing therefore illustrates a higher level of existing screening and good longer term growth and establishment of the proposed screening. The proposed use of poplar and willow hybrids to the southeast of the EfW is likely to help achieve this level of screening at an earlier stage than if native species were used alone.
- 6.259 The effect of the proposed changes to the landfill phasing would be minimal and as outlined above largely beneficial due to the reduced landfill area and earlier restoration of the northern and eastern landfill areas.

Potential Significance of Landscape and Visual Impacts

Assessment of the Significance of Impacts

- 6.260 The potential significance of landscape and visual impacts is determined by a combination of the magnitude of the potential impact and the sensitivity of the landscape setting to change. These two variables can be correlated as illustrated in Table 6.10, below. Thus, a landscape impact of low magnitude may nevertheless be assessed to have a moderate impact in a highly sensitive landscape.

**Table 6.10
PRINCIPLES OF ASSESSING
LANDSCAPE AND VISUAL IMPACTS**

Magnitude	Sensitivity			
	Negligible	Low	Medium	High
Negligible	Negligible Impact	Negligible/ Slight Impact	Slight Impact	Slight/Moderate Impact
Low	Negligible/ Slight Impact	Slight Impact	Slight/ Moderate Impact	Moderate Impact
Medium	Slight Impact	Slight/ Moderate Impact	Moderate Impact	Moderate/ Substantial Impact
High	Slight/ Moderate Impact	Moderate Impact	Moderate/ Substantial Impact	Substantial Impact

- 6.261 The above consideration of the sensitivity of the receptors with the magnitude of the potential impacts provides an overall assessment of the potential significance of impacts. However, this process is not a quantitative process; there is not an absolute scoring system. Instead, the correlation of the two factors, although reflecting recognised features and methods of working outlined in this report, is in the end a matter of professional judgement.
- 6.262 Impacts of **Moderate/Substantial** and **Substantial** are considered significant for the purposes of this assessment.
- 6.263 Table 6.11, below, provides a brief definition of the full range of significance criteria. It must be emphasised that both landscape and visual impacts can be either adverse or beneficial in nature.

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**Table 6.11
SIGNIFICANCE CRITERIA FOR LANDSCAPE AND VISUAL IMPACT**

Significance	Definition
Negligible	The proposed scheme is appropriate in its context. It may be difficult to differentiate from its surroundings and would affect very few or no receptors
Slight	The proposed scheme would cause a barely perceptible impact, and would affect few receptors.
Moderate	The proposed scheme would cause a noticeable difference to the landscape, and would affect several receptors.
Substantial	The proposed scheme would completely change the character and/or appearance of the landscape for a long period of time or permanently. It would affect many receptors

Potential Significance of Landscape Impacts

- 6.264 Having identified the significant impacts likely to be caused by the proposed development, consideration has to be given to the nature of these impacts. For example a screen bank preventing views of a development can have just as high a magnitude of change and thus impact as a view of a development itself. However, the nature of the impact would be very different; one would involve views of a bank of grass and/or trees, the other maybe an open view of a scrap yard.
- 6.265 The landscape sensitivity to the proposed development and the magnitude of change to the landscape likely to be caused have been assessed previously for both the local landscape and the site itself. Cross referencing these results with Table 6.10 gives the results shown below in Tables 6.12, 6.13 and 6.14.

**Table 6.12
SIGNIFICANCE OF LANDSCAPE
IMPACTS TO THE LOCAL LANDSCAPE**

Sensitivity	Magnitude of Change	Significance of Impact	Description
Medium	High to Medium	MODERATE /SUBSTANTIAL to MODERATE	The proposed scheme would result in a large scale building, which would have a significant

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effect on the character of adjacent areas due to its mass, scale and visibility. Impacts to the wider landscape would be lower and not significant

- 6.266 The proposed scheme would therefore cause a noticeable difference to the landscape, and would affect several receptors, principally through changes in the perception and components of a predominantly rural landscape. These effects would be experienced adjacent to the application site and would reduce with distance from the proposed development.

**Table 6.13
SIGNIFICANCE OF EFFECTS ON THE
LOCAL LANDSCAPE CHARACTER**

Oxfordshire Wildlife and Landscape Study			
Character Area	Sensitivity	Magnitude	Significance
Alluvial Lowlands	Medium	Negligible	Slight
Clay Vale	Medium	Negligible	Slight
Estate Farmlands	High	Negligible	Slight/Moderate
Farmland Plateau	Medium	Medium to Low	Moderate to Slight/ Moderate
Farmland Slopes and Valley Sides	High	Negligible	Slight/Moderate
Pasture Hills	Medium	Negligible	Slight
River Meadowlands	High	Negligible	Slight/Moderate
Rolling Farmland	Medium	Negligible	Slight
Upstanding	Medium	Negligible	Slight
Village Farmland			
Vale Farmland	Medium	None	None
Wooded Estatelands	Medium	High to Medium	Moderate/Substantial to Moderate
Wooded Hills	Low	Negligible	Negligible/Slight
Rolling Clayland	Medium	Negligible	Slight

- 6.267 The potential for significant effects on landscape character is therefore limited to the 'Wooded Estatelands' within which the application site is located. This is reflected within the assessment of the overall impact on landscape character identified in Table 6.12, but also illustrates how the landscape impact would reduce away from the site.

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**TABLE 6.14
SIGNIFICANCE OF LANDSCAPE IMPACTS
TO THE APPLICATION SITE**

Sensitivity	Magnitude of Change	Significance of Impact	Description
Low to Medium	High	MODERATE to MODERATE /SUBSTANTIAL	The proposed scheme would result in a large change to the landscape of the existing site. This change would increase in effect after the landfill is completed and the change is judged against the restored landfill baseline.

6.268 In the short term the sensitivity of the application site to the type of development proposed would be low, however when measured against the permitted and completed landfill restoration scheme a medium sensitivity would be applicable. In relation to the site itself we can conclude that the proposed scheme would cause a noticeable difference to the landscape, and would affect several receptors completely changing the character and appearance of the southern section of the application site for the life time of the EfW building.

Potential Significance of Visual Impacts of the Proposed Development

6.269 The significance of the visual impacts in respect of each viewpoint and at is summarized in Table 6.15 below.

**Table 6.15
POTENTIAL SIGNIFICANCE OF VISUAL IMPACT ON VIEWPOINTS**

View-point	Sensitivity	Magnitude of Change	Significance of Impact	Description
A	High	Medium to Low	Moderate/ Substantial to Moderate	Open view across farmland towards existing landfill. Proposed building screened by planting in long term. Stack would remain visible.
B	Low	Medium	Slight/ Moderate	View from motorway bridge, building and stack would be visible.
C	High	High to Medium	Substantial to Moderate/ Substantial	Open view across farmland to M40, building and stack visible beyond on skyline
D	Medium	Medium	Moderate	View from motorway bridge,

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				planting and water tower reduce building scale.
E	Medium	High	Moderate/ Substantial	Complete long term change to view from boundary.
F	Low	Low	Slight	View from motorway bridge, building and stack would be visible in distance.
G	Low to Medium	Medium to High	Slight/ Moderate to Moderate/ Substantial	Open view across farmland partially screened in short to medium term by mineral extraction then significant effect.
H	High	Low	Moderate	View partly screened and intervening vegetation reduces scale of building.
I	High	Negligible	Slight/ Moderate	Almost entirely screened by vegetation.
J	Medium to High	Low to Medium	Slight/ Moderate to Moderate/ Substantial	Open view across farmland partially screened in short to medium term by mineral extraction then significant effect.
K	Low to Medium	Low to Medium	Slight to Moderate	Open view from road partially screened in short to medium term by mineral extraction then significant effect.
L	Medium	Medium to Low	Moderate to Slight/ Moderate	Glimpsed view with mid-ground buildings and intervening vegetation.
M	Medium	Medium to Low	Moderate to Slight/ Moderate	Partially screened by existing vegetation and mineral extraction in short to medium term and then by maturing planting linked to mineral extraction.
N	Medium	Low to Negligible	Slight/ Moderate to Slight	Open view across farmland, building gradually screened by proposed planting
O	Medium	Medium	Moderate	View of stack only, partly hidden by hedgerow vegetation
P	Medium	Low to Negligible	Slight/ Moderate to Slight	Distant view across open countryside, building gradually screened by planting.

6.270 Table 6.15 illustrates the range of views, from slight to substantial, with the changing effects due to the permitted mineral development, completion of the landfill restoration recorded. These results are illustrated on drawing 6/34 which shows the short to medium term visual effects, compared against the long term visual effects. This drawing illustrates the higher levels of visual effects to the north and west in the early stages of the proposed development and how the landfill landform and planting will modify these effects in the long term. The drawing also illustrates the modifying effect of the permitted

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mineral extraction to viewpoints in the south, and how visual effects caused by the proposed development are likely to increase to the south once a suitable restoration to the mineral development is achieved. The drawing identifies the significant views from the east and immediate southeast due to the shape of the final landfill landform. Vegetation along Gagle Brook greatly reduces this impact further southeast, not just through screening, but also through reducing the apparent scale of the proposed EfW where views do occur.

Nature of Effects

- 6.271 Having identified the level of landscape and visual effect caused by the proposed development. The nature of the significant landscape and visual effects is examined below.

Type of Effect

- 6.272 The proposed development is located within a site of prior mineral extraction and existing landfill operations. No original landscape features exist within the footprint of the proposed development. Therefore no negative aspects would occur due to the loss landscape elements.
- 6.273 The proposed modifications to the landfill phasing, landform and restoration would only marginally delay the permitted landfill, and slightly alter its proposed character on the northern, western and most of the eastern slopes. The slope analysis for the proposed landform design is shown on drawing 6/26. This drawing illustrates the increased levels of slope compared with those shown in the slope analysis for the permitted landfill design, (Drawing 6/6). However, despite this increase significant areas of similar slope are present within the local landscape and the changes are not considered out of character for the local area. It therefore concluded that no negative aspects would occur from the proposed changes to the landfill design and phasing. In fact the proposals include for far more habitat creation and diversification, and can therefore be argued as positive.
- 6.274 The effects caused by the designed landscape and internal bowl around the EfW are considered to be neutral due to their enclosed position and therefore restricted effect on the surrounding landscape. The wooded character they would create would be in character with elements of the local landscape and management objectives of the local landscape.
- 6.275 The type of effect produced by the EfW and its stack are much greater in terms of both visual and landscape effect. The nature of these effects are largely subjective as they are linked to the design and materials used in the proposed building. The potential effect of the building was recognised at a very early stage and therefore great care has been exercised in its orientation and design to reduce its effects where possible, but also to produce a high quality landmark building.
- 6.276 The Design and Access Statement contains full details of the form and materials proposed for the development. The visualisations included in this chapter illustrate the effect of that form within the surrounding landscape. The

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curved undulating roof mitigates the proposed development by taking its character from the surrounding landscape. In conjunction with this the subtle and natural colours used not only help to break the building form up, but also provide visual links to the surrounding agricultural landscape. The translucent nature of some of the façades breaks up the bulk of the building further giving it a light ephemeral feel.

Direct and Indirect Effects

- 6.277 Indirect impacts are likely to be caused by the proposed development through the increased level of habitat creation. These are considered beneficial.
- 6.278 Additional indirect effects are likely to be caused by the increased level of traffic exiting onto the B430, and these are considered adverse.

Cumulative Effects

- 6.279 The permitted mineral extraction to the south of the application area will lead to cumulative landscape and visual impact in conjunction with the proposed development. However, as the mineral extraction is a temporary land use these effects would be restricted to the short to medium term. No long term cumulative effects are anticipated. Table 6.16 Indicates the timescales of the main changes likely to occur.

Timescales of Effect

- 6.280 The proposed development would be permanent and thus produce long term effects. The continued landfill development and mineral developments are considered to be short to medium term, lasting around 10 years.
- 6.281 The groundworks and construction period is considered to be short term; the life of the landfill and permitted Mineral development to the south, medium term, while the future operation of the building after landfill completion is considered long term
- 6.282 The proposed EfW development, continuing landfill process, and permitted mineral extraction to the south combine to create a complex variety of factors within the local landscape. The interaction between these elements is summarised in Table 6.16 below, with year 1 representing 2010.

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**TABLE 6.16
TIMESCALE OF LANDSCAPE AND VISUAL EFFECTS**

Activity	Timescale in Years (starting 2010)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	34/36
Permitted Mineral Development																
Infrastructure	■															
Extraction		■	■	■	■	■	■	■	■	■	■	■	■	■		
Restoration				■	■	■	■	■	■	■	■	■	■	■	■	
Landfill																
Landfill	■	■	■	■	■	■	■	■								
Restoration			■	■	■		■	■	■	■						
EfW																
Groundworks	■															
Construction				■												
Commissioning					■											
Operation																
Advance Planting		■														
Landscape Works						■										

Scale and Level of Impact

- 6.283 The significant landscape and visual effects of the proposals are regarded as local in terms of scale due to the assessed visual impacts and concentration of landscape impacts within the local area.

Effects on Landscape Receptors

- 6.284 Having identified the significance of the landscape and visual impacts, a judgement can be made on the likely impacts on other landscape receptors as identified in Table 6.1.

Cotswolds AONB

- 6.285 Drawings 6/36 and 6/37 illustrate how the proposed EfW building will have a much restricted and low level visibility to the southwest, due to extensive, existing and mature woodland. Viewpoints L and N illustrate the type of visual impact possible to the west at a distance of around 1.5km. The visualisations for these viewpoints illustrate the effect of the proposed stack at such distances. The AONB is located 10km to the southwest, and although it is possible that the stack may be visible from certain locations within the AONB, it would appear very small and faint and the worst case magnitude of change would be negligible. It is therefore concluded that no significant effects on the AONB would occur.

Middleton Park

- 6.286 Effects on the setting of this receptor are considered in Chapter 12 – Cultural Heritage. The level of visual effect from the boundary is illustrated by Viewpoint L. This effect does not rise to a significant level and is localised in extent. Within Middleton Park the visual effect would be even lower, due to substantial woodland screening around the boundary of Middleton Park. This effect is illustrated by drawing 6/36 which shows how this boundary vegetation screens the majority of views of the EfW building.

Rousham, Kirtlington Park, Aynho Park and Blenheim Palace

- 6.287 All of these receptors are to the northwest, west or southwest and magnitudes of visual change would be less than that identified for Viewpoints L, N and P if any occurs. The increased distance of these receptors in comparison to the viewpoints would reduce any possible magnitudes of visual change to low or negligible, avoiding significant visual effects for even highly sensitive receptors (see table 6.8 to assess magnitude against sensitivity). The ZTV illustrated on drawings 6/36 and 6/37 illustrates how existing and proposed screening vegetation greatly restricts views of the EfW building from the west, particularly in the long term. The main potential change would be created by the stack, as identified above this would appear very small and faint. The worst case magnitude of change would be negligible, resulting in a worst case slight/moderate visual effect for a high sensitivity receptor. It is therefore concluded that no significant landscape effects to these receptors would occur either.

Recreational Receptors

- 6.288 None of the identified recreational receptors lie close to the proposed development site, the nearest being the Oxford-Canal walk at 4.3km. Given the findings of the visual impact assessment, any views are only likely to experience a low or negligible magnitude of visual change (from the stack), and thus no significant views would occur (see table 6.8 to assess magnitude against sensitivity).

Effects on Landscape Character

- 6.289 The visual effect of the proposed development upon the landscape character of the 'Wooded Estatelands' is illustrated by Viewpoints C to M. With the effects on the adjacent 'Farmland Plateau' illustrated by Viewpoints A, B, O, N and P.
- 6.290 The landscape effects to the 'Wooded Estatelands' would be restricted by vegetation around Ardley to the north and vegetation around Middleton Park to the south. To the west the effects would be reduced by the landfill landform and boundary vegetation. To the east the effects would extend across the M40 and out towards Bucknell. These effects would relate to the scale of the building and the designed nature of the landscape around the building. The level of the landscape effects (as identified in Table 6.10) is Moderate/Substantial, but the restricted area this is felt across in comparison to the extent of this character area, limits the overall effect for the character

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area. It is therefore concluded that the effect on this landscape character area as a whole is less than the overall landscape effect and is Slight/Moderate, although peaks at Moderate/Substantial to the west of Bucknell as per the overall landscape effect.

- 6.291 The magnitude of change to the landscape character of the 'Farmland Plateau' area would be restricted by the landfill landform with the top of the EfW building and stack being the components visible in the short to medium term. It is considered that effects on this character area would be nearer to Slight overall, reducing due to long term screen planting.
- 6.292 The Ploughley limestone Plateau is an older and coarser assessment of character within the local area. The overall effect on this character area is reflected by the effects on the 'Wooded Estatelands' and "Farmland Plateau". LCA's which it encompasses.

SUMMARY

Introduction

- 6.293 A landscape and visual assessment of the proposed development has been completed in accordance with accepted guidance. A study of the landscape and visual components of the site and the local area was undertaken through desktop study and fieldwork. This study identified the main landscape and visual receptors and resulted in a baseline appraisal, against which landscape and visual impacts could be assessed. The main landscape and visual implications of the development and their potential impacts were identified, and mitigation was developed to minimise these impacts. Comparing the sensitivity of the receptors to the magnitude of predicted change, then allowed the significance of these resultant impacts to be assessed.

Landscape Impact

- 6.294 The proposed development would have a Moderate effect on the existing landscape of the application area. This effect would rise to Moderate /Substantial in the future when the proposed development is considered against the future baseline of the restored landfill site. This effect would be permanent in nature, and positive in terms of habitat creation. The nature of the effect of the buildings would be directly linked to the high standard of design and the materials proposed, and how it is perceived by individual viewers within the application site.
- 6.295 The effect of the development on the wider landscape would be moderate and related to the size of the building within the open countryside. To the southeast this effect would be concentrated resulting in a localised significant impact.
- 6.296 The nature of the impact would be related to the perception of the viewer. The high standard of design and materials used for the building aims to make the building a landmark building and aesthetically pleasing.

Visual Impact

- 6.297 The visual effect of the proposed development is summarised on drawing 6/34 and varies through time due to the effects of the permitted mineral extraction to the south and the proposed landfill development.
- 6.298 Significant effects would occur to Viewpoints A, C and E during the short to medium term, with the permitted mineral development partially screening visual effects to the south. Additional significant effects are likely to occur to Viewpoints G and J after restoration of the mineral site.
- 6.299 The most effected view is likely to be from Viewpoint C due to the open view across farmland and low lying nature of the intervening landform. This would be reduced slightly as vegetation matures around the EfW.

Conclusion

- 6.300 Given the scale and size of the proposed buildings the design is successful in minimising the extent and degree of adverse landscape and visual impacts. However some significant effects would occur, and the acceptability of these is related directly to the standard of building design. The aim of the building design is to produce a high quality 'landmark' building that is capable of having a positive effect on views and the landscape of the local area.