Gloucestershire Waste Core Strategy Examination

Further Written Statement

on behalf of

New Earth Solutions Group Ltd (543)

In respect of

Issue 5: Specific sites

Prepared by Brett Spiller BA BTP MRTPI MCIWM

Introduction

This further written statement has been prepared in response to the Inspectors issues and questions. Care has been taken in order to avoid repeating previous representations or core reference documents.

Introduction to New Earth Solutions Group Ltd

New Earth Solutions Group Ltd (NESG) is a waste treatment and renewable energy company, whose core business is the diversion of waste away from landfill and the recovery of value from the waste stream.

NESG design, build, finance and operate fully enclosed waste treatment and renewable energy facilities. New Earth has established a network of facilities throughout the UK. NESG has secured numerous contracts with Local Authorities to treat non-hazardous waste arising from households and commercial businesses.

NESG acquired an existing in-vessel composting facility at Sharpness Docks in Gloucestershire in February 2009. The company has invested in the facility, upgrading plant and infrastructure to improve environmental performance. The established facility is capable of treating up to 48,000 tonnes of food and green waste per annum and producing a PAS100 compost.

NESG actively participated in the preparation of the Gloucestershire Waste Core Strategy. Representations were submitted at the following stages:

- Call for sites June 2009;
- Consultation on sites November 2009;
- Site Options consultation November 2010; and
- Publication February 2011.

Brett Spiller (author of this statement)

I am a Chartered Member of the Royal Town Planning Institute and have in excess of ten years experience gained in Local Government, consultancy and the corporate sector.

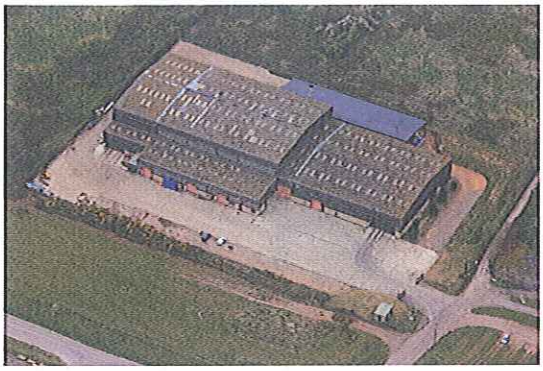
I am also a Member of the Chartered Institute of Waste Management, having attained full membership in 2009.

I submit this further written statement in my capacity as Group Planning Manager at New Earth Solutions Group Ltd.

Issue (5) Specific Sites

Question 5: Paragraph 5.17

NESG already operate a waste management facility with a throughput capacity of 48ktpa on a 1.6ha site in Sharpness. New Earth consider that the established facility is of sufficient size and scale to be converted into a residual waste treatment facility with a throughput capacity in excess of 50ktpa – thus falling within Gloucestershire County Councils definition of a strategic facility.



Aerial photograph of NESG's established Sharpness facility prior to stack extension.

Indicative site plan.

Since acquiring the Sharpness facility, NESG has consistently promoted the site through the emerging DPD – starting with the call for sites back in 2009.

It is worth noting that 8.4ha of land surrounding NESG's Sharpness facility is identified as a 'preferred site' in Policy 4 of the adopted Waste Local Plan. This combined with the established waste management use, suggests that the omission site was worthy of close inspection during the formulation of the publication document.

NESG acknowledge that the owner of much of the surrounding land – British Waterways – also made representation at the call for sites stage and indicated that the land was not available. However, this in no way diminishes the opportunity to utilise the land within NESG's control (the period of which exceeds the life of the emerging DPD).

The omission site fits with the spatial strategy within the emerging DPD, in that it is located within Zone C enjoying excellent access to the strategic road network. Whilst much of Zone C is designated as Green Belt (as recognised by the Inspector under Issue 3, Question 1, paragraph 3.1) NESG's established Sharpness facility is not. Whilst NESG recognise that proposals for new development in the Green Belt might be acceptable where very special circumstances exist, NESG would expect a very rigorous and comprehensive assessment of alternative sites – again re-affirming the need to consider all viable alternatives.

Given the apparent lack of potential deliverable alternative sites, it is extremely disappointing that GCC chose to apply an arbitrary site size threshold and dismiss the Sharpness omission site cursorily. In its representation to the publication document, NESG set out evidence demonstrating that residual treatment facilities with a throughput in excess of 50,000 tonnes per annum can be developed on sites of less than 2ha, citing the example of the proposed Incinerator in Exeter. NESG has itself commenced construction of a 100ktpa Advanced Thermal Treatment facility at Avonmouth in Bristol on an operational area of circa 1.5ha. In addition to empirical evidence, NESG has demonstrated that there is no justification in either national or regional policy guidance to support a 2ha threshold.

For the reasons outlined above, NESG question whether the emerging Waste Cores Strategy has been properly justified and in respect of specific sites, whether Gloucestershire County Council has given full and proper consideration to all reasonable alternatives.

Question 5: Paragraph 5.18

Given NESG's early engagement, it is considered that Gloucestershire County Council have had every opportunity to assess the omission site as part of the formulation of the emerging Waste Core Strategy.

I can confirm that NESG has undertaken an independent Sustainability Appraisal (as attached).

However, no separate community engagement or public consultation has been undertaken.

I would again emphasise that NESG has tried to work with Gloucestershire County Council by actively participating in the formative stages of the emerging Core Strategy DPD.

NESG: Sustainability Appraisal of the Sharpness Omissions Site

This table has been populated by NESG. The methodology and scoring assumptions follow that of Gloucestershire County Council's Sustainability Appraisal, unless otherwise stated.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
1. To promote sustainable development and sustainable communities and improve the **health and wellbeing** of people living and working in Gloucestershire as well as visitors to the County.	-?	-?	-?	-?	In accordance with the methodology and advice (pages 58-59) set out in Gloucestershire County Council's Sustainability Appraisal report. The omission site lies within 250m of sensitive receptors (residential properties). The minor negative effect uncertain (-?) score is GCC's default position for all sites within 250m of sensitive receptors reflecting the uncertainty about the type of facility that could be developed. **NESG would note however, the comments made in respect of thermal treatment facilities. It could be argued that there would be no likely effect (0) in this case.**
	0		0		
2. To **educate the public** about waste issues and to **maximise community participation** and access to waste services and facilities in Gloucestershire.	+?	+?	+?	+?	In accordance with the methodology and advice (page 60) set out in Gloucestershire County Council's Sustainability Appraisal report. The minor positive effect uncertain (+?) score is GCC's default for all sites reflecting the potential to include an education centre within any development.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
3. To safeguard the **amenity of local communities** from the adverse impacts of waste development.	-?	-?	0	0	In accordance with the methodology and advice (pages 60-62) set out in Gloucestershire County Council's Sustainability Appraisal report. The omission site lies within 250m of sensitive receptors (residential properties). The minor negative effect likely (-) score is GCC's default position for all sites within 250m of sensitive receptors reflecting the uncertainty about the type of facility that could be developed. **NESG note however, the particular circumstances of the omission site. It is already an established waste management facility capable of treating 48ktpa. The omission site also lies adjacent to the established Sharpness Docks - a major transport hub enjoying excellent access to the principal highway network. In taking these two points into consideration NESG consider that in the case of a medium facility there would be no likely effect (0) and in this case of a large facility a minor negative effect uncertain (-?) might be more appropriate.**

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
4. To promote **sustainable economic development** in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	±	±	±	±	In accordance with the methodology and advice (page 62) set out in Gloucestershire County Council's Sustainability Appraisal report. The minor positive effect uncertain (+?) score is GCC's default for all sites within 250m of an industrial estate or co-located with other waste management activities. The uncertainty reflects the fact that the plan is technology agnostic and the potential interaction between different types of facility and neighbouring uses. **NESG note however, the particular circumstances of the omission site. The omission site lies adjacent to the established Sharpness Docks - a major transport hub enjoying excellent access to the principal highway network. It accommodates a variety of industrial and waste related uses. Thus in this particular instance, the potential interaction between the omission site and its neighbours offers greater certainty, almost regardless of technology. Taking this into consideration NESG consider that the score should be minor positive effect likely (+).**

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
5. To manage waste in an **economically sustainable** way through means that represent good value for tax payers in Gloucestershire.	0	0	0	0	In accordance with the methodology and advice (pages 62-63) set out in Gloucestershire County Council's Sustainability Appraisal report. The no likely effect (0) score is GCC's default for all sites.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
6. To provide **employment opportunities** in both rural and urban areas of the County, promoting diversification in the economy.	+?	+?	+?	+?	In accordance with the methodology and advice (page 63) set out in Gloucestershire County Council's Sustainability Appraisal report. GCC's scoring covers a range based on assessment of the accessibility of a site by sustainable transport by GCC Highways section. **NESG note, the particular circumstances of the omission site. The omission site lies adjacent to the established Sharpness Docks. Such co-location and the proximity of clusters of residential properties, and the proximity of the settlements of Sharpness and Berkeley suggest that a minor positive effect uncertain (-?) is appropriate.**
7. To ensure that waste sites do not compromise the **safety of commercial or military aerodromes**.	0	0	0	0	In accordance with the methodology and advice (page 64) set out in Gloucestershire County Council's Sustainability Appraisal report. The omission site is not within an aerodrome safeguarding area. The no effect likely (0) score is GCC's default position for all sites outwith an aerodrome safeguarding area.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
8. To protect, conserve and enhance **biodiversity** in Gloucestershire.	-?	-?	-?	-?	In accordance with the methodology and advice (pages 65) set out in Gloucestershire County Council's Sustainability Appraisal report. The omission site lies within 500m of an international / national nature conservation site – The R. Severn SSSI/SPA/SAC. The minor negative effect likely (-) score is GCC's default position for all sites within 500m of international / national / local nature conservation sites. **NESG note however, the particular circumstances of the omission site. It is already an established waste management facility capable of treating 48ktpa. NESG consider that a minor negative effect uncertain (-?) score might be more appropriate.**

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
9. To protect, conserve and enhance the **landscape** in Gloucestershire.	0	0	+?	+?	In accordance with the methodology and advice (pages 66-67) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site is beyond 1km from and AONB and / or a locally designated area of high landscape value. It is also situated adjacent to the established port at Sharpness containing a variety of tall buildings and structures. RPS Consultants prepared a Landscape and Visual Impact Assessment on behalf of New Earth Solutions, to support a planning application for a 28m high bio-filter stack (subsequently granted on 10/02/2011, ref: 10/0115/STMAJW). The LVIA demonstrated that the landscape this is capable of accommodating new development. For contextual information only, a copy of the LVIA is attached as annex 1. No effect likely (0) score is GCC's default position for all sites exhibiting these attributes. **NESG note however, the particular circumstances of the omission site. It is already an established waste management facility capable of treating 48ktpa and has a biofilter stack some 28m in height. Based on NESG's experience elsewhere a stack of circa 28m would be appropriate for**

					a medium facility employing advanced thermal treatment technology (i.e. not incineration). Given this it is considered that a medium facility might offer the potential for design enhancements and should be scored minor positive effect uncertain (+?). Such an approach would appear to be supported by the GCC's own advice.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
10. To ensure that waste sites have the potential for adequate **screening and / or innovative design** to be incorporated.	-	-	+?	+?	In accordance with the methodology and advice (pages 67-68) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission sites location near to the Severn Estuary means that any facility (or parts thereof) could be visible from a wide area (particularly views from the sea to the shoreline). Minor negative effect likely (-) score is GCC's default for sites that would be partially prominent within the landscape. **NESG note however, the particular circumstances of the omission site. It is already an established waste management facility capable of treating 48ktpa and has a biofilter stack some 28m in height. Based on NESG's experience elsewhere a stack of circa 28m would be appropriate for a medium facility employing advanced thermal treatment technology (i.e. not incineration). Given this it is considered that a medium facility might offer the potential for design enhancements and should be scored minor positive effect uncertain (+?). Such an approach would appear to be supported by the GCC's own advice.**

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
11. To protect conserve and enhance Gloucestershire's **material, cultural and recreational assets.**	-	-	0	0	In accordance with the methodology and advice (pages 67-68) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site lies within 250m of a leisure and recreational facility. Minor negative effect likely (-) score is GCC's default for sites that lie within 250m. **NESG note however, the particular circumstances of the omission site. It is already an established waste management facility capable of treating 48ktpa. With this in mind, no effects are considered likely for a medium facility.**
12. To protect conserve and enhance **geodiversity** in Gloucestershire.	0	0	0	0	In accordance with the methodology and advice (page 69) set out in Gloucestershire County Council's Sustainability Appraisal report. NESG is not aware of any geological or geomorphological sites (designated SSSI or RIGGs) within 500m of the Sharpness omission site[1]. No effect likely (0) score is GCC's default position for all sites beyond 500m of a designated geological SSSI or RIGG.

[1] **Pending confirmation.**

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
13. To protect conserve and enhance **townscapes** and Gloucestershire's **architectural and archaeological heritage.**	0	0	0	0	In accordance with the methodology and advice (pages 70-71) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site is beyond 250m of any Historic Park or Garden or Registered Battlefield, beyond 100m of a SAM or Listed Building, 100m of a Conservation Area. The site is also is active use and is not known to contain any historical or archaeologically significant remains. No effect likely (0) score is GCC's default position for all sites exhibiting these attributes.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
14. To prevent **flooding**, in particular preventing inappropriate development in the floodplain and to ensure that waste development does not compromise sustainable sources of water supply.	++	++	++	++	In accordance with the methodology and advice (page 70) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site is entirely within flood zone 1. Significant positive effect likely (++) score is GCC's default position for all sites exhibiting this attribute.
15. To **prevent pollution** and to apply the precautionary principle in consultation with waste regulation authorities.	N/A	N/A	N/A	N/A	In accordance with the methodology and advice (pages 70-71) set out in Gloucestershire County Council's Sustainability Appraisal report, this is a matter for Environmental Permitting.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
16. To protect and enhance **soil / land quality** in Gloucestershire.	+	+	+	+	In accordance with the methodology and advice (pages 72-73) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site is a previously developed brownfield site of less than 5ha. Minor positive effect likely (+) score is GCC's default position for all sites exhibiting these attributes.
17. To protect and enhance **air quality** in Gloucestershire.	++	++	++	++	In accordance with the methodology and advice (pages 73-74) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site enjoys excellent access to the strategic highway network, specifically the A38 and M5 corridors. The omission site is beyond 1km of a AQMA. Significant positive effect likely (++) score is GCC's default position for all sites exhibiting these attributes.
18. To protect and enhance **water quality** in Gloucestershire.	0	0	0	0	In accordance with the methodology and advice (pages 75-76) set out in Gloucestershire County Council's Sustainability Appraisal report. No effect likely (0) score is GCC's default position for all sites as modern fully enclosed facilities are expected.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
19. To reduce the **adverse impacts of lorry traffic** on the environment and communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport e.g. by rail or water c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	++	++	++	++	In accordance with the methodology and advice (pages 76-77) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission enjoys excellent access to the strategic road network, specifically the A38 and M5 corridors. It also lies immediately adjacent to Sharpness Docks which offers potential for transportation by water, either inland via the Gloucester-Sharpness canal or offshore via the Severn Estuary. Significant positive effect likely (++) score is GCC's default for sites exhibiting such attributes.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
20. To **reduce waste to landfill** and in dealing with all waste streams to actively **promote the waste hierarchy** (i.e. Prevent, Reduce, Reuse, Recycle, Recover, Dispose) to achieve the sustainable management	±	±	±	±	In accordance with the methodology and advice (page 77) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site would be likely to assist in pushing waste further up the hierarchy. Minor positive effect likely (+) score is GCC's default for all sites.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
21. To reduce the global **use of primary materials** and minimise net energy balance requirements.	+	+	+	+	In accordance with the methodology and advice (page 77-78) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site would be likely to assist in pushing waste further up the hierarchy, reducing the need for primary materials. Minor positive effect likely (+) score is GCC's default for all sites.

SA Objective	Large Facility (Thermal Treatment)	Large Facility (not Thermal Treatment)	Medium Facility (Thermal Treatment)	Medium Facility (not Thermal Treatment)	Justification
22. To reduce contributions to and to **adapt to Climate Change**.	++?	++?	++?	++?	In accordance with the methodology and advice (page 78-79) set out in Gloucestershire County Council's Sustainability Appraisal report. The Sharpness omission site lies adjacent to Sharpness Docks, the port and adjacent industrial premises. This presents the opportunity for CHP. Significant positive effect uncertain (++?) score is GCC's default for all sites adjacent to industrial estates.

ANNEX 1: Landscape and Visual Impact Assessment prepared on behalf of New Earth Solutions in support of a planning application for a 28m high bio-filter stack at the Sharpness omission site (subsequently granted on 10/02/2011, ref:10/0115/STMAJW).

IVC SHARPNESS
REPLACEMENT BIO-FILTER
VENTILATION STACK

OUTLINE VISUAL IMPACT ASSESSMENT

November 2010

Our Ref: JSL1800

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QUALITY MANAGEMENT

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Date:	November 2010
Project Number/Document Reference:	JSL1800/KR/November 2010 Sharpness Outline Visual Impact Assessment Rev B

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FIGURES:

EXECUTIVE SUMMARY

RPS have been instructed by New Earth Solutions to carry out an outline visual impact assessment of the proposed replacement bio-filter ventilation stack (hereinafter referred to as the ventilation stack) for the IVC facility at Sharpness.

This study comprises a desktop and site visual assessment of the proposal based on the recognised methodology and guidance for visual assessment contained in the Guidelines for Landscape and Visual Assessment (GLVIA) published by the Institute of Environmental Management and Assessment and the Landscape Institute in 2002. The methodology used for the study is included in Appendix A to this report.

The site survey for the visual assessment was carried out in November 2010 by a Chartered Member of the Landscape Institute with over 15 years relevant experience in the visual assessment of infrastructure and development proposals.

The existing IVC facility is located in the industrial area on the western edge of Sharpness Dock. In the docks there are a wide range of disparate buildings in terms of age, height, colour and materials.

The existing site buildings are relatively modern industrial sheds. The tallest building is approximately 15m above ground level at its eaves and 16m at the highest point of the ridge of the roof. The ground level is at approximately 11.250m AOD. They are constructed in profiled dark coloured metal cladding. The release height of the existing ventilation stack is currently 18m It extends 8m above the roofline of the emissions abatement building (2m above the ridge line of the adjacent main processing hall, the tallest building on site). It is constructed in metal and has a shiny silver finish which catches the light on a sunny day.

The areas of existing vegetation in the immediate vicinity of the site buildings are very effective in both providing a vegetated backdrop and screening in views from the north, north east and south west.

The site is more open to views from the elevated topography immediately to the east, from Newtown and west from Lydney.

The visibility of the existing and of the proposed ventilation stack will be affected by weather and light conditions. It would be at its most visible on a clear sunny winter day when screening deciduous vegetation has lost its leaves.

The short existing ventilation stack is identifiable in local views due to the nature of the silver coloured metal it has been constructed from, which reflects in sun light.

The proposed replacement ventilation stack would be a similar diameter (2m) to the existing ventilation stack. Its release height at 28m would be 10m taller than the existing ventilation stack. The narrow width of the ventilation stack (2m) would ensure it was barely discernable in middle to long distant views.

The most effective visual mitigation for the new ventilation stack would be to ensure it is constructed with a matt grey finish. Shiny silver finishes and white painted or light colours should be avoided. As a consequence of the findings of this survey the finish proposed for the ventilation stack is carbon steel with a matt grey finish.

The survey found the proposed replacement ventilation stack would not be visible from the Wye Valley AONB (to the west) but could be perceptible from the western edge and scarp of the Cotswold Hills AONB (to the east) if it were constructed in a white/light coloured material or a shiny silver coloured metal.

The survey found the only receptor location where there was some potential for a Moderate/Minor adverse visual effects was from the elevated residential properties and the Severn Way on Oldminster Road, Newtown.

With the proposed mitigation the residual visual effect for all the receptors studied would become minor to negligible at worst. The overall visual effect of the proposal would not therefore be significant.

In conclusion, if the replacement ventilation stack is constructed in a similar shiny metal material to the existing it could be perceived to have some Moderate/Minor adverse effects in views from some of the residential properties and the Severn Way on Oldminster Road. It would also be more easily perceived in local and middle to longer distance views. With the proposed mitigation of a matt grey finish, the ventilation stack would be far less obvious in the wider context and there would be no significant visual effects from this proposal

1 INTRODUCTION

1.1 RPS have been instructed by New Earth Solutions to carry out an outline visual impact assessment of the proposed replacement ventilation for the IVC facility at Sharpness.

1.2 The proposal to be assessed, which will be the subject of a Planning Application to Gloucestershire County Council, comprises the removal of the existing ventilation stack - the top of which is 18m above ground level and the provision of a similar but taller replacement ventilation stack the top of which would be 28m above the ground level.

1.3 This study comprises a desktop and site visual assessment of the proposal based on the recognised methodology and guidance for visual assessment contained in the Guidelines for Landscape and Visual Assessment (GLVIA) published by the Institute of Environmental Management and Assessment and the Landscape Institute in 2002. The methodology used for the study is included in Appendix A to this report.

1.4 The site survey for the visual assessment was carried out in November 2010 by a Chartered Member of the Landscape Institute with over 15 years relevant experience in the visual assessment of infrastructure and development proposals.

2 DESCRIPTION OF THE SITE CONTEXT

Wider Area

Refer to Figure 1

2.1 The site lies in Sharpness Dock on the edge of the River Severn within the Severn and Avon Vales National Landscape Character Area 106 (ref: Countryside Agency and Scottish Natural Heritage 2002). This part of the River Severn estuary is overlooked and framed by the Forest of Dean and Lower Wye Valley to the north and west and the scarp slopes of the Cotswold Hills to the east. Further down the estuary to the south west lie the two River Severn Bridge crossings which are a visual feature of the wider area. The bridges carry the major arterial transport corridor of the M4 between Bristol and Wales. The M5 corridor runs to the east of the River Severn between Bristol and Gloucester.

2.2 Sharpness Dock is located on the south side of the River Severn estuary in Gloucestershire.

2.3 At their nearest points the Cotswolds Area of Outstanding Natural Beauty (AONB) lies 7km from Sharpness Dock to the east and the Wye Valley AONB lies 10km to the west.

2.4 Between Bristol to the south west and Gloucester to the north east, a chain of industrial developments (Avonmouth, Oldbury and Berkeley power stations and Sharpness Dock) are located on the southern edge of the River Severn estuary set within a rural hinterland with farms, small scale villages and hamlets and the market towns of Thornbury and Berkeley.

2.5 The Severn Way public footpath runs along the southern bank of the River Severn and is an important route in the area which provides opportunities for public access and recreation and the opportunity to enjoy the wide open views of the estuary and its landscape and land use context.

The Local Area

2.6 The existing IVC facility is located in the industrial area on the western edge of Sharpness Dock. In the docks there are a wide range of disparate buildings in terms of age, height, colour and materials.

2.7 Some interesting and historic buildings can be found such as the terraced dock workers cottages and the Victorian brick built and slate roofed wharf side warehouse building. These are interspersed with tall concrete and brick towers, old metal warehouses and more modern warehouse buildings. (Refer to Figure 4, photograph 1).

2.8 Some of the modern warehouses to the south of the docks are large in scale, these however are green coloured and therefore despite their scale, they are recessive in middle distance views. The most noticeable buildings in the local and middle distance views are the two tall concrete/brick towers and the more modern white painted metal silos (refer to photograph 1).

2.9 The existing facility is well integrated in its setting. The ridge line of the tallest part of the building is around 16m high and the building is dark in colour.

2.10 The building is set in an area of mounded grassland with fringes of vegetation including tree screens to the south and west and a woodland copse to the north. These successfully visually separate the IVC building from the older terrace of works cottages to the south of the site and the old original canal entrance to the north.

Description of the Existing Buildings and Ventilation Stack

2.11 The existing buildings are relatively modern industrial sheds. The tallest building is approximately 15m above ground level at its eaves and 16m at the highest point of the ridge of the roof. The ground level is at approximately 11.250m AOD. They are constructed in profiled dark coloured metal cladding. The release height of the existing bio-filter ventilation stack is 18m.. It extends 8m above the roofline of the emissions abatement building (2m above the ridge line of the adjacent main processing hall – the tallest building on site). It is constructed in metal and has a shiny silver finish which catches the light on a sunny day.

The proposal for the New Ventilation Stack

2.12 The proposed new bio-filter ventilation stack would be constructed in the same location as the existing bio-filter ventilation stack it is to replace. It would be 2m wide narrowing to 1.5m at the top. It would be constructed in 6mm thick carbon steel with a matt grey finish. The release height of the proposed new bio-filter ventilation stack would be at 28m high and it would extend 18m above the roofline of the emissions abatement building (12m above the ridge line of the adjacent main processing hall – the tallest building on site).

3 VISUAL ASSESSMENT OF THE PROPOSAL

3.1 The visual site survey was carried out on the 10 November 2010 in clear sunny conditions. The photographic survey was undertaken over the 22 October, 10 November and 17 November 2010.

3.2 The assessment was carried out in accordance with the Guidelines for the Landscape and Visual Assessment (GLVIA) 2002. The methodology for the assessment is included in Appendix A to this report.

Visibility of the Existing Building and Ventilation Stack

3.3 The areas of existing vegetation in the immediate vicinity of the buildings (as described in paragraph 2.10 above), are very effective in both providing a vegetated backdrop and screening to the existing buildings in views from the north, north east and south west. (Refer to Figure 4, photographs 8, 10, 11 and 13).

3.4 The site is more open to views from the elevated topography immediately to the east, from Newtown. From Newtown the site is seen through an area of intervening vegetation and in the context of the larger dock buildings which are in the foreground of the views (refer to photographs 5, 6a, 6b and 7).

3.5 The dark colours of the existing buildings help to integrate them in their context. From local and middle distance view points to the east and west they are recessive in the views.

3.6 Due to its very limited size and height the existing ventilation stack is not evident in middle and longer distance views. In most part it is screened by buildings and the local vegetation. The top 2m can be seen in the more local elevated views to the east and west of the site. (Refer to Figure 4, photographs 6a, 6b and 12).

3.7 The visibility of the existing and of the proposed ventilation stack will be affected by weather and light conditions. It would be at its most visible on a clear sunny winter day when screening deciduous vegetation has lost its leaves.

3.8 The short existing ventilation stack is identifiable in local views due to the nature of the silver colour metal it has been constructed from, which reflects in sun light.

3.9 The proposed replacement ventilation stack would be a similar diameter (2m) to the existing ventilation stack. Its release height would be 10m taller (approximately equivalent to the height of a standard house with a ground floor, first floor and pitched roof). With a release height of 28m, the ventilation stack would still be considerably shorter than the tallest of the nearby concrete towers which is approximately 60m tall, with a second tower in the near vicinity around 47m high. The narrow width of the ventilation stack (2m) would ensure it was barely discernable in middle to long distant views.

Mitigation

3.10 The most effective visual mitigation for the new ventilation stack would be to ensure it is constructed with a matt grey finish. Shiny silver finishes and white painted or light colours should be avoided.

3.11 Where visible in local views (up to 1km) the ventilation stack would be seen against both the sky and the land, depending on the elevation of the viewpoint. In middle to longer distance views to the east and west the ventilation stack would be seen from more elevated ground and would be set against a backdrop of landscape.

3.12 In local views from the north east and south west along the Severn estuary - when visible, the ventilation stack would be set against the sky. A matt recessive colour would ensure the ventilation stack is insignificant from these viewpoints as it would be seen in the context of the taller existing dock buildings and panoramic estuary views.

Visual Assessment of the Proposed Replacement Ventilation Stack

3.13 The detailed visual assessment survey sheets are included in Appendix B to this report.

3.14 The survey found the proposed replacement ventilation stack would not be visible from the Wye Valley AONB (to the west) but could be perceptible from the western edge and scarp of the Cotswold Hills AONB (to the east) if it were constructed in a white/light coloured material or a shiny silver coloured metal. (Refer to Figure 4 Photograph 9).

3.15 Modelling of the Zone of Theoretical Visibility (ZTV) has been undertaken and is shown on Figure 2. The ZTV indicates the areas from which the existing and proposed replacement ventilation stack may be visible. It can be seen from Figure 2 that the existing 18m ventilation stack is relatively well contained in the views especially to the north and east, by existing vegetation, buildings and topography. The proposed 28m tall replacement ventilation stack would however appear above the existing local tree canopies and therefore it would potentially be more widely seen.

3.16 If constructed in a similar material to the existing ventilation stack the narrow form of the proposed ventilation stack would mean that in middle to long distant views it would be just discernable as a minor new element in a wider view.

3.17 With the proposed mitigation it would become barely discernable in middle to longer distance views.

3.18 Visual effects that are Moderate adverse (or beneficial) or above are considered to be significant.

3.19 The survey found the only receptor location where there was some potential for a Moderate/Minor adverse visual effect was from the elevated residential properties and the Severn Way on Oldminster Road, Newtown. Not all of these properties have views of the site due to the intervening vegetation and existing dock buildings. Those that do overlook the top of the roof and the existing ventilation stack would see the taller replacement ventilation stack, which if constructed in a similar finish to the existing, would glint, thus drawing attention to it and making it evident in the view.

3.20 With the proposed mitigation the residual visual effect for all the receptors studied would become minor to negligible at worst. The overall visual effect of the proposal would not therefore be significant.

3.21 In conclusion, if the replacement ventilation stack is constructed in a similar shiny metal material to the existing, it could be perceived to have Moderate/Minor adverse effects in views from some of the residential properties and the Severn Way on Oldminster Road. It would also be more easily perceived in local and middle to longer distance views. With the proposed mitigation of a matt grey finish there would be no significant visual effects from this proposal.

APPENDICES

APPENDIX A: ASSESSMENT METHODOLOGY

1.1 **Introduction**

1.1.1 The term landscape commonly refers to the view or appearance of the land. However, the landscape is a combination of both cultural and physical characteristics or components, which give rise to patterns that are distinctive to particular localities and help to define a 'sense of place'. The landscape is not therefore simply a visual phenomenon but relies upon other influences including topography, land use and management, ecology and historical and cultural associations.

1.1.2 This Visual Assessment provides a description and evaluation of the landscape context surrounding the site and identifies the key areas of visual receptors within the study area. This baseline assessment will then be used to assess the predicted visual effects arising from the proposed replacement ventilation stack. The impact assessment identifies the permanent visual effects together with the mitigation measures proposed, in order to avoid or reduce potential adverse visual impacts.

1.1.3 The main guidance for landscape and visual assessment is provided in the "Guidelines for Landscape & Visual Impact Assessment" (GLVIA) (published by the Institute of Environmental Management and Assessment and The Landscape Institute) (2002) and Landscape Character Assessment Guidance for England and Scotland published by the Countryside Agency and Scottish Natural Heritage (2002).

Baseline Methodology

1.1.4 The assessment established the visual baseline on and surrounding the site through desktop studies and site survey.

1.1.5 The site survey was undertaken in October and November 2010 identifying existing landform, significant vegetation, landscape character and the identification of visual receptors within the study area. A photographic survey was undertaken from selected viewpoints. No significant views were identified from the Wye Valley AONB to the west due to the intervening topography and woodland vegetation around the Forest of Dean. The AONB is situated some 10km away at its nearest point. Views from the nearest elevated scarp in the Cotswolds AONB some 7km from the site to the east have been assessed.

Visual Analysis

1.1.6 The LI/IEMA publication 'Guidelines for Landscape and Visual Impact Assessment' (2002, Part 6 and Appendix 7) notes that either manual or computer generated techniques may be used to help delineate the Zone of Theoretical Visibility (ZTV) that the tallest elements of existing and proposed buildings may have upon surrounding receptors. The ZTV can be defined as the area from which all or part of the buildings may be visible.

1.1.7 Areas of significant woodland that act as a visual screen are included within the ZTV mapping in addition to contour information and major areas of development; an assumed height of 15m was adopted for all significant woodland and 9m for built development. However, the localised effect of other screening vegetation (i.e. hedgerows), small scale built development, weather conditions

or distance effects would help to limit views. As such, the actual ZTV for both the existing situation and proposed development would be less than that indicated by the broad mapped extent.

1.1.8 The ZTV was defined through desktop and field verification studies. This found that the visual impact of the proposed re-development could be considered in three broad categories. Local views have been defined as those from vantage points located within 2km from the site. Middle-distance viewpoints are those that fall between 2km and 5km from the site, middle to long distance views fall between 5km and 10km. No distant views (over 10km) have been considered, as part of this assessment as development would be scarcely appreciated at this distance and would have at most a negligible effect on the scene. The site survey found the majority of potential views of the ventilation stack are within 10km of the site.

1.1.9 Groups of visual receptors with views of the existing development have been identified and the nature of the existing view described in the Visual Assessment Schedules.

1.1.10 The sensitivity of visual receptors is dependent upon the location and context of the viewpoint, whether continuous, fragmented, or intermittent (i.e. the dynamic nature of a view gained while travelling through an area), the importance of views, and the occupation and activity of the visual receptor. Influences such as the number of receptors affected, popularity of views and the significance of the views in relation to valued landscapes or features determine the importance of views.

- **Higher sensitivity receptors:** includes viewers within residential properties (which are grouped together in settlement clusters) and Public Rights of Way users.
- **Medium sensitivity receptors:** may include people engaged in sports / formal outdoor recreation; dynamic views gained by the travelling population through or past the landscape.
- **Low sensitivity receptors**: includes people at their place of work, whose attention may be focussed on their work or activity and may be therefore less susceptible to changes in view.

1.1.11 The field assessment of the visual effects was undertaken from locations that have public access and concentrated of views from higher sensitivity receptors.

Impact Methodology

1.1.12 The second stage of the assessment process identifies the visual effects associated with the proposed redevelopment.

1.1.13 For the purpose of this study only the permanent effects are assessed ie. temporary effects (often associated with the construction phases of the re-development) have not been assessed.

1.1.14 Mitigation measures to improve the view of the development and reduce adverse effects are also considered where appropriate.

1.1.15 The scale of the existing site and the proposed change, both beneficial and adverse, is assessed as set out in Table 1.

Table 1: Scale

Criteria	Definition
Major	The existing site and the proposed changes form a dominant or immediately apparent feature within views that would significantly affect and change the overall character of the view.
Moderate	The existing site and the proposal may form a visual and recognisable new element that would affect and change the overall character or view.
Minor	The existing site and the proposals constitute only a minor component of wider views, which might be missed by the casual observer or receptor. Awareness of the proposals would not have a marked effect on the overall character or view.
Negligible	Only a very small part of the existing site or the proposals would be discernible and / or they are at such a distance that they would be scarcely appreciated. Consequently they would have very little effect on the character or view.
Neutral	No part of the site or the proposals, or work activity associated with it, would affect the existing character or be discernible in views.

Source: Modification of criteria contained in the *Guidelines for Landscape and Visual Impact Assessment* (2002)

Visual Effects

1.1.16 The visual effects are considered for the worst-case scenario on a winter's day when local deciduous vegetation has lost its leaves. The visual impact is considered in relation to the changing effects of proposed development with and without any proposed mitigation.

1.1.17 The assessment of the significance of visual impacts considers the sensitivity of visual receptors to the proposed change and the magnitude of the visual impact of the re-development. The assessment of magnitude is based upon consideration of the nature and scale of the change in view, its duration and the distance of the visual receptors concerned. The definitions in Table 2 are used to determine the significance of the visual impacts of the proposed re-development.

Table 2: Visual Impact Significance Criteria

Effect	Magnitude
Severe adverse	Where the proposed changes would form the dominant feature to which other elements become subordinate, markedly affecting and substantially changing the overall character of the scene in valued views.
Major adverse	Where the proposed changes would form a major and immediately apparent part of the scene that affects and changes its overall character.
Moderate adverse	Where the proposed changes to views would form a visible and recognisable new element within the scene and may be readily noticed by the viewer.
Minor adverse	Where the proposed changes to the views would be a minor component of the wider view and may be missed by the casual observer.
Negligible	Where the proposed change would be imperceptible or would be in keeping with and would maintain the existing views. The balance of the proposals with proposed mitigation would maintain the quality of the views.
No change	Where none of the proposed changes would be discernible.
Minor beneficial	Where the proposed change to the existing view would not only be in keeping with, but would slightly improve the quality of the existing view.
Moderate beneficial	Where the proposed changes to the existing views would be in keeping with, and woul d improve, the quality of the existing view.
Major beneficial	Where the proposed changes to the existing views would be in keeping with, and would greatly improve the quality of the scene through the removal of visually distracting features.

Source: Modification of criteria contained in the Guidelines for Landscape and Visual Impact Assessment (2002)

1.1.18 For the purposes of the assessment, impacts assessed as being either moderately adverse or beneficial or above are considered to be significant in terms of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Although minor adverse or beneficial impacts are not considered significant, they remain worthy of consideration throughout the decision making process and are therefore also noted.

APPENDIX B – VISUAL ASSESSMENT SCHEDULES

APPENDIX B – VISUAL ASSESSMENT SCHEDULES: IVC SHARPNESS

Key

Scale: Major – dominant and immediately apparent
Moderate – visual and recognisable evident
Minor – only a minor component of the view
Negligible – only very small part discernable – scarcely appreciated
Neutral – no part discernable

Length of View: Local – less than 2km Middle. – between 2km and 5km Middle to Long – 5km to 10km Distant – over 10km

Notes:

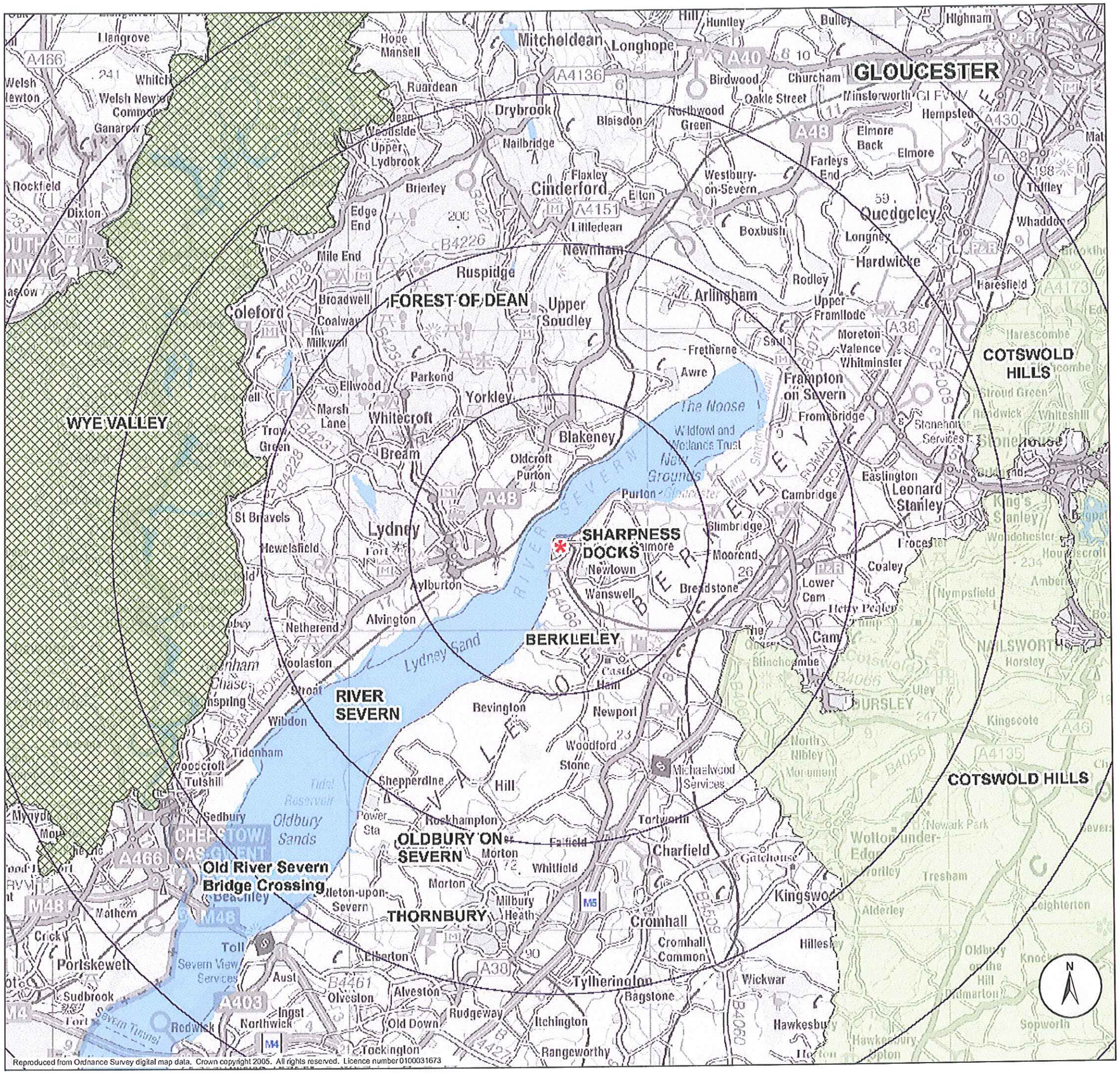
- Survey undertaken on 10 November 2010
- Weather conditions during visual assessment: Clear, sunny day

Visual Receptor				Visual Impacts					
Ref. No.	**Visual Receptor**	**Sensitivity of Visual Receptor**	**Approx Distance (km)**	**Description of Existing View of Change in View resulting from the Proposals**	**Scale of Change in View**	**Duration of Change in view**	**Visual Effect**	**Mitigation**	**Residual Visual Effect**
1	Fratherne Severn Way and few houses (3) on southern edge of village	High. Residential and Severn Way	9km Middle to Long	Wide panorama south west over Severn Estuary. Rural foreground and river. Purton and Sharpness Dock frame river to left. Existing site screened behind woody copse. The taller ventilation stack would be taller than the copse but is so narrow it would be barely perceptible.	Negligible	Permanent	Negligible	-	Neglgible
2	Clingre Down & Stinchcombe	High. Residential Villages and Footpaths. Edge of AONB	7km Middle to Long	Elevated panoramic views to the west over the River Severn from the scarp of the Cotswold Hills and the edge of the AONB. The taller wharf side buildings and white metal silos tanks can be seen at Sharpness. The top of the new ventilation stack would be just discernable as a very minor addition in this wide view if it were constructed in white coloured or shiny metal. With mitigation – if matt grey it would be barely visible.	Negligible	Permanent	Minor Adverse/ Negligible	Ensure new ventilation stack is matt and grey coloured finish	Negligible/ No Change

Visual Receptor				Visual Impacts					
Ref. No.	Visual Receptor	Sensitivity of Visual Receptor	Approx Distance (km)	Description of Existing View of Change in View resulting from the Proposals	Scale of Change in View	Duration of Change in view	Visual Effect	Mitigation	Residual Visual Effect
3	Edge of Berkeley	High. Residential and Farms	3km Middle	Fragmented views NW of large green industrial sheds and taller concrete wharf buildings over rural hill sloping to estuary – existing site not obvious in view. The new taller ventilation stack would add an additional small component in the view seen in the context of the other dock buildings.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Negligible
4	Oldminster Road, Newtown. Terraced Houses and Severn Way Footpath	High. Residential, Severn Way and Farms	0.3km Local	Elevated terraced houses and farms plus Severn Way with fragmented views over intervening vegetation to roof top and glinting metal ventilation stack of existing building in context of tall dock buildings intervening in view. New taller ventilation stack will be more visible especially from first floor windows. However, if constructed with proposed mitigation, it would only appear as a minor component in the wider view.	Minor	Permanent	Moderate/ Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Minor Adverse/ Negligible
5	Sharpness Dock Dock Road Cottages	High. Residential Terrace in dock	0.1km Local	Terrace of dock workers cottages in lea of earthworks and woodland belt along track at rear of cottages. No clear views of existing site. Possible glimpse of top of new ventilation stack from upper windows to rear of properties.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Negligible
6	Sharpness Picnic Area and Terraced Cottages	High. Recreation Area and Residential Terrace		View across dock entrance to portacabins and dock workers terraced cottages behind. Existing building well screened by mound and vegetation only just perceptible behind trees. New ventilation stack would appear above existing treeline and would be seen as a minor addition in context of dock buildings in the foreground.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Negligible
7	Blackhall and Ham	High/medium. Cottages and Farms/Lane	4km Middle	Sharpness in middle distance. Can just see glint of top of existing ventilation stack in treeline. New taller ventilation stack would be a little more evident but using a non reflective material would ensure it was a minor element in the wider view seen in the context of other larger dock towers.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Negligible

Visual Receptor				Visual Impacts					
Ref. No.	Visual Receptor	Sensitivity of Visual Receptor	Approx Distance (km)	Description of Existing View of Change in View resulting from the Proposals	Scale of Change in View	Duration of Change in view	Visual Effect	Mitigation	Residual Visual Effect
8	Hill	High. Residential and Farms	6km Middle to Long	No obvious views. Rural landscape with good vegetation and hedgerow screening. Some views of Berkeley and Oldbury power stations can be seen.	N/A	-	No Change	-	No Change
9	Oldbury - Severn Way	High. Regional Recreation Trail	7 to 9km Middle to Long	No view of existing building. Screened behind topography and vegetation. Proposed taller ventilation stack may appear just above existing vegetation.	Negligible	Permanent	Negligible	Ensure new ventilation stack is matt and grey coloured finish	Negligible
10	Lydney Harbour Farms and Footpaths	High. Residential farms and Footpaths	1.5km Local	The existing site can clearly be seen to the east from the edge of the Severn Estuary at Lidney Harbour. The new ventilation stack could just break the skyline. It would, however, be a minor additional element seen in the wider view in the context of Sharpness Dock.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Minor Adverse/ Negligible
11	Purton/Etloe/ Gatcombe	High/Medium Residential, Farms, Footpaths, Railway	3km Middle	The existing site is screened by woodland copse. The new ventilation stack would just appear above the trees.	Minor	Permanent	Minor Adverse	Ensure new ventilation stack is matt and grey coloured finish	Negligible

FIGURES

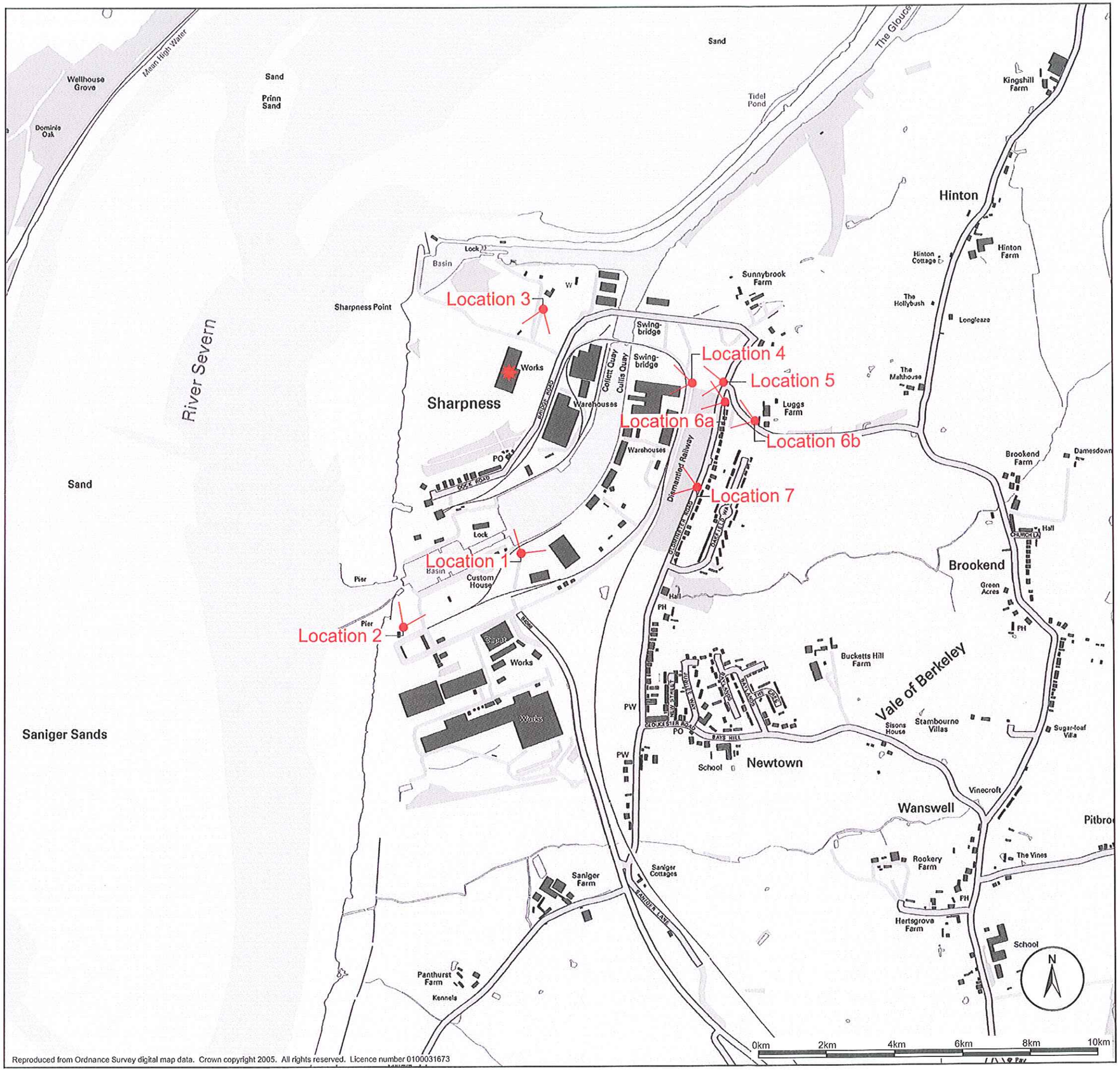


KEY

- * Site Location
- AONB Wales
- AONB

Sharpness
Wider Site Context

Figure 1



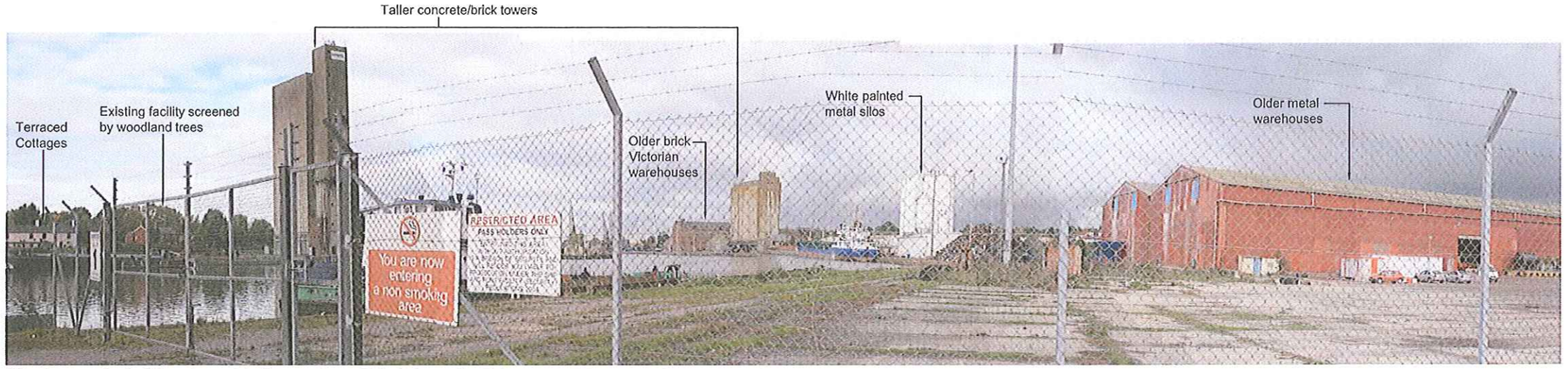
Key:

- Site Location
- Photograph Location Points

Refer to Figure 4 for photographs

Sharpness
Photograph Viewpoint Plan

Figure 3



Photograph 1. View from southern edge of Sharpness Dock

Photograph 2. View from Sharpness Dock picnic area looking north. The site is currently screened by intervening buildings and vegetation

Photograph 3. View from car park in Sharpness Dock

Photograph 4. View from Dock road south looking north

Sharpness
Photograph sheet

Figure 4 (Sheet 1 of 9)

Photograph 5. Looking west from Oldminster Road, Newtown and the Severn Way

Sharpness
Photograph sheet

Figure 4 (Sheet 2 of 9)

Photograph 6a. View from Newtown at northern end of elevated terraced houses on Oldminster Road. Vent is set against landscape backdrop.

Sharpness
Photograph sheet

Figure 4 (Sheet 3 of 9)

Photograph 6b. View from Luggs Farm Newtown . The existing Boi-filter Ventilation stack is set against landscape backdrop.

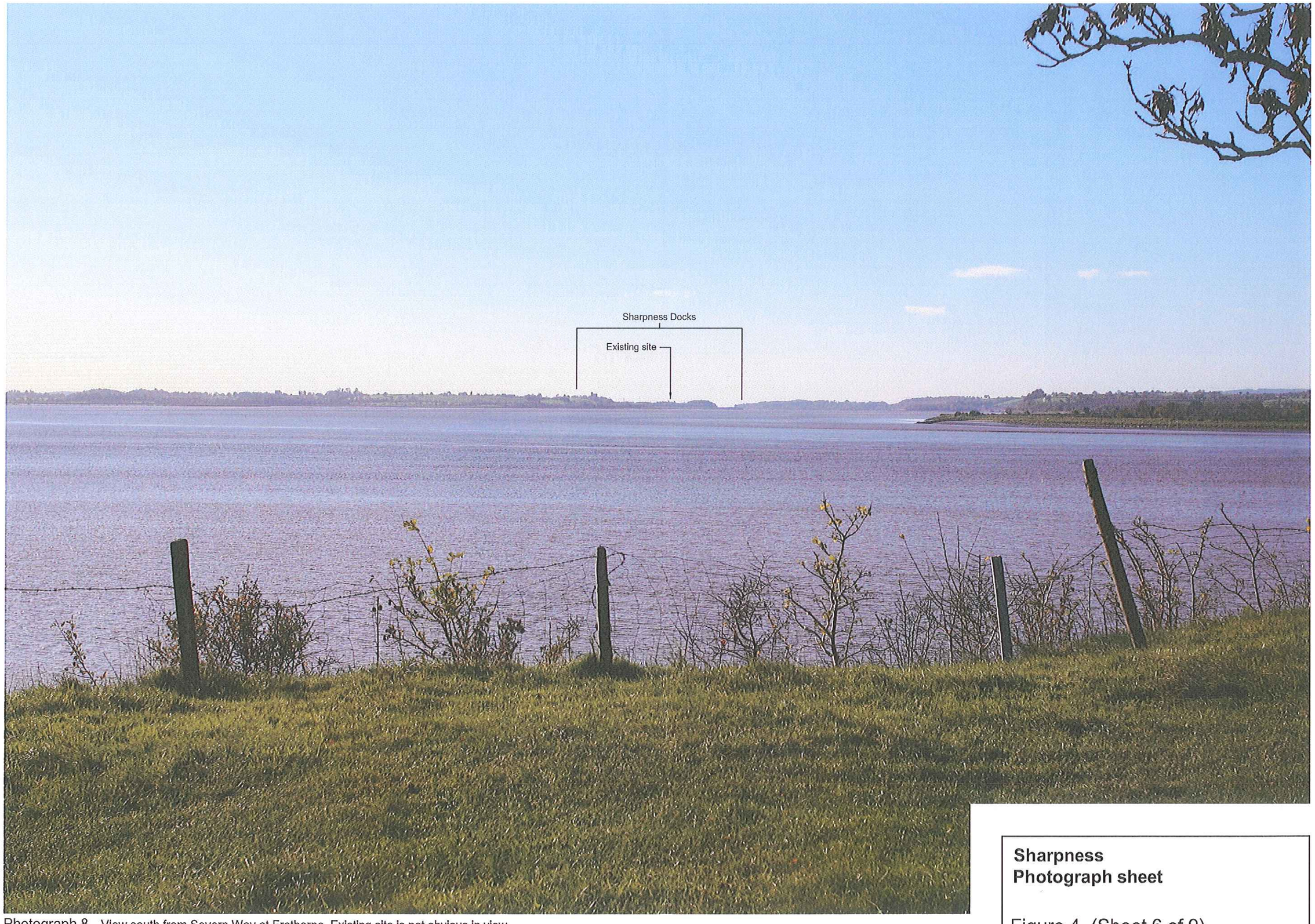
Sharpness
Photograph sheet

Figure 4 (Sheet 4 of 9)

Photograph 7. View from Oldminster Road and Severn Way at Newtown. Views fragmented by intervening vegetation and dock buildings. Roof of existing buildings and existing Bio-filter Ventilation stack partly visible

Sharpness
Photograph sheet

Figure 4 (Sheet 5 of 9)



Photograph 8. View south from Severn Way at Fratherne. Existing site is not obvious in view.

Sharpness
Photograph sheet

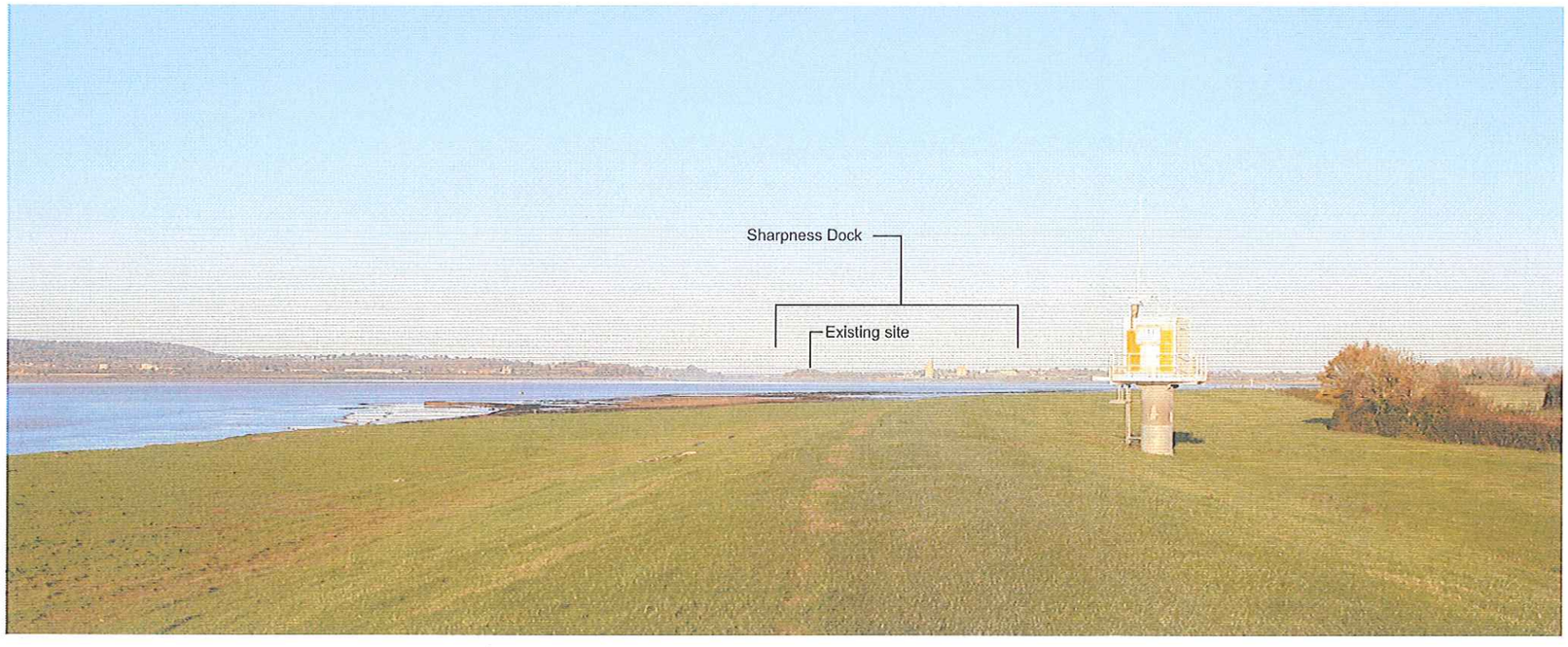
Figure 4 (Sheet 6 of 9)

Photograph 9. View from Clingre Down and the edge of the Cotswold Hills AONB. The docks are set against a landscape backdrop. Existing Bio-filter Ventilation stack not obvious in view.

Sharpness
Photograph sheet

Figure 4 (Sheet 7 of 9)

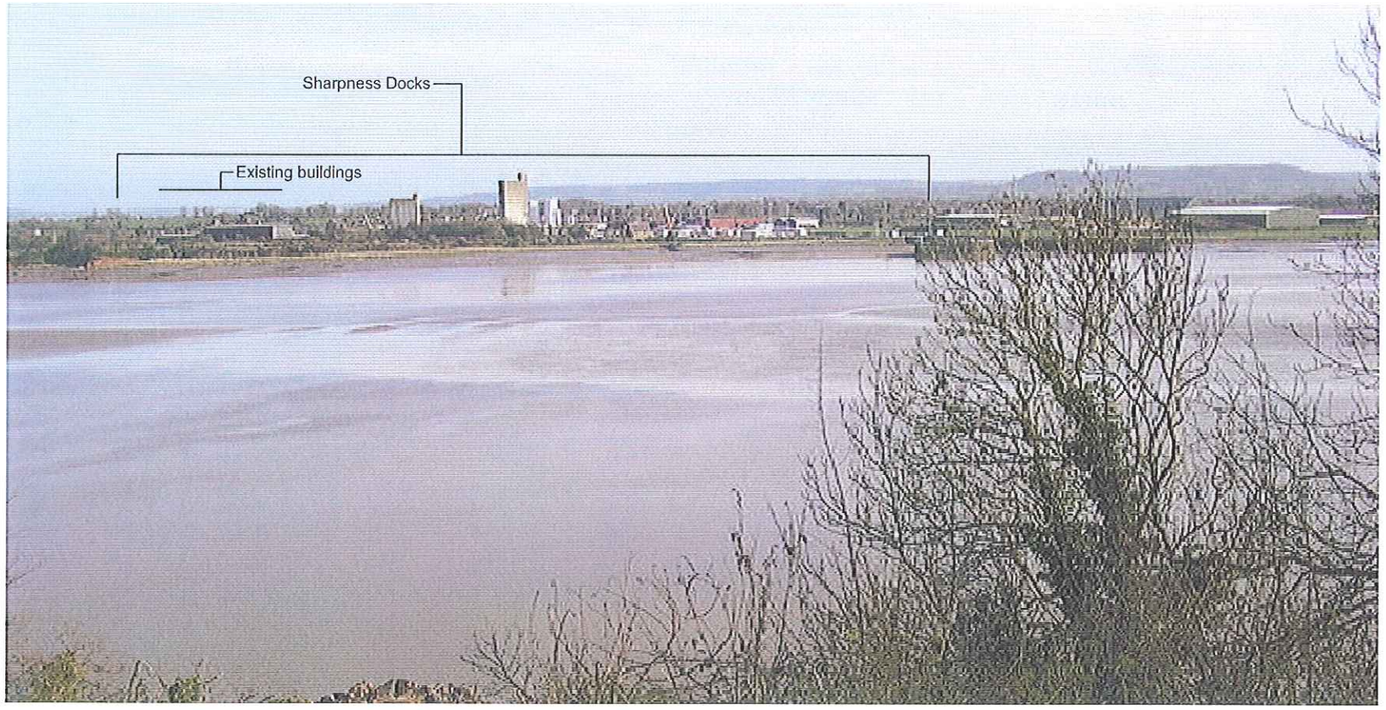
Photograph 10. View from southern edge of Ham looking north. Sharpness docks is set against a backdrop of Forest of Dean. The site is screened by vegetation .



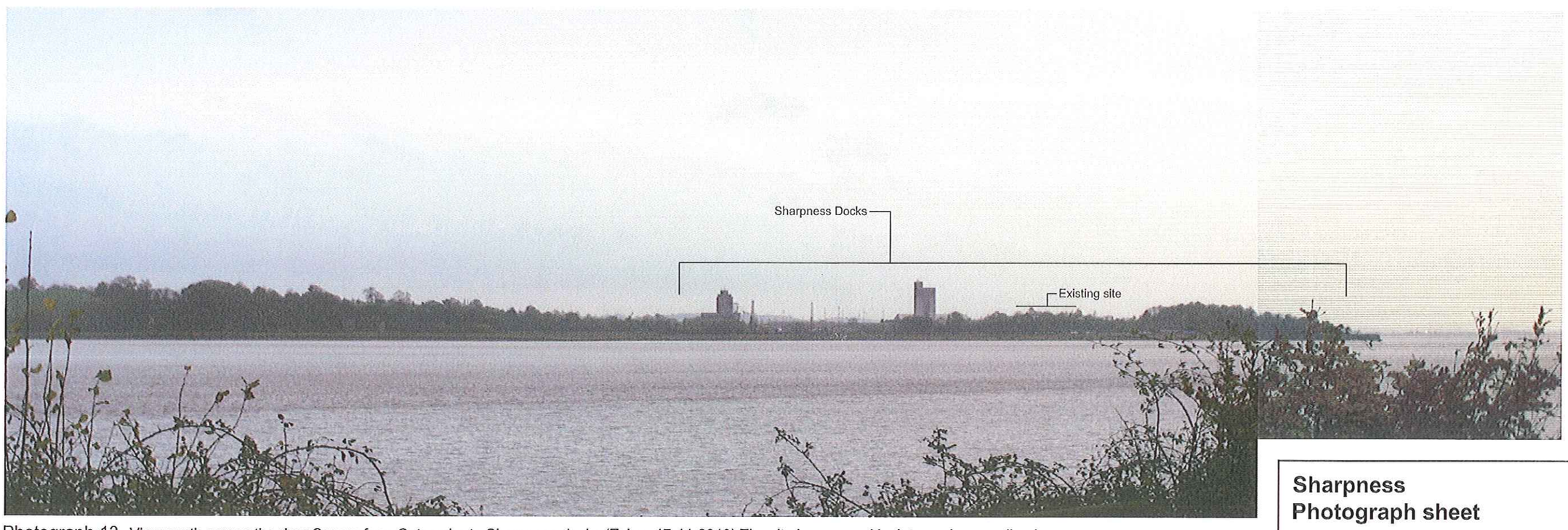
Photograph 11. View from the Severn Way, North of Oldbury Power Station and Chapel House looking northeast

Sharpness
Photograph sheet

Figure 4 (Sheet 8 of 9)



Photograph 12. Photo looking east across the river Severn towards Sharpness Docks form Lydney Harbour with the Cotswold Hills in the distance



Photograph 13. View south across the river Severn from Gatcombe to Sharpness docks (Taken 17-11-2010) The site is screened by intervening woodland copse

Sharpness
Photograph sheet

Figure 4 (Sheet 9 of 9)