

**Waste Core Strategy
Site Options Consultation**

Waste Site Assessment

**Appendix C.109: Site 584 - Site adjacent to Wingmoor Farm
West**

October 2009

Site Maps and Images

Site Map



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Aerial Photo



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Site Images



Locational Information

Site Details

District	Tewkesbury		
Parish	Stoke Orchard		
Easting	392699	Northings	227011
Approximate Site Area (hectares)	9		
Reasons for inclusion <i>NB: Slight anomalies in site boundaries may have arisen from 'clustering' of sites from more than one source and/or the absence of detailed site plans in source documents.</i>	Brought forward through call for sites		
Date of WPA officer visit	14th April 2009		
Broad Description of Site (including current activities on site, location and neighbouring uses)	<p>The site is currently farmland and consists of two fields. To the north, south and west of the site there is open farmland. To the east of the site there is Wingmoor Household Recycling Centre and Landfill. The site can be accessed from the private road to Wingmoor Household Recycling Centre and landfill. There are not any houses adjoining the site, but it is in close proximity to the village of Elmstone Hardwick.</p> <p>Neighbouring uses are: Farmland, The Park, landfill, rifle range.</p>		

Site Assessment Factors/Criteria for Consideration

Landscape



Comments	The site is located on land that is mainly undeveloped and is not within or adjacent to a national landscape designation such as AONB.
Landscape Character	Vale of Gloucester, Settled Unwooded Vale.

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Green Belt	
Comments	The site lies upon land which is mainly undeveloped land within the Gloucester/Cheltenham Green Belt.

Highways (Based on information provided by Gloucestershire County Council's Highways Development Co-ordination team)			
Routes to access Strategic Network <i>This denotes the assumed roads that would be used in order for vehicles to travel to and from the proposed site and the wider road network.</i>	minor, Stoke Rd, A435		
Proximity to Strategic Highway Network <i>Assessment of the proximity of the site to different types of road (as specific entrance points are not known have made assumptions about where entrance might be), with reference to the GCC Advisory Freight Route Map (notwithstanding obvious changes arising from new roads etc).</i>	Medium	Definition	Access from (or in close proximity to) routes identified for local journeys (A and B roads).
Sustainable Transport <i>Potential for operational access to the site to be by (or involve) non-road modes of transport, based on broad consideration of distance from water/rail and general location, rather than knowledge that it may or may not be technically practical.</i>	Medium	Definition	Site has limited potential for rail and/or water based transport (will generally be a little distance from nearest appropriate water/rail).
Employee Accessibility <i>Potential for employees to be able to access the site using non-car modes.</i>	Low	Definition	Site is located some distance from residential areas, and has limited scope for non-car access.
Other Transport Issues <i>This column comments on any other relevant transport issues for the site, which will have partly arisen from discussions with area/stakeholder managers.</i>	Adjoins site 272 although does not back onto rail		
Recommendation <i>This category provides an overall view of the potential of the site to be used as a strategic waste facility in transport terms.</i>	Possible	Definition	Site has some concerns from a transport perspective, and could still be taken forward depending on views of other disciplines, but may require significant mitigation.

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Public Rights of Way (Based on information provided by Gloucestershire County Council's Public Rights of Way (PRoW) team)	
Score	--
Score Definition	Major adverse impact on the Public Rights of Way Network – potential closure of the route or major deviation / re-route required.
Additional Comments	<p>The site is crossed by both a public bridleway and by an unclassified county road which runs along the western side of its eastern boundary.</p> <p>Both would need consideration if the proposals were to be taken forward. A diversion of the bridleway might be p</p>
Map Legend	 Public Right of Way
PRoW Map	

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Aerodrome Safeguarding (based on safeguarding maps provided by Gloucestershire Airport and the Ministry of Defence (MOD))	
Comments	<p>The site lies within the Gloucestershire Airport zone for - All buildings, structures, erections and works exceeding 90 metres in height (295.3 feet) plus all applications involving major tree planting schemes, mineral extraction or quarrying, a refuse tip, a reservoir, a sewage disposal works, a nature reserve or a bird sanctuary and all applications connected with an aviation use.</p>
<p>NB. Where a site lies across more than one safeguarding zone the entire site has been defaulted to lowest height category for consultation.</p>	

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Ecology/Biodiversity (Based on information provided by Gloucestershire County Council's Ecologist and the Gloucestershire Centre for Environmental Records (GCER))	
Score	0
Score Definition	Overall impact on biodiversity could be potentially negative, uncertain or positive. Identified important ecological constraint up to and including 250 metres distant.
Additional Comments	Scores with * indicate designated aquifer fed/surface water/flood water dependent site(s) over 1km distant which may be affected, site as named above.
Nearby Internationally & Nationally Designated Sites Recorded	None
Other Internationally & Nationally Designated Sites (wetlands)	None
Ecology Legend	<div> <div>SSSI Site of Special Scientific Interest</div> <div>Key Wildlife Site - area</div> <div>SAC Site</div> <div>Ramsar Site</div> <div>SPA Site</div> </div>
Constraints Map	

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Geodiversity

(Based on information provided by the Gloucestershire Geology Trust at the Geological Records Centre)

Comments

There were Geological Local Sites recorded within 250m of the site: Wingmoor Farm Pit [GGT Site No. 231]
A large working gravel pit extracting sand and gravel from the Quaternary 'Avon Valley Formation' (2nd Avon Terrace).
Since the original technical work, Wingmoor Farm Quarry has also been designated as a RIG with the reason that the "site is of national importance in that it exposes the Oxynotum Zone (within the Charmouth Mudstone Formation), which is rarely seen in the UK. It is absent from the Dorset Coast Section and is only permanently visible elsewhere in the UK at Robin Hoods Bay in Yorkshire. For several years the quarries at Wingmoor Farm site have exposed the oxynotum Subzone) and good specimens of the zonal species, Oxynoticeras Oxynotum, can be found there. The exposures are temporary however, they are working along the strike of the beds meaning that there will be accessible exposures for many years. The exposures are accessible and the quarrying company keen to encourage visitors"

Archaeology and the Historic Environment

(Based on information provided by Gloucestershire County Council's Archaeology team)

Score

+

Score Definition

The site fulfils one or more of the following:-
* SMR record of less archaeological significance
* Known historical or archaeological remains of less significance
* Is in the vicinity of less significant archaeological remains
* Is within a significant historic landscape character area

Additional Comments

The following is comments on additional sites reported to the Archaeology Service in April 2009. This comprises general comments on whether the 2008 archaeological assessment of nearby sites can be extended to the new sites, based on a visual search of known archaeological constraints in the immediate vicinity. A full search of all archaeological constraints within 500m has not been undertaken to the same specifications as the 2008 search.
This additional site can be incorporated into the record for 272 with no significant additions. (Site 272 was designated as + as the site is within Stoke Orchard World War II airfield (SMR 15219). Much of the site, however, has already been destroyed by landfill.)

Contaminated Land

(Based on information provided by the appropriate district council)

Comment

This is immediately adjacent to the large active landfill licensed to CORY Environmental and currently takes domestic waste from Cheltenham and Tewkesbury Boroughs. There have been a large number of complaints regarding odour from the site over the past couple of years. The lower part of the site might also be subject to flooding. Apart from that there is not much to say.

Flood Risk

(Based on information provided by Halcrow)

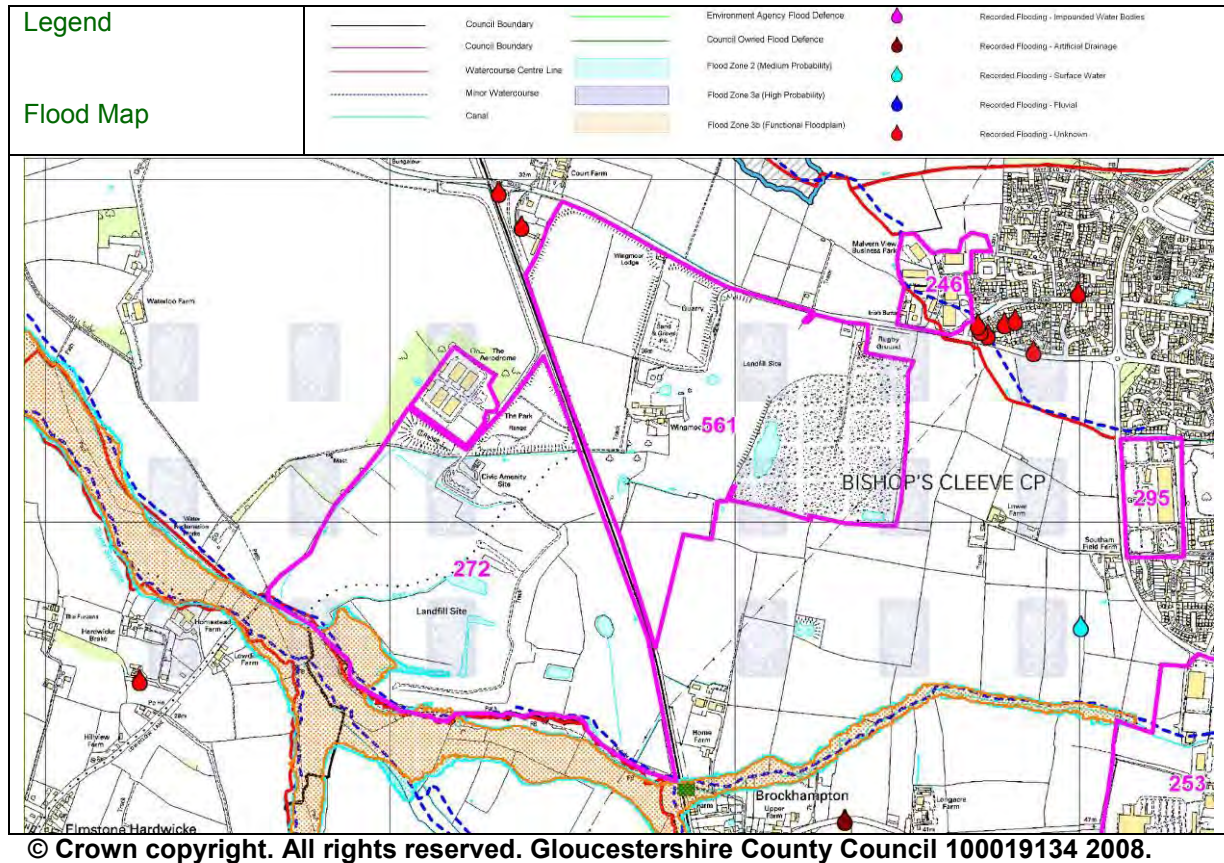
Site Description

Site lies predominantly in Flood Zone 1. The River Swilgate flows along the southern boundary of the site. The Flood Zone maps for this watercourse indicate the site is marginally affected by Flood Zone 2. An unnamed drain flows along the eastern boundary of the site in a southerly direction before joining the River Swilgate.

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Watercourse(s)	River Swilgate and Unnamed Drain
Flood Zone	1, 2 1
Flood Zone Information (Method used to derive Flood Zones & Confidence in Flood Zone information)	No Flood Zones have been produced for the unnamed drain. JFLOW modelled outlines. Some misalignments evident decreasing confidence in the outlines. Flood Zone 3a has been used to represent Flood Zone 3b. All Flood Zones should be modelled for FRA, to verify extents and levels within the site.
Fluvial Flood Risk Posed to Site (including climate change)	Site mainly lies within Flood Zone 1, though Flood Zone 2 marginally affects a small part of the site along the southern boundary around the River Swilgate. Some misalignments are evident in the existing Flood Zones and these should be modelled as part of a FRA to confirm the extent and depth of flooding within the affected parts of the site. The difference between Flood Zones 2 and 3 is marginal which suggests that the 100 year climate change situation would be similar. However, this should be verified by modelling the 100 year plus climate change event. While the unnamed drain does not show fluvial flood risk, in reality some risk is posed.
Historic Flooding/Flooding From Other Sources	No records of historical flooding and flooding from other sources including groundwater and surface water have not been recorded on the site.
Canals (Raised - breach/overtopping)	No canals exist in or adjacent to the site
Flood Defences (Location/Type/SoP/Residual Risk)	No defences are known to exist in the site.
Culverts (Location/Type/Watercourse/Residual Risk)	No culverts are known to exist in the site
Score	+
Score Definition	Site is mainly in Flood Zone 1 but affected by Flood Zones 2, 3a and 3b.
Additional Comments	Any development should remain clear of Flood Zone 2 which should be achievable given the size of the site.

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Source Protection Zones (SPZs)

Comments	N/A
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Groundwater/Aquifer details

Comments	Site CFS1 is partially lying over a Minor Aquifer High (HU), partially partially over a Minor Aquifer Intermediate and within 250m of a Minor Aquifer High (H3).
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Land Ownership and General Deliverability Issues (Based on research undertaken in-house)

The site has been proposed by the landowner, therefore is potentially deliverable.
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General Comments

Officer Comments: There may be some landscape issues, particularly in relation to the greenbelt.

Safeguarding: Gloucestershire Airport would need to provide comments on safeguarding in relation to this site. This may be difficult for them to do so without knowing a specific technology for the site.

Ecology/Biodiversity/PROW/Geodiversity/Landscape: Further consultation would be required in order to assess any potential impacts upon the above mentioned areas.

Flooding: Site may need modification to remove areas within flood zones 2 and 3.

Groundwater/Aquifer: Information would be required from the Environment Agency as to the potential impacts upon the above mentioned areas.

Potential for Further Discussion within the WCS

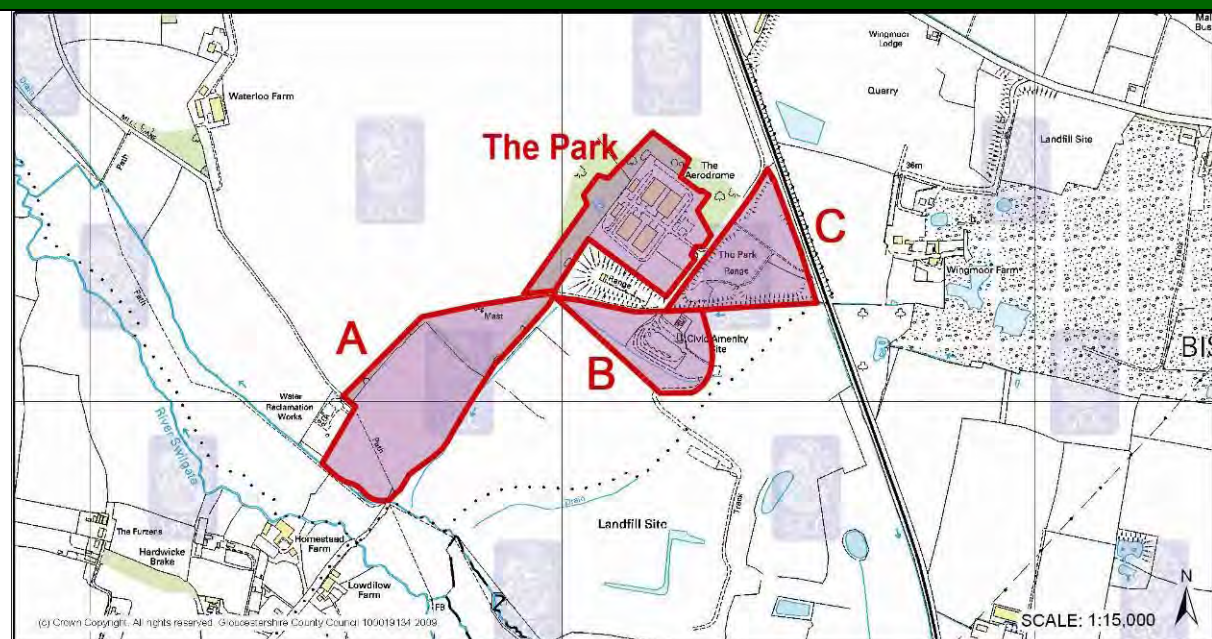
The areas of land indicated by the landowner as deliverable should have further technical assessments carried out on them.

HRA Summary

The nearest European site is Dixon Wood SAC and the implication of this and the potential impacts on other European sites are detailed in: SA Reports under Objective 8: Biodiversity, HRA Baseline Reports and the Site Options HRA Report which forms part of this consultation.

NB. For the purpose of the technical assessments the site was assessed in conjunction with the adjacent Site 584. The areas are referred to in the assessments according to their labels in the Modified Site Map below.

Modified Site Map



Landscape and Visual Impact Assessment

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(Provided by Atkins)	
Introduction	<p>The purpose of this Landscape and Visual Impact Assessment is to ascertain the potential effects of the proposals for a built Waste Facility, of two to five hectares within The Park and Wingmoor Farm West sites, on the landscape resources and impacts on the visual amenity of the area.</p> <p>The assessment considered the possible building height and land take for three (3 No.) different facility sizes (2000-6000m², up to 20m height / 3000-7000m², up to 30m height / 4000-9000m², up to 40m height) each with a potential for an emissions stack of 40, 60 or 80m height.</p> <p>The site is located two miles west of Bishops Cleeve and five 5 miles north of Cheltenham, Gloucestershire off Stoke Road, south of Stoke Orchard. The study area comprises The Park and Wingmoor Farm West parcels Site B, a Household Recycling Centre (HRC), Site A and Site C both greenfield sites as identified on the site location plan. To the south of the study area is a part remediated part active landfill.</p> <p>The immediate landscape setting is predominantly open arable field pattern with the large urban areas of Bishops Cleeve and Cheltenham and smaller settlements scattered throughout the area.</p>
Assessment Methodology	<p>A desk study was carried out comprising a review of published texts and maps to develop an understanding of the site in terms of general landscape character, special values and interests, local value and its wider landscape context.</p> <p>Baseline information on the landscape of the area was collected through a preliminary desktop study of maps, plans and documents.</p> <p>Documentation used in the desk study included:</p> <ul style="list-style-type: none"> • Countryside Character Volume 5: West Midlands, Natural England; • Gloucestershire Landscape Character Assessment, Gloucestershire County Council; • Multi-Agency Geographic Information for the Countryside (Magic) website; • 1:50 000 Scale Digital Ordnance Survey Maps; and • Aerial Photography. <p>To identify those elements of the landscape which notably contribute to the character of the landscape, an assessment of existing landscape features was carried out.</p> <p>The desk study was followed by a field survey carried out by Atkins Consultants Ltd in June 2009, to identify key issues and constraints in respect of the impact of the development on views into the proposed site, effects on the landscape of the site and the relationship between the development and the surrounding landscape to:</p> <ul style="list-style-type: none"> • Validate and qualify the results of the desk study; • Identify key visual receptors; and • Record an assessment of the landscape on both an objective and subjective basis.

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<p>Baseline Landscape Character and Designations: Desk Survey</p>	<p><i>Countryside Character Volume 5 West Midlands (Natural England):</i> Landscape Character Area: 106, Severn and Avon Vales <i>Key characteristics:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Diverse range of flat and gently undulating landscapes, united by broad river valley character. <input type="checkbox"/> Riverside landscapes with little woodland, often very open. <input type="checkbox"/> Variety of land uses from small pasture fields and commons in the west to intensive agriculture in the east. <input type="checkbox"/> Distinct and contrasting vales: Evesham, Berkeley, Gloucester, Leadon, Avon. <input type="checkbox"/> Many ancient market towns and large villages along the rivers. <input type="checkbox"/> Nucleated villages with timber frame and brick buildings. <input type="checkbox"/> Prominent views of hills – such as the Cotswolds, Bredon and the Malverns – at the edges of the character area.
<p>Gloucestershire Landscape Character Assessment (Gloucestershire County Council):</p>	<p><i>County Landscape Character Type: Settled Unwooded Vale</i> <i>County Landscape Character Area: Vale of Gloucester Settled Unwooded Vale</i> <i>Key characteristics:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Soft, gently undulating to flat landscape, but with intermittent locally elevated areas that project above the otherwise flatter landform; <input type="checkbox"/> Area drained by a series of east west aligned tributaries of the Severn, including the Cam, Frome and Cheltenham, and the Stratford Avon flowing into the Severn from the north; <input type="checkbox"/> Mixed arable and pastoral land use enclosed by hedgerow network, in places forming a strong landscape pattern; <input type="checkbox"/> Limited woodland cover with mature hedgerow trees and occasional orchards; <input type="checkbox"/> Rural areas bordered by large urban and suburban areas and interspersed with commercial and industrial premises; <input type="checkbox"/> Varied mix of buildings materials including brick, timber and stone, and slate and thatch roofing; <input type="checkbox"/> Proliferation of modern 'suburban' buildings styles and materials; <input type="checkbox"/> Major transport corridors pass through the Vale, frequently aligned north south, beyond which is a network of local roads and lanes linking villages and hamlets; and <input type="checkbox"/> Widespread network of pylons and transmission lines.
<p>Designations Relating to Landscape:</p>	<p>Landscape designations are applied to areas of special value at international, national, regional or local level in response to particular qualities or historical or cultural associations. No part of the study area is so designated; however the site is in close proximity to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> An extensive area of land approximately 3.5km east of the site is designated under the Cotswolds Area of Outstanding Natural Beauty (AONB), a nationally recognised designation. <input type="checkbox"/> There are no public rights of way passing through the site, but there is one approximately 0.5km west of the site running in a north south direction between Stoke Orchard and Elmstone Hardwicke.
<p>Baseline Landscape Character and Features: Site Survey</p>	<p>The study area comprises The Park, a flat site containing four (4 No.) 2-3 storey height, low long hanger style light industrial / storage buildings and a number of smaller container sized structures to the south. Surrounding The Park to the north and west is a heavily vegetated bund which screens views from properties in Stoke Orchard and surrounding areas.</p> <p>To the south is the Wingmoor Farm recycling centre, Site B which is enclosed by remediated landfill of grassed mounds. The surrounding area is predominantly greenfield including Sites A and C both of which are heavily vegetated with woodland / semi-improved grassland. Site A</p>

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	<p>comprises two open arable fields divided by a thick belt of woodland. Site C, currently a private gun club, is well screened and enclosed by native hedgerow covered bunds and divided into a series of spaces by groups and lines of trees.</p> <p>The surrounding landscape is predominantly flat ground at approximately 30m AOD with the Cotswold Escarpment and Cleeve Hill forming the woodland and field backdrop to the area. However, the existing landfill is a significant landform and creates a false sense of a hilly landscape in the immediate vicinity of the study area. The area is characterised by medium to large scale, irregularly shaped agricultural fields defined by hedgerows, tree belts and small woodland copses. The area is predominantly arable with some pasture.</p> <p>There are several sizable settlements to the south and east and the surrounding area is interspersed with individual residential properties and farms so that low to medium density development is a significant contribution to the local character.</p>
<p>Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey</p>	<p>Landscape Quality and Condition of site: Ordinary</p> <p>Capacity to Accept Change: The Park, Wingmoor Farm West Site B – High / Wingmoor Farm West Sites A and C - Low</p> <p>Due to the disturbed nature of the surrounding landscape (south) and enclosed character of the study area, The Park and Wingmoor Farm West Site B, the existing HRC could accommodate a small or medium scale facility with minimal impact on the surrounding area. Though the Waste Management Facility with the remediated landfill screens properties to the south, due to the proximity of Stoke Orchard, The Park site would be considered inappropriate for a large scale development.</p> <p>Inclusion of a medium or large emission stack (60m +) would create a vertical landmark in the surrounding area, however would be of slight to moderate adverse impact due to the frequency of similar structures in the wider area.</p> <p>Due to their undisturbed nature and the loss of vegetation and tree cover that would result from development of Wingmoor Farm West Sites A and C they are considered to have a low capacity to accommodate change.</p> <p>It should be noted that properties to the south of the existing landfill, in particular those on Lowdilow Land and a lesser extent properties to the north fringe of Swindon, are currently experiencing substantial adverse impacts in relation to the landfill activities and increasing height of the landform. Any development to this study area should be carefully planned so as to not vertically encroach above the existing landfill height.</p>
<p>Potential Landscape Impacts</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Wintertime views of the facility from the residential properties located in Stoke Orchard to the north. <input type="checkbox"/> Permanent alteration of the site in terms of scale and intensity of development resulting from a facility both taller and larger than the existing units. <input type="checkbox"/> Loss of vegetation and tree cover to the site boundaries within the study area / to Wingmoor Farm West Sites A and C. <input type="checkbox"/> Deterioration of the existing landscape character due to the construction of a facility significantly larger than any existing on site, associated external works and activity on site.

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Potential Landscape Mitigation Measures	<input type="checkbox"/> On site buildings, materials and infrastructure should reflect the local agricultural style of the surrounding area, designed to sit as low in the landscape as possible using neutral, matt colours and avoiding the introduction of reflective materials. <input type="checkbox"/> Sensitive site planning to reduce the requirement for additional infrastructure and expansive areas of hardstanding. <input type="checkbox"/> Preservation and enhancement of existing on and offsite areas of established woodland and hedgerow planting, in particular to conceal the incongruous landforms associated with the landfill and screening bunds.		
Visual Receptors	Sensitivity of Receptor	Potential Impact on Receptor	Potential Visual Mitigation Measures
Stoke Orchard Residences	High	Slight Adverse due to proximity to site and potential wintertime views	<input type="checkbox"/> Restriction of building height and associated emissions stack
Lowdilo Lane Residences	High	Negligible Note: potential mitigation for a waste facility has the opportunity to mitigate the adverse impacts of the existing Wingmoor landfill	<input type="checkbox"/> Minimisation hardstanding areas <input type="checkbox"/> Minimal lighting and use of lower columns
Cotswold AONB	High	Slight to Moderate Adverse due to the distance and existing enclosed nature of the site.	<input type="checkbox"/> Use of matt, neutral colours and avoidance of shiny or reflective materials
Summary: Residual Landscape and Visual Impacts	<p>By sensitively planning the site and facility to limit the height of vertical structures and minimise areas of hardstanding, the site would experience negligible impacts due to the development of a small facility omitting an emissions stack. A small or medium sized facility with any height emission stack would have a slight adverse impact on the area due to primarily to wintertime views. A large facility with any height emission stack would have a slight to moderate adverse impact on the local landscape character and visual amenity of the area.</p> <p>As such, The Park and Wingmoor Farm West Site B can be said to be of High landscape suitability for consideration as a potential strategic waste site.</p> <p>Due to its existing greenfield condition, Wingmoor Farm West Site A is considered to have a Low – Medium landscape suitability for consideration as a potential strategic waste site. Site C being more screened and visually associated with The Park is to be considered Medium landscape suitability as a potential strategic waste site.</p> <p>However, while the Park may be considered to have a high Landscape suitability depending on the technology selected as described above, careful site planning should ensure that the surrounding existing greenfield parcels of land are undisturbed, and where possible enhanced.</p>		

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Further Highways Assessments (Provided by Gloucestershire County Council's Highways Development Co-ordination team)	
Existing Site Usage	Landfill & other operations = 575,000 tonnes pa, Household Recycling Centre = 30,500 tonnes pa. It may therefore be more likely that the full 500k tpa potentially associated with the new waste facility would not be on top of these existing amounts.
Predicted Net Traffic effect of new Strategic Waste facility	Net increase in traffic.
Strategic Road Network Access	A435 would be used to access SRN, with most vehicles likely to travel south towards Cheltenham and then A4019/A40 to the M5. For north direction traffic would travel on A435 until the A46 near Ashchurch. Existing weight limit should discourage HGV trips through Stoke Orchard village.
Environmental and residential impacts	Vehicles would need to travel to/from east of site to avoid Stoke Orchard village, although this would still result in them having an impact on Stoke Road. South of Bishop's Cleeve this could involve significant traffic on local roads in North and West Cheltenham.
Potential Junction Impacts	Some nearby A435 junctions are forecast to have operational problems according to recently submitted Grundon TA, including A435/Voxwell Lane and A435/Southam Lane lights. May therefore need to be some investment in junction improvements. Traffic would need to use the railway bridge and whilst this is in reasonable condition at present, there may be issues in the longer term.
Sustainable Transport potential (rail/water)	The site backs on to the main Cheltenham - Birmingham line. At present there are no sidings and thus a new main line connection and loading siding would be required. The optimal location would be governed by signalling equipment and other infrastructure. The cost of installing such a mainline connection is likely to be very high, unless associated works are programmed. Liaison would be necessary with Network Rail if this was to be progressed any further, and there could be issues relating to available freight paths.
Employee Accessibility by Sustainable Modes	Site is some distance from Bishop's Cleeve, thus walk trips are unlikely. There may be some potential for cycle use although the presence of HGV's may not make this conducive to cycle use.

Conclusion

This site is identified in the WCS Site Options Consultation document as part of Site 2 Areas, A, B and C, Wingmoor Farm West, Tewkesbury Borough.