

2.0 SITE DESCRIPTION

Site location

- 2.1 The application site is located approximately 18kms from the City of Oxford. The site is also within direct and easy access to the Northern County towns of Banbury, Kidlington, Chipping Norton and Bicester.
- 2.2 There is already existing access to the site from the B430 which leads to Junction 10 of the M40 Motorway and subsequently has excellent access to the rest of the County of Oxfordshire.
- 2.3 The nearest settlement is Ardley village (screened by vegetation to the south of the village), which is located 1 km north of the current landfill, household waste recycling centre (HWRC) and landfill gas generation scheme.
- 2.4 The village of Middleton Stoney is located around 1.7km to the south and is screened by vegetation around the northern edge of the village.
- 2.5 Bucknell is located 1.2km to the east whilst Upper Heyford is located over 2km to the west adjacent to the former airfield and is also screened by existing vegetation on the northern perimeter.

The Site

- 2.6 The site is a worked out limestone quarry, now being landfilled with non hazardous waste. A Household Waste Recycling Centre (HWRC) is located to the far north of the application site. The total area of the Ardley site is 95 hectares yet the proposed EfW facility will occupy only a small part in the south east corner.
- 2.7 The site lies to the immediate west of the M40 Motorway. The Banbury – High Wycombe main railway line and the Gagle Brook, which flows southwards, form the northern and eastern boundaries of the site respectively. The site is bound to the west by the B430, and arable land to the south, on which mineral extraction has recently commenced. The River Cherwell and the Oxford Canal pass 4km west of the site.
- 2.8 The nearest residential properties to the site include Ashgrove Farm (separated from the site by the B430) and cottages to the North West, Neville's Farm to the North East and Trow Pool Spinnery to the south.
- 2.9 Further afield there are settlements which surround the site including Bucknell in the East, Middleton Stoney in the South, Heyford in the West and Fewcott in the North.
- 2.10 The Ardley Waste Management Facility falls outside of any statutory airfield safeguarding area and this has been confirmed by the Ministry of Defence.

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- 2.11 There are no specific planning policies in respect of this site and no landscape designations either. It should be noted that the site is located within the landscape character area of the Cotswolds.

Access

- 2.12 The site has dedicated access from the B340, which leads north to J10 of the M40 and south to the A34 towards Oxford. The existing site access serves the landfill and Household Waste Recycling Centre with no unacceptable impacts on the local highway network. A new and separate junction and access road off of the B430 is proposed with a new gatehouse and weighbridge to serve the proposed EfW facility and landfill. The existing access would be retained for the HWRC.

Air Quality

- 2.13 The potential air quality impacts of the proposed development of this size and nature would be as follows:
- generation of dust during the construction of the development and the potential to cause a dust nuisance;
 - emissions to atmosphere during the operation of the EfW facility, landfill and HWRC;
 - odour and bio-aerosol emissions during the operation of the EfW facility, landfill and HWRC; and
 - potential for pollution generated by construction and operational traffic.
- 2.14 All of these are of relevance to this scheme. However there are a very limited number of receptors in close proximity to the site and potential impacts have been carefully assessed within Chapter 5 of this Environmental Statement.

Cultural Heritage

- 2.15 There is no known archaeological interest within the site. The disturbed nature of the site and the previous quarrying activity suggest that it is unlikely that significant archaeology exists.

Geology

- 2.16 The solid geology of the area comprises the White Limestone Formation of the Middle Jurassic Great Oolite Group. The Formation comprises hard, fractured, fine to medium grained oolitic limestones with sporadic marls, shale and sandy horizons. The Hampden Formation underlines the White Limestone Formation and comprises predominantly clays and marls.

Landscape

- 2.17 The site comprises 95 hectares of land, already consented for waste management development.

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- 2.18 The site is not within an area of landscape designation, but is the location of a significant series of dinosaur footprints left behind in the basal limestone deposit.
- 2.19 The site is within the 'Wooded Estatelands' landscape area of the Oxfordshire Wildlife and Landscape Study (OWLS).
- 2.20 An existing permission exists on site for landfill restoration. This scheme incorporates a small hill approximately 1200m north to south and 750m east to west, and rising to a height of 128m AOD in comparison with an average level of around 109m AOD around the edges of the application site. The average gradients for the restoration would be approximately 1:25, with the steepest gradients around 1:15. The scheme includes the planting of a large block of woodland slightly south of the high spot on the landfill landform, with a rectilinear field pattern.

Nature and Conservation

- 2.21 The site is adjacent to the Ardley Cutting and Quarry SSSI but is beyond 15km from any Natura 2000 or Ramsar site indicating that an appropriate assessment of the proposed development is unlikely to be required.

Palaeontology

- 2.22 Dinosaur footprints/tracks have been found at the site and are considered to add value to the site. A study of these findings can be seen in detail in Chapter 11. Natural England has advised that the site itself is not going to be designated as a SSSI.

Topography

- 2.23 The local landscape has a gently undulating landscape form varying from around 90m AOD to the southeast of the application site, to over 130m AOD around the area of Heyford airfield to the northwest. To the west the landscape descends into the Cherwell Valley (around 70m AOD). The local landscape generally has gradients of around 1:50, with steeper gradients of up to 1:3 along some of the local streams and on the edges of the Cherwell Valley.

Water Environment

- 2.24 The site is located on a major aquifer but is not within a source protection zone. A small part of the south eastern corner of the site has been identified as being within the floodplain of the adjacent Gagle Brook.
- 2.25 Any potential flooding on site will be mitigated by attenuation ponds which will be located adjacent to the proposed EfW facility in the south eastern corner of the site.

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Site History

- 2.26 The site benefits from an extensive planning history for waste management development. Table 2.1 below sets out these permissions.
- 2.27 The current application is only intended to replace the existing planning permission for landfill development granted in 2003 and all other permissions in the table below will remain unaffected.
- 2.28 To reflect the new landfill landform revised landfill phasing and restoration plans have been prepared, see Drawings 3/4 to 3/13 in Volume 2. It is intended that, upon approval, these will replace the existing phasing and restoration plans for the landfill. The current application also allows for the re-development and improvement of the existing HWRC, see Drawing 3/14 in Volume 2.
- 2.29 The leachate treatment plant operates under its own stand alone planning permission and this will continue to be the case as no changes are proposed as a result of the current application.

Table 2.1 – Recent Planning History for Ardley Waste Management Facility

Type	Application No.	Permission For	Date Approved	Status
Planning Consent	98/00139/CM	Erection of a steel portal framed building sited on a concrete base for use as a material reclamation facility	19 June 1998	Not implemented and expired
Planning Consent	97/00455/CM	Determination of new conditions affecting Permissions 2307A/9/2 and CHS/146/7	23 June 2000	Mineral extraction only
Planning Consent	02/00725/CM	Construction of a compound for the storage of waste refrigerators for a temporary period	16 May 2002	Expired
Planning Consent	03/00689/CM	Restoration of southern quarry to agriculture by infilling with controlled	16 April 2003	Current planning permission for Landfill development

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Type	Application No.	Permission For	Date Approved	Status
		wastes, low level restoration of north quarry for nature conservation, extension of existing civic amenity facility, relocation of quarry office and relocation of lime store, without complying with condition 3 of planning permission 97/00814/CM at Ardley Quarry and Landfill Sites, Ardley		
Planning Consent	03/02230/CM	The construction of a composting facility at Ardley Quarry Landfill, Oxfordshire	12 January 2004	Not implemented and expired
Planning Consent	04/00059/CM	Construction of a validation bay (to facilitate validation of waste materials), a leachate storage tank and pumping station, glass storage bays, a wood chipping storage area, and wood processing area.	04 March 2004	Implemented and operational
Planning Consent	05/01164/CM	Replacement landfill gas flare at Ardley Landfill to support landfill gas utilisation plant and for long term site control.	31 August 2005	Implemented and operational
Planning Consent	07/02202/CM	Proposed Waste Reception,	09 January 2008	Not implemented

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		Transfer, Recycling and Pre-treatment facility		
