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The Ecology Consultancy

Landscape and ecological surveys of key sites within the Adur District

Report

November 2012

Contents

1 Introduction

1.1 Study objectives

Sheils Flynn and The Ecology Consultancy have been commissioned to prepare landscape and ecological assessments of greenfield sites in Adur District which have been identified as having the potential to provide new housing and other development.

The study will form part of the evidence base for the emerging new Local Plan of the District. As part of the production of this plan, Adur District Council needs to identify a number of new housing and development sites within the District to help meet objectively assessed demand.

An Urban Fringe Study[1] prepared in 2006, advised the Council on where residential and employment development could take place outside the existing urban area while minimising landscape impacts and the current study builds on this earlier work. It investigates the potential landscape and biodiversity issues and impacts that could arise as a result of development on six sites which are being considered as potential strategic allocations.

This landscape and ecological survey will inform decisions on site allocations in the emerging Adur Local Plan. The focus of the study is greenfield sites. Although a number of brownfield sites have been identified for development in the emerging Local Plan, the landscape and ecological value of these sites will be assessed at a later stage and not as part of this study.

[1] Urban Fringe Study, Adur District Council (Baker Associates and Enderby Associates), December 2006

1.2 Environmental characteristics of the District

The north of the Adur District lies within the South Downs National Park (SDNP). However, since the creation of the National Park Authority, this area is outside the planning remit of Adur District Council. As a result, the area covered by the Adur Local Plan, and which forms the context for this study, is that of the area of Adur which lies outside the SDNP

Outside the National Park, there are two main areas of countryside within the district. These are referred to (in the 1996 Local Plan and thereafter) as Strategic Gaps. They are illustrated on Figure 2 and separate the towns of Lancing/Sompting and Worthing ('Sompting Gap') and Shoreham and Lancing ('Lancing Gap') respectively, thus helping to protect the individual identity of the different settlements within the district.

The potential allocation sites that are being investigated as part of this study are shown on Figure 1. They are on the edges of the Strategic Gaps and, with the assistance of this study, the Council aims to strike the best possible balance between providing new development to meet the needs of the District, while at the same time maintaining the landscape character and individual identity of settlements. The study area is the landscape which forms the context for these sites - ie the Strategic Gaps of Lancing and Sompting, outside the National Park. Note that the Strategic Gaps are referred to as 'Local Green Gaps' in the emerging Adur Local Plan.

1.3 Methodology

The methodology developed for this study follows a four step process:

- first - an assessment of the overall landscape sensitivity of the urban fringe landscapes within the Lancing and Sompting Strategic Gaps, building on the assessment carried out as part of the 2006 Urban Fringe Study;
- second - an assessment of the ecological value of the areas within the six potential allocation sites;
- third - development of indicative development principles for each of the six potential allocations sites, taking account of the findings of steps 1 and 2; and
- fourth - concluding assessment of the landscape and ecological impacts of development on the six potential allocation sites (based on an assumption of development in accordance with the indicative development principles set out in step 3).

1.3.1 Overall landscape sensitivity assessment of landscapes in the strategic gaps

The initial overall landscape sensitivity assessment covers all the landscapes within the study area (landscapes within the strategic gaps and outside the SDNP) and is presented in *Technical Annex A - Assessment of overall landscape sensitivity*. It follows the methodology set out in the Topic Paper on techniques for judging overall landscape capacity and sensitivity

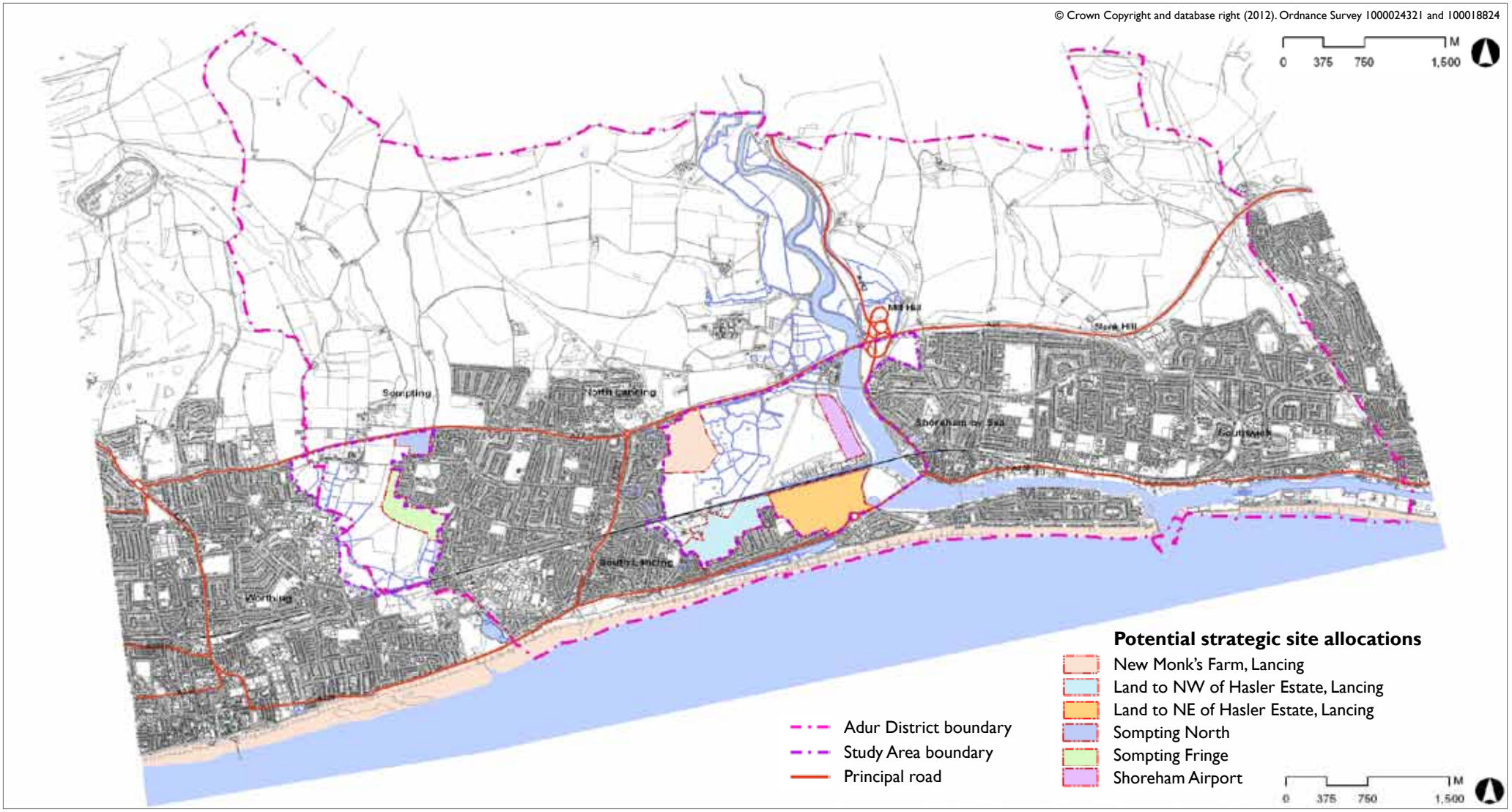


Figure 1 - Study area location with potential strategic site allocations

Figure 2 - Landscape planning policy

prepared by the former Countryside Agency (now Natural England)[2] and considers strength of landscape character and the condition of local landscapes, in conjunction with their visibility and the number of people experiencing selected key views in the Lancing and Sompting Strategic Gaps.

1.3.2 Ecological assessment of the six potential allocation sites

Focusing now on the six potential allocation sites, the method for the ecological assessment follows that recommended by the Joint Nature Conservation Committee (2010). It includes survey and description of the principal habitat types present, as well as an assessment of any Biodiversity Action Plan (BAP) habitats and (as far as possible given the time of year of the survey) a listing of higher plants and provision of target notes on features of special value or interest.

The survey also incorporates a preliminary scoping assessment of whether habitats present on and adjacent to the sites support (or have potential to support) any BAP, protected, rare or notable species such as great crested newts, bats, reptiles, dormice, water voles, otters, white clawed crayfish and breeding birds. The need for any further surveys of these groups is identified.

1.3.3 Indicative development principles for the six potential allocation sites

Drawing on the findings of the overall landscape sensitivity assessment (step 1) and the ecological assessment (step 2) the third step of the methodology is to develop indicative development principles for each of the six potential allocation sites.

The process includes (for each site):

- plans and notes to describe the opportunities and constraints for development in relation to landscape issues and ecological issues; and
- an indicative development principles drawing, which shows how the site might be developed to minimise landscape and ecological impacts and enhance the character and quality of the interface between built edge and landscape on the edge of the strategic gaps.

1.3.4 Impacts of development on the landscape and ecology of the six potential allocation sites

The final part of the study assesses the resulting impacts of the indicative development proposals on the landscape and ecology of the strategic gaps. This assessment assumes that the development complies with the indicative development principles suggested in step 3 ie that a reasonable level of mitigation is in place.

1.4 Structure of this report

The remainder of this report is structured as follows:

- **Section 2 - Context for the study** in terms of the environmental character of the site and the key planning policies that are relevant to the study
- **Section 3 - Landscape assessment** - summarises the findings of the detailed assessment of overall landscape sensitivity in Technical Annex A to provide an analysis of the character, distinctiveness, robustness and condition of local landscapes throughout the strategic gaps, along with an assessment of their visibility in relation to key selected views (from sensitive viewpoints)
- **Section 4 - Ecological assessment** - summarises the findings of the detailed assessment of the ecological value of the six potential site allocations in Technical Annex B.
- **Section 5 - Indicative development principles** - opportunities and constraints and indicative development principles drawings for each of the six potential site allocations
- **Section 6 - Assessment of the potential resulting impacts of development** on the landscape and biodiversity of the potential allocation sites, assuming that proposals for mitigation (as per the suggested indicative development principles) are in place.

[2] Landscape Character Assessment Series: Topic Paper 6 - Techniques & criteria for judging capacity & sensitivity, The Countryside Agency & Scottish Natural Heritage

2 Context

2.1 Landscape context

Adur District forms part of the coastal plain of West Sussex. The land is dominated by the South Downs to the north and the sea to the south. The elevated rolling landscapes of the chalk downlands to the north of the district are included within the South Downs National Park. Outside the National Park, the principal coastal settlements are the historic port of Shoreham and the extensive settlements of Southwick to the east and Lancing and Sompting to the west, which have developed during the post war period on land that was predominantly used for market gardening (serving markets in Covent Garden and Brighton).

The topography of the district is shown on Figure 3. Its defining landscape features are the South Downs to the north, the sea to the south and the dramatic valley of the River Adur, which cuts through the chalk downlands, curving across the coastal plain to meet the sea at Shoreham.

The coastal plain is underlain by a mix of clay, silt and sand. Land alongside the Adur estuary has been reclaimed through a series of historic flood embankments.

Figure 4 shows the important designations covering natural areas within the study area. In addition to the South Downs National Park, these are:

- The Adur Estuary Site of Special Scientific Interest (SSSI) which is important for its combination of mudflats, saltmarsh, reedbeds and embankments;
- Sites of Nature Conservation importance at Lancing Ring, Lower Cokeham Reedbed, the River Adur Valley, Widewater Lagoon, Shoreham Beach and Mill Hill.

There are Local Nature Reserves at Mill Hill, Lancing Ring, the Widewater Lagoon and Shoreham Beach.

Figure 5 highlights public access and cultural destinations throughout the study area. The A27 broadly separates the sweeping farmland of the South Downs from the built development to the south, but the visual, cultural and physical links between the Downs and the urban areas on the coastal plain are important. The Downs form the backdrop to views from residential areas throughout Shoreham, Lancing and Sompting and the dramatic Gothic chapel at Lancing College is a striking landmark, marking the flank of the Adur Valley as it cuts through the Downs.

Local residents and visitors can access the Downs via a series of public rights of way, many of them historic tracks, which lead from the urban areas up to the Iron Age Fort of Cissbury Ring, the chalk downlands at Lancing Ring and Mill Hill and link along the Downs between these popular sites. The Downs Link, a promoted long distance footpath, leads from the Old Shoreham Bridge (pedestrian bridge over the River Adur) along the Adur Valley to link with the South Downs Way.

National Cycle Route 2 is an important coastal route, connecting the towns along the coast and Regional Cycle Route 79 follow the Adur Valley, connecting Horsham with the south coast at Shoreham.

The railway forms a barrier to north-south movement throughout the study area; existing bridges are limited and they often have poor pedestrian and cycle access.

Key destinations are;

- Lancing College Chapel, which is open to the public;
- Cissbury Ring, an Iron Age Hillfort and Scheduled Ancient Monument which lies (mostly) outside Adur District, but which is an important focus for local walks and views;
- open access land on the Downs at Lancing Ring and Mill Hill, where small car parks encourage access for walking;
- beaches at Lancing, Widewater Lagoon and Shoreham;
- Brooklands Pleasure Park; and
- Shoreham Airport, the oldest airport in the UK, which has a Grade 11* listed (1930s) terminal building and which is used by privately owned light aeroplanes, flying schools, and for light aircraft and helicopter maintenance and sales.

2.2 Planning policy context

2.2.1 National planning policy context

The strategic policy context is provided by the National Planning Policy Framework (NPPF)[3], March 2012, which is a strategic document that seeks to encourage high quality, sustainable development. Paragraph 14 states that *Local Plan should meet objectively assessed needs,*

[3] National Planning Policy Framework, March 2012

Figure 3 - Topography and drainage

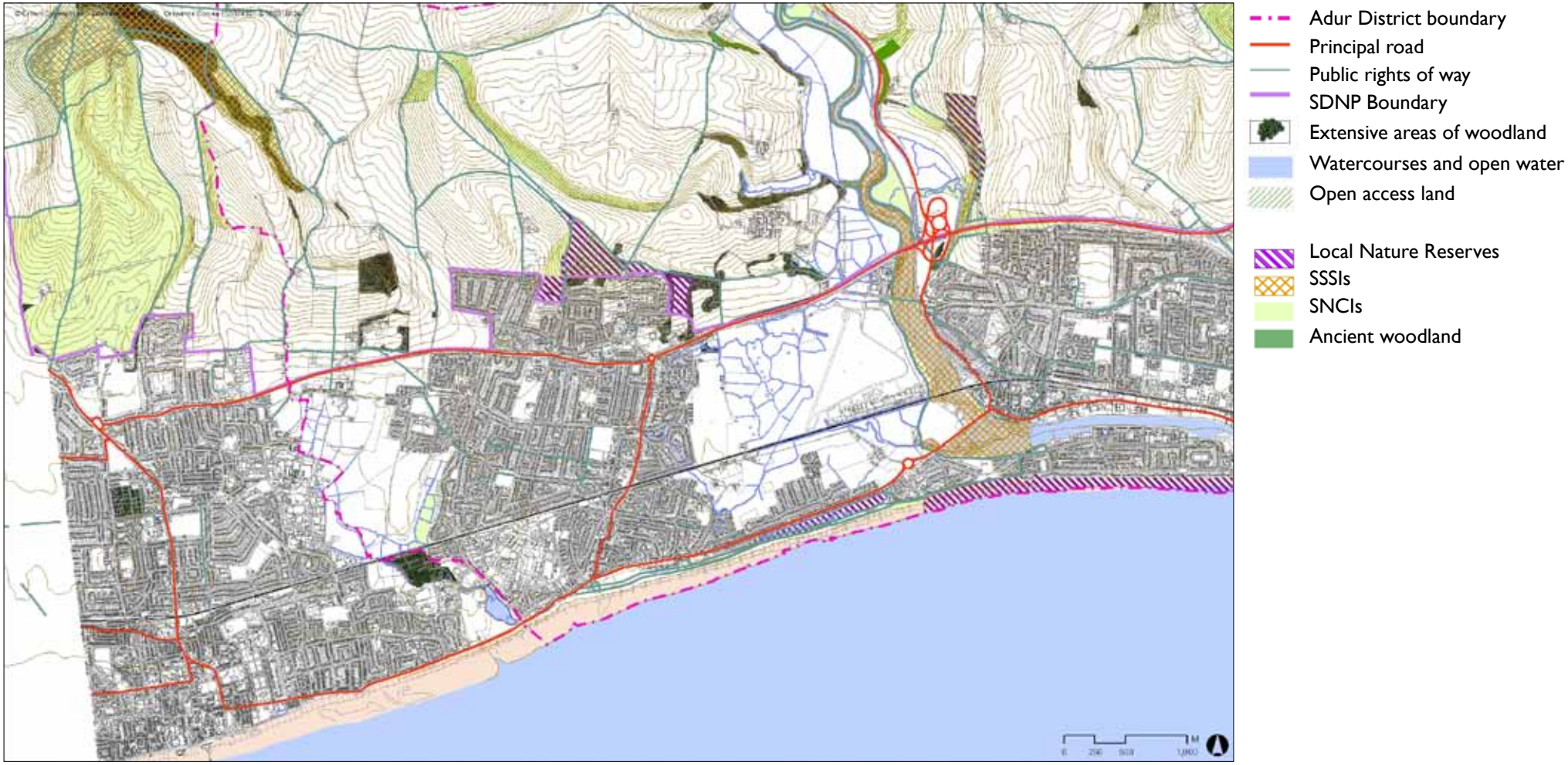


Figure 4 - Statutory designations covering the natural environment

Figure 5 - Access and destinations

with sufficient flexibility to adapt to rapid change.

Within the Core Planning Principles (paragraph 17), there is an emphasis on a creative approach to the planning system which engages local people, encourages high quality design, takes account of the different roles and character of different areas and which conserves and enhances the natural environment. The final two core planning principles set out objectives for green infrastructure (GI) planning, which should:

- *actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable; and*
- *take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs.*

More detail is provided throughout the document on how these core planning principles should be implemented, but the planning context for this study is provided by the need to balance the objectives of conserving and enhancing the natural environment with promoting sustainable development to meet objectively assessed local need.

2.2.2 Regional planning policy context

Regional Spatial Strategy remains in force in the form of The South East Plan[4], although the Government intends to revoke these regional level planning frameworks

Spectacular views from public footpaths on the Downs above Lancing - near Lancing Ring

[4] The South East Plan, Regional Spatial Strategy for the South East of England, May 2009

in due course. The South East Plan promotes *a co-ordinated approach to managing change within the region's key settlements and their hinterlands (p4)*. There is an emphasis on respecting and enhancing the character and distinctiveness of settlements and landscapes throughout the region and on creating a high quality built environment which promotes a sense of place (*Policy CC6*).

Policy CC8 - Green Infrastructure, requires *local authorities and partners to work together to plan, provide and manage connected and substantial networks of accessible multi-functional green space*, including existing and new GI. These GI networks need to be *planned and managed to deliver the widest range of linked environmental and social benefits, including conserving and enhancing biodiversity as well as landscape, recreation, water management, social and cultural benefits to underpin individual and community health and 'well being'. They will be created and managed as a framework of greenspaces and other natural features that will boost the sustainable development of settlements and increase the environmental capacity of the locality and region as a whole, helping communities to be more resilient to the effects of climate change*.

This emphasis on the integrated delivery and management of strategic GI networks (in national and regional planning policy) underpins this study and endorses the emphasis on GI within the indicative development principles for each of the potential allocated sites (Section 5).

Policy C5 of The South East Plan is also particularly relevant because it focuses on management of the rural-urban fringe. Local authorities are encouraged to *target positive management on areas where urban extensions are planned including engaging local communities and landowners to ensure early consideration is given to landscape and biodiversity enhancement, woodland management, recreation provision and access routes*. Referencing national guidance on managing the rural-urban fringe[5], it identifies its ten key functions, which include providing a bridge to the countryside, a gateway to the town, a classroom, a health centre, a productive landscape, a cultural legacy, a place for sustainable living and a nature reserve.

2.2.3 Local planning policy context

The district has a shortage of developable land and the remaining areas of undeveloped land outside the SDNP (the Lancing Gap and the Sompting Gap) are protected by the Strategic Gap policy (AC4) in the adopted local plan[6], which has a presumption against development.

The policy aims to prevent coalescence of the settlements and to retain their separate identities and amenities. Only in 'compelling' circumstances, will development be permitted and in relation to uses such as agriculture and forestry or to meet a demand for recreation. the Local Plan policy also states that opportunities will be sought to conserve and enhance the value of the Strategic Gaps as open countryside.

Adur District Council is currently preparing a new Local Plan and is exploring all available options to meet the local demand for development within the relatively small area available. The Council aims to retain the principle of the Strategic Gaps as they are considered to be part of the character of the District. This study provides part of the evidence base to assist the judgements which must be made in striking an appropriate balance between providing the new development to meet the needs of the district while maintaining and enhancing the local landscape character and the individual identity of settlements.

5 The Countryside in and around Towns, Groundwork and the Countryside Agency, 2005

6 Adur District Local Plan, Adopted April 2006

3 Landscape sensitivity

The assessment of the overall landscape sensitivity of the urban fringe landscapes within the study area is provided in Technical Annex A. It considers the relative sensitivity of local landscape character areas and views in the Lancing and Sompting Strategic Gaps.

This section of the main report summarises the findings of this detailed assessment, which builds on the assessment carried out as part of the 2006 Urban Fringe Study.

3.1 Local landscape character areas

Figure 6 shows the Local Landscape Character Areas (LCAs) identified in the Urban Fringe Study, plus an additional area to the south of Mill Hill which was not included within the Urban Fringe Study but which is within the Lancing Strategic Gap. While the Urban Fringe Study provided a good starting point, it is not considered to be sufficiently detailed to provide the basis for an assessment of landscape character sensitivity and the analysis in Technical Annex A builds on the information in the Urban Fringe Study, providing additional layers of information to complete this task in accordance with the methodology set out in Natural England's Topic Paper (see explanation of the methodology for this study in Section 1.3).

3.2 Landscape sensitivity

The Topic Paper concluded that judgements about the overall landscape sensitivity of different landscape character areas (without reference to any specific change or type of development) should take account of two aspects:

- **landscape character sensitivity** - the degree to which the landscape is robust and able to accommodate change without adverse impacts on its character; and
- **visual sensitivity** - the general visibility of the landscape and its ability to accommodate change without adverse impacts on character.

This objective analysis in sections A2 and A3 of Technical Annex A provides an assessment of the landscape character sensitivity and visual sensitivity of the landscape character areas within the Sompting and Lancing Gaps.

The scores for landscape character sensitivity and visual sensitivity are combined to give a score for **overall landscape sensitivity**.

3.2.1 Landscape character sensitivity

Figure 7 shows the result of the assessment of landscape character sensitivity for the local landscape character areas within the study area.

It shows the balance between

- strength of landscape character and its vulnerability to change
- landscape quality and condition - the physical state of the landscape and its 'intactness'. It reflects the state of repair of the individual features and elements which make up local landscape character
- contribution to landscape setting (of the settlements surrounding the strategic gaps).

It is interesting to note that none of the landscape character areas within the study area are assessed as having high landscape character sensitivity. This is because they are generally in a degraded condition and the distinctive character of local landscapes is eroded by the influence of adjacent urban areas and transport infrastructure. Nevertheless, areas with relatively high landscape character sensitivity are the reedbeds at Lower Cokeham Fen, land in the vicinity of Sompting Village, Shoreham Airport (where the highly functional landscape is well maintained) and New Salt's Farm, where local landscape character is degraded, but areas of pasture retain remnants of the historic patterns of flood embankments.

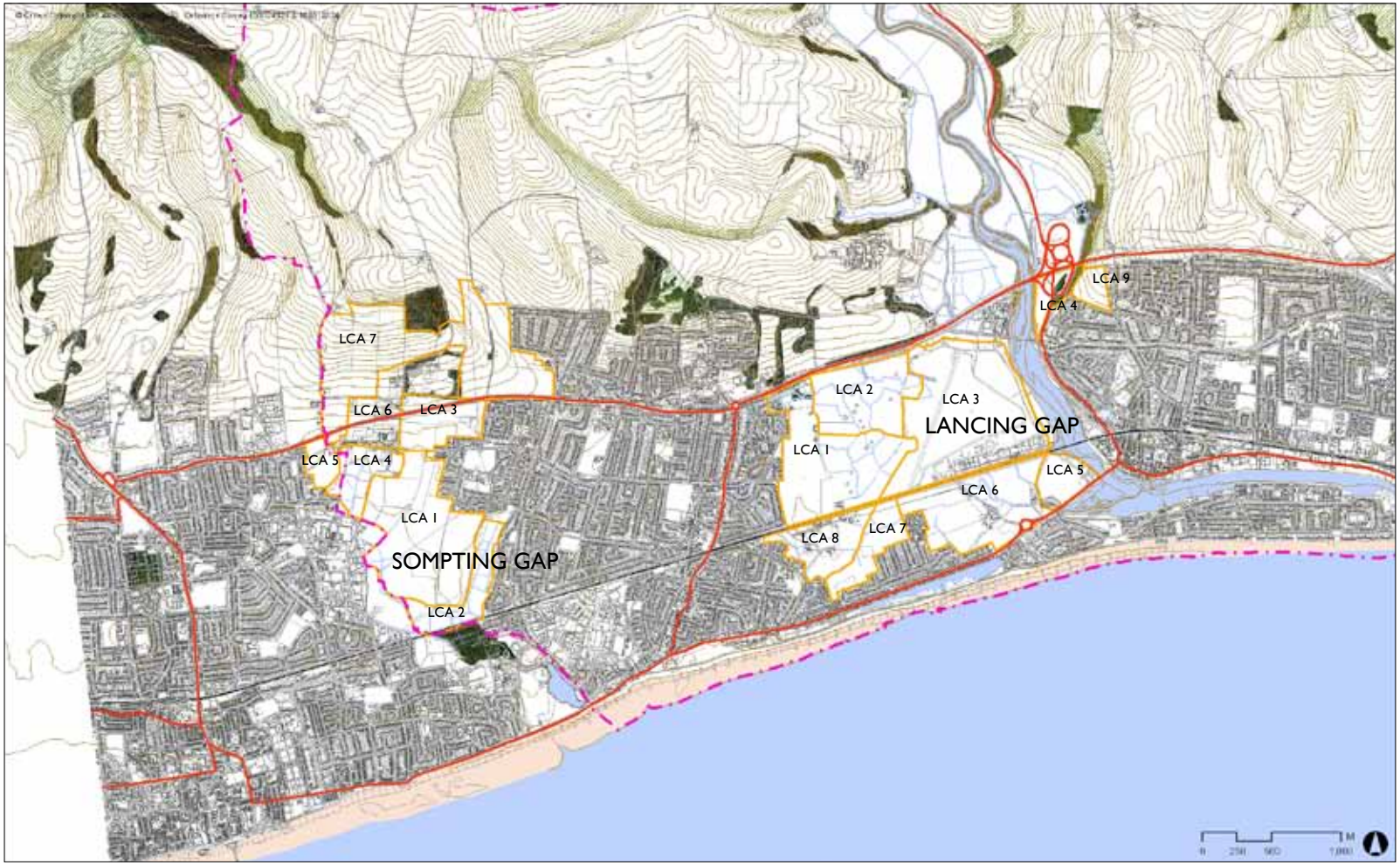
Figure 7 also shows a broad-brush assessment of the quality of the interface between built edges and adjacent landscapes on the fringes of the strategic gaps, highlighting areas where the existing interface is poor quality, with scope for enhancement.

3.2.2 Visual sensitivity

Figure 8 shows the result of the equivalent assessment of visual sensitivity for the local landscape character areas within the study area.

The assessment of visual sensitivity is based on the general visibility of the landscape, the number and type of viewers and the potential scope to mitigate the visual effects of any change that might take place.

A separate assessment of the visibility of the landscape



Adur District boundary
Principal road
Watercourses and open water
Open access land
Extensive areas of woodland
Local landscape character areas
See Figures A2 and A3 in Technical Annex A for more detail.

Sompting Gap LCAs

1 - Loose Lane Fields
2 - Lower Cokeham Fen
3 - NW Sompting Fringe
4 - Sompting Village Pastures
5 - Broadwater Fringe
6 - Sompting Village
7 - Sompting Downs

Lancing Gap LCAs

1 - New Monk's Farm
2 - Saltworks
3 - Shoreham Airport
4 - NE Adur Fringe
5 - SW Adur Fringe
6 - New Salts Farm
7 - Hasler Fringe
8 - Old Salts Farm Fringe
9 - Mill Hill Slopes

Figure 6 - Local Landscape Character Areas: study area

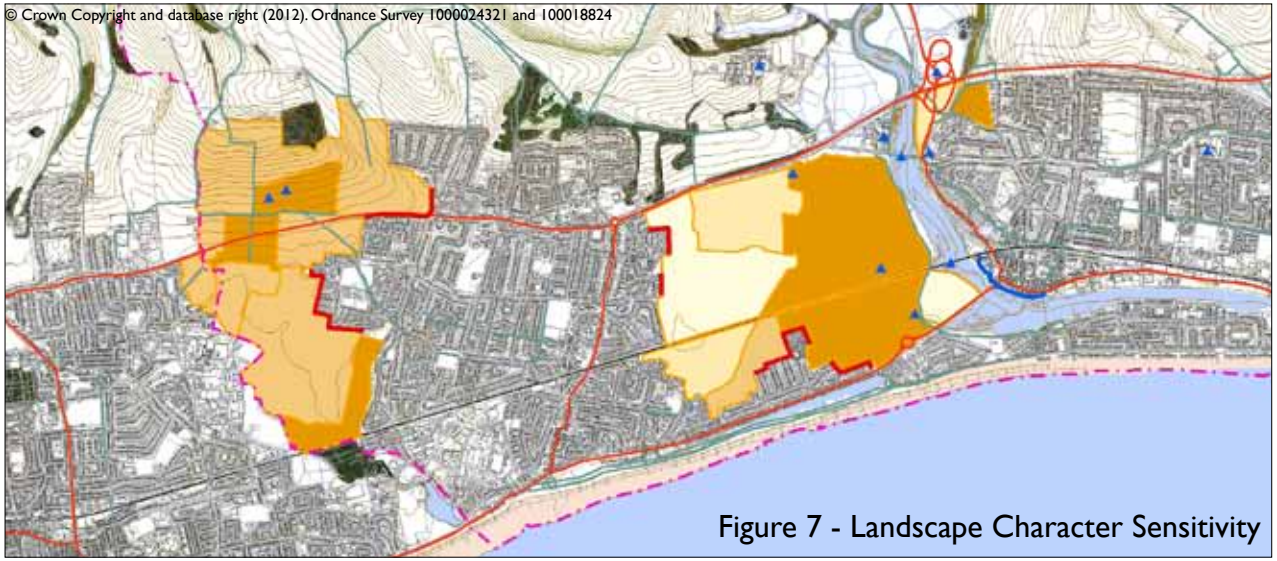


Figure 7 - Landscape Character Sensitivity

- Adur District boundary
- Principal road
- Public rights of way
- Watercourses and open water
- Open access land
- Extensive areas of woodland
- Local landscape character areas

Landscape character sensitivity

- High
- Medium-high
- Medium
- Medium-low
- Low

Urban/landscape interface on edge of Strategic Gap

- Positive interface
- Poor quality interface
- Local landmark

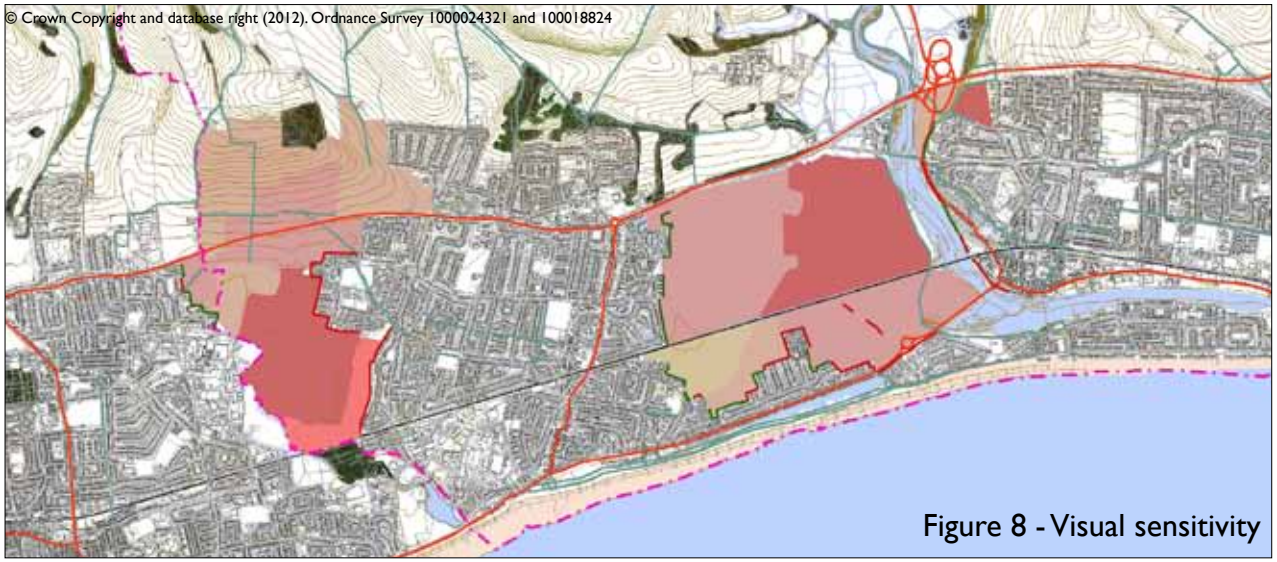


Figure 8 - Visual sensitivity

- Adur District boundary
- Principal road
- Public rights of way
- Watercourses and open water
- Open access land
- Extensive areas of woodland
- Local landscape character areas

Visual sensitivity

- High
- Medium-high
- Medium
- Medium-low
- Low

Views from adjacent residential areas

- Open view
- Partial view

Figure 9 - Overall landscape sensitivity

is provided in Section A3 of Technical Annex A. It takes account of key views, which have been selected because they are likely to be used by relatively high sensitivity receptors. There is an emphasis on demonstrating how the landscapes of these two strategic gaps are perceived from the protected landscapes of the National Park, on viewpoints which provide the clearest views of the landscapes of the strategic gaps and views which provide evidence to demonstrate the contribution different areas make to the integrity of the strategic gaps and, in turn, to the landscape settings of Lancing and Sompting within Adur District.

Figure 8 shows that two local landscape character areas - Loose Lane Fields (in the Sompting Gap) and Shoreham Airport (in the Lancing Gap) are assessed as having high visual sensitivity. This is because they are highly visible in sensitive views from recreational routes and areas (often within the SDNP) and because they are open landscapes, with little scope to mitigate visual impacts without damage to the inherent landscape character.

Figure 8 also shows the extent to which existing residential properties on the fringes of the strategic gaps have views into the open landscapes of the gaps.

3.2.3 Overall landscape sensitivity

The detailed evidence of landscape character sensitivity and visual sensitivity, including the analysis of visibility from key sensitive viewpoints, is used to inform the indicative development principles for each of the potential allocation sites in section 5.

The assessment of overall landscape sensitivity is summarised in Figure 9. The Shoreham Airport and Mill Hill Slopes LCAs are assessed as having the highest overall landscape sensitivity in the study area, with the LCAs of Lower Cokeham Fen, Loose Lane Fields and Sompting Village (all in the Sompting Gap) having medium-high overall landscape sensitivity. Areas with the lowest scores are New Monk's Farm, NE Adur Fringe, SW Adur Fringe, Old Salts Farm Fringe and New Salts Farm.

Together with the detailed ecological assessment (in Section 4) this assessment provides the starting point for the detailed analysis of opportunities and constraints for development of the specific potential allocation sites in Section 5.

4 Ecological assessment

4.1 Structure of the ecological assessment

An assessment of the ecological value of each of the potential allocation sites has been carried out by The Ecology Consultancy. These are provided as stand-alone ecology reports in Technical Annex B of this report. A brief summary of the main ecological issues affecting each site is included in Section 5 of this report, but the stand-alone ecology reports should be referred to for a detailed assessment.

Each stand-alone ecology report includes the following:

- Collation of existing desk study data for the surrounding area
- Description of current ecological baseline conditions based on a Preliminary Ecological Appraisal (PEA)
- Assessment of the potential presence of protected species on the site or its immediate vicinity based on the results of the PEA and the data search.
- Evaluation of the relative nature conservation importance of the site in accordance with guidance issued by the Institute of Ecology and Environmental Management (2006)
- Map produced in a GIS environment showing main habitat types present
- Recommendations for any further survey
- Recommendations for conserving and/or mitigating for any impacts on any important ecological features

Working in conjunction with Sheils Flynn, a GI appraisal was carried out for the site, by reviewing the following features, which are present either on-site or in the adjacent landscape:

- Core Areas which are defined as zones within the site with either high quality habitat, a diversity of habitats, potential to support a diversity of species groups and/or protected species;
- Water bodies and the local hydrological catchment;
- Existing green and blue corridors including hedgerows, lines of scattered trees/scrub, woodland belts, road verges, running water and associated riparian habitat etc.; and
- Public Rights of Way (PROW) including footpaths, cycle routes and bridleways.

This information has been used to produce Ecological Opportunities and Constraints Maps for each potential allocation site. These drawings show priorities for the conservation and enhancement of on-site ecological features and wider ecological networks and assist in forming indicative GI and development principals for the site (see Section 5).

4.2 Priorities for conservation

All of the potential allocation sites either support or have the potential to support a range of legally protected species. This includes those protected at a national level, such as breeding birds, badgers, widespread species of reptile, water vole and in some cases invertebrates, as well as those protected at a European level, such as bats and great crested newts.

A range of Sussex and UK Biodiversity Action Plan (BAP) priority habitats and species are present, or have the potential to be present, across the potential allocation sites. Examples of habitats include hedgerows, ponds /standing water, arable field margins, lowland mixed deciduous woodland, wet woodland, lowland meadows, reed beds, coastal and floodplain grazing marsh and rivers/streams. Examples of BAP species include: birds such as house sparrow, bats such as soprano pipistrelle, amphibians such as great crested newt and common toad, widespread species of reptile such as common lizard and slow worm, mammals such as water vole and hedgehog and invertebrates such as stag beetle.

BAP habitats/species are not necessarily rare but under National Planning Policy Framework (NPPF) 2012 and the Natural Environment and Rural Communities (NERC) Act 2006 are all of principal importance for biodiversity and are of material consideration in the planning process.

Depending upon the significance of anticipated environmental effects, as influenced by, inter alia, the nature, size and location of individual future development projects within each of the potential allocation sites, it may be necessary to seek a formal screening opinion concerning the need for

Environmental Impact Assessment (EIA) under The Town and Country Planning Regulations 1999.

Based on the assumption that suitable habitat will be lost or degraded, further surveys for wintering bird, breeding birds, badgers, reptiles, water vole, hedgerows, great crested newts, bats, invertebrates and arable, aquatic and invasive plant species have been recommended for specific sites. There is however, potential to avoid and/or limit impacts through habitat retention and mitigation. The final approach to surveys will need to be based on the consideration of detailed proposals for each of the sites, though in all cases published best practice should be followed with regard to survey methodology.

Details of recommended further surveys, mitigation, compensation and enhancement for each potential allocation sites are provided in the stand-alone ecology reports in Technical Annex B of this report and should be read in conjunction with this chapter.

Existing wetland habitats to the NW of the Hasler Estate, Lancing

5 Indicative development principles

5.1 Potential allocation sites

This section explores the opportunities and constraints for development at each of the potential allocation sites and provides a set of indicative development principles that takes account of the findings of the wider landscape sensitivity assessment and detailed ecological assessments for each site.

Figure 10 shows the boundaries of the six potential allocation sites overlaid on the overall landscape sensitivity assessment. The potential allocation sites are:

- Sompting North - north west of built up area
- Sompting Fringe - west of built up area
- New Monk's Farm, Lancing
- Land at Old Salts Farm NW of Hasler Estate, Lancing
- Land off New Salts Farm Road, NE of Hasler Estate, Lancing
- Shoreham Airport (employment uses).

The opportunities and constraints for development differ from one site to the next, but there is a common structure to this section of the report, with the notes and plans for each site covering:

- **opportunities and constraints for landscape and visual issues** - the baseline evidence from the landscape character sensitivity and visual sensitivity assessments, incorporating (where relevant) the location of hedgerows/lines of trees which define the edges of the local viewshed from each site, together with the location of local landmarks and key visual connections to and from the site
- **opportunities and constraints for ecological issues** - based on the evidence provided by the habitat surveys, these drawings show priorities for the conservation and enhancement of ecological habitats and the key ecological networks through each site,
- **surface water flooding maps** to show areas of poorly drained land. Note that relevant issues of flooding and drainage are analysed in detail in the district's strategic flood risk assessment.[7]
- **historic maps** (where relevant) to show historic landscape patterns which can provide inspiration for the layout of new development
- **an indicative layout for development on the site**, which takes account of the findings of landscape and ecological assessments. This is not the only option for development, but it suggests a balance between sustainable development and green infrastructure that accords with best practice. The aim is to maximise opportunities for development while taking account of the identified opportunities and constraints.

Note that the viewpoint map, showing the location of specific views (eg viewpoint 9) can be found on page 25 of Technical Annex A (Figure A6).

[7] Strategic Flood Risk Assessment Update - Adur and Worthing Districts, JBA, 2011

Figure 10 - Overall landscape sensitivity, with potential allocation sites

Sompting North

The Sompting North site is farmland on the north west fringes of Sompting to the west of Dankton Lane and to the south of the A27. A public footpath crosses the fields leading (as the 1879 OS map shows) to Sompting Abbotts, but this historic route has been truncated by the A27. Malthouse Meadows, a public open space on the site of a former nursery which is partially enclosed by a flint stone wall, forms the south west boundary of the site. The gardens of houses off Malthouse Close form the boundary to the south and a line of mature trees forms the boundary to the east, along Dankton Lane.

Landscape and visual issues

The distinctive spire of the Church of St Mary's, Sompting (a Grade I listed building which dates from the Saxon period) and the roof-line of Sompting Abbotts School (Grade II listed building) are local landmarks which rise above the trees in views towards the Downs from the site. The landscape setting of the Conservation Area for the village of Sompting is defined by groups of mature trees, seen across open pastures. The walled public open space at Malthouse Meadows is generally perceived to be part of West Sompting rather than the Sompting Conservation Area, with the paddocks between the two settlements (along West Street) providing essential spatial separation.

The visibility analysis (from selected sensitive viewpoints) shows that only the south east corner of the site is visible (from Viewpoint 4 - see p29, Technical Annex); the site is assessed as having medium overall landscape sensitivity and is generally shielded from views from the SDNP by the landform on the lower slopes of the Downs. The A27 is noisy and traffic can be glimpsed from parts of the site and the line of pylons along the eastern edge of the site is also visually intrusive. The lighting columns along the road are visible from the site, marking its alignment.

Ecological issues

The site is dominated by improved grassland which generally has low ecological value. The most important biodiversity habitats are along the boundaries of the site and within the adjacent Malthouse Meadow, which is managed as a wildlife conservation area by Adur District Council and Sompting Parish Council.

Figure 11d shows two areas of planted woodland, which should be retained and connected as part of an ecological network of habitats linking through the site

Figure 11a - Sompting North - Aerial view

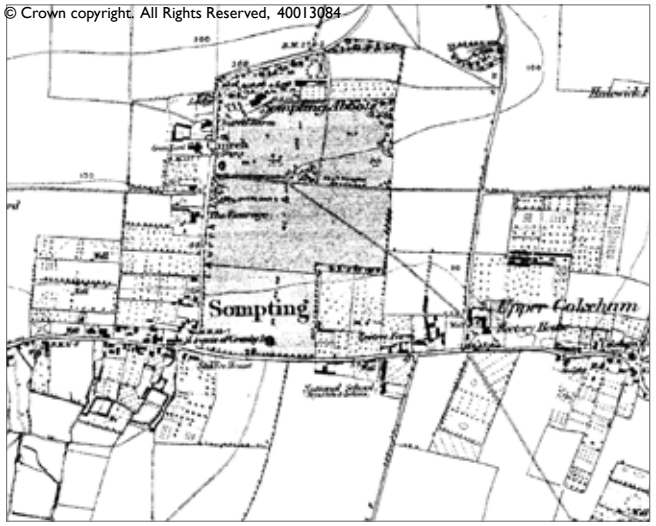


Figure 11b - 1879 OS Map (1:10,560)

View north west towards housing on the edge of Sompting and the Downs beyond

Pylons along Dankton Lane, to the east of the site

- SDNP boundary
- Adur District boundary
- Sompting North site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Sompting Gap)

1. Loose Lane Fields
2. Lower Cokeham Fen
3. NW Sompting Fringe
4. Sompting Village Pastures
5. Broadwater Fringe
6. Sompting Village
7. Sompting Downs

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

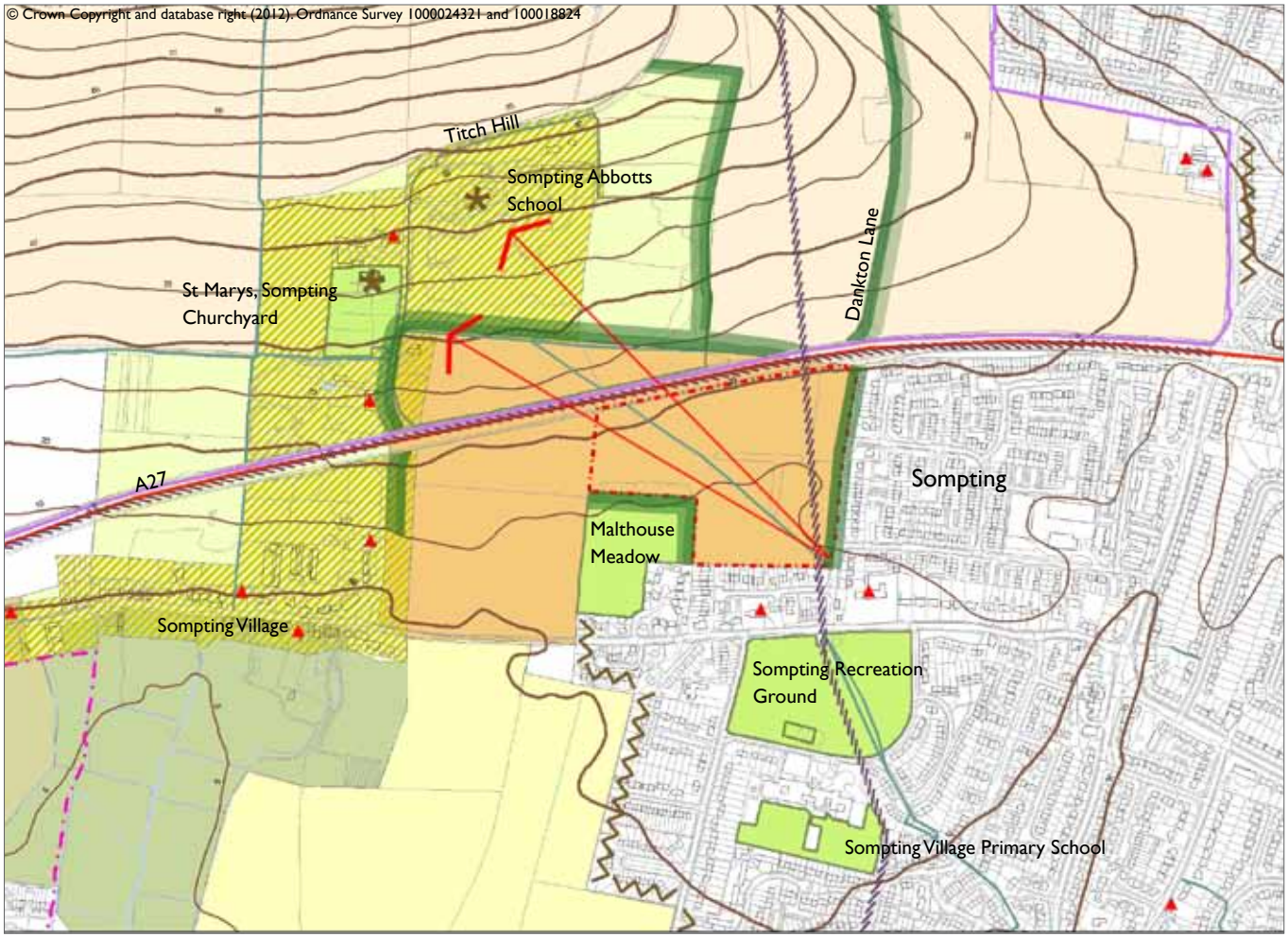


Figure 11c - Sompting North: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- Sompting North site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Reptile
- Badger
- Great Crested Newt
- Breeding bird
- Bat

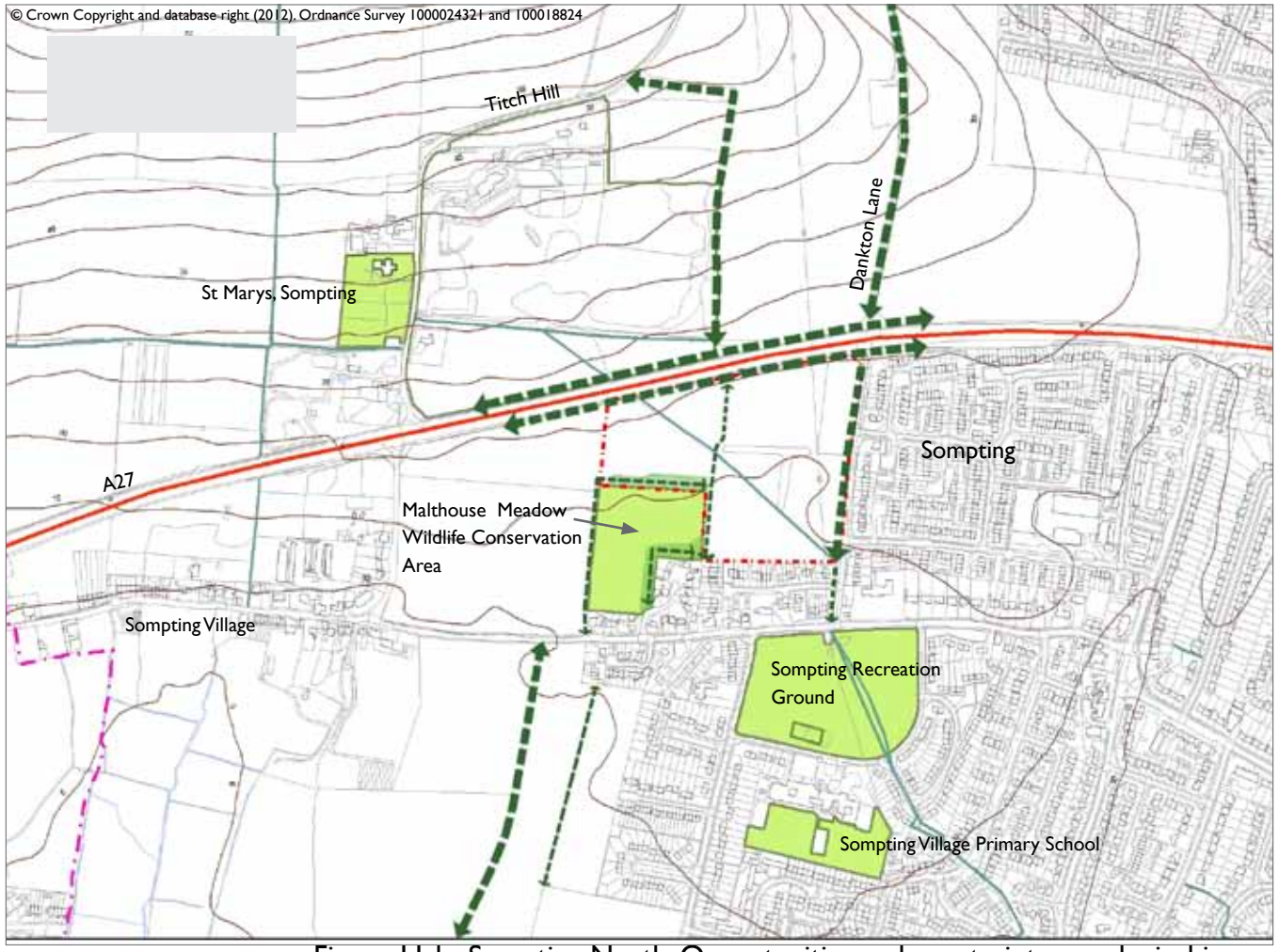


Figure 11d - Sompting North: Opportunities and constraints - ecological issues

Sompting North - indicative development principles

Figure 11f shows indicative development principles for the Sompting North site.

Green infrastructure principles

- The public right of way across the centre of the site provides an opportunity for a linear greenspace corridor aligned to provide views to Sompting Church. In the centre of the site, the kink in the alignment of this space shifts the angle of view towards the secondary landmark of Sompting Abbotts School, but the distinctive spire of the Saxon church would still be visible above the buildings to the west.
- The core biodiversity woodland habitats along the western boundary of the site are retained and buffered. It is important to connect these habitats to the existing adjacent managed wildlife conservation site of Malthouse Meadows.
- Built development should be set back from the existing pylons so there will be an open space along the eastern boundary of the site. This provides an opportunity for enhanced hedgerow and tree cover along Dankton Lane and a distinctive vehicular entrance, with an opening 'punched' through this linear feature.
- The route of the existing footpath is severed by the A27 and the development may provide an opportunity to create a new circular route, which connects to Sompting Village. Within the site, there may be scope to create a new pedestrian entrance to Malthouse Meadows in the north-east corner of this public open space, increasing opportunities for circular walks.

Development principles

- A straight north-south built edge along the western boundary of the site would continue the alignment of the existing Malthouse Meadow wall, but this could seem unduly stark and intrusive on the edge of the strategically important and narrow part of the Sompting Gap. It would be preferable to set the housing edge back so that there is a softer, indented built/landscape interface.
- A visual and acoustic screen along the A27 could take the form of a planted bund, with planting extending along the eastern boundary to reinforce the existing tree belt along Dankton Lane
- The site is not at risk from any fluvial flooding, but the surface water flooding map shows that the lowest part of the site (the south east corner) is likely to be susceptible to surface water flooding.

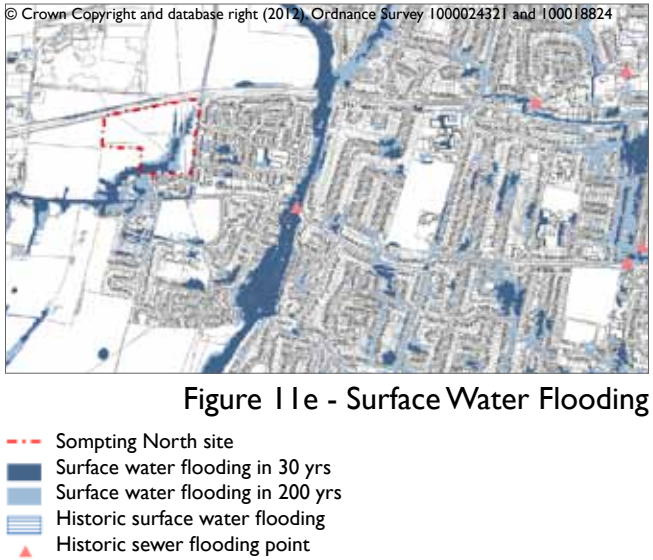


Figure 11e - Surface Water Flooding

- Adur District boundary
- Sompting North site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Potential development areas
- Built frontages
- New public greenspace
- Vehicular access
- Pedestrian/cycle access
- New tree and hedgerow planting
- Existing vegetation retained within site boundary

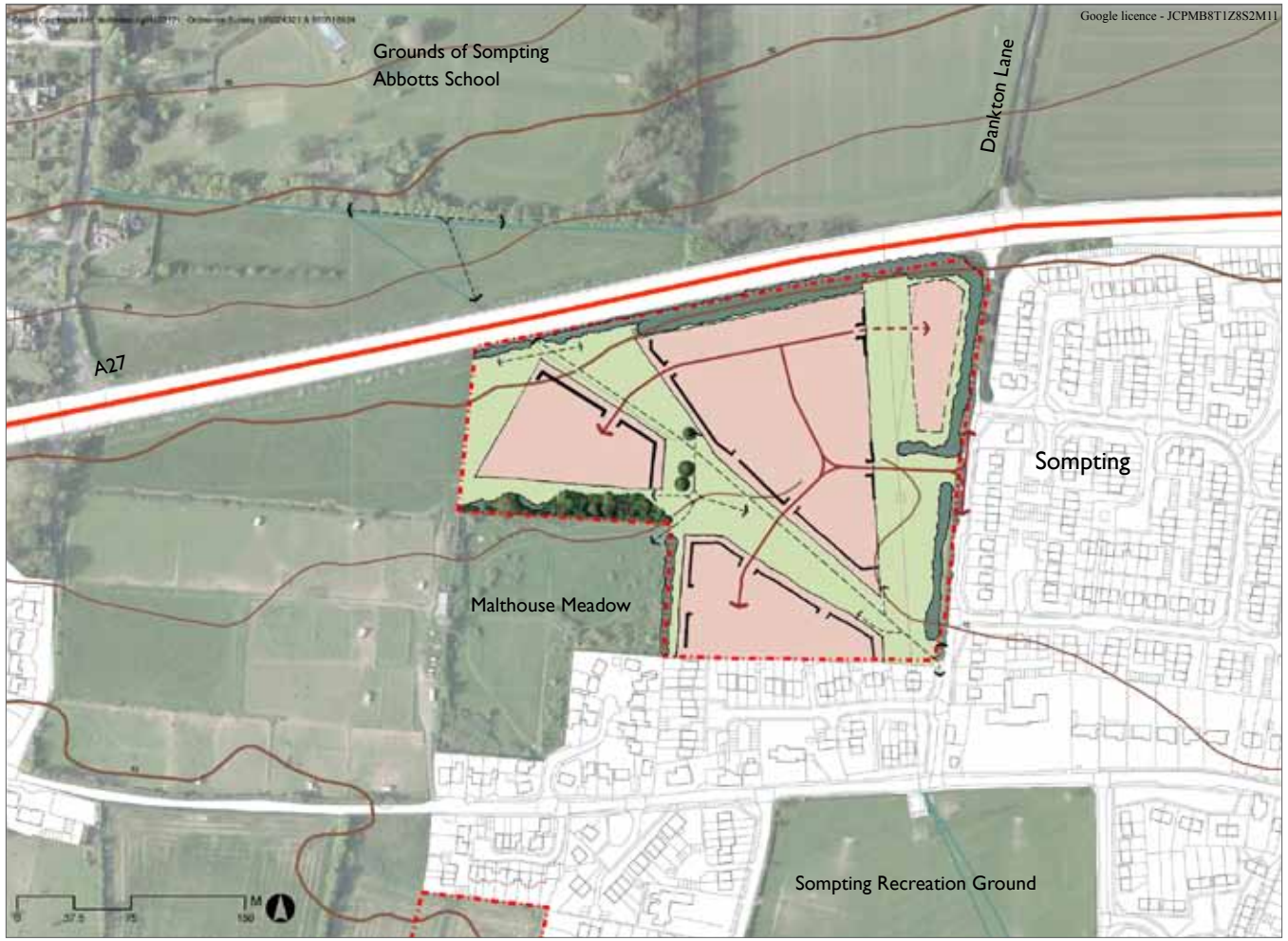


Figure 11f - Sompting North: Indicative development principles

Sompting Fringe

The Sompting Fringe site is an area of arable farmland on the southern edge of West Sompting, accessed via Loose Lane. The site wraps around the existing housing and has the potential to enhance the existing poor quality interface between housing and the arable farmland on this north east fringe of the Sompting Gap. The 1879 OS map shows that Loose Lane is an historic track, which crossed an exceptionally open area of farmland (with no formal enclosure) during the 19th century. The small scale, more irregular field pattern to the south of the village of Sompting and along the southern fringe of the Gap persists (in part) today. The Hamble Recreation Ground and skatepark adjoins the north east corner of the site.

Landscape and visual issues

This is an exceptionally open arable landscape with an expansive scale and long views. It is assessed as having high visual sensitivity and medium-high overall landscape sensitivity. Looking due south from the edge of the existing built up area, the two isolated clumps of trees along Loose Lane are local landmarks and these tree clumps are also prominent in longer views to the Sompting Gap from the SDNP. The landscape setting of the Conservation Area for the village of Sompting is defined by hedgerows/ groups of trees to the north west of the open arable farmland.

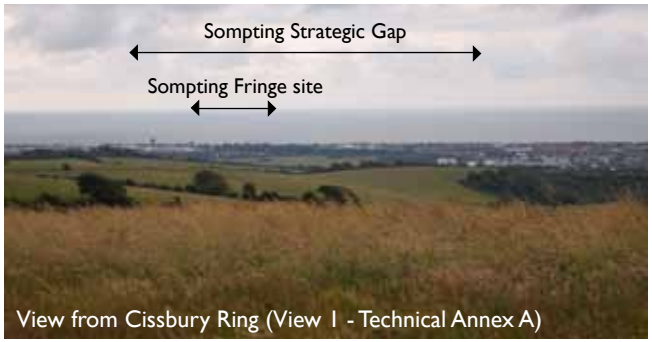
There are long views from the site across the Gap and to the Downs to the north. The visibility analysis (from selected sensitive viewpoints) in Technical Annex A shows that the site is visible in views from Cissbury Ring (Viewpoint 1), Hill Barn Golf Course (Viewpoint 2), The Nore (Viewpoint 4) and Steep Down (Viewpoint 5). See Figure A6 on p25 Technical Annex A for the location of these viewpoints. The existing housing (and to some extent the shielding effect of the landform on the lower slopes of the Downs) screens parts of the site adjacent to the existing houses, but the central and southern part of the site is visible. Analysis of the views from these sensitive viewpoints has informed the layout of the indicative development principles plan (p.33). The line of pylons along the eastern edge of the site is visually intrusive in local views, but is not generally prominent in longer views across the Sompting Gap.

Ecological issues

The majority of the site is arable farmland of low biodiversity value, although arable field margins are a UK BAP habitat and two nationally scarce arable weeds are present along Loose Lane. The most important biodiversity habitats are on the eastern margins of the site, where a series of horse grazed paddocks adjoin the Lower Cokeham Reedbed and Ditches SNCI and a series of valuable interconnected wetland habitats that link to the Teville Stream system to the south. Figure 12d shows this valuable ecological corridor, which should be retained and managed as part of a network of habitats linking through the site along the eastern fringes of the Sompting Gap.

Figure 12a - Sompting Fringe - Aerial view

Figure 12b - 1879 OS Map (1:10,560)



View from Cissbury Ring (View 1 - Technical Annex A)


View north from Loose Lane towards housing on the edge of Sompting and the Downs beyond


Tree clumps on Loose Lane

- SDNP boundary
- Adur District boundary
- Sompting Fringe site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Sompting Gap)

1. Loose Lane Fields
2. Lower Cokeham Fen
3. NW Sompting Fringe
4. Sompting Village Pastures
5. Broadwater Fringe
6. Sompting Village
7. Sompting Downs

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

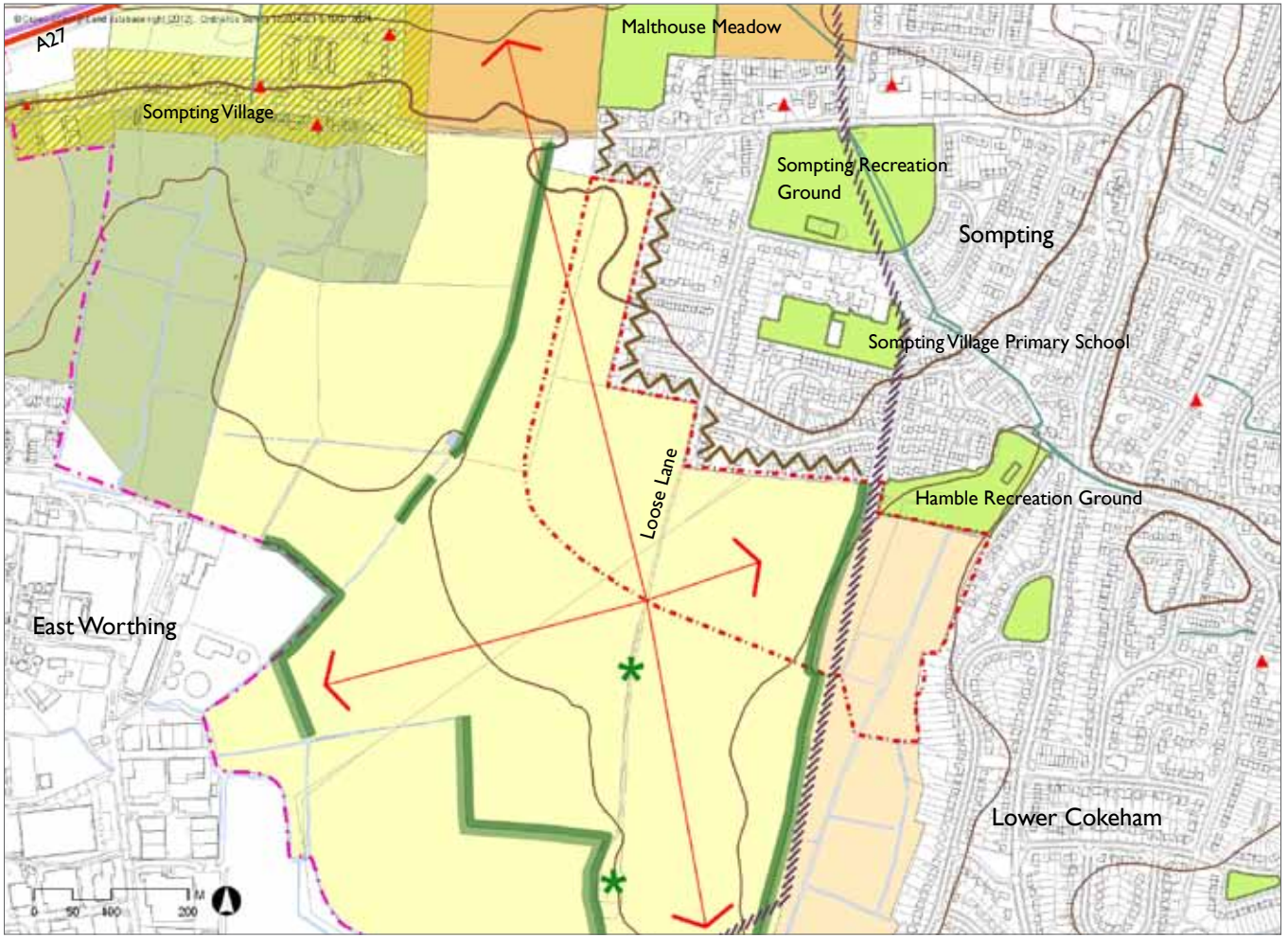


Figure 12c - Sompting Fringe: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- Sompting Fringe site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Arable Weeds
- Badger
- Great Crested Newt
- Breeding Bird
- Reptile
- Invertebrate
- Bat

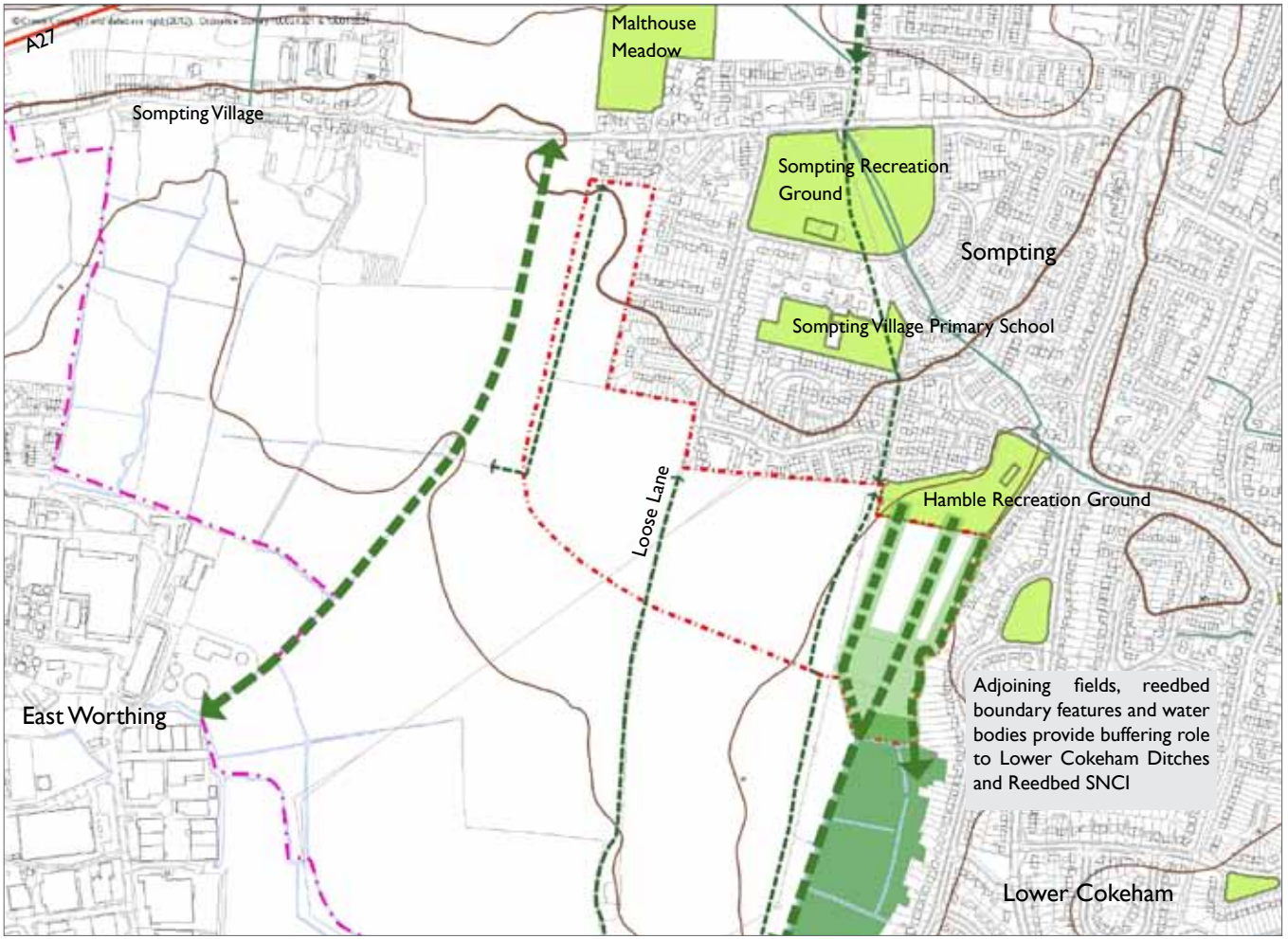


Figure 12d - Sompting Fringe: Opportunities and constraints - ecological issues

Sompting Fringe - indicative development principles

Figure 12f shows indicative development principles for the Sompting Fringe site.

Green infrastructure principles

- The core biodiversity corridor along the eastern boundary of the site is retained and enhanced as part of the network of valuable wetland/scrub habitats along the eastern fringe of the Sompting Gap
- The open space along the eastern edge of the site extends and links with the Hamble Recreation Ground, providing opportunities for circular walks through the development and on into the Gap along Loose Lane
- Existing habitats - meadow, wetlands (ponds/ditches) hedgerow and arable field margins - are enhanced and extended as part of the GI strategy for the site.

Development principles

- Analysis of the views from sensitive viewpoints and the historic field pattern has informed the form of the blocks of housing, so that they follow the grain of the landscape and 'elongated block' structure of the surrounding fields.
- Tree clump 'islands' soften the built edge of the development and provide a visual screen at key visually sensitive locations (in views from Cissbury Ring, Hill Barn Golf Course, Steep Down and The Nore). The aim is to create a high quality built/landscape interface, while reinforcing the inherently open, expansive local landscape character in the centre of the Sompting Gap. The existing tree clump on Loose Lane is retained and extended.
- The open space within the development along Loose Lane is orientated to provide long views to the Gap, framed by the tree clump to the west.
- In places the arable landscape sweeps up to the edge of the development, reinforcing the inherent open arable character of the area
- Off site planting in hedgerows to the west, together with the positive use of the strip of farmland to the west of the site as new publicly accessible greenspace, strengthens the contrast between field patterns in the open arable farmland to the centre of the Gap and the smaller scale fields surrounding the village of Sompting. This landscape strategy enhances the landscape setting of the Sompting Conservation Area and the character of the farmland within the narrow part of the Gap along West Street

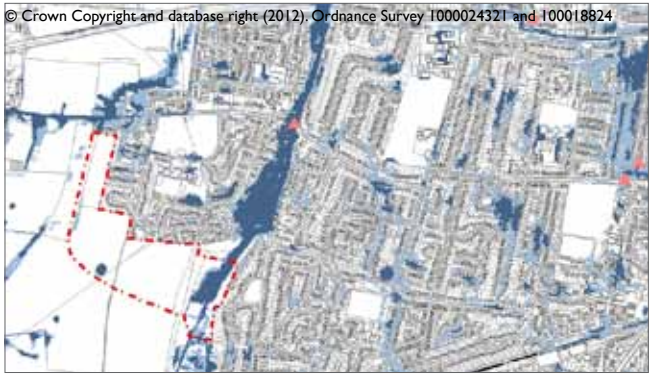


Figure 12e- Surface Water Flooding

- Adur District boundary
- Sompting Fringe site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Potential development areas
- Built frontages
- New public greenspace
- Vehicular access
- Pedestrian/cycle access
- New tree and hedgerow planting
- Existing vegetation retained within site boundary

Figure 12f - Sompting Fringe: Indicative development principles

New Monk's Farm

The New Monk's Farm site is farmland to the east of Lancing and to the south of the A27. The route of Mash Barn Lane provides a point of reference between the present day landscape and the historic (1879) map and marks the edge of a landscape which has a relatively small scale field pattern on the outer fringes of the Adur Estuary. This area is now the site of Shoreham Airport (alongside the Adur) and a golf course (which is currently under construction) adjacent to Mash Barn Lane.

Landscape and visual issues

This part of the Lancing Gap has relatively low landscape sensitivity and is less visible (than other parts of the Gap) in sensitive views. The edge of Lancing, together with trees and derelict barns along Mash Barn Lane, are visible in the distance in long views across the Gap from Mill Hill and the Old Shoreham Tollbridge (Views 12 and 14) and the central part of the site (to the east of Mash Barn Lane) is prominent in views from Hoe Court Farm (View 10). See Figure A6 on p25 Technical Annex A for the location of these viewpoints.

The small pastures along the stream to the north of the site have a secluded, enclosed character, which contrasts with the fields to the south and east. Mash Barn Lane is a natural landscape 'edge'. The fields between the edge of Lancing and this lane contribute little to the landscape setting of Lancing or to the integrity of landscapes within the Strategic Gap, but the fields to the east of Mash Barn Lane, which form part of the central landscapes of the Gap, make an important contribution to its sense of openness and 'greenness', particularly in views from the A27.

The Downs form a backdrop to views from the site and Lancing College Chapel is a striking landmark on the edge of the Adur valley. There are open views right across the Lancing Strategic Gap from the eastern part of the site to the River Adur and Shoreham

Ecological issues

The most important biodiversity habitats are the network of streams and ditches which flow eastwards through the small pastures to the north west of the site and along Mash Barn Lane. These form part of a wider network of water bodies between Lancing and Shoreham Airport. To the east of Mash Barn Lane, the newly constructed golf course comprises habitats which are of lower ecological value, although the narrow corridors of riparian habitats which run across this area are valuable. Figure 13d shows the network of riparian habitats, which should be retained and managed as part of an ecological network of habitats linking through the site to the east and also to the south (where the wetlands link to streams under the railway line) and out towards the English Channel.

Figure 13a - New Monk's Farm - Aerial view

Figure 13b - 1879 OS Map (1:10,560)

View west across Lancing Gap from Mill Hill (View 12)

View south along lane to future golf course area from Hoe Court Farm (View 10)


View east towards Shoreham Airport


View east towards derelict farm buildings on Mash Barn Lane


View west from Mash Barn Lane to houses on edge of East Lancing

- SDNP boundary
- Adur District boundary
- New Monk's Farm site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Lancing Gap)

1. New Monk's Farm
2. Saltworks
3. Shoreham Airport
4. NE Adur Fringe
5. SW Adur Fringe
6. New Salts Farm
7. Hasler Fringe
8. Old Salts Farm Fringe

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

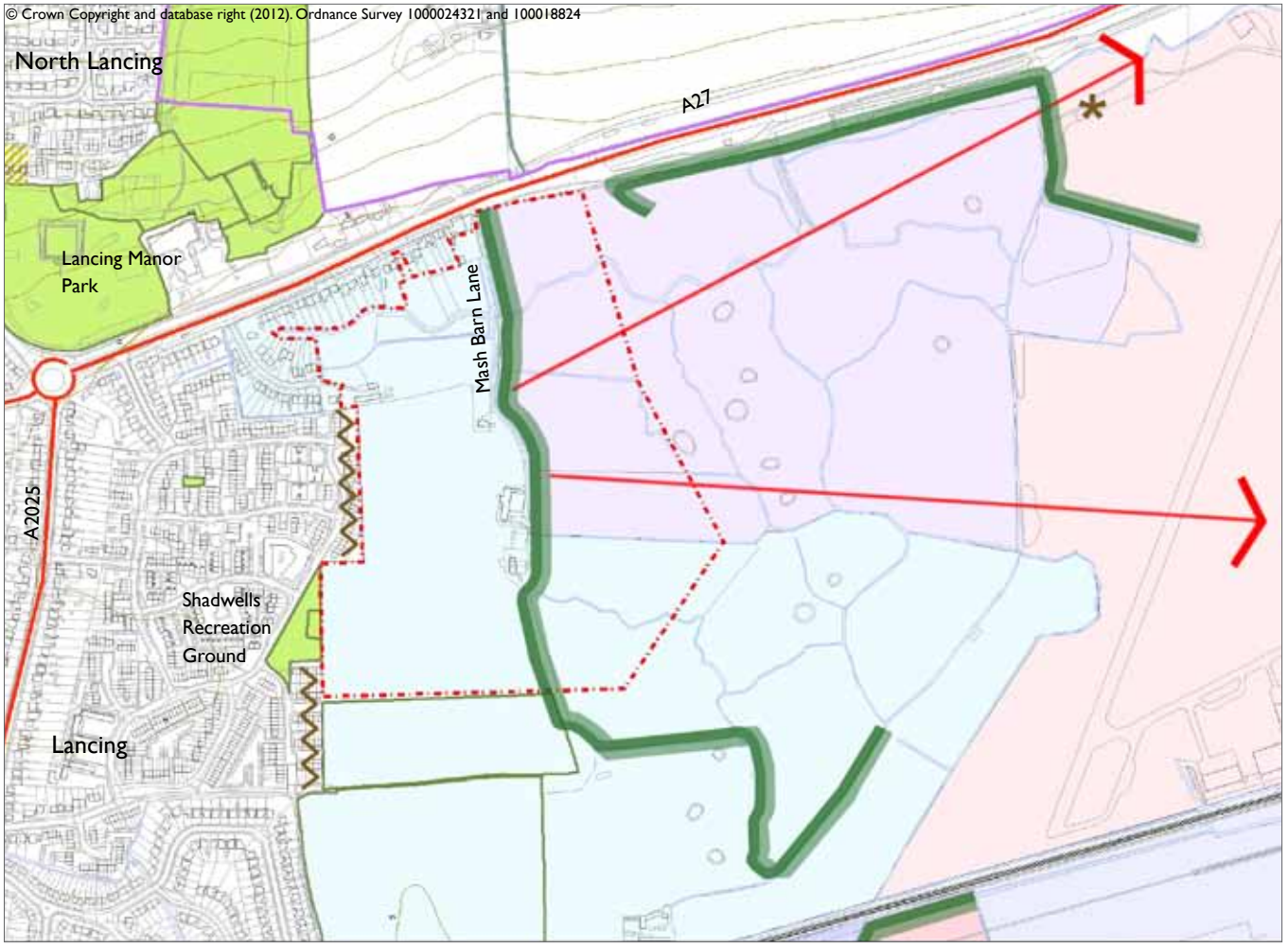


Figure 13c - New Monk's Farm: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- New Monk's Farm site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Breeding Bird
- Winter Bird
- Water Vole
- Great Crested Newt
- Invertebrate
- Badger
- Bat
- Hedgerow

Figure 13d - New Monk's Farm: Opportunities and constraints - ecological issues

New Monk's Farm - indicative development principles

Figure 13f shows indicative development principles for the New Monk's Farm site.

Green infrastructure principles

- The network of streams and ditches and their adjacent floodplain pastures and woodland to the north west of the site are retained and enhanced as part of the GI/SUDS network through the site.
- Mash Barn Lane is retained within a wide greenway corridor through the centre of the site, with a variety of wetland habitats alongside. This historic route provides connections to the Downs at Lancing Ring via the lane to Hoe Court Farm. There are also opportunities for circular walks to the south and east, potentially looping around the new golf course so that there is access to the centre of the Lancing Gap

Development principles

- The land to the west of Mash Barn Lane has relatively few constraints. Vehicular access from the existing residential areas may need to be controlled and the layout will be informed by the future planning decisions on the site to the south (which is the subject of discussions about a possible future football academy). It would be logical to site a future school and community centre close to the existing Shadwells play area in order to forge connections between the existing and new communities.
- Development on land to the east of Mash Barn Lane is beyond the natural 'edge' of the Gap landscape and will be visible in views from across the Gap, from Hoe Court and from the A27, particularly if it extends as far as the A27. Development areas here are shown with a dashed line because their extent (and the edge of the future golf course) is unclear. Strategically sited blocks of woodland would extend the existing wooded character of the landscape to the north west of the site and provide a distinctive 'green' edge, screening views to the new housing from the A27. The location of the principal vehicular access from the A27 is not yet agreed and this junction (which would be shared with a future Shoreham Airport development) would require careful landscape design so that the 'green' landscape character of the Strategic Gap is retained and enhanced.
- There are opportunities for SUDS along the Mash Barn Lane corridor, with the wetlands giving a distinctive character to the greenspaces and providing a foreground to the superb long views to the Downs and across the Gap to the Adur. The stream and ditch corridors that thread through the site are within a fluvial floodplain and land to the north and south east is likely to be susceptible to surface water flooding.
- Any 'buffer' landscape between the housing edge and the golf course should be included within the golf course (and managed by it).

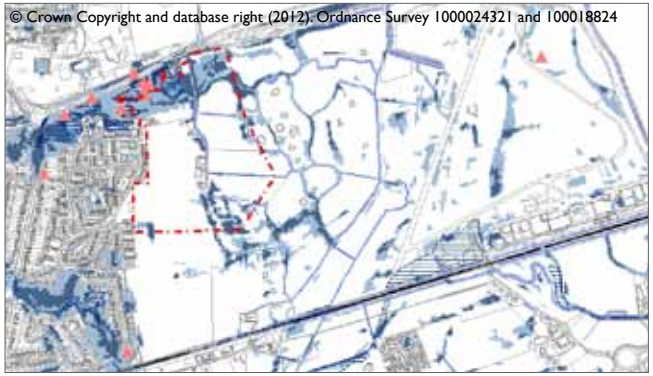


Figure 13e - Surface Water Flooding

- Adur District boundary
- New Monk's Farm site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Potential development areas
- Built frontages
- New public greenspace
- Vehicular access
- Pedestrian/cycle access
- New tree and hedgerow planting
- New wet meadows/wetlands as part of SUDS
- Existing vegetation retained within site boundary

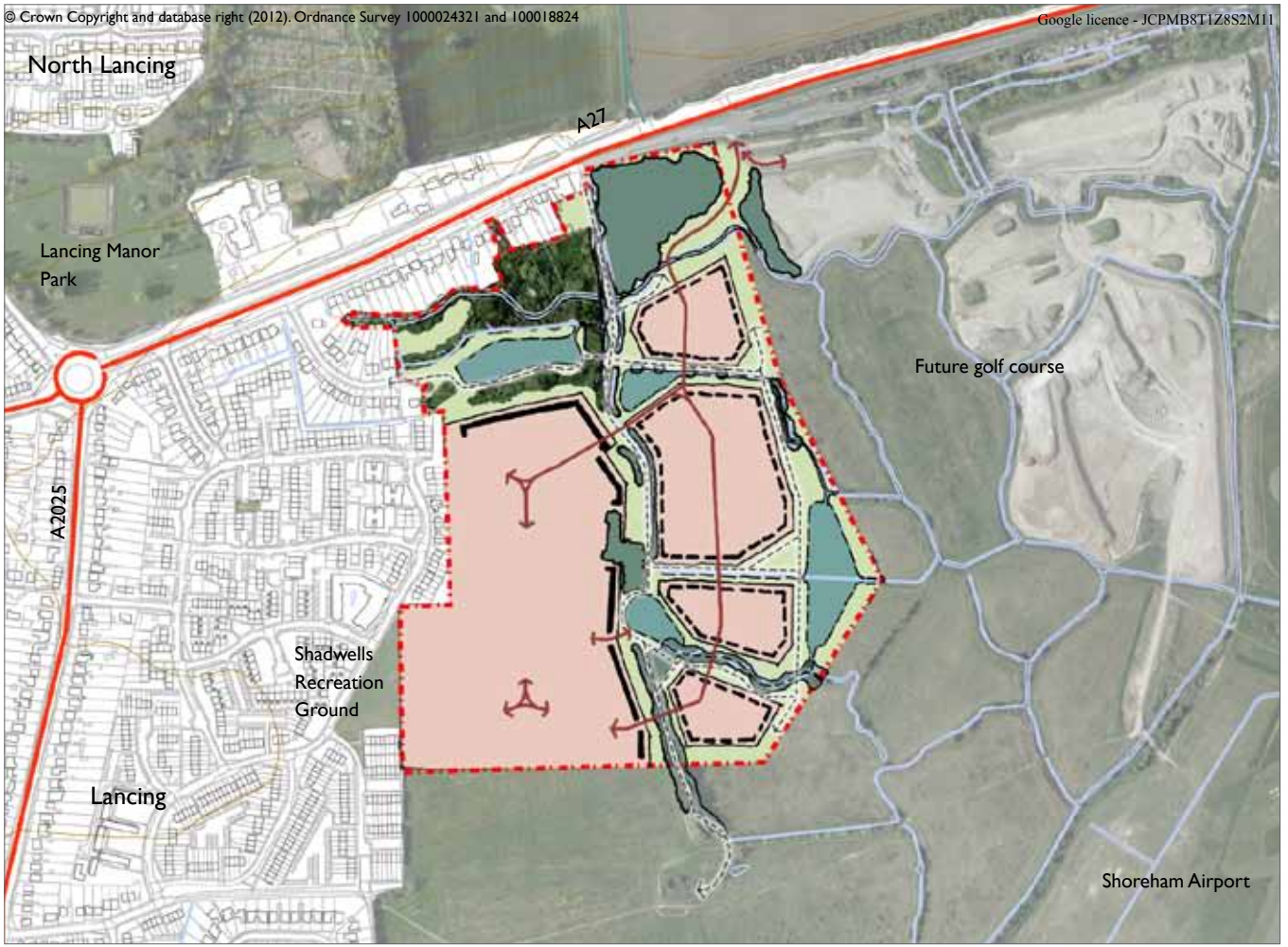


Figure 13f - New Monk's Farm: Indicative development principles

Land NW of the Hasler Estate - Old Salt's Farm

This land is accessed off Old Salts Farm Road. It is part of a diverse landscape with a mixture of pastures, paddocks, tracks, gardens and a campsite which surround the historic (Grade II listed) farmhouse of Old Salts Farm. The landscape pattern of the landscape to the south and east of the farmhouse (which is within the site) persists from the 19th century. It is bounded by a stream flowing east - west across the site. To the south of the stream, the landscape fringing the Hasler estate is a mosaic of rough scrub, damp woodland and pasture.

Landscape and visual issues

The site has medium/medium-low landscape sensitivity, but its relatively enclosed character, which appears 'wooded' in long distance views across the gap (eg views 7, 8, 10 and 12) contrasts with other parts of the Lancing Gap and contributes to the landscape setting of Lancing. See Figure A6 on p25 Technical Annex A for the location of these viewpoints.

Overall the site has an enclosed, secluded character, although there are local views eastwards across the southern part of the Lancing Gap to New Salts Farm (which is visible above the roof-lines of houses on the Hasler Estate). The open fields towards the eastern part of the site have long views towards the Downs; Lancing College Chapel is a landmark on the edge of the Adur Valley, visible from fields towards the east of the site..

The existing interface between houses on the edge of the Hasler Estate and the open fields to the north is visually stark and seems 'odd', with streets dead-ending onto the scrub/woodland and fields to the north.

Ecological issues

The site comprises a diverse range of habitat types, including wet woodland, scrub, poor semi-improved grassland and a range of riparian habitats along a series of ditches that flow eastwards. The riparian habitats provide a valuable ecological network, particularly where they are adjacent to a mosaic of scrub, meadow and woodland habitats.

The wetland corridor provides a valuable GI function and allows the movement of wildlife species from the urban fringe to the open countryside and beyond to the SDNP.

Figure 14a - Old Salts Farm - Aerial view

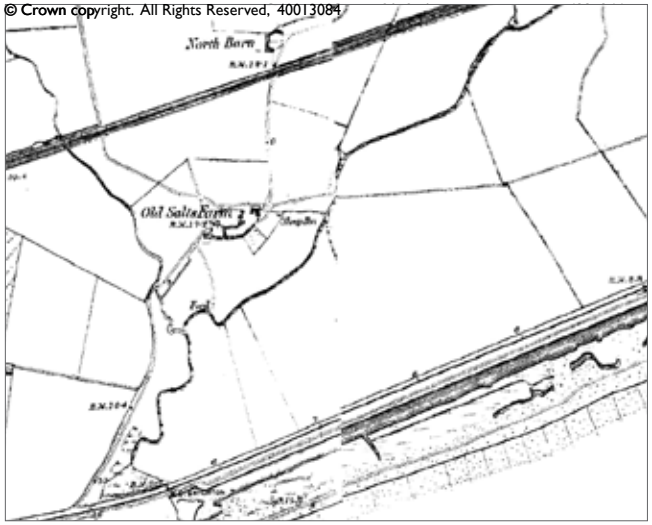


Figure 14b - 1879 OS Map (1:10,560)


View south towards existing houses off Old Salts Road


View north to Downs from meadow off Bristol Avenue, Hasler Estate


Mosaic of scrub, meadow, woodland and wetland, off West Avenue , Hasler Estate

View south east across Lancing Gap from near Lancing Ring (View 8)

View south across Lancing Gap from Hoe Court Farm (View 10)

The Old Salts Farm site has a relatively enclosed, 'wooded' character in long views across the Lancing Gap from the Downs

- SDNP boundary
- Adur District boundary
- Old Salts Farm/Land NW Hasler site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Lancing Gap)

1. New Monk's Farm
2. Saltworks
3. Shoreham Airport
4. NE Adur Fringe
5. SW Adur Fringe
6. New Salts Farm
7. Hasler Fringe
8. Old Salts Farm Fringe

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

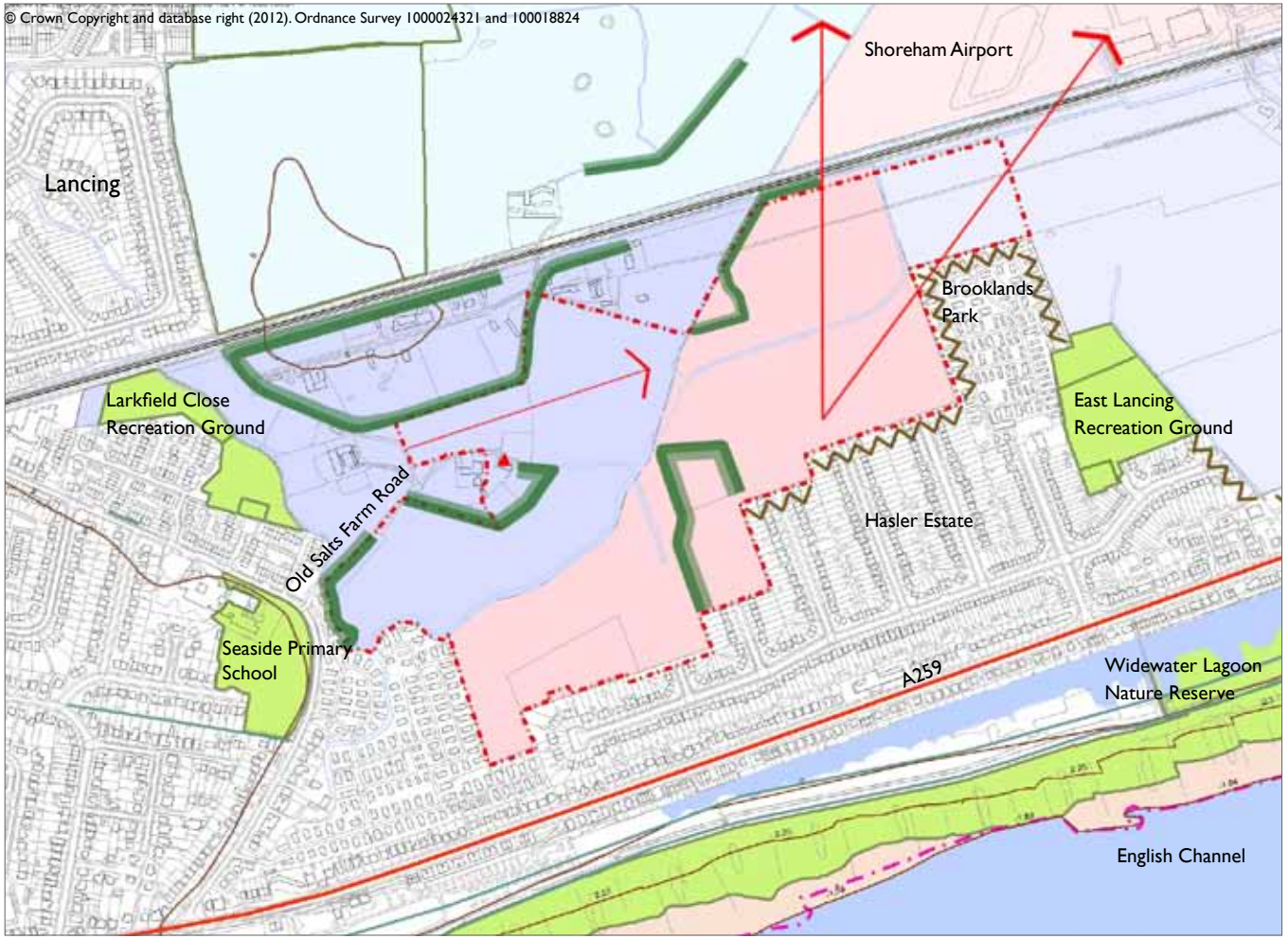


Figure 14c - Old Salts Farm/Land NW Hasler Estate: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- Old Salts Farm/Land NW Hasler Estate site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Breeding Bird
- Winter Bird
- Water Vole
- Great Crested Newt
- Aquatic Plants
- Invertebrate
- Reptile
- Badger
- Bat

Figure 14d - Old Salt's Farm/Land NW Hasler Estate: Opportunities and constraints - ecological issues

Land NW of Hasler Estate: Old Salts Farm - indicative development principles

Figure 14f shows indicative development principles for the Land NW of the Hasler Estate/Old Salts Farm site.

Green infrastructure principles

- The network of ditches and riparian habitats across the site is retained as a GI corridor, connecting the urban fringe with habitats along the railway embankments and beyond. This corridor also provides extensive opportunities for SUDs, which will be essential on this low lying site.
- There may be potential opportunities for pedestrian connections between the development areas and the existing adjacent residential areas, as well as for circular walks along the GI corridor. Improvements to the existing at-grade railway crossing at the end of Old Salts Farm Road (just south of North Barn) would transform the accessibility of the western half of the Lancing Gap, with opportunities for walks between this neighbourhood and that of the New Monk's Farm site to the north.

Development principles

- The historic map shows that the field pattern surrounding Old Salts Farmhouse persists today, with the stream forming the natural boundary of the landscape setting to the farmhouse. This historic landscape setting to the listed building is retained and enhanced, with hedgerows and woodland planting to contain and frame local views.
- Development in the SW corner of the site (to the SW of the track around the farmhouse) does not impinge on the landscape setting of the listed building and is not visible from any sensitive views.
- A broad GI corridor connects the riparian habitats through the site, incorporating a diverse range of adjacent scrub, meadow and woodland habitats alongside and providing extensive areas for SUDs to counteract the low-lying, flood prone character of the site, which is entirely within the fluvial floodplain.
- The existing wet woodland is retained and supplemented by new woodland planting to the north of the corridor, ensuring new woodland belts reinforce the enclosed, wooded character of this part of the Lancing Gap and integrating the new residential areas.
- There is an opportunity to connect the development in this site with that of the land to the NW of the Hasler Estate, to the north of Broadway Park (mobile homes).

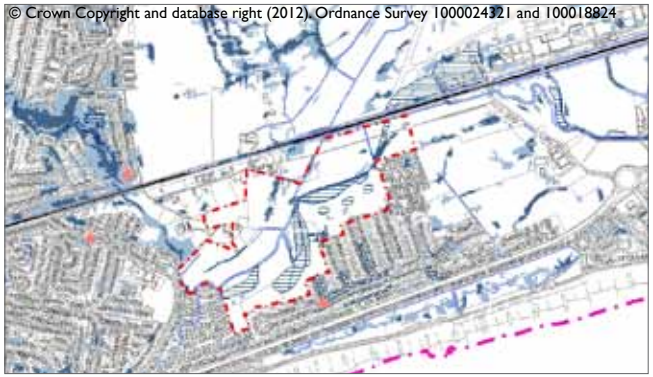


Figure 14e - Surface Water Flooding

- Adur District boundary
- Land NW Hasler estate site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Potential development areas
- Built frontages
- New public greenspace
- Vehicular access
- Pedestrian/cycle access
- New tree and hedgerow planting
- New wet meadows/wetlands as part of SUDS
- Existing vegetation retained within site boundary

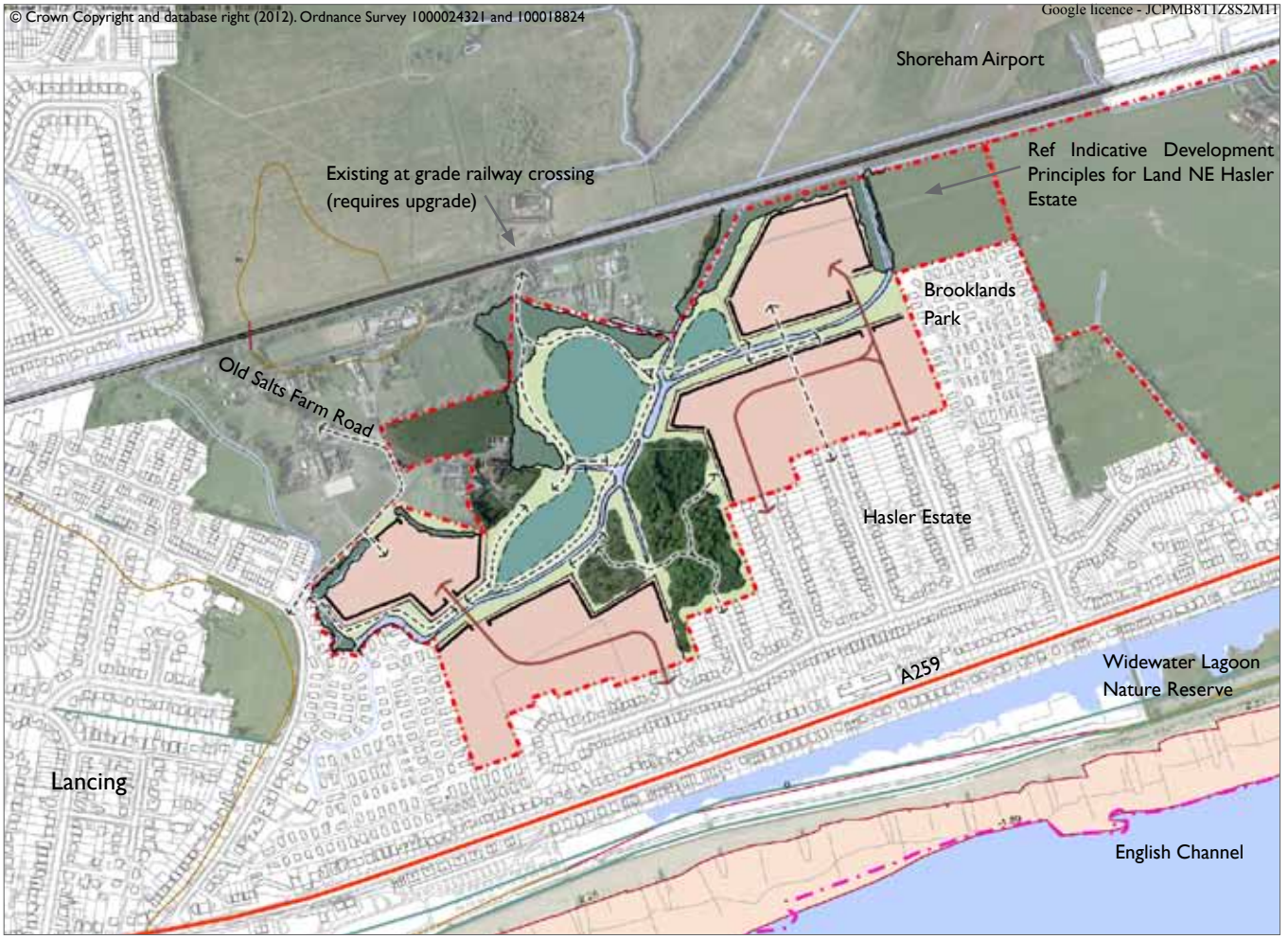


Figure 14f - Land NW Hasler Estate/Old Salt's Farm: Indicative development principles

Land NE of the Hasler Estate - Off New Salts Farm Road

This part of the Lancing Strategic Gap is subdivided by New Salts Farm Road, which crosses the open fields between the A259 and Shoreham Airport via a low bridge under the railway. As the 1879 OS map shows, this road marks the alignment of the outer historic flood embankment. The distinctive, sinuous alignments of other historic flood defences are visible as curving boundaries within the farmland to the east of the road; the farmland here has a more distinctive, irregular (historic) pattern than the large arable fields to the west of New Salts Farm Road and there are meandering watercourses and marshy scrapes within the pastures.

Landscape and visual issues

This flat farmland is highly visible in local views from the A259 and New Salts Farm Road. The open character of the landscape, with relatively poor hedgerow enclosure, contributes to its overall visibility. In long distance views from the Downs (eg View 9 - See Figure A6 on p25 Technical Annex A for viewpoint location) the open fields provide a valuable 'slice of green' separating the urban areas to the south from the buildings of Shoreham Airport. The smaller fields to the east of New Salts Farm Road also contribute to the setting of the Adur Estuary, the most important landscape feature in the area, and form part of the gateway to Shoreham and South Lancing at the edge of the Estuary crossing.

Trees along the railway embankment to the north and the conifer belt along the edge of the Adur Recreation Ground provide some enclosure to the north and east, but overall, the farmland feels exposed and there are views to Shoreham Airport, the Downs and Lancing College Chapel to the north; to the south, there is an abrupt interface with housing in South Lancing. New Salts Farm is a local landmark and there is a striking view to the historic Terminal Building (Grade II* listed) at Shoreham Airport from the A259 roundabout.

Ecological issues

The site is dominated by poor, semi-improved grassland. The most important areas of ecological (and hydrological) interest are the networks of ditches and streams that flow across the site towards the River Adur. The riparian habitats alongside the water courses are also valuable, particularly areas of reedbed and tall herb/scrub adjacent to the widest stream in the fields to the east of New Salts Farm Road. The area has well connected habitat networks along the wetland corridors and also to the wetland (ditch) and woodland/scrub habitats along the railway embankments to the north of the site. These ecological corridors through the site link the land to the north of the railway to the Adur Estuary.

Figure 15a - Land NE Hasler Estate - Aerial view

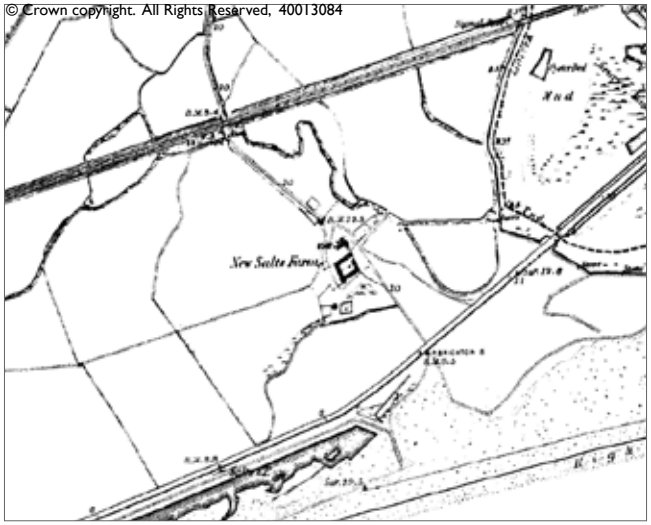
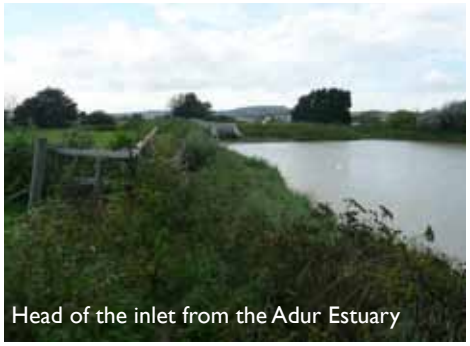


Figure 15b - 1879 OS Map (1:10,560)

View south east from the Downs at Lancing Ring (SDNP)


View south west towards South Lancing from New Salts Farm Road


View north east towards Shoreham Airport & the Downs


Head of the inlet from the Adur Estuary


View north and north east towards New Salts Farm and Shoreham Airport

- SDNP boundary
- Adur District boundary
- Land NE Hasler Estate site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Lancing Gap)

1. New Monk's Farm
2. Saltworks
3. Shoreham Airport
4. NE Adur Fringe
5. SW Adur Fringe
6. New Salts Farm
7. Hasler Fringe
8. Old Salts Farm Fringe

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

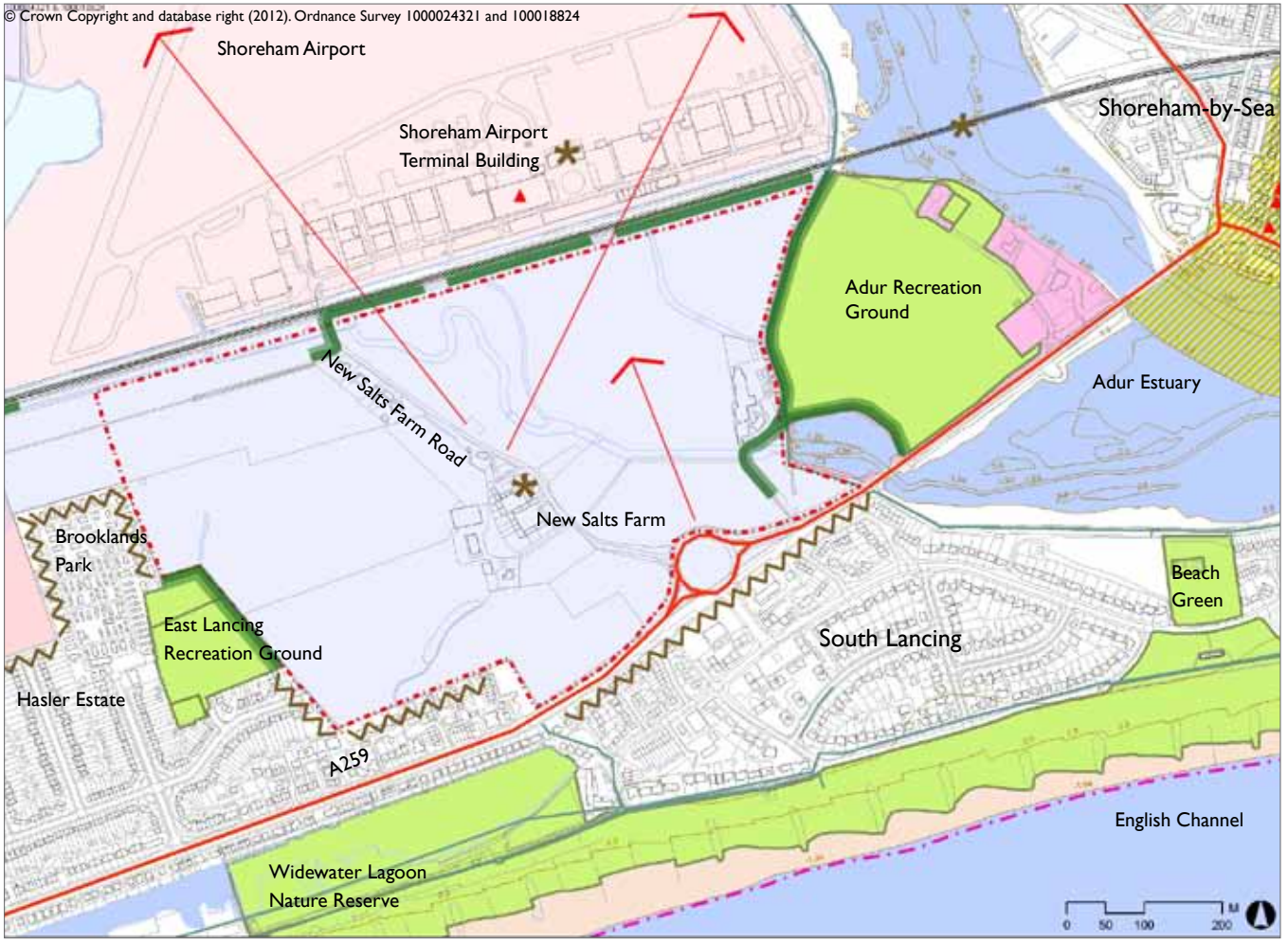


Figure 15c - Land NE Hasler Estate: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- Land NE Hasler Estate site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Breeding Bird
- Winter Bird
- Water Vole
- Great Crested Newt
- Aquatic Plants
- Invertebrate
- Reptile
- Badger
- Bat

Figure 15d - Land NE Hasler Estate: Opportunities and constraints - ecological issues

Land NE of Hasler Estate - indicative development principles

Figure 15f shows indicative development principles for the Land NE of the Hasler Estate site.

Green infrastructure principles

- The fields to the east of New Salts Farm Road are retained and managed for nature conservation, with public access along the stream, linking to existing footpaths along the Adur. Additional footpath links southwards connect to existing footpaths to Widewater Lagoon at the coast.
- The existing isolated wetland area in the fields to the west of New Salts Farm Road is incorporated as part of a chain of new wetlands along the road, which provide a distinctive landscape setting for the new development and a functional SUDS.

Development principles

- By keeping the development edge to the west of New Salts Farm Road, the historic outer edge of the floodplain is legible in the wider landscape and the fields which form the gateway to the Adur Estuary are retained as a key part of the landscape setting of Lancing and Shoreham. This area of 'trapped' estuary land also retains its distinctive and sensitive historic field pattern, with traces of former water channels/flood embankments visible within the fields.
- The new wetlands alongside New Salts Farm Road create a distinctive entrance to the development, appropriate to its edge of estuary site. New Salts Farm Road would be perceived as a 'causeway', with wetlands on either side, giving prominence to the landmark building.
- The farmland to the east of New Salts Farm Road is particularly visible in longer views (eg from Lancing Ring) and this will be retained, but the smaller area of greenspace to the NW of New Salts Farm Road will be perceived (in long views from the north) as an extension of this 'slice' of greenspace, retaining the sense that there is a depth of greenspace beyond the railway/airport buildings and preventing a perceived coalescence of development.
- New woodland planting along the railway embankment screens and integrates the new housing edge, extending the existing chain of woodland/scrub habitats along the railway.
- New housing to the north of Broadway Park could link to (and/or form part of) new development off Old Salts Farm Road (Land NW of Hasler Estate).

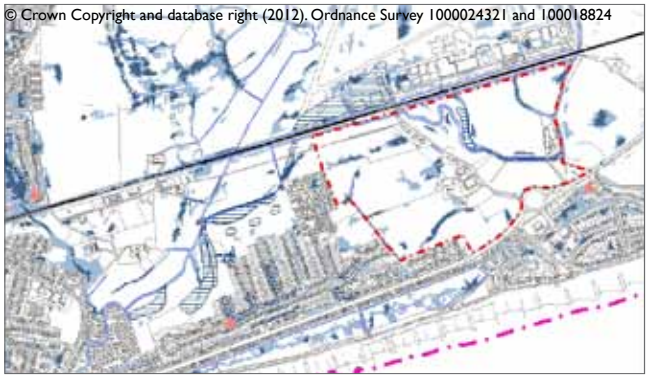


Figure 15e - Surface Water Flooding

- Adur District boundary
- Land NE Hasler Estate site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Potential development areas
- Built frontages
- New public greenspace
- Vehicular access
- Pedestrian/cycle access
- Existing vegetation retained within site boundary
- New tree and hedgerow planting
- New wetland/reeds as part of SUDS

Figure 15f - Land NE Hasler Estate: Indicative development principles

Shoreham Airport

The site is adjacent to the River Adur on the eastern margins of Shoreham Airport. It connects the existing line of airport buildings, which are set out in a line adjacent to (and emphasising the alignment of) the railway and the separate group of industrial/commercial buildings which developed in the NE corner of the airport, adjacent to the A27 and the River Adur. The airport has developed on the former marshy land beside the Adur. It was first used in 1913, but the terminal building dates from 1936 and the airport developed during the inter war and WWII periods.

Landscape and visual issues

The completely flat open and ordered airport landscape contrasts with the glinting natural curve and textured pattern of the River Adur and its mudflats alongside. This is the most accessible part of the Lancing Gap - the only footpath through the centre of the Gap and one that links an urban area to the South Downs Way (via the Downs Link path) runs along the flood embankment of the River Adur, providing close range (high sensitivity) panoramic views across the open airport to the Downs and Lancing College Chapel (a Grade I listed building), to the railway bridge and historic Shoreham Tollbridge (Grade II*) across the Adur and right across the Lancing Gap to Lancing in the west. Local landmarks are Ricardo's buildings on the industrial estate in the NE corner of the airport, the 1930s Terminal Building at Shoreham Airport (Grade II*) and St Nicholas' Church in Old Shoreham (Grade I). There is also a Scheduled Ancient Monument (a WWII dome trainer) to the NW of the airfield.

The curve of the river against the open green landscape of Shoreham Airport is also the focus of longer high sensitivity views from the SDNP eg views 9, 11 and 12 and the area has exceptionally high visual sensitivity (see Section 3). Figure A6 on p25 Technical Annex A shows the location of these viewpoints. The inherent open character of the Shoreham Airport landscape means that it is difficult to mitigate the impacts of development without changing its distinctive local landscape character. The area makes a strong contribution to the impression of open, extensive greenspace in the Lancing Strategic Gap, enhancing the sense of separation between Shoreham and Lancing and providing a striking landscape setting for the lower stretches of the River Adur as it winds towards the sea.

Ecological issues

The closely mown grass and tarmac runways of the airport have limited ecological interest, but the site is adjacent to the Adur Estuary SSSI (nationally important for its mosaic of estuarine habitats, including saltmarsh and inter-tidal mudflats) and may provide a supporting role in terms of wintering/wading birds.

Figure 16a - Shoreham Airport - Aerial view

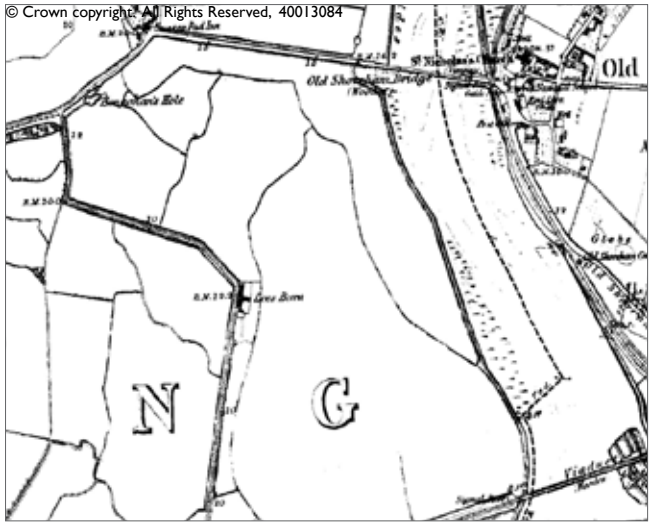


Figure 16b - 1879 OS Map (1:10,560)

Panoramic view to Shoreham Airport, the Downs and the River Adur from the footpath along the Adur embankment (View 13)

Gateway view across the Lancing Gap from the A27 (road) bridge over the River Adur

View west across Shoreham Airport from the Shoreham Tollbridge (View 14)

Saltmarsh vegetation in the Adur Estuary

Looking south east from the Adur footpath to the railway

Remains of a WWII pill box one of a sequence along the Adur path

- SDNP boundary
- Adur District boundary
- Shoreham Airport site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace
- Conservation Area
- Listed Building

Landscape character areas (Lancing Gap)

1. New Monk's Farm
2. Saltworks
3. Shoreham Airport
4. NE Adur Fringe
5. SW Adur Fringe
6. New Salts Farm
7. Hasler Fringe
8. Old Salts Farm Fringe

- Key visual connection
- Existing vegetation defining edges of local viewshed
- Local landmark (landscape)
- Local landmark (building/structure)
- Poor quality urban edge
- Visually intrusive element

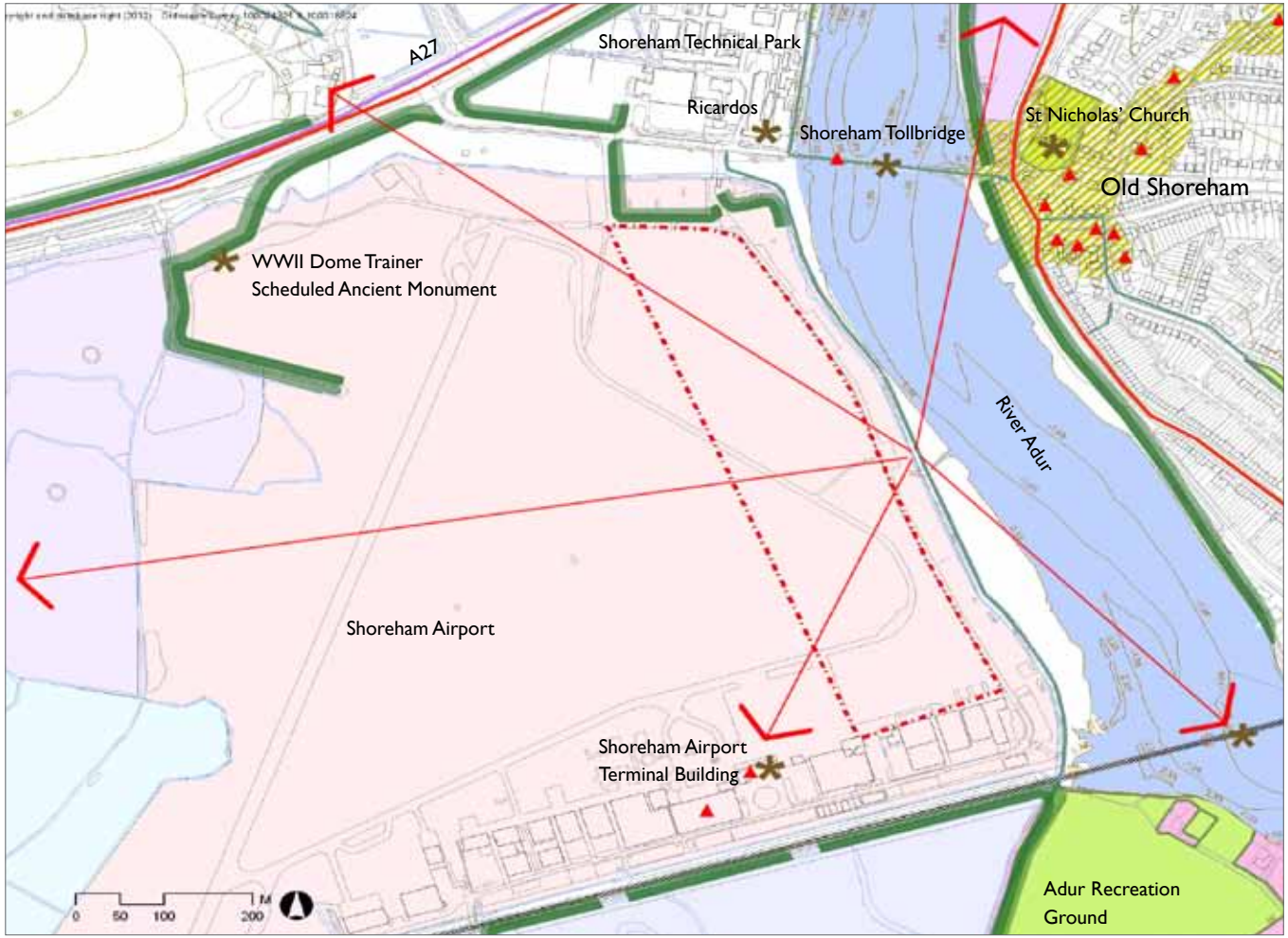


Figure 16c - Shoreham Airport: Opportunities and constraints - landscape and visual issues

- Adur District boundary
- Shoreham Airport site boundary
- Principal road
- Public right of way
- Watercourses and open water
- Existing public greenspace

Ecological designations

- Local Nature Reserve
- SSSI
- SNCI
- Ecological network links
- Core habitat

Recommended further surveys

- Winter Bird

Figure 16d - Adur Estuary: Opportunities and constraints - ecological issues

Shoreham Airport - indicative development principles

Figure 16f shows indicative development principles for the Shoreham Airport site.

Green infrastructure principles

- A buffer adjacent to the Adur Estuary SSSI will be required - the width of this buffer will need to be agreed in consultation with statutory agencies and in conjunction with proposed flood mitigation works.
- The existing GI links (public right of way and ecological network) along the Adur Estuary will be retained

Development principles

- Given the exceptionally high visual sensitivity of this landscape and the iconic nature of views to and along the River Adur valley, development on this site would be visually intrusive and detrimental to a range of highly sensitive views. Development extending along the river's edge would also compromise the perception of extensive open greenspace across the Lancing Strategic Gap and could reduce the perceived sense of separation between Shoreham and Lancing.
- Figure 16f shows the alignment of key sensitive views from the Lancing Ring and Mill Hill areas of the SDNP. The focus of these views is the open land adjacent to the river and the striking natural curve of the river seen against the open greenspace of the airfield Gateway views from the A27 road bridge and the Shoreham Tollbridge (view 14) are also influential and reinforce the need to conserve the central and southern part of the site. Figure 16f also highlights the close range views along the river corridor (eg View 13) and the landscape settings of the historic buildings near the site (particularly the Shoreham Airport Terminal Building and Shoreham Tollbridge). This central/southern part of the site also contributes to the landscape setting for Lancing College Chapel (view 11).
- The only parts of the site where development could be accommodated without detriment to these sensitive views are zones to the north and south, although Figure 16f indicates approximate areas where further development might be accommodated beyond the site boundary. In the northern zone there would be some scope to mitigate the impacts of development adjacent to the existing industrial area and to the south, additional development would be viewed within the context of the existing block of airport buildings (reinforcing the dominant alignment of the railway). However even in these locations, there is a risk that development could compromise the visual integrity of the Lancing Strategic Gap and gateway views along the River Adur.
- Any development in this sensitive location should incorporate the use of green roofs on buildings to mitigate visual impacts and increase the biodiversity value of the development. An open biodiverse roof would be ideal, providing either a meadow design (for ground nesting birds) or a gravel floodplain design (for invertebrates).

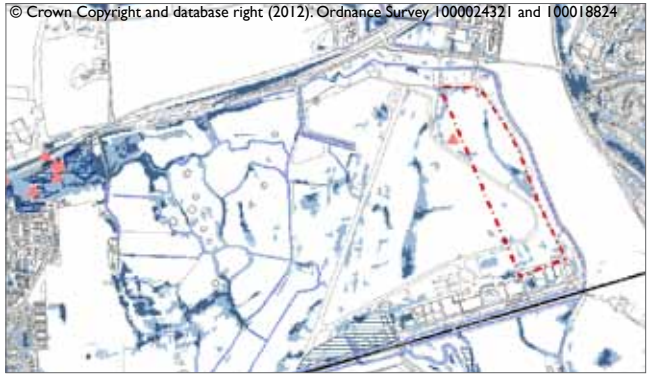


Figure 16e - Surface Water Flooding

SDNP boundary
Strategic Gap
Adur DC boundary
LCAs
Areas visible from sensitive viewpoints
Direction of view

- Adur District boundary
- Shoreham Airport site boundary
- Principal road
- Public right of way
- Watercourses and open water
- River Adur Footpath
- Potential development areas within site
- Potential development areas outside current site
- Vehicular access
- Key heritage assets with views to the site
- New tree and hedgerow planting
- Existing vegetation retained within site boundary
- Important local views
- Focus of high sensitivity views from Lancing Ring area
- Focus of high sensitivity views from Mill Hill area

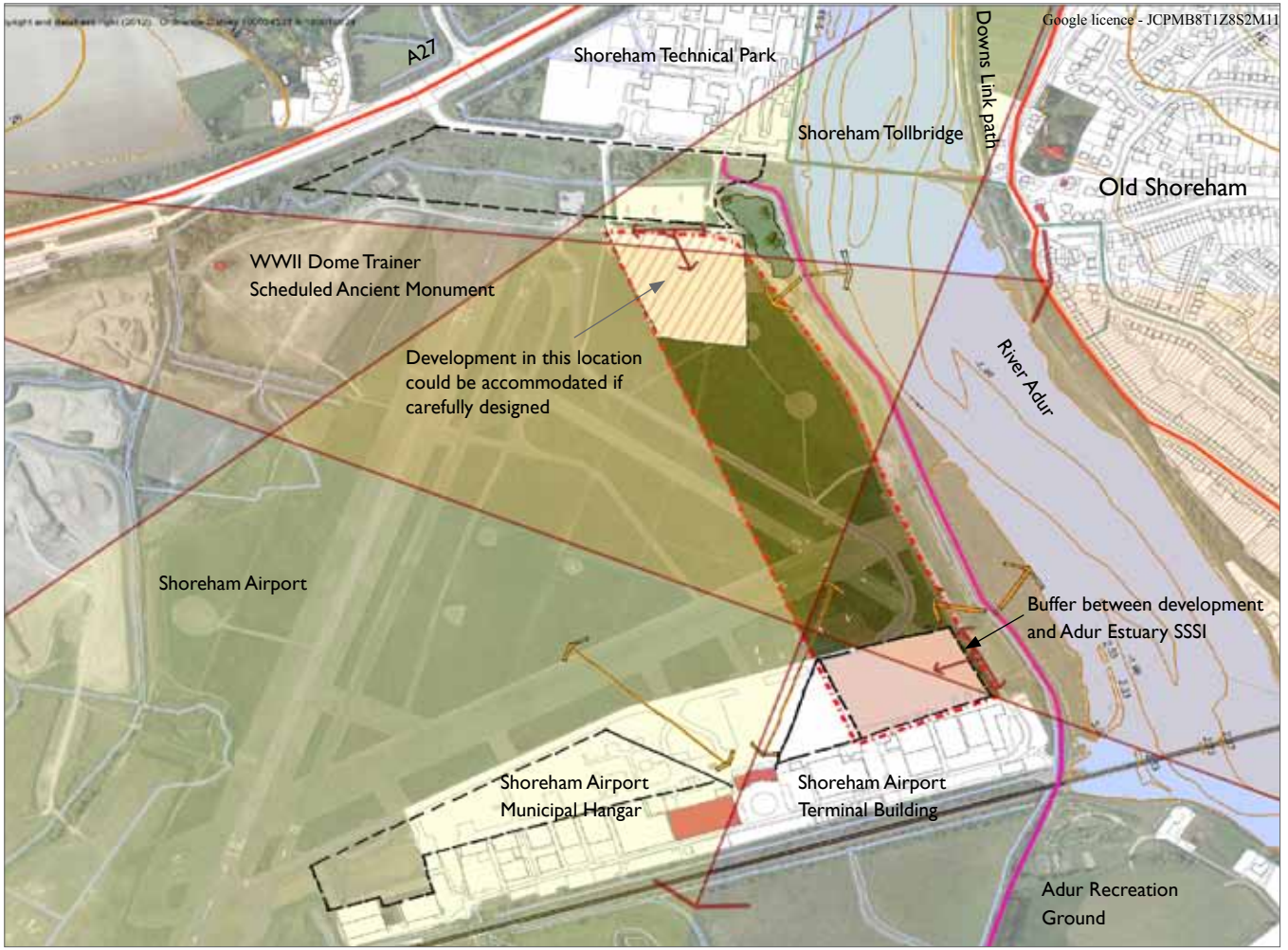


Figure 16f - Shoreham Airport: Indicative development principles

6 Assessment of resulting landscape and ecological impacts

6.1 Resulting landscape and ecological impacts

This final section considers the resulting landscape and ecological impacts of development on the six potential allocation sites, based on an assumption that such development is in accordance with the indicative development principles (and layouts) set out in Section 5.

Landscape and ecological impacts are shown in Table 6.1, which covers an assessment of the individual impacts of the development layouts shown in Figures 11f - 16f on an individual basis and does not take account of the cumulative impacts of these development, which could be implemented in various combinations. Nor does it take account of the predicted impacts of a future shared vehicular access off the A27 for the Shoreham Airport and New Monk's Farm potential allocation sites, as the location of such an access has not been agreed.

A potential development of a football academy on the area immediately to the south of the New Monk's Farm site is under consideration (at the time of writing) and could have significant landscape/visual impacts on perceptions of landscapes within the Lancing Strategic Gap. Such impacts have not been considered individually or cumulatively (with the six potential allocation sites that are part of the current study) in this report.

Shoreham Airport Terminal Building (1936)

6.2 Other relevant considerations

This landscape and ecological assessment contributes to

Table 6.1 - Summary of resulting potential landscape and ecological impacts

Potential allocation sites	Resulting landscape impacts	Resulting ecological impacts
Sompting North	This development could be accommodated with minimal landscape and visual impacts and could be integrated without detriment to the landscape setting of the Sompting Conservation Area.	Development would not be expected to result in significant ecological impacts, as long as the existing woodland/hedgerow habitats are buffered and GI links are retained across the site.
Sompting Fringe	Development would result in a slight reduction in the perceived extent of the Sompting Strategic Gap in some sensitive views from the SDNP (views 1, 2, 4 and 5) but would enhance the existing stark built/landscape interface on the edge of Sompting and would provide much needed public access to the landscapes of the Sompting Gap.	The development would result in the extension and enhancement of existing habitats - meadow, wetlands (ponds/ditches) hedgerow and arable field margins within and adjacent to the site and could also lead to the enhancement of ecological habitats and connectivity along the eastern fringes of the Sompting Gap.
New Monk's Farm	Development to the east of Mash Barn Lane would be visible in some long views across the Lancing Gap, but the new buildings would be partially screened by new planting and a high quality housing/landscape interface would allow a positive relationship between development and the landscapes of the Gap, with public access to footpaths and views. This assessment assumes that views to the site from the A27 would be screened by woodland so that there are no detrimental impacts on the perceived scale and 'greenness' of the Strategic Gap	There has been some loss of wetland habitats as a result of the landform remodelling for the future golf course to the east of the site. This development would provide the opportunity to restore a functional wetland system, with new wetland/riparian habitats associated with the SUDs system.
Land NW of Hasler Estate	Development on this site could be accommodated without detriment to the landscape and visual character of this relatively enclosed part of the Lancing Gap. Development areas could be 'slotted' between areas of retained woodland/scrub and new belts of woodland would screen views to housing while conserving landscape character. There would be opportunities to provide an excellent multi-functional GI corridor, with much needed public access.	The network of ditches and riparian habitats across the site could be retained as a GI corridor, connecting the urban fringe with habitats along the railway embankments and beyond. A broad GI corridor could be designed to connect the riparian habitats through the site, incorporating a diverse range of adjacent scrub, meadow and woodland habitats alongside and providing extensive areas for SUDs. Overall the loss of habitats would be balanced by the creation of new riparian/ wetlands associated with the SUDs system for new development. It would be important to retain the diversity of habitats adjacent to and connected by the wetland corridor through the centre of the site.

Potential allocation sites	Resulting landscape impacts	Resulting ecological impacts
Land NE of Hasler Estate	This development would be highly visible from local roads (A259 and New Salts Farm Road) and is in a relatively open landscape towards the fringes of the Adur Estuary. It would result in a change to the inherent landscape character, but with positive benefits in terms of public access and the development of an enhanced built/landscape interface in this part of South Lancing. There are not predicted to be detrimental impacts on key views across the Lancing Gap. Development here could provide the catalyst for the sustainable management of land to the east of New Salts Farm Road for public access and nature conservation purposes, with further scope for enhancements to the adjacent Adur Recreation Ground and the footpaths on the edge of the Estuary.	The fields to the east of New Salts Farm Road would be retained and managed for nature conservation, ensuring the conservation of the networks of ditches and streams that flow across the site towards the River Adur. The existing isolated wetland area in the fields to the west of New Salts Farm Road would be incorporated as part of a chain of new wetlands along the road. These new wetland habitats would provide a valuable new ecological corridor to the west of New Salts Farm Road
Shoreham Airport	From a landscape and visual perspective, this is an exceptionally sensitive site, which is the focus for gateway views to and along the Adur valley. The key component landscape element in these views is the natural curve of the River Adur which is seen against the contrasting open greenspace of the adjacent airfield. This simple composition also contributes to the landscape setting of four listed buildings and is the foreground to gateway views from a series of bridges across the Adur (the A27, the railway bridge and the Shoreham Tollbridge). The site is adjacent to the only public right of way which crosses the Lancing Gap and one which has additional value because it connects the urban areas of Lancing and Shoreham-by-Sea with nationally promoted routes within the SDNP (the Downs Link and subsequently the South Downs Way). Development along the River Adur would block views across the Lancing Gap, effectively disconnecting the towns of Lancing and Shoreham-by-Sea from their distinctive landscape setting.	The development of the Shoreham Airport site is not predicted to result in detrimental ecological impacts. A buffer adjacent to the Adur Estuary SSSI would be required - the width of this buffer would need to be agreed in consultation with statutory agencies and in conjunction with proposed flood mitigation works.

the overall assessment of site suitability for sustainable development because the indicative development principles demonstrate how development on these sites can promote a high quality environment, which conserves and enhances natural environmental assets. Through provision of green infrastructure, the development sites can also promote healthy lifestyles and improved access to local greenspaces. The indicative layouts also suggest the extent to which the new development can create balanced and integrated communities, in terms of the interface with existing residential areas.

However, it should be noted that the study focuses on landscape and ecological issues and does not take account of other factors, which will be part of the balance of issues to be taken into account in making judgements about the suitability of sites for development. These factors include:

- **Archaeological and historic importance,** which will be particularly relevant at New Monk's Farm (where the historic maps suggest evidence of medieval saltworks in the eastern part of the site); Old Salts Farm (where Old Salts Farmhouse is a historic farmstead on an 'island' of higher land within the coastal plain); and Shoreham Airport, where the settings of five listed buildings and a Scheduled Ancient Monument should be considered).
- **Transport planning** - arrangements for access, traffic circulation, junction capacity etc
- **Requirements for public access to recreational facilities and greenspaces** - to meet adopted standards for proximity to residential areas. New development sites may offset existing deficiencies
- **Flood risk** - and predicted changes to natural watercourses and the water cycle as a result of climate change
- **Restrictions due to airport function** - eg noise contours, building height restrictions etc.
- **Socio-economic factors** - including contribution to identified sustainable patterns of economic growth and proximity to public transport and employment.

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