

Landscape and Visual Impact Assessment



Land North of The Oysters, Hayling Island
25th October 2021



Tyler
Grange

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13956_R04_25th October 2021_LS_CW

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Summary

- S.1. This Landscape and Visual Impact Assessment has been prepared by Tyler Grange Group Limited on behalf of Hayling Island Builders (HIB) Limited. The report considers the effect of the proposed residential development on landscape resources and visual receptors in connection with the land north of The Oysters, Hayling Island, hereafter known as 'the Site'.
- S.2. Outline planning approval is sought for residential development of up to 29 homes including affordable housing, green infrastructure and Sustainable Urban Drainage Systems (SuDS), with all matters reserved except for access.
- S.3. The Site comprises one arable field parcel bound by residential development to the south and east. The western and eastern boundary of the Site is formed by mature trees and hedgerow. A drainage ditch forms the northern boundary. The topography of the Site and surrounding area is relatively flat. The Hayling Dirt Ramps are adjacent to the western boundary with the Hayling Billy Coastal Path/NCR2 beyond this.
- S.4. It is considered that the receiving landscape can successfully accommodate proposals for residential development through the landscape-led scheme with a cohesive green infrastructure strategy. This strategy includes setbacks to existing boundary features (trees, hedgerows, ditches) including enhancement of these features; well planned development that incorporates multifunctional and accessible spaces; and connections and active relationships to the wider landscape, including the Hayling Billy Coastal Path.
- S.5. The nature of the development proposed is not uncharacteristic within the receiving landscape given the relationship of the adjacent residential land use. The development would not result in the loss of any rare or unique features and affects a limited geographical area.
- S.6. Through good design, the proposed development has the ability to deliver a number of beneficial effects and create an attractive and visually balanced development which will complement the local landscape character and enhance its distinctive characteristics.
- S.7. This LVIA concludes that new development will not have an unacceptable effect on the existing landscape and visual baseline.



Section 1: Introduction and Scope

Introduction

- 1.1. This Landscape and Visual Impact Assessment (LVIA) has been prepared by Tyler Grange Group Limited on behalf of Hayling Island Builders (HIB) Limited. The report considers the effects of the proposed residential development on key landscape resources and visual receptors in connection with land north of The Oysters, Hayling Island.
- 1.2. The aim of this assessment is to establish the nature of the change and the sensitivity of the receptors to changes arising from the development.
- 1.3. The area within the red line boundary will be referred to as the "Site" within this report. The study area is set to a 3km radius of the site.

Scheme Overview

- 1.4. Outline planning approval is sought for the development of up to 29 residential dwellings with associated infrastructure on land north of The Oysters (1.26ha). The proposals will include a mix of new dwellings along with informal open space, retained and proposed trees and hedgerows, a Sustainable Urban Drainage System (SuDS) and footpath links to the wider landscape.
- 1.5. A cohesive Green Infrastructure (GI) strategy is proposed that incorporates landscape buffers to existing features along the northern, eastern and western boundaries. The indicative scheme seeks to retain and protect arboricultural features within and surrounding the site, with the exception of one low value, semi-mature oak tree to facilitate the construction of the new access road.

Methodology

- 1.6. The assessment contained within this report has been prepared by a Licentiate Member of the Landscape Institute (LMLI) and has been reviewed by a Chartered Member of the Landscape Institute (CMLI). It has been developed during April through to August 2021.
- 1.7. To assist the reader in understanding the purpose for undertaking landscape assessment work, the definition of 'landscape' as defined by the European Landscape Convention (ELC, 2000) is:

'Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."
- 1.8. This definition applies to all urban, peri-urban landscapes, towns, villages and rural areas. It applies to ordinary or degraded landscape as well as those that are outstanding or protected.
- 1.9. In the context of this definition the assessment process seeks to consider the effects in an objective and systematic manner whilst recognising the perceptual and therefore subjective response to the landscape. Whilst subjectivity can never be removed from the assessment process, by following



a systematic and structured framework of assessment, a more robust assessment can be performed, and more rational and transparent conclusions drawn.

- 1.10. The ELC, 2000 also includes the following definitions that are relevant in understanding the approach taken in the assessment.
- *“Landscape policy” – an expression by the competent public authorities of general principles, strategies and guidelines that permit the taking of specific measures aimed at the protection, management and planning of landscapes.*
 - *“Landscape protection” – actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity.*
 - *“Landscape management” – action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonise changes which are brought about by social, economic and environmental processes.*
 - *“Landscape planning” – strong forward-looking action to enhance, restore or create landscapes.*
- 1.11. Furthermore, the LVIA process deals with the separate but interlinked issues of:
- Landscape Character: The effects of the proposed development upon discrete character areas and/or character types comprising features possessing a particular quality or merit; and
 - Visual Context: The effects of the proposed development on views from visual receptors, and upon the amenity value of the views.
- 1.12. Landscape character is defined in the Landscape Institute’s guidance (*‘Guidelines for Landscape and Visual Impact Assessment’*, Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) 2013) as:
- A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse”.
- 1.13. Changes to the landscape character can arise as a result of:
- Changes to the fabric of the landscape including either the loss of key elements or introduction of new features which alter the distinct character of the landscape; and
 - Changes which alter the way in which the landscape is perceived or appreciated.
- 1.14. Changes of the views will occur where there is:
- Alteration of the view in terms of elements present and the overall composition
 - A change to the skyline; and/or
 - There is a change to the distribution or dominance of features.



- 1.15. Such changes may or may not have an effect on the visual amenity of identified visual receptors.
- 1.16. The methodology and guidelines used in the preparation of this assessment have been developed from the following:
- *An Approach to Landscape Character Assessment*, Natural England, Second Version, March 2018;
 - *Guidelines for Landscape and Visual Impact Assessment* (GLVIA), Third Edition, LI and IEMA, 2013.
 - Technical Guidance Note 06/19 '*Visual Representation of Development Proposals*' (Landscape Institute, 17 September 2019); and
 - *An approach to landscape sensitivity assessment* – to inform spatial planning and land management, Natural England, 2019.
- 1.17. This is a standalone report and does not constitute a landscape chapter in the context of an Environmental Statement (ES) required by an Environmental Impact Assessment (EIA). Table 3.1 of the GLVIA3 outlines what is required in this type of appraisal report, as a project outside of an EIA. This includes the following:
- *"Provides a description of the proposed development, identifying the main features of the proposals and the changes that will occur;*
 - *Establishes the existing nature of the landscape and visual environment in the study area; and*
 - *Systematically identifies and describes the effects that are likely to occur, including whether they are adverse or beneficial."*
- 1.18. Professional judgement plays an important role in the LVIA process where the assessment of landscape character and visual amenity is both a subjective and objective process. It is also important to note that the GLVIA3 places an emphasis on professional judgement as opposed to a formulaic approach; however, a transparent appraisal process should still be evident and the analysis process seeks to provide a narrative to explain the judgement reached.
- 1.19. The assessment process is set out in further detail below but involves the following steps (see Figure 1).



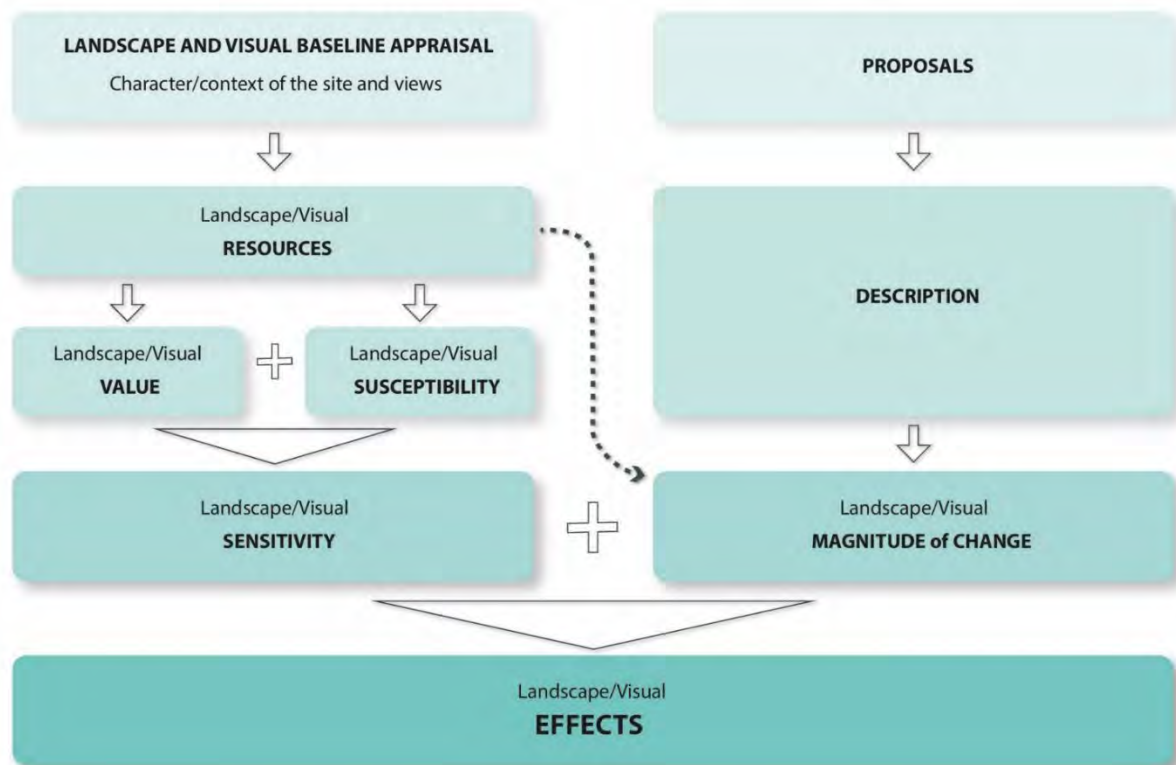


Figure 1

Baseline Appraisal

1.20. The baseline appraisal process is a crucial part of any assessment and includes:

- An assessment of the landscape character of the site and surroundings with reference to published works and checked and verified through fieldwork. This includes the classification of the landscape into units of distinct and recognisable character and land use at a site-specific level;
- An overview of statutory plans and other data regarding relevant designations and landscape and visual related planning policies for the area;
- Field work to determine the extent to which the site can be seen from the wider area, taking into account any significant vegetation or built form which restricts or limits the extent of visibility; and
- Identification of representative viewpoints and determination of likely visual receptors.
- This is set out in Section 3 of the report.

Classification of Resources

1.21. This stage seeks to classify the landscape resources in terms of their individual or collective sensitivity to change and will be set out in Section 4 of the report. This is dependent on:



- The susceptibility of the landscape to the type of change proposed (see Appendix 1: Table 1 for criteria);
 - The type of change proposed; and
 - The value place on the landscape.
- 1.22. As a general rule those landscape resources which make a notable contribution to the character and cannot be replaced or substituted will be of high sensitivity, those resources which are replaceable or contribute little to the overall character of the landscape will be of low sensitivity.
- 1.23. Specific visual receptors, that is, people who may experience a change to views and visual amenity arising from the proposed development, are categorised according to their sensitivity to change. The sensitivity to change of the specific receptor is judged by combining the susceptibility of the receptor to the specific type of change and the value related to that receptor. Viewpoints are then selected to represent the various identified receptors. The sensitivity of the visual receptors will be dependent on:
- The location and context of the viewpoint;
 - The expectation and occupation or activity of the receptors; and
 - The importance or value attached to the view.
- 1.24. Those receptors that are classified as being of high sensitivity to change may include users of public rights of way or nearby residents, those of low sensitivity to change may include people in their place of work or travelling through the landscape in cars, trains or other modes of transport.
- 1.25. To assist in understanding the application of sensitivity to landscape and visual receptors, Appendix 1: Table 1 and Table 2 set out a number of assessment criteria. These allow for the separate consideration of both value and susceptibility factors in order to establish a balanced assessment.

Assessment of Effects

- 1.26. The assessment of effects is undertaken in the knowledge of the scheme proposals and the existing baseline situation and is set out in Section 5 of the report:
- The importance of any landscape and visual effect is a function of the sensitivity of the affected landscape resources and visual receptors (Appendix 1: Table 1 and Table 2) against the magnitude of change that they would experience (Appendix 1: Table 3 and 4).
 - The magnitude of change lies along a continuum from high, where there is a prominent and notable change to the landscape character or view to low where the change is barely perceptible.
 - The consideration of mitigation with the aim where possible, of avoiding, reducing or offsetting significant adverse landscape or visual effects is determined during the course of the assessment where this can be addressed through a suitably worded condition.



- 1.27. The evaluation of landscape and visual effects following mitigation, are known as residual impacts. For the purposes of this report, the term 'impact' refers to the causation of change and effects that are the results of the changes to the landscape and visual context.
- 1.28. The assessment of the nature of the landscape and visual effects depends on the degree to which the development:
- Complements, respects and fits into the existing scale, landform and pattern of the landscape context;
 - Enables enhancement, restoration or retention of the landscape character and visual amenity and delivers policy aspirations; and
 - Affects strategic and important views in addition to the visual context of receptors.

Effect Thresholds

- 1.29. Best practice guidelines stipulate that the effect of any landscape related impact should be evaluated, both during the construction works and following completion of the development. As such, the assessment of potential and residual effects is based upon the thresholds set out in Appendix 1: Table 5.
- 1.30. There are instances where the impact results in an effect which is neither adverse nor beneficial. These effects are considered to be neutral. Negligible and minor effects are not considered to be of particular importance when considering whether a proposal is acceptable in landscape and visual terms. Effects that are assessed as being Moderate and High may need to be considered in the planning balance.



Section 2: Landscape Policy

Relevant International, National and Local Designations

- 2.1. This section should be read in conjunction with **Plan 3: Landscape Planning Policy Context**.

National Planning Policy

National Planning Policy Framework (NPPF) 2021, National Planning Practice Guidance (NPPG) 2021 and National Model Design Guide (2019)

- 2.2. The National Planning Policy Framework (NPPF) was published on 24th July 2018 and updated in February 2019 and July 2021. It outlines the Government's planning policies for England, setting out how these are expected to be applied. The NPPF is a material consideration in planning decisions and any development would need to accord with the following planning provisions.
- 2.3. At the heart of the NPPF is a presumption in favour of sustainable development (Paragraph 11). For decision-taking, a development that accords with a current development plan should be approved without delay; and, where the development plan is absent, silent, or relevant policies are out of date, permission should be granted unless:
- "i. The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
ii. Any adverse impact of doing so would significantly and demonstrably outweigh the benefits when assessed against the policies in this Framework taken as a whole."
- 2.4. Footnote 7 provides examples of the protected areas or assets of particular importance that the NPPF policies refer to, these include land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty.
- 2.5. Paragraph 20 refers to strategic policies that should set out a strategy for the pattern, scale and quality of development and make sufficient provision for housing, infrastructure for transport, community facilities and conservation and enhancement of the natural, built and historic environment, including landscapes, and green infrastructure and planning measures to address climate change mitigation and adaptation.
- 2.6. The importance of promoting healthy and safe communities is also considered within the Revised NPPF. In support of this, it states that access to *"a network of high-quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities"*. To facilitate this Paragraph 98 considers the importance of public rights of way, stating that *"planning policies should protect and enhance public rights of way and access. Local authorities should seek opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails."*
- 2.7. Paragraph 119 states that policies and decisions should *"promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions"*.



- 2.8. In addition to this, Paragraph 120(a) states that planning policies and decisions should *“encourage multiple benefits from both urban and rural land, including through mixed-use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside.”*
- 2.9. Chapter 12: Achieving Well-Designed Places sets out the criteria needed within a Local Plan to enable good design, which is a “key aspect of sustainable development” that *“creates better places in which to live and work and helps make the development acceptable to communities”*. Paragraph 130(a-f) states that planning policies and decisions *“should ensure that developments...are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation...”*
- 2.10. Chapter 15: Conserving and Enhancing the Natural Environment specifies how planning policies and decisions should contribute to and enhance the natural and local environment.
- 2.11. Paragraph 176 states that *“great weight should be given to conserving and enhancing the landscape and scenic beauty”* in landscapes with the highest status of protection, National Parks, the Broads and Areas of Outstanding Natural Beauty.

Planning Practice Guidance

- 2.12. With regards to Landscape, the Planning Practice Guidance reiterates that the NPPF is clear that plans should recognise the intrinsic character and beauty of the countryside, and that strategic policies should provide for the conservation and enhancement of landscapes. This can include nationally and locally-designated landscapes but also the wider countryside.
- 2.13. Where landscapes have a particular local value, policies need to identify their special characteristics and be supported by proportionate evidence. Policies may set out criteria against which proposals for development affecting these areas will be assessed. Plans can also include policies to avoid adverse impacts on landscapes and to set out necessary mitigation measures, such as appropriate design principles and visual screening, where necessary. The cumulative impacts of development on the landscape need to be considered carefully.
- 2.14. The NPPG states that land within the setting of designated areas (AONB) often makes an important contribution to maintaining their natural beauty, and that poorly located or designed development can do significant harm. This can especially be the case where long views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the designated area is complementary

Local Planning Policy

- 2.15. The Site falls within the boundary of Havant Borough Council. The Havant Borough Local Plan was submitted for examination to the Secretary of State and Local Government on 12th February 2021. Until adoption, the current local plan comprising the Core Strategy (March 2011) and the Site Allocations Plan (July 2014) will remain in place but the revised plan refers to the same issues.



- 2.16. The following text summarises the planning policies relevant to townscape and visual issues, as well as adopted Supplementary Planning Documents (SPDs) and other published guidance and studies that are of relevance.

Havant Borough Core Strategy (Adopted March 2011)

- 2.17. The following policies are relevant to the Site in relation to landscape and visual matters. Extracts of these exact policies can be found at **Appendix 2**.

Policy CS11: Protecting and Enhancing the Special Environment and Heritage of Havant Borough

- 2.18. Ensuring the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment (**See Appendix 3**) are protected.

Policy CS13: Green Infrastructure (GI)

- 2.19. Ensuring existing GI is protected and new GI is encouraged, where appropriate, either through on-site provision of financial contributions.

Policy DM8: Conservation, Protection and Enhancement of Existing Natural Features

- 2.20. Ensuring landscape distinctiveness and local habitats are conserved through the protection of existing features such as trees, woodland, hedgerows etc.

Interim Conclusions relating to Policy

- 2.21. The Site is not located within any statutory or non-statutory designations for landscape character or quality.
- 2.22. Development upon the Site should contribute positively to local identity and distinctiveness of the landscape and successfully integrate with the local landscape surrounding the Site, in accordance with Policy CS11.
- 2.23. A sufficient GI strategy should form part of the development proposals and existing GI including trees and hedgerows should be protected so that development integrates into its surroundings, adding visual interest and amenity, in accordance with Policy CS13. Provision of new trees is expected as part of the development proposals to provide shade, shelter and cooling as well as biodiversity benefits, in accordance with Policy DM8. This includes the successful implementation, maintenance and management of landscape planting schemes.



Section 3: Baseline Appraisal

- 3.1. The characterisation process is a non-value judgement process; therefore, classifying landscapes and seascapes into distinct areas does not suggest that one character is more sensitive than another or valued by people more or less.
- 3.2. The landscape character appraisal process reviews the wider landscape character type at a national level and then explores more detailed character features at a regional / local level, before analysing site-specific land use, informed by fieldwork, that informs local distinctiveness and sense of place. This report sets out the context to each of the published character assessments and the need to consider the character at a scale appropriate to the proposals.

Landscape Character Context

- 3.3. This sub-section should be read in conjunction with **Plan 4: Published Landscape Character**.

National Landscape Character

- 3.4. Natural England's National Character Assessment (2014) identifies the Site as falling within **NCA 126: South Coast Plain**. For the purpose of assessing the effects of development, National Character Areas (NCA's) are relevant; however, they are very broad and set out the key characteristics of large geographical area. Whilst NCA's do not provide an appreciation of the site-specific issues which need to be taken into account in the determination process, it should be noted that one of the identified characteristics is discernible in relation to the wider landscape surrounding the Site. Extracts of this document describing the relevant NCA can be found at **Appendix 4**.

Regional Landscape Character

Hampshire Integrated Character Assessment, Hampshire County Council (May 2012)

- 3.5. At a county level, the Site is entirely located within **Landscape Character Area (LCA) 9H: Hayling Island Coastal Plain** within the Hampshire Integrated Character Assessment, 2012. Extracts of the above can be found at Appendix 5.
- 3.6. Key characteristics that are established within this document and relevant to the Site include:
- "Predominantly agricultural land use.
 - A system of straight manmade ditches and channels that drain the agricultural land.
 - Tree cover comprising remnant woodland and mature hedgerow oaks.
 - Hayling Billy disused railway is main recreational experience on the west coast."



Figure 2: Panoramic context image of the Site and surroundings.



Local Landscape Character

Havant Borough Townscape, Landscape and Seascape Character Assessment, Kirkham Landscape Planning Consultants (2007)

- 3.7. At a district level, the Site is entirely located within **LCA31: Central Hayling Plain** within the Havant Borough Townscape, Landscape and Seascape Character Assessment, 2007. Extracts of the above can be found at **Appendix 5**.
- 3.8. Key characteristics that are established within this document and relevant to the Site include:
- “Predominantly flat landscape slightly mounded towards the central area.
 - Productive arable landscape in the centre of the LCA with thin or non-existent hedgerows... Few hedgerow boundaries survive in this area but the character of the enclosure pattern is retained.
 - Centrally the drainage pattern exists of straight manmade ditches which align with some hedgerows, while others sit within the open agricultural plain.
 - Good levels of tranquillity are appreciated along the Hayling Billy Coastal Path which aligns adjacent the shoreline to the west.”

Site-Specific Character

Site Description

- 3.9. The Site comprises one, irregular shaped arable field parcel bound by residential development to the south and east. The northern boundary is formed by a man-made ditch, The western boundary of the Site is formed by a group of willow trees on the bank of a ditch.
- 3.10. The topography of the Site and surrounding area is relatively flat, gently sloping towards the manmade ditches that are established along the boundaries.
- 3.11. The Hayling Dirt Ramps are adjacent to the western boundary with the Hayling Billy Coastal Path/NCR2 beyond this to the west. There are no PRoW or permissive routes that cross the Site.

Interim Conclusions relating to Landscape Character

- 3.12. Development upon the Site should take into consideration the key characteristics as described above when drafting proposals. Existing landscape features such as trees, hedgerows and ditches should be approached sensitively within a cohesive Green Infrastructure Strategy that wraps around the built form and through the Site to protect existing features. There is an opportunity to bolster existing hedgerows with new native stock and plant additional trees to ensure the longevity of these characteristics and enhance the existing baseline.
- 3.13. The Hayling Billy Coastal Path is an important recreational route that runs along the west coast of Hayling Island. Landscape buffers and vegetation enhancements should form a key element of the landscape strategy to protect and enhance this feature.



Visual Context

- 3.14. In order to determine the extent of the area from which the development has the potential to be seen, Geographic Information System (GIS) and Ordnance Survey Terrain data were modelled to create a topographical plan (refer to **Plan 4: Topography**) and this is followed by the Zone of Theoretical Visibility (ZTV) mapping (refer to **Plan 5: ZTV**). The computer generated ZTV is created using bare earth OS 3D modelling data and does not take into consideration the screening effect of built form, trees and vegetation and how this may influence the visibility of all phases and development upon it. It does however record visibility at a ridge height of 10m where areas of purple would have the potential for visibility. This information provides a starting point for the fieldwork in terms of determining the extent of visibility and the likely receptors. Field verification is essential in establishing the extent of the actual visual envelope for the development.
- 3.15. The field verification process enables the assessor to view the Site and define the limits of the visual envelope, so it only includes those locations from which the Site is evident in views, excluding those that are barely discernible and taking into account vegetation and built form.
- 3.16. The field verified visual envelope is limited to local views due to the effect of intervening vegetation and built form between the Site and the viewer. The topography of Hayling Island (refer to Plan 4) is also extremely flat (approximately 14 metres difference from the highest point to the lowest point of the island) which also heavily restricts views. The combination of topography and vegetation on the boundaries effectively restricts the area from which the proposed developments will be visible to the immediate vicinity.

Viewpoints

- 3.17. This sub-section should be read in conjunction with **Plan 6: Viewpoint Location Plan**. The identification of views is carried out from external spaces within the public domain, and not from buildings or private spaces.
- 3.18. The photographs included in this report have been taken using an SLR digital camera using a focal length equivalent to 50mm, they are intended to provide an indication of the composition of the view and extent of visibility, it is recognised that such views are best experienced in the field. The photographs were taken during April 2021 when the trees were in leaf, on a sunny day with good visibility. These photographs are shown in **Plan 7: Photosheets 1-8**. The chosen viewpoints and extent of the study area have been informed by GIS mapping and fieldwork. TG has then utilised professional judgement in order to undertake the assessment.
- 3.19. 8 selected viewpoints are as follows:
- Photoviewpoint 1: Taken from Charleston Close to the east of the Site, looking west.
 - Photoviewpoint 2: Taken from Billy Road in the new development to the south of the Site, looking north.
 - Photoviewpoint 3: Taken from the Hayling Billy Coastal Path (Shipwrights Way) to the west of the Site, looking east.
 - Photoviewpoint 4: Taken from the Hayling Billy Coastal Path (Shipwrights Way) to the north of the Site, looking south.



- Photoviewpoint 5: Taken from Public Right of Way footpath 108/521/1 to the north of the Site, looking south.
- Photoviewpoint 6: Taken from permissive route on the coast to the west of the Site, looking east. This footpath is not a designated Public Right of Way.
- Photoviewpoint 7: Taken from Public Right of Way footpath 108/93/1 to the east of the Site, looking west.
- Photoviewpoint 8: Taken from Solent Way on Portsea Island to the west of the Site, looking east.

Distant to Middle-Distance Views (500m -3km)

- 3.20. Distant and middle-distance views to and from the Site are obscured by vegetation, built form and relative topography that exists around the Site.

Close Distance views (500m and less)

- 3.21. North – Views are generally obscured by built form along Saltmarsh Lane and beyond (See Photoviewpoint 5), assisted by vegetation on the outskirts of residential properties and bounding the fields to the north.
- 3.22. East – Residential development along Charleston Close, Dances Way and West Lane generally obscures any views into the Site from the east (See Photoviewpoint 7). Close distance views from Charleston Close into the Site are obscured by vegetation along this boundary. Residential properties with rear garden's directly abutting the eastern boundary have views into the Site, filtered by their boundary fence and garden vegetation.
- 3.23. South – The southern boundary of the Site is currently formed by a ditch with scattered young trees along it. Views are generally restricted by the built form along this edge except for the two roads that terminate at the southern boundary (Billy Rod and Signal Way) (See Photoviewpoint 2). Residential properties with rear garden's directly abutting the eastern boundary have views into the Site, filtered by their boundary fence and garden vegetation.
- 3.24. West - The western boundary of the Site is formed by mature trees on the boundary of the Hayling Dirt Jumps. Beyond this, lies the Hayling Billy Coastal Path. This route is heavily vegetated on both sides near to the Site which obscures views for pedestrians travelling along this route and also those beyond to the west (See Photoviewpoints 3, 4, 6 & 7). The vegetation is generally mature and dense, with both thick hedgerow and tall trees on either side; however, there are locations where gaps in the hedgerow afford views into the Site from the western boundary. Residential development at The Oysters can be seen in the context of the view alongside the trees on the boundaries of the Site which form a mature landscape framework (See Photoviewpoint 4). Further to the west by approximately 200 metres, the waterfront forms a distinctive boundary to the island which limits the amount of receptors viewing the Site from the West. The Solent Way long distance footpath is established on the other side of the water, approximately 3km away from the Site. No intervisibility was evident and therefore effects from this location were scoped out of this report (See Photoviewpoint 8).



Visual Receptors

3.25. Having conducted the field work and analysed the views from the 8 locations, the following receptors and associated viewpoints have been identified as being relevant for consideration of the visual effects of the proposed development:

- Photoviewpoint 3 and 4 are located to the west of the Site on the Hayling Billy Coastal Path and are representative of footpath users in this location.
- Photoviewpoints 1 and 2 are located to the east and south of the Site and due to the private nature of their views are representative of residents on the direct perimeter of the Site.



Section 4: Classification of Resources

Landscape Character and Landscape Resources

- 4.1. The threshold and terminology referred to in this section are set out in **Appendix 1**. The classification of the sensitivity of the landscape character and landscape resources is related to:
- The susceptibility of the landscape;
 - The type of change proposed; and
 - The value placed on the landscape.

Landscape Susceptibility

- 4.2. This means the ability of the landscape to accommodate the development proposed without undue consequences for the maintenance of the baseline situation.
- 4.3. GLVIA3 defines the susceptibility of a landscape receptor to change as:
- “...the ability of the landscape receptor (whether it be the overall character or quality / condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies”. (Para 5.4)
- 4.4. When considering the susceptibility of the Site to accommodate development, it is in the context of the existing settlement which directly abuts the northern and eastern boundary and is present nearby to the south. In relation to the classification of susceptibility to change we apply the thresholds of susceptibility as high, medium and low.
- High susceptibility: The landscape is such that changes (in terms of the development as proposed) would be entirely at odds with the character of the local area.
 - Medium susceptibility: The landscape is capable of receiving a considered scheme where a degree of consistency is sought in relation to the existing scale, pattern, grain and use. Mitigation may be appropriate to enhance assimilation.
 - Low susceptibility: The landscape has the ability to receive the development as proposed without undue negative consequences and would be consistent within the local area.
- 4.5. Considering the character assessment in Section 3 and the settlement context, the susceptibility of the receiving landscape to the proposed development is low. This reflects the scale of the proposed development and the Site’s relationship to the existing development both within and around the site.



Landscape Value

- 4.6. The Site is not subject to a value designation and so in order to assess the qualities and characteristics of the Site and its context, the GLVIA3 approach has been adopted within this LVIA. This is analysed in accordance with GLVIA3 Box 5.1 as set out below in Table 1.
- 4.7. In considering the landscape value of the site, the following aspects of the landscape are noted as relevant in the assessment process:
- Landscape Quality (condition): A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements;
 - Scenic Quality: The term used to describe landscapes which appeal primarily to the senses (primarily but not wholly the visual senses);
 - Rarity: The presence of rare features and elements in the landscape or the presence of a rare Landscape Character Type;
 - Representativeness: Whether the landscape contains a particular character, and/or features and elements, which are considered particularly important examples;
 - Conservation interests: The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of a landscape as well as having value in their own right;
 - Recreation value: Evidence that the landscape is valued for recreational activity where experience of the landscape is important;
 - Perceptual aspects: A landscape may be valued for its perceptual qualities and/or tranquillity; and
 - Associations: Some landscapes are associated with particular people, such as artists or writers, or event in history that contribute to perceptions of the natural beauty of the area.
- 4.8. For each of these considerations there is a range from 'high' through 'medium' to 'low' in terms of the landscape's performance against these criteria. In the table below (Table 1) these issues are considered in relation to the Site and the nature of the proposed development:



Table 1 – Landscape Value

Criteria	Observations/Comments
Landscape Quality	What is the integrity, intactness and physical state of the landscape? The Site is currently used for arable crop production and is of negligible ecological importance (See TG Ecological Impact Assessment for further details). The trees which are present in association with the Site are predominantly of low to moderate quality and value, with the exception of two high quality and value oak trees (See TG Arboricultural Impact Assessment for further details). Other landscape features that are present including manmade ditches and native hedgerows which are generally considered to be in low to moderate condition. The urban edge to the north, west and further south has an influence on the landscape which affects the rural quality. The landscape quality is considered 'medium'.
Scenic Quality	How does the landscape appeal to the senses? The Site comprises two arable fields and therefore scenic quality is restricted within the Site. It is bounded by residential development on the northern and western side, with additional residential development approximately 300-metres south which also affects the scenic quality of the Site. Tree and hedgerow planting that is present within the Site and along its boundaries, including the western edge abutting the Hayling Billy Coastal Path, heavily filters public views into the Site are therefore restricts the number of people. Private views into the site are limited to the residential areas to the north and west where there is limited vegetation at the boundaries. As a result, the scenic quality of the Site is considered 'low'.
Rarity	The presence of rare elements or features? As noted above, the landscape of the Site is arable crop which is typical for the field parcels within the surrounding landscape and not rare locally or at a broader scale. The Site has no intervisibility or connection with the wider coastal landscape and Accordingly, the rarity of the Site is 'low'.
Representativeness	Commonplace pattern or characteristics? Whilst the Site possesses some typical characteristics of the Hayling Island Coastal Plain LCA, these are not considered to be especially important or rare examples of their type. Representativeness is considered to be 'medium'.
Conservation Interests	Interplay with ecological, historical and cultural aspects? No ecological aspects that could affect the principle of development have been identified, although it is recognised that there are some habitats and features that make a contribution to ecological diversity and interest (See TG Ecological Impact Assessment). The Site is identified as part of the 'Solent Waders and Brent Good Strategy (SWGBS) as a 'Low Use Site'. The Site is not near any Conservation Area or historical interests. As a result, the Conservation Interests are considered 'low'.



Criteria	Observations/Comments
Recreational Value	Evidence of recreational activity and degree of accessibility? There are no public footpaths or PRow present on the Site and the Site is not currently accessible to the public; however, the Hayling Billy Coastal Path is present on the western periphery that abuts the Site. No clear pedestrian link is established between this footpath and the Site. The Hayling Billy Coastal Trail is part of the Shipwrights Way which is a 50-mile long distance path that links the towns and villages of East Hampshire. As a result, the Recreational Value of the Site is considered 'low' as there is currently no public access within the Site.
Perceptual Aspects	Tranquillity or wilderness/cognitive dimensions? The Site is located in a relatively remote area which creates a sense of remoteness and tranquillity, as identified in the Local Landscape Character published guidance from the views of Hayling Billy Coastal Path. This is diluted by the presence of residential development in the vicinity. Whilst portions of the Site have a sense of tranquillity when viewed from the Hayling Billy Coastal Path, the overall Site and surrounding landscape lies towards the lower range in terms of relative tranquillity. The Site is considered 'low' in terms of perceptual aspects.
Associations	Documented associations with art, literature, historic events and notable people? There are no known cultural associations relating to the Site. Accordingly, the associations of the Site are considered 'low'

- 4.9. Having considered the key elements related to the Site in accordance with GLVIA3 and considering the absence of qualitative designation, it is our judgement that the Site and its perceptible surroundings should be considered **medium-low** value.

Landscape Sensitivity

- 4.10. Combining the landscape susceptibility (low) and landscape value of the Site (medium-low), the Site and its perceptual surroundings are considered to be of **medium-low** sensitivity to change.
- 4.11. As noted above, the landscape resources of relevance to the Site, its wider landscape context and the development proposals are:
- Agricultural (arable) character;
 - Predominantly flat topography;
 - Enclosed pattern with limited (or non-existent) hedgerow boundaries and tree cover comprising remnant woodland and mature oaks;
 - Connections to Hayling Billy Coastal Path (main recreational experience on the west coast); and



- System of straight manmade ditches and channels that drain the agricultural land.

4.12. Most of these resources are characteristic features of local importance and contribute to the overall character of the wider area.

Visual Resources

Susceptibility

4.13. This means the ability of the visual receptor to view the proposed development without undue negative consequences. This LVIA considers:

- **High** visual susceptibility to be defined as: The visual composition following the development as proposed will include discordant and incongruent elements;
- **Medium** visual susceptibility to be defined as: The visual composition following the development as proposed will be consistent with the baseline situation, although some aspects may be at odds with the visual composition; and
- **Low** visual susceptibility to be defined as: The visual composition following the development as proposed will be in harmony with the existing composition.

4.14. Considering the visual context in section 2, the susceptibility of the receiving landscape to accommodate the development is **medium-low**. This reflects the Site's existing location on the edge of existing residential development to the north, east and south of the Site.

4.15. Having undertaken field work to ascertain the visibility of the Site and analyse the views from a selection of representative viewpoints, the following people (visual receptors) have been identified as having the potential to be affected by the development of the site:

- Residents within properties adjacent to the site (The Oysters, Charleston Close, Dances Way, Saltmarsh Lane, West Lane and Glebe Close);
- Users of the Hayling Billy Coastal Path;
- Agricultural workers in the southern fields; and
- Motorists using the local road network and within the neighbouring residential estates.

4.16. Existing residents within the neighbouring properties overlooking the Site will experience views on a daily basis. As a result their sensitivity to change will be **high**.

4.17. Users of the Hayling Billy Coastal Path will be focussed on their desired recreational activity including enjoying views across the rural landscape. As a result, their sensitivity to visual change will be **high**.

4.18. Agricultural workers within the surrounding fields are considered to have a **low** sensitivity due to their focus being on their work.

4.19. Motorists using the local road network will primarily be focussed on driving and will be travelling at speed gaining glimpsed views of the Site. As a result, their sensitivity to change will be **low**.



Section 5: Assessment of Effects

The Proposals

- 5.1. In order to identify and describe the effects that are likely to occur it is necessary to understand the changes that may potentially affect the landscape and visual resources specifically. The following text, therefore, describes the development in those terms.
- 5.2. The proposed development, as presented in outline form, will:
- Seek to create residential development up to 29 new open market and affordable homes. Development will accommodate sustainable attenuation and landscape, ecology and conservation enhancements.
 - Develop a cohesive Green Infrastructure (GI) strategy that incorporates landscape buffers to existing features along the norther, eastern and western boundaries, providing an attractive setting for new homes (approximately 30% of the Site will be accessible Public Open Space). Scattered tree planting is proposed along the northern boundary to provide partial screening between new and existing properties, as well as benefitting flora, fauna and on-site biodiversity.
 - Provide new high-quality dwellings and associated gardens that will be positioned facing outwards to positively address public spaces and the wider landscape, creating an attractive urban edge which offers natural surveillance and offers a safe and well-defined public environment.
 - Create a movement network of pedestrian and cycle friendly streets to encourage sustainable and healthy forms of travel. Due to the proximity to the Hayling Billy Coastal Path, a dedicated pedestrian and cycle route will also be introduced along the western boundary to maximise opportunities for sustainable travel.
 - Improve blue Infrastructure within the development area through Sustainable Urban Drainage Systems (SUDS) using existing ditches which feature as a placemaking setting for new homes. An attenuation pond to the east will extend the capacity of the existing pond and offer both amenity, biodiversity and flood mitigation value.
 - Retain all primary arboricultural features within and surrounding the Site..
- 5.3. The following sets out the changes (impacts) that are predicted to occur as a result of the proposals which relate to the landscape and visual context.

Construction Phase

- 5.4. There will be a number of activities associated with the development of the site during the construction phase. They include the following temporary impacts relevant to the LVIA:
- Excavation and storage of spoil material;
 - Lighting of the construction site, as necessary during the winter months, subject to an approved Construction Management Plan (CMP) and appliance with appropriate conditions;



- Vehicles associated with the delivery of materials and staff, and movements within the site for moving building materials;
- Fencing of the site for health and safety purposes and to protect existing vegetation from construction activities;
- Construction of infrastructure and new buildings;
- Demolition of existing buildings to accommodate access into the site; and
- Implementation of new landscaping proposals (including the new areas of planting; trees and shrub planting).

Operational Phase

The completed development will result in long-term effects, which will include a change in land use from the existing arable fields to residential development and associated access.

Mitigation Measures

- 5.5. Mitigation measures are those measures proposed to prevent/avoid/reduce and where possible offset or remedy (or compensate for) any significant adverse landscape and visual effects.

Mitigation during Construction Phase

- 5.6. Existing trees and hedgerows that are to be retained within the proposed development will be protected during construction activity. Measures will be implemented to ensure that trees/hedgerows which will not be removed do not suffered damage through operations on site or indirect damage from spillages within the root zone or storage causing root compaction in accordance with BS5837:2012 and Habitat Regulations, 1997.
- 5.7. Any new planting will be undertaken during the planting season (October to March) where possible. This will ensure systematic implementation of new planting and a means of ensuring the most successful outcome for plant establishment.

Mitigation incorporated Within the Development

- 5.8. The scheme seeks to introduce green buffers (minimum 5 metres width) to the northern, eastern and western boundaries to protect existing features, including the Hayling Billy Coastal Path, Hayling Dirt Jumps and associated tree cover and ditches at the boundaries.
- 5.9. Development will be restricted to 2.5-storey development blocks in order to minimise potential effects on any skyline views, particularly from the Hayling Billy Coastal Path and properties overlooking the site.
- 5.10. Retention and reinforcement of the vegetation on site will strengthen the existing landscape framework. New planting in and around the residential development area, including street trees, will create a new structure that softens the effects of the built form as well as providing shading and cooling properties to reduce the effects of climate change. This will also provide biodiversity and biosecurity enhancements with the inclusion of mixed native species.



- 5.11. Lighting will be required in order to provide safe routes through the site (pedestrian/vehicular). There will also be lighting on the outside of buildings as well as internal lighting to normal domestic standards. Existing and proposed trees, hedges and shrub planting will all help shield any potential light spill on local receptors. This lighting will be limited and choice of fittings will ensure that there is no upward glow or impact on dark skies.

Assessment of Effects

- 5.12. The sensitivity of the various receptors is set out in Section 3 of the report. This sub-section will now consider the magnitude of change, based on the outline scheme proposed. Reference should be made to **Appendix 1** for the terms used in this section.

Magnitude of Change to Landscape Character

Construction Phase

- 5.13. During the construction phase, the activities and machinery on the Site will introduce uncharacteristic elements into the landscape, resulting in **temporary, medium** magnitude of change that would be limited to the Site area.

Operational Phase

- 5.14. Upon completion, the development will introduce up to 29 new dwellings, highways infrastructure and green / blue infrastructure. Although the character of the Site will be changed with the built form and additional planting replacing much of the existing land cover, the new development will respect the field boundaries and retain existing vegetation to assist assimilation into the Site and won't be out of character with the surroundings as it already contains development and is therefore characterised by built form.
- 5.15. The new proposals will include the strengthening of the boundary vegetation by incorporating space for features to establish and additional planting which will provide a good level of screening all year round.
- 5.16. With the use of appropriate materials, good quality design, boundary treatments and a well-designed layout to maintain and enhance the character of the skyline and enclosed character of the development area, the overall magnitude of change of the completed development will be of low adverse magnitude on the Site.

Magnitude of Change to Landscape Features

- 5.17. The landscape features which relate to the Site are:

Agricultural (Arable) character

- 5.18. The existing land use will be changed and replaced with a mix of residential development and green / blue infrastructure. This is inevitable for development of this type on agricultural field parcels. The magnitude of change to the Site is therefore considered to be **medium** towards this landscape feature.



Predominantly flat topography

- 5.19. The topography of the Site will not be affected by the proposed development and therefore the magnitude of change is considered to be **low** towards this landscape feature.

Enclosed pattern with limited (or non-existent) hedgerow boundaries and tree cover comprising remnant woodland and mature oaks

- 5.20. The Site is not enclosed along the northern edge. Existing field boundary vegetation will be strengthened with new planting, especially along the northern boundary, and will be subject to new long term management regimes to ensure its longevity. The magnitude of change will therefore be **low** towards this landscape feature.

Connections to Hayling Billy Coastal Path (main recreational experience on the west coast)

- 5.21. The Site currently has no publicly available footpaths or connections to the Hayling Billy Coastal Path or surrounding landscape. Through development upon the Site, multiple connections will be implemented to provide an important pedestrian link to encourage active travel and sustainable modes of transport round the island. Other Green Infrastructure and Public Open Space's upon the Site will also encourage outdoor activity and opportunities for play. These enhancements will therefore seek to provide a **low** magnitude of change in terms of pedestrian connectivity by increasing popularity of the Hayling Billy Coastal Path.

System of straight manmade ditches and channels that drain the agricultural land

- 5.22. The system of manmade ditches will form the basic structure of the Sustainable Urban Drainage Systems, accompanied by the attenuation basin located to the west of the Site. The banks of the ditches will be improved and enhanced with native tree stock. These enhancements will therefore seek to provide a **low** magnitude of change towards this landscape feature.

Magnitude of Change to Views

Construction Phase

- 5.23. Due to the proximity of the identified receptors to the Site, the effects of construction can be considered together for those affected on the immediate periphery. During the construction phase, activity on the Site and movement of materials and construction traffic will introduce movement and incongruous elements including construction compounds, scaffolding, fencing, machinery and construction workers.
- 5.24. Considering the above factors, the magnitude of change during the construction phase will be **medium** reflecting the degree of change in the context and composition of the view. However, these effects would be short term and **temporary** in nature and cover a local and limited extent.

Operational Phase

Residents within properties adjacent to the Site (The Oysters, Charleston Close, Dances Way, Saltmarsh Lane, West Lane and Glebe Close)



- 5.25. Views into the Site are afforded from the rear gardens and rear windows of residents abutting and near to the Site. Vegetation and boundary features (fencing) act as a filter that softens views for the majority of receptors in this group. Through additional planting and green buffers along the boundaries, views into the Site will be softened further for these residents and therefore introduce a **medium** magnitude of change as residential development is already present in the context of the view on the eastern and southern boundaries of the Site. The extent of the change will be limited to the few dwellings on the boundary of the Site. Filtering effects of proposed vegetation will strengthen over time as the planting establishes into maturity.

Users of the Hayling Billy Coastal Path

- 5.26. There are filtered views towards the Site as the user travels south along the Hayling Billy Coastal Path, to the west of the site. The primary outlook for these views is along the path as it is bounded by dense vegetation to create a tunnel effect (See Photoviewpoint 3). The existing boundary vegetation of the footpath, coupled with the vegetation surrounding the Hayling Dirt Ramps, are dense and multi-layered and therefore views into the Site are heavily obscured. The extent of change for these receptors will be limited due to the dense vegetation. Trees, hedgerow and scrub vegetation will be retained and a landscaped buffer along the northern boundary will be introduced with additional tree planting to ensure the protection and long-term security of this feature. Therefore, the magnitude of change for this receptor will be **low**.

Importance of Effect

- 5.27. As noted above, the importance of any landscape and visual effect is a function of the sensitivity (Section 3) of the affected landscape resources and visual receptors against the magnitude of change (see above) that they would experience. As appropriate and in accordance with the published guidance, professional judgement is used in the assessment of effects. The following narrative sets out the conclusions of significance based on the baseline analysis, the changes (impacts) that will occur and sensitivity of the receptors described above.

Construction Phase

- 5.28. During the construction phase of the development programme, there will be continuous change to the landscape of the Site and the views experienced by the residents and those moving around the area. It is generally recognised that this is the most disruptive phase of development but is only temporary in nature.

Landscape Effects

- 5.29. In terms of the character (that is an expression of its landscape resources) of the Site and its immediate context, the character of the area will experience localised change with the introduction of elements and features associated with the construction process which is uncharacteristic of the site and adjoining landscape. This disruption will last for the duration of the build. In the lifetime of the construction, the landscape effects are of medium term, local and minor-adverse importance.



Visual Effects

- 5.30. The character and composition of the visual experience associated with the local views will include incongruent elements, such as scaffolding, construction vehicles and plant. People will experience frequent change on a daily basis; however, the duration of this change in visual experience during the construction phase will be short-term. Overall, the importance of the visual effects during the construction period, on those views for those people living around the Site and moving around the local area will be of medium term and minor, adverse. The extent of these views will be limited to the immediate vicinity and therefore the local area only will be affected.

Operational Phase

- 5.31. Whilst there will be direct changes to the Site itself, such changes will be experienced in the context of existing residential development surrounding the Site. The changes will be permanent, although the maturation of the landscape mitigation measures will assist with the assimilation of the development over time and reinforce the integration with the existing settlement. For the purposes of the assessment, it is considered that new vegetation will be effective in terms of landscape and visual contribution within 15 years of planting.

Landscape Effects

Agricultural (Arable) character

- 5.32. The development will result in a complete change to the current land use on the Site itself from arable to residential, however, green buffers are incorporated along all four boundaries to respect the neighbouring residents and avoid impact on the surrounding boundary features including the Hayling Dirt Jumps, the Hayling Billy Coastal Path and existing trees. The landscape effect upon this receptor will therefore be **minor, adverse**.

Predominantly flat topography

- 5.33. The proposed development will retain the underlying topography of the Site and will not introduce any incongruous features that will affect this landscape element. Therefore, the landscape effect upon this receptor will be **negligible**.

Enclosed pattern with limited (or non-existent) hedgerow boundaries and tree cover comprising remnant woodland and mature oaks

- 5.34. The Site is currently not enclosed to the north as there is limited tree cover along this boundary. Other existing tree cover will be retained within large buffers as part of the Public Open Space that is proposed throughout the Site. New planting within the open space areas, as well as street trees and rear garden trees, will help integrate the built form into its surrounding and provide new green infrastructure and canopy coverage throughout the Site. Planting will be a diverse mix including native trees, hedgerows, scrub and shrubs as well as wildflower and wet meadow areas to attract a vast mix of wildlife and provide shelter for the birds and species associated with the island. The landscape effect upon this receptor will therefore be **minor, beneficial**.



Connections to Hayling Billy Coastal Path (main recreational experience on the west coast)

- 5.35. Connections to the public network of paths surrounding the Site, including the Hayling Billy Coastal Path, would be incorporated into the design through a cohesive Green Infrastructure strategy that allows permeability through the Site and promotes sustainable modes of travel and outdoor recreation. Within the developed area, pedestrian links are formed between focal points including the open space and tree-lined streets to create a legible landscape for pedestrians and vehicles. The landscape effect upon the receptor will therefore be **minor, beneficial**.

System of straight manmade ditches and channels that drain the agricultural land

- 5.36. The system of ditches that are present within the Site will be retained and enhanced as part of development proposals as they will form the structure of the Sustainable Urban Drainage System. Their banks will be managed and improved by the introduction of trees and native stock as part of the Green Infrastructure strategy. Therefore, the landscape effect upon this receptor will be **minor, beneficial**.

Visual Effects

Residents within properties adjacent to the Site (The Oysters, Charleston Close, Dances Way, Saltmarsh Lane, West Lane and Glebe Close)

- 5.37. The proposals would be visible from properties surrounding the Site beyond their rear garden fences and associated vegetation. Trees and shrubs along the boundaries would help dovetail development of this nature into the Site context with limited impact on the surrounding residents. The landscape buffers will establish over time to soften the view further. The visual effect upon this receptor will therefore be **minor, adverse**.

Users of the Hayling Billy Coastal Path

- 5.38. The proposed development will not form a prominent element or focus within the view for receptors travelling along this route as the edges of the path are currently formed by dense vegetation on either side. This vegetation creates a tunnel effect (see Photoviewpoint 3) which directs the user's eye down the path whilst experiencing their recreational activity. This, coupled with the landscape buffer on the northern edge of the Site, dramatically softens and filter views into the Site from this location through multiple layers of vegetation within this buffer and the front gardens of dwellings. Therefore, the visual effect upon this receptor will be **minor, adverse**.

Compliance with Relevant Policies

- 5.39. The following text identifies relevant policies with respect to the development proposals and considers compliance or conflict with the Havant Borough Core Strategy.

Policy CS11: Protecting and Enhancing the Special Environment and Heritage of Havant Borough

- 5.40. The proposed development is compliant with this policy and will:
- Protect and enhance the existing landscape setting of the Site in accordance with Havant Borough Townscape, Landscape and Seascape Character Assessment by introducing high



quality design principles and associated landscape. Landscape buffers will wrap around the southern and western edge to preserve local landscape character and mitigate views from the surrounding area, including the Hayling Billy Coastal Path.

- Introduce development that is of a similar scale, mass and form to that is already existing to the north, east and south.

Policy CS13 – Green Infrastructure

5.41. The proposed development is compliant with this policy and will:

- Ensure existing GI is protected through the retention of all primary arboricultural features within generous landscape buffers. Other landscape features including hedgerows and ditches will also be protected as part of development.
- Encourage new GI throughout the Site (approximately 24% of the Site will be accessible Public Open Space) with scattered new groups of tree planting benefitting flora, fauna and on-site biodiversity as well as partial screening between new and existing properties.
- Create a movement network of pedestrian and cycle friendly streets to encourage sustainable and healthy forms of travel, including to the Hayling Billy Coastal Path.

Policy DM8: Conservation, Protection and Enhancement of Existing Natural Features

5.42. The proposed development is compliant with this policy and will:

- Ensure landscape distinctiveness and local habitats are conserved through the retention and protection of all primary existing landscape features such as trees, hedgerows and ditches to form a holistic landscape framework.
- Introduce new native stock to ensure the longevity of the Site's landscape benefits which will increase as they mature.



Section 6: Conclusion

- 6.1. When considering the landscape and visual effects of development it is important to recognise that any change to a greenfield site can result in adverse landscape and visual effects if not undertaken in a sensitive manner. The extent of the effects and degree of conformance with the local context need to be taken into consideration. In addition, the effects need to be put in the planning balance with all other social, economic and environmental elements of the development.
- 6.2. Outline planning approval is sought for residential development including affordable housing, green infrastructure and Sustainable Urban Drainage Systems (SuDS), with all matters reserved except for access.
- 6.3. The Site comprises one arable field parcel bound by residential development to the east and south. The Site does not fall within any statutory or non-statutory landscape designation and the landscape of the Site itself does not possess qualities or characteristics which would indicate it as a 'valued' landscape in accordance with Paragraph 170 of the NPPF (See Table 1).
- 6.4. The area which the proposed development would be visible from is effectively restricted to a small, localised area due to the combination of intervening vegetation, built form and topography that surrounds the Site. There are some glimpsed views into the Site from the Hayling Billy Coastal Path through gaps in dense vegetation. There are also filtered views into the Site from the residential properties adjoining the Site. The scheme would not result in the loss of any identified important views or vistas.
- 6.5. The scheme has been heavily landscape-led and well-designed to overcome constraints related to arboriculture, ecology, landscape, highways and drainage where each discipline has been carefully considered to form a holistic approach to development upon the Site. This includes a Green Infrastructure strategy that involves landscape and biodiversity enhancements and a drainage strategy that includes swales and an infiltration basin with wildlife in mind. Public open space is represented in a linear fashion around the Site with non-vehicular connectivity to the Public Right of Way network and settlement beyond.
- 6.6. It is considered that the receiving landscape can successfully accommodate proposals for residential development through the landscape-led scheme which includes setbacks to boundary features that incorporates multifunctional spaces that maintains a relationship to the wider landscape.
- 6.7. The development proposals have the potential to deliver landscape and ecological enhancements and benefits, through the creation of new habitats, new features such as attenuation ponds and areas of grassland. The creation of new footpath routes through the Site to link up with the public footpath network provides a permeable and connected landscape for pedestrians to travel sustainably.
- 6.8. The nature of the development proposed is not uncharacteristic within the receiving landscape given the relationship of the adjacent residential land use and the development would not result in the loss of any rare or unique features and affects a limited geographical area. The detailed landscaping proposals are yet to be designed but will be specified in a range of planting sizes to



provide instant impact and to ensure that the delivery of the strategy ensues, ongoing maintenance and management will be employed.

- 6.9. It is judged that the overall operational effects on landscape character will be negligible. The change from an arable landscape to a developed one will result in a loss of open fields which will inevitably have an impact upon the Site itself, but these impacts are generally typical of the effects of new residential on any greenfield site on the edge of a settlement. No significant trees will be removed and there will be a number of benefits including new green infrastructure, planting, sustainable drainage and ecological enhancements specific to the long-term enrichment of the Site and the surrounding landscape.
- 6.10. In terms of visual effects, the limited number of people living on the boundaries with views of the development will experience a minor, adverse effect. However, these are small in number and while the view will change it is not automatically construed as harmful. For those using the Hayling Billy Coastal Path, it is assessed that they would experience a minor, adverse effect. Once planting at the boundaries mature, especially along the northern boundary, mitigation value will increase.
- 6.11. Through good design, the proposed development has the ability to deliver a number of beneficial effects and create an attractive and visually balanced development which will complement the local landscape character and enhance its distinctive characteristics.
- 6.12. This LVIA concludes that new development will not have an unacceptable effect on the existing landscape and visual baseline.



Appendix 1: LVIA Methodology Summary of Approach and Criteria Tables



Appendix 1: Informal LVIA Methodology, Summary of Approach and Criteria Tables

An Informal Landscape and Visual Impact Assessment (LVIA) is a standalone report that follows a more informal process than a LVIA for an Environmental Impact Assessment and contributes to the assessment of development proposals and planning applications and is also an iterative process which feeds into the planning and design of a project. For an informal and formal LVIA the broad principles and the core of the approach is similar.

“Judgment needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional” and “should be tailored to the particular circumstances in each case” (GLVIA3 Para1.17, Page 9).

The first step, is establishing the existing nature of the existing receiving landscape and visual environment, using desk top and field assessment techniques, defining the study area and identifying any changes likely to occur independently of the development proposal. The baseline assessment includes information on the value attached to the different environmental resources.

After establishing landscape and visual baseline conditions and the potential opportunities and constraints to inform the layout and design, the approach involves “specifying the nature of the proposed change or development; describing the existing landscape and the views and visual amenity in the area that may be affected; predicting the effects, although not concluding on their likely significance; and considering how those effects might be mitigated” (GLVIA3 Para 3.2, Second bullet, Page 26).

In order to establish the likely level of landscape and visual effects associated with a development proposal, judgments need to be reached about the landscape and visual sensitivity and the anticipated magnitude of impact on those resources. A narrative, alongside summary tables and drawings are usually used, in combination, to present the findings and explain judgments in a transparent fashion.

The key terms used within the ‘assessment’ are:

- Susceptibility and Value – Which contribute to Sensitivity.
- Scale, Geographical Extent, Duration and Reversibility – which contribute to the Magnitude of change.
- Impact -the action being taken.
- Effect – the change resulting from that action.
- Level of Effect - the level or degree of effect on the landscape as a resource and/or the effect on views and visual amenity as experienced by people and is judged by determining magnitude (or the nature of the effects) and registering it against sensitivity.

Sensitivity

Overall sensitivity lies along a continuum of low to high. The *Value and Susceptibility* of a receptor are both considered in forming a judgment of overall sensitivity (see Tables 1 and 2).

Landscape Value is “the relative value that is attached to different landscapes by society” (GLVIA, 3rd edition, page 157). Box 5.1 (GLVIA 3rd version, page 84) sets out some factors to be considered in the identification of valued landscapes which are not recognized by designation. These can be broadly described as: Landscapes recognised and valued for their quality (condition) and/or cultural associations; key characteristics and features as recognised in published landscape character assessments; scenic quality; rarity; representativeness; recreational value and for perceptual qualities, notably wildness and /or tranquillity. An example of how Value can be described at each end of the continuum of low to high is provided in the following Table 1 for landscape receptors. In visual terms, Value relates to that attached to views experienced by receptors (people). An example of how Value can be described at each end of the continuum of low to high is provided below for visual receptors also in Table 1.

Susceptibility is defined as the ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences. It is assessed for both landscape receptors including, landscape character areas, and for visual receptors (people). It indicates the ability of a defined landscape receptor to accommodate the proposed development “without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.” (GLVIA, 3rd edition, para 5.40) and identifies “the occupation or activity of people experiencing views at particular locations and the extent to which their attention may be focused on the views and the visual amenity they experience at a particular locations.” (GLVIA, 3rd edition, para 6.32). An example of how Susceptibility can be described at each end of the continuum of low to high is provided in the following Tables 1 for both landscape and visual receptors.



Magnitude of Change

Overall magnitude of change lies along a continuum of low to high (See Tables 3 and 4). Together the *Scale, Geographical Extent, and Duration and Reversibility of effect* are all considered in understanding the overall Magnitude of change.

Scale of effect is assessed for both landscape and visual receptors and identifies the degree of change which would arise from the development. An example of how Scale of effect can be described at each end of the continuum of low to high is provided in the following Tables 3 and 4, for both landscape and visual receptors.

Geographical Extent of effect is assessed for both landscape and visual receptors and indicates the geographic area over which the effects will be felt. An example of how Geographical Extent can be described at each end of the continuum of low to high is provided in the following Tables 3 and 4 for both landscape and visual receptors.

Duration and Reversibility of effect is assessed for all landscape and visual receptors and identifies the time period over which the change to the receptor would arise as a result of the development. An example of how Duration and Reversibility can be described at each end of the continuum of low to high is provided in the following Tables 3 and 4 for both landscape and visual receptors.

Level of Effect

Best practice guidelines stipulate that the level of effect of any landscape related impact should be evaluated, both during the construction works and following completion of the development. The level of any landscape and visual effect is a function of the sensitivity of the affected landscape resources and visual receptors against the magnitude of change that they would experience. As such, the assessment of potential residual effects can be described as: negligible, minor, moderate, and major. A description is set out in Table.5

The following terms will be used to define residual landscape/townscape/seascape direct and indirect effects:

Adverse: the proposed development may result in direct loss of physical landscape/townscape resources, weaken key characteristics or negatively affect the integrity of a landscape/townscape designation; and

Beneficial: the proposed development may replace poor quality elements of the existing landscape/townscape or strengthen existing landscape/townscape characteristics.

Neutral: the proposed development would result in neither appreciable adverse nor beneficial landscape effects.

The following terms have been used to define residual visual effects:

Adverse: the proposed development reduces visual amenity; and

Beneficial: the visual amenity is improved by the proposed development.

Neutral: the proposed development would result in neither appreciable adverse nor beneficial visual effects.



Table.1 Sensitivity of Receptors Criteria: Landscape Receptors

As set out below, the Sensitivity lies along a continuum of low to high. The Value and Susceptibility of a landscape/townscape/seascape receptor are both considered in understanding and forming a judgment regarding its overall Sensitivity.

	<i>Landscape Value</i>			<i>Landscape Susceptibility</i>
	<i>Designations and Conservation Interests/Associations Landscapes recognised and valued for their quality and / or cultural associations / recreational value</i>	<i>Key Characteristics and Features As recognised in published Landscape Character Assessments or policy</i>	<i>Landscape Condition Degree to which the landscape is intact and legible & its scenic quality</i>	<i>The ability of a defined landscape to accommodate the specific proposed development without undue negative consequences</i>
High	National / Regional Importance (e.g. AONB, National Park, Registered Parks and Gardens)	Features which are dominant within the landscape and are fundamental to defining the distinct landscape character of an area. Important characteristics and features recognised as forming intrinsic part of nationally and regionally designated landscapes. Distinctive individual or rare features.	Distinct landscape structure with strong pattern and intact features. Few detractors or uncharacteristic features or elements present.	The landscape is such that changes in terms of the proposed development would be entirely at odds with the character of the local area, related to matters including pattern, grain, use, scale and mass.
	Local importance (e.g. Conservation Areas, Special Landscape Areas / Features)	Locally important and notable features that contribute to the overall character of an area. Features and elements protected by local policy.	Landscape exhibits recognisable structure and characteristic patterns. Some detracting features present.	The proposed development has a degree of consistency with the existing scale, pattern, grain, land use of the prevailing character, although mitigation may be appropriate to enhance assimilation.
Low	No Designation and no or very few attributes that demonstrably lift the landscape resource, above ordinary, at a local level	Features or elements that are uncharacteristic and detract from the landscape character of an area.	Degraded landscape structure with fragmented pattern and poor legibility of character. Detracting features notable within the landscape.	The proposed development is entirely consistent with the character of the local area, related to matters including pattern, grain, use, scale and mass.

e.g. Medium – Landscape Character Area does not include a designation but includes important characteristics and features that create a distinct landscape structure with strong pattern and intact features. The proposed development has a degree of consistency with the existing scale, pattern, grain, land use of the prevailing character, although mitigation may be appropriate to enhance assimilation.



Table.2 Sensitivity of Receptors Criteria: Visual Receptors

As set out below, the Sensitivity lies along a continuum of low to high. The Value and Susceptibility of a receptor are both considered in understanding and forming a judgment regarding its overall Sensitivity.

	<i>Value (attached to views)</i>	<i>Visual Susceptibility</i> <i>The occupation or activity of people experiencing the view and the extent to which their attention or interest may be focused on the views and their visual amenity at particular locations</i>
High	Recognised national / Important Viewpoints, including those identified within and protected by policy. These viewpoints may be tourist destinations and marked on maps. Designed views, including from within historic landscapes. Users of nationally recognized routes e.g. National Cycle Network, National Trails. Land with public access (i.e. Open Access Land and National Trust Land).	People visiting recognised viewpoints with views towards the development. People using Public Rights of Way and Access Land as part of recreational routes with extensive views towards the development.
	Locally important views/ views. Views from within locally designated landscapes e.g. Conservation Areas and local planning policy. Views from local routes identified on maps Permissive routes, not recognised by policy or identified on maps.	People using recreational facilities or playing outdoor sports with views of the development but for whom views are not the main focus. Users of Public Rights of Way and Access Land with intermittent views towards the development.
Low	No designations present	People travelling along roads or using transport routes where the focus is not on the views and views of the development are fleeting. People at places of work where attention is not on the views. Users of Public Rights of Way and Access Land where views towards the development are limited to glimpses and are not the main focus of attention.

e.g. Medium - views of the landscape are part of, but not the sole purpose of receptors activities on local routes.



Table.3 Magnitude of Change Criteria: Landscape Receptors

As set out below, magnitude of change lies along a continuum of low to high. Together the Scale, Geographical extent, and Duration and Reversibility of effect are all considered in understanding and forming a judgment regarding the overall magnitude of change.

	<i>Scale</i> <i>identifies the degree of change which would arise from the development</i>	<i>Geographical Extent</i> <i>of effect indicates the geographic area over which the effects will be felt</i>	<i>Duration and Reversibility</i> <i>of effect identifies the time period over which the change to the receptor would arise as a result of the development.</i>
High	Highly noticeable change, affecting most key characteristics and dominating the experience of the Landscape/Townscape; introduction of highly conspicuous new development; and the baseline situation will be fundamentally changed.	Extensive affecting the majority or all the Landscape/Townscape Character Area.	Long-term or permanent, the change is expected to be in place for 10+ years and there may be no intention for it to be reversed or only partially reversed.
	Partial alteration to key elements, features, qualities or characteristics, such that post development the baseline situation will be largely unchanged but noticeable despite discernible differences.	Localised, affecting the site and a proportion of the wider Landscape/Townscape Character Area.	Medium-term, the change is expected to be in place for 5-10 years and the effects may be reversed or partially reversed.
Low	Minor alteration to few elements, features qualities or characteristics resulting in a barely perceptible change.	Affecting the site and immediate setting only.	Short-term, the change is expected to be in place for 0-5 years and the effects are likely to be reversed.

e.g. Medium – Highly noticeable change with introduction of highly conspicuous development which will affect the site and a proportion of the character area for a short-term, during construction. The effects are likely to be reversed



Table.4 Magnitude of Change Criteria: Visual Receptors

As set out below, magnitude of change lies along a continuum of low to high. Together the Scale, Geographical extent, and Duration and Reversibility of effect are all considered in understanding and forming a judgment regarding the overall magnitude of change.

	<i>Scale</i> <i>identifies the degree of change which would arise from the development</i>	<i>Geographical Extent</i> <i>Wide, and/or within close proximity, and/or open views.</i>	<i>Duration and Reversibility</i> <i>identifies the time period over which the change to the receptor would arise as a result of the development.</i>
High	Intensive/dominant or major alteration to key elements of the baseline view.	Extensive, open and/or close proximity, and/or direct and/or affecting unscreened views.	Long-term or permanent, the change is expected to be in place for 10+ years and there may be no intention for it to be reversed or only partially reversed.
	Partial/noticeable or minor alteration to key elements of the baseline view.	Framed, and/or contained, and/or medium distance, and/or partially screened views.	Medium-term, the change is expected to be in place for 5-10 years and the effects may be reversed or partially reversed.
Low	Minor alteration to few elements of the baseline view.	Narrow, and/or fragmented, and/or long distance, and/or heavily screened views.	Short-term, the change is expected to be in place for 0-5 years and the effects are likely to be reversed.

e.g. Medium – Intensive and major alteration to key elements of the framed baseline view over a medium distance for a short period of time during construction. The effects are likely to be reversible.



Table.5 Level of Effect Criteria

	Major beneficial:	The development would fit well with the scale, landform and pattern of the landscape and bring substantial enhancements. The development would create a major improvement in views.
	Moderate beneficial:	The development would fit well with the scale, landform and pattern of the landscape, maintain and/or enhance the existing landscape character. The development would create a noticeable but improved change in the view.
	Minor beneficial:	The development would complement the scale, landform and pattern of the landscape, whilst maintaining the existing character. The development would result in minor improvements to the existing views.
	Negligible:	The development would cause very limited changes to the landscape and/or views but creates no significant effects; the development would create neither an adverse or beneficial change to the landscape or visual receptor.
	Minor adverse:	The development would cause minor permanent and/or temporary loss or alteration to one or more key elements or features of the landscape, to include the introduction of elements that may not be uncharacteristic of the surrounding landscape. The development would cause limited visual intrusion.
	Moderate adverse:	The development would cause substantial permanent loss or alteration to one or more key elements of the landscape, to include the introduction of elements that are prominent but may not be substantially uncharacteristic with the surrounding landscape. The development would be clearly visible and would result in adverse effects upon the landscape.
	Major adverse:	The development would irrevocably damage, degrade or badly diminish landscape character features, elements and their setting. The development would be irrevocably visually intrusive and would disrupt fine and valued views both into and across the area.

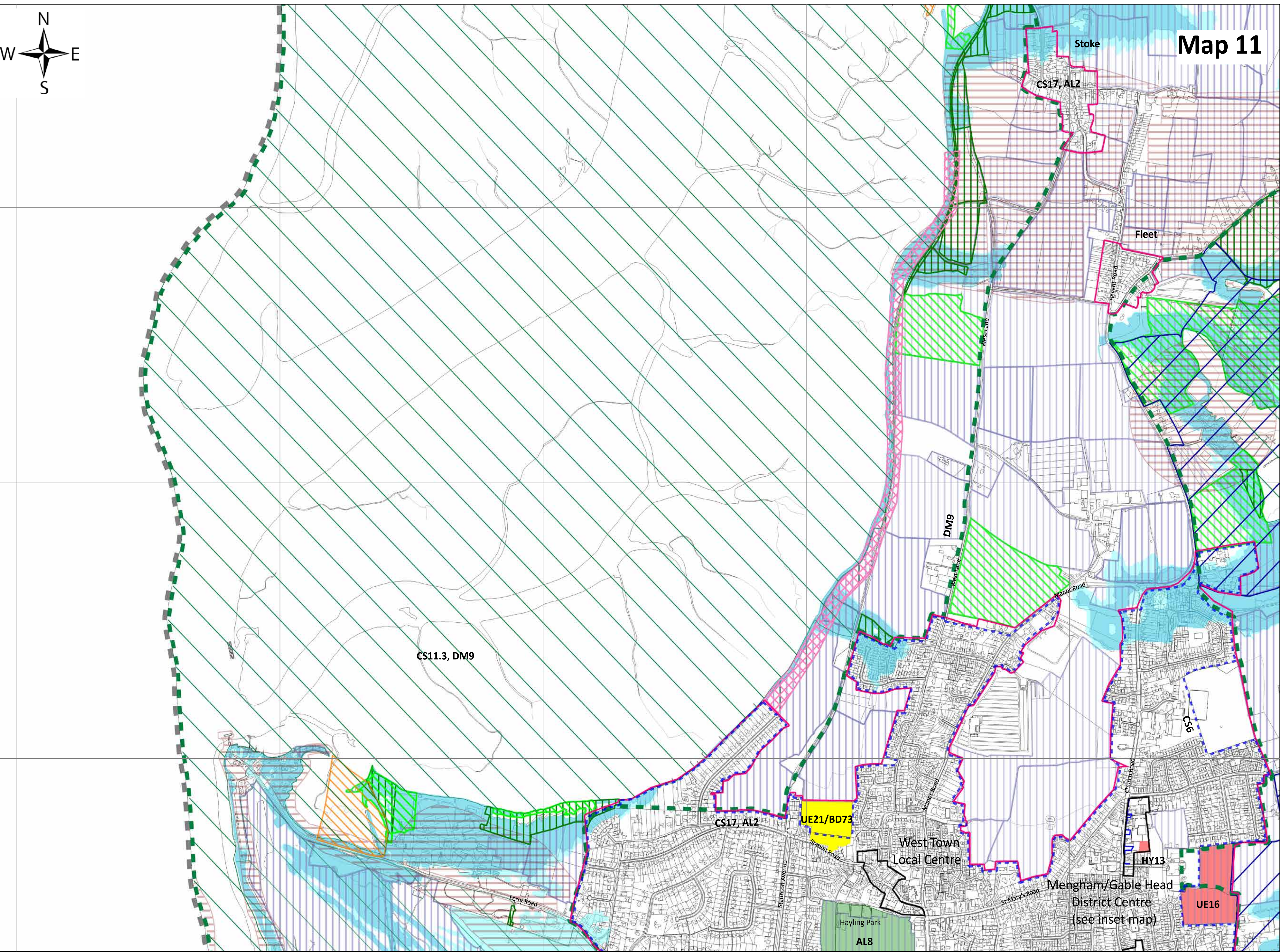


Appendix 2: Havant Borough Core Strategy Extract

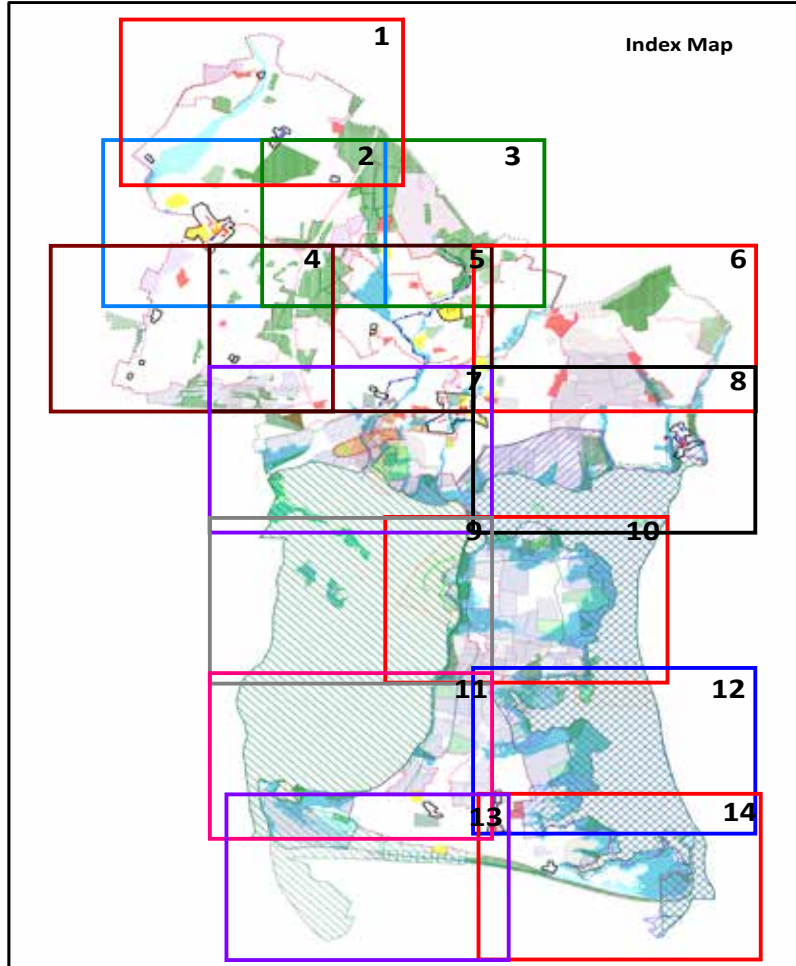


Land North of The Oysters, Hayling Island
Landscape and Visual Impact Assessment

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- Promoting Havant Borough's Economy (CS5)**
- (CS4) (AL3.1) Town, District and Local Centres
 - (AL3.3) Primary Frontages
 - (AL3.4) Secondary Frontages
- Protecting and Enhancing the Special Environment and Heritage of Havant Borough (CS11)**
- (AL8) Local Green Spaces
 - (CS11.3) Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Ramsar, Special Areas of Conservation (SAC)
 - (CS11.3) Site of Importance for Nature Conservation (SINC)
 - (CS11.3) Local Nature Reserve (LNR)
 - (CS12) Chichester Harbour Area of Outstanding Natural Beauty (AONB)
 - (CS15) Flood Zone 2
 - (CS15) Flood Zone 3
 - (DM9) Development in the Coastal Zone
 - (CS11) (DM23) Important Sites Brent Geese and/or Waders
 - (CS11) (DM23) Uncertain Sites Brent Geese and/or Waders
 - (AL4) Coastal Change Management Areas
 - (CS6) Regeneration of the Borough
- Spatial Distribution and Strategic Sites**
- (CS17) (AL2) Concentration and Distribution of Development within the Urban Areas/Urban Area Boundaries
 - (CS18) Strategic Site Delivery
 - (AL6) Havant Thicket Reservoir Pipeline (Route)
 - (AL6) Havant Thicket Reservoir Pipeline (Underground Water Storage)
 - (AL7) Hermitage Stream
- Housing**
- Allocation EM1, HB1, HY1, LP1, LP2, WA1
- Mixed Use**
- Allocations HB3, HY2, LP3, WA2
- Employment**
- Allocations EM2, HB2
- Infrastructure, Implementation and Monitoring**
- (CS19.8) Safeguarding Requirements of Infrastructure Providers
 - (AL5) Indicative Cross - Borough Bus Rapid Transport Route (BRT)
- Hampshire Minerals & Waste Plan (HMWP)**
- Hampshire Minerals & Waste Plan (HMWP)
- Other**
- Havant Borough Boundary



Note

- . (CS4)(AL3.1) Town, District and Local Centres – large scale maps to the rear booklet.
- . The following designations are at January 2014, this information is regularly updated:-
 - (CS15) Flood Zones 2 and 3
 - (CS11.3) Site of Importance for Nature Conservation
- . (CS11)(DM23) Important and Uncertain Sites Brent Geese and/ or Waders are taken from The Solent Waders and Brent Goose Study (2010)



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Appendix 3: Havant Borough Townscape, Landscape and Seascape Character Assessment Extract



Land North of The Oysters, Hayling Island
Landscape and Visual Impact Assessment

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Havant Borough Townscape, Landscape and Seascape Character Assessment Volume 1



February 2007

Havant Borough Townscape, Landscape and Seascape Character Assessment

Volume 1: Character Assessment

Prepared for:

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**Hampshire County Council
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English Heritage

**Countryside Agency
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HAVANT BOROUGH TOWNSCAPE, LANDSCAPE AND SEASCAPE CHARACTER ASSESSMENT

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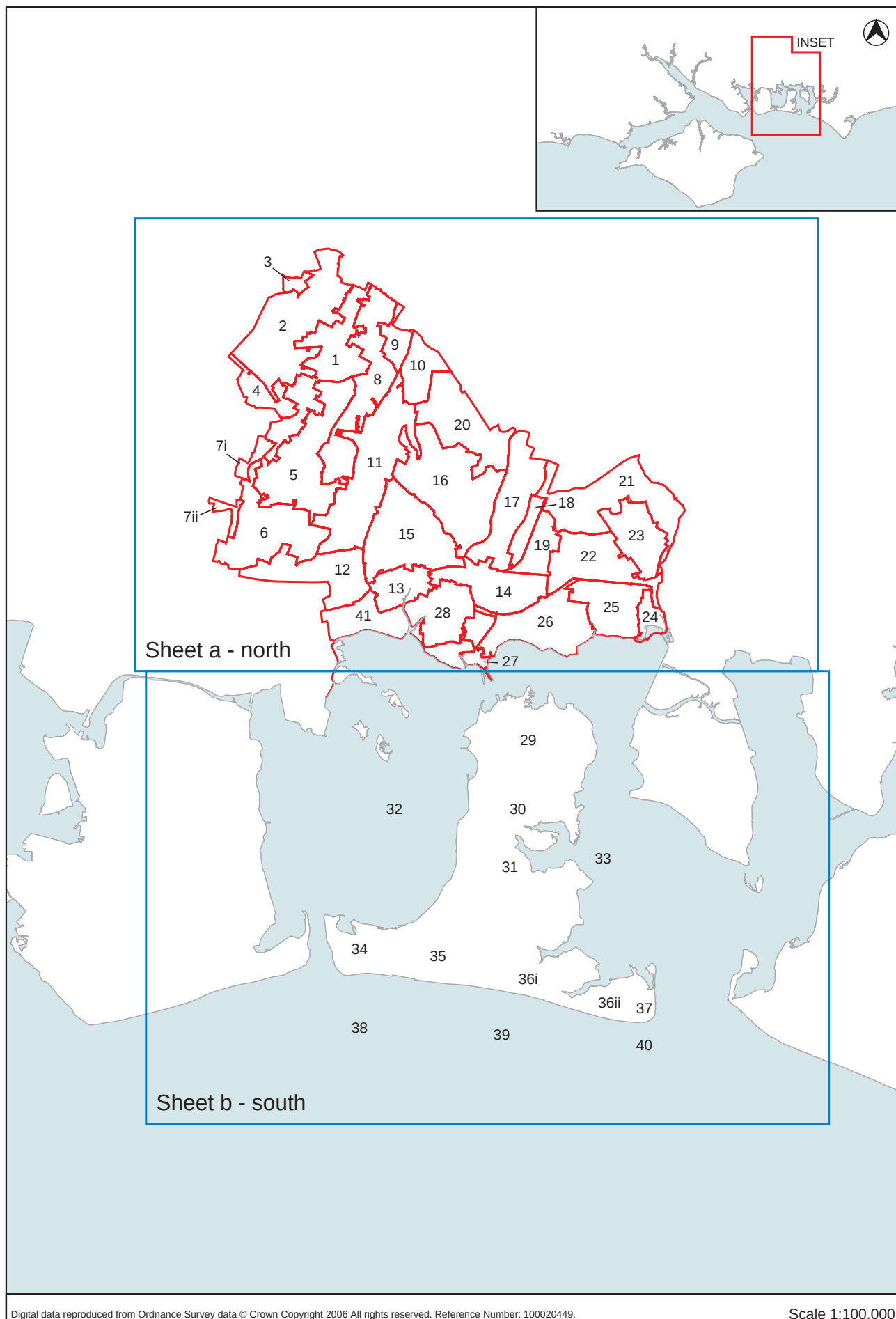
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HAVANT BOROUGH TOWNSCAPE, LANDSCAPE AND SEASCAPE CHARACTER ASSESSMENT

SECTION 1:

INTRODUCTION TO THE STUDY



INTRODUCTION TO THE STUDY

1.1 *Background to the Study*

The landscape character assessment coverage for Hampshire is one of the most developed in the country. The Borough-wide landscape character assessment for Havant Borough Council¹ was originally undertaken in 1996 and has served the Borough well since that time. However, this document preceded the publication of *Landscape Character Assessment: Guidance for England and Scotland 2002*² and *The Hampshire Landscape: a Strategy for the Future* in 2000. These two documents advanced the requirements of modern landscape character assessments in Hampshire towards a much greater integration of landscape, ecological, historical and cultural aspects of the landscape, consideration of the significance of settlements within the landscape, and tranquillity. The importance of public participation was recognised and has since been developed in the County, largely based on the involvement of communities of interest and local community of place groups.

1999 also saw the publication of the *Hampshire Historic Landscape Assessment*, which has informed landscape character assessments undertaken by other districts since that time. Most recently, Hampshire County Council has looked in greater detail at the contribution of habitat diversity in informing landscape characterisation.

There was therefore a need to update the Havant Borough Landscape Character Assessment, in line with current best practice and the approach taken by the County, and other Hampshire boroughs and districts. Most importantly, there was a need to expand the assessment to embrace the complex townscape and the seascape of the Borough and to draw on more recent studies into the townscape pattern (see Bibliography).

The new extended Havant Borough Landscape Character Assessment is a district wide assessment, which sits within the framework of the national and county landscape character assessments and complements the neighbouring district wide assessments. It is designed to inform the emerging Borough Local Development Framework.

1.2 *General Scope of the Landscape Character Assessment*

The Havant Borough Landscape Character Assessment 2006 is designed as an integrated assessment of the rural and urban landscape and seascape. It explores the historical and contemporary events and influences that have shaped the Borough's development and will shape its future and brings together the different urban, rural and marine environments in a seamless way, recognising the close inter-relationship between these different elements.

¹ Havant Borough Council *Havant Borough Landscape Assessment* February 1996

² Landscape Character Assessment: Guidance for England and Scotland. The Countryside Agency and Scottish Natural Heritage. 2002

1.3 *Objectives of the Havant Landscape Character Assessment Project*

The aim of the project has been to provide a clear framework to guide the future development and management of the Borough landscape, townscape and seascape in order to ensure that the distinctive character of the Borough is retained and change is accommodated in a positive way to the benefit of the people who live and work in the Borough, of the ecological and historical value of the Borough and of the overall condition of the landscape and built form.

The prime objectives of the study have been as follows:

- To produce a landscape character assessment that can be readily understood by both the public and professionals and within which the characteristics of the landscape are clearly identified;
- To ensure a fully integrated approach to characterisation informed by using landscape, ecological, historical and cultural assessments and weaving them together to define landscape types and landscape character areas;
- To bring current methodologies employed by landscape practitioners, historians and ecologists together in one study;
- To reflect fully the role of settlement pattern and development, and built form and design, in determining the landscape, townscape and seascape form and the intimate relationship between the built form and the surrounding countryside from which it developed;
- To assist in the conservation, enhancement and restoration of a viable and healthy landscape within Havant Borough through landscape management guidelines;
- To assist in the conservation, enhancement and restoration of the landscape, townscape and seascape through well founded character based built form and development guidelines;
- To inform the emerging Borough Local Development Framework;
- To use the process to identify areas that require further work;
- To involve the general public in the landscape, townscape and seascape character assessment process in a practical and valuable way;
- To use this process of better understanding and communication to enable the public and stakeholders to effectively inform the identification of influences on the landscape, management strategies and planning policy;
- To provide the basis for a district level *Landscape Sensitivity* assessment for the Borough, as part of Hampshire County Council's development of a county wide approach to landscape sensitivity. This will create a tool to direct and inform decision makers in future land use and land management change.

1.4 Summary of Methodology

The methodology adopted for the Havant Landscape Character Assessment follows the guidance set out in *Landscape Character Assessment: Guidance for England and Scotland* 2002. It also draws on the latest developments in the assessment of townscape character, as promoted by English Heritage, including the 'change and creation' programme and recent seascape assessment. The methodology has been developed by bringing together the techniques and means of presentation found in traditional landscape character assessments and historic townscape analysis. The Historic Landscape Character Assessment has also been developed to respond to the complex and detailed patterns in the urban environment, and this in turn has been used to inform the landscape character assessment. Finally the scope of the characteristics under each LCA and presentation of the material was designed to directly lead into the method of approach under adoption by Hampshire County Council to *Landscape Sensitivity*. Consequently the methodology differs from that adopted by other Hampshire districts and boroughs.

A full description of the methodology can be found in *Appendix A* to this report.

Key aspects of the methodology were to:

- To carry out a Landscape Character Assessment that considers all aspects of the landscape, including seascape and townscape;
- To set out the interaction between the historic fabric, urban spaces, green spaces, gateways and street patterns, variety of scale and intimacy, scale and grain of the rural and urban fabric, variation of architecture, historic buildings, designed landscapes, visible archaeological features and their settings, the shoreline, intertidal zone and tidal waters, and ecological character;
- To review and refine the historic landscape character assessment (HLC) carried out at County level for Havant Borough to provide detailed landscape, townscape and seascape HLC categorisation and GIS mapping
- To use the HLC polygons as the mapping blocks for the boundaries of both the landscape character types and character areas
- To identify both positive and negative characteristics within each landscape character area;
- To identify landmark features and key views and the visual relationships within the Borough and between the Borough and its wider setting;
- To identify ecological and historical links and networks running through the Borough;
- To undertake a detailed review of the study area through overlay mapping, desk studies, background knowledge of the area and review of the 1996 Havant Borough study;
- To carry out detailed field surveys and a comprehensive photographic record;
- To achieve compatibility with the existing Hampshire County landscape, historic landscape and ecological assessments and refinement to more detailed level;
- To achieve compatibility with adjacent landscape character assessments including those in Hampshire and West Sussex;
- To undertake consultations at different stages of the project with key individuals and organisations to assist the project team in understanding the local landscape character and forces for change;

-
- To ensure extensive liaison with local residents and local interest groups to draw upon local knowledge and perceptions;
 - To employ 'landscape' as the lead, bringing together public perceptions of the landscape with landscape, ecology, historical and cultural assessments of the landscape to determine and describe landscape types and landscape character areas, to evaluate the landscape and set out broad management strategies.
 - To create GIS mapping and a database;
 - To prepare a report in MSWord, to be also presented as Adobe Acrobat in .pdf format for inclusion on Havant Borough Council's website;
 - To prepare a report that reflects the input from community stakeholders. The Report, maps and illustrations are designed to be clearly understood at a lay level, backed by technical information.

At all times the study was approached with the aim of obtaining a greater understanding of local perceptions of the landscape and reflecting these in the assessment and the final report. The methodology was also developed to provide supporting evidence to the Borough Local Development Framework and to comply with the landscape character assessment requirements of PPS7 and PPS1.

1.5 *Structure of the Report*

The Report is set out in three volumes, with supporting appendices.

Volume 1: Havant Townscape, Landscape and Seascape Character Assessment 2007 brings together the results of the integrated landscape, townscape, seascape, ecology, history and community assessment. It summarises the Borough-wide characteristics of the landscape, townscape and seascape and the influences on the formation of the past and present landscape.

Three stages of classification and mapping have been completed. Firstly, the Historic Landscape Character Assessment identifies, at a detailed level, both landscape and townscape historic character types (HLCs). Secondly, the study classifies the Borough into sixteen district landscape character types (LCTs) which are defined by the overriding geology, land form, and landscape, townscape and seascape pattern at a district level. Thirdly, the Borough is then classified into forty one distinctive landscape character areas (LCAs) where the local features define a specific identity, drawing on the results of the above assessments. Within this context, the LCAs are formed by grouping HLCs into readily recognisable character areas. In many cases a LCA will comprise only one district landscape character type. However, elsewhere a number of district landscape character types will be found in one LCA.

Volume 2: Community Consultation Report 2006 sets out the results of two consultation exercises carried out in March and May 2006.

Volume 3: Appendices includes the Historic Landscape Character Assessment 2006 and supporting background studies as follows:

Appendix A	Methodology
Appendix B	Ecological report
Appendix C	Historic Landscape Character Assessment
Appendix D	Bibliography and References
Appendix E	List of Consultees
Appendix F	Glossary

Mapping has been produced in GIS showing polygon (rather than point) data over OS MasterMap. Figure 1 shows the Historic Landscape Character Areas, Figure 2 shows the Landscape Character Types LCT.A to LCT.P, and Figure 3 shows Havant Landscape Character Areas LCA1 to LCA41. The results of the study are also set out in a GIS Access database which is held by Havant Borough Council and Hampshire County Council. Copies of the supporting Appendices may also be viewed at their offices.

Havant Borough Council will also publish Volumes 1, 2 and 3 of the *Havant Landscape Character Assessment 2007* on the Borough's website in .pdf format on www.havant.gov.uk.

Volume I is set out as follows:

Section One: Introduction sets out the background to the study, its objectives, a summary of the methodology and the structure of the Report.

Section Two: Formative Influences on the Landscape sets out the main influences that have created the landscape we see today across Havant Borough. These include **physical influences** (geology, soils and agricultural capacity, landform and hydrology, climate, ecology and vegetation) and the **human influences** (historic landscape character, historic settlement pattern, historical periods, cultural and community values). **Social and economic influences** are set out in the next section under Forces for Change.

Section Three: Forces for Change – Borough-wide identifies the main forces of change to the landscape of the Borough. It looks at the main aspects of national, regional and local policy and guidance that will affect the future of the countryside and in more detail at the main social and economic forces for change found to affect the Borough. This section has drawn extensively from national, county and local sources and from the responses of consultees. A bibliography of sources and list of consultees is to be found in Appendix E and F of this report.

Section Four: the Character of Havant sets out the characteristics for each landscape character **type** identifying the landscape, ecological historical and community perceptions and requirements for each type. These are key aspects that are common to all the character areas within the character type and are not repeated in the character area descriptions and guidelines. Strategies and guidelines for land management and the built form for the each landscape character type follow this.

Section 5: the Character Areas of Havant sets out the characteristics of each landscape character **area**. There are 41no. LCAs in total. However LCA7 has been subdivided into two areas which are split by the Borough boundary and LCA36 has been split into two separate but similar areas, giving a total of 43 character area assessments.

Local and detailed strategies and guidelines for land management and the built form for each landscape character area follow this.

1.6 *How to Use the Study*

The Havant Landscape Character Assessment is designed to be used as a live document which will advise the planning process and land management within Havant Borough.

Government guidance in PPS7 and PPS1 make it clear that changes within urban areas and the countryside should respect and enhance the distinctive character of the land and built environment. This can only realistically be achieved if those responsible for changes, developers, landowners, farmers, government and local government bodies, have ready access to clear guidance on what makes each area distinctive and how this can be respected and enhanced. This Report sets out that guidance for Havant Borough.

Users of this study are advised that we have tried to avoid unnecessary repetition and therefore it is essential to read the relevant text for both the landscape character type and character area within which the land, which is of interest, falls. The landscape character type sets out the characteristics and guidance common to all areas within the type. The character area specific details are set out under each landscape character area. Context and details of background studies can be found in *Sections 2 and 3* and the *Volume 3 Appendices*, including the results of the *Historic Landscape Character Assessment 2006*.

For clarification, we have adopted the following approach to our classification and assessment.

Landscape classification is central to Landscape Character Assessment and is concerned with dividing the landscape into areas of distinct, recognisable and consistent common character, grouping areas of similar character together³. For the Havant Borough Landscape Character Assessment the Borough has been divided into generic Landscape Character Types (LCTs) and locally distinctive Landscape Character Areas (LCAs).

Landscape Character Types (LCTs) are generic in nature in that they may occur in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical landuse, settlement and built form pattern.

Landscape Character Areas (LCAs) are units of landscape, which are geographically specific and have their own individual sense of place. These are particularly useful in planning and management terms so that appropriate policies or actions can be applied at a local level.

In 1993, Hampshire County Council defined a range of generic Landscape Character Types for the rural areas of Hampshire, divided into two broad groupings: the *Chalklands* and *Lowland Mosaic*. Within Havant Borough, these two groupings were

³ Landscape Character Assessment Guidance for England and Scotland. The Countryside Agency and Scottish Heritage. 2002

subdivided into a total of seven county level Landscape Character Types. These seven types have been examined in more detail and refined, resulting in a more detailed locally specific classification of subdivisions, boundaries and characteristics under sixteen district landscape character types. The relationship between the two is set out at the beginning of Section 4.

The classification, description, strategies and guidelines for each **Landscape Character Area** bring together the generic characteristics of the landscape character types, the historic and contemporary development and land use classification of the Historic Landscape Character Assessment, detailed studies of the landscape, built form, ecology and seascape characteristics of each area and community perceptions and aspirations. The classification, description and guidance also reflect the landscape character assessments of adjacent LCTs and LCAs outside Havant (see Bibliography).

By looking at the forces of change within the Borough of Havant, such as agricultural policy, the future of South Hampshire Sub-region, demand for housing and recreation and protection and enhancement of the countryside, the study identifies the *Key Issues* and *Local Issues* affecting each LCT and LCA.

This understanding of the characteristics and main issues in each character area provides the basis for an overall *Strategy* and more detailed *Guidelines* which are designed to retain and strengthen the distinctive landscape, townscape and seascape character (landscape, biodiversity, history and culture) of each character area, protect each area from inappropriate changes, identify specific improvements to the features of the landscape and form a framework for future change. The *Guidelines* are subdivided into two categories: *Land Management* and *Built Form and Development*.

Key Characteristics: These are the main and most important features that distinguish a landscape character area. They will include the main features of the landscape type (distinctive geology, topography, vegetation) and locally distinctive features.

Key and Local Issues: These include live issues that are anticipated to influence future change in the landscape. Some are a continuation of current changes whilst others are potential issues arising from new or expanding forces of change. The issues are identified from professional sources and the perceptions of the local community and may have either a beneficial or adverse effect on the landscape.

Strategies: An overarching strategy for each landscape character area has been formulated to reflect the main characteristics, the strength or otherwise of local distinctiveness, and the forces of change in the area. The strategies fall under three approaches:

Conserve: where the area has predominantly a strong sense of local distinctiveness; there are a significant number of key characteristics that are valued by the community at large; and the conservation of existing character is paramount.

Enhance: where the area retains a good sense of place but there are signs that this is being eroded by non descript or poor design or inappropriate change. There will be scope for the introduction of new elements to enhance the existing character.

Restore: where the area has lost much of its local distinctiveness. The remnants of a past, more strong and valued, character may suggest that restoration of the earlier pattern is desirable. Restoration may similarly suggest the recreation of a new sense of place building on the key characteristics.

These approaches follow established practice in landscape character assessment⁴. It is also recognised that at times a strategy of new landscape or townscape **creation** may be best, where the driving force will be to create new landscape character, drawing on the merits of the existing landscape, townscape or seascape pattern and form. This study does not consider this in any depth as it is included in urban design studies such as 'Public Realm Design Framework for Havant Borough Council' 2005⁵.

It is also recognised that within an overall strategy, a different approach may be needed to specific features or parts of the area. For example, within a strategy to conserve the predominant positive features of the area, there may be a need to enhance or even remove certain more negative features. A strategy combining these options is therefore sometimes adopted, or a specific approach to a particular issue identified in the guidelines.

Guidelines: These set out recommendations for each landscape character area, based on the natural and cultural landscape characteristics of each area, in order to conserve, enhance or restore a healthy and locally distinctive landscape, townscape and seascape across the Borough.

1.7 Consultation and Community Involvement:

A four stage process has been undertaken to inform the characterisation and identification of strategies and guidelines. In the first instance, during data collection, those bodies and groups with a professional or technical interest in the area (known as Communities of Interest) were consulted by letter. The Community Boards which represent the interests of the local community (known as Communities of Place) were asked to identify members of the Board who would have an interest in being involved in the project.

In March 2006 the Community Boards and a number of residential groups were consulted on the proposed boundaries and key characteristics of the landscape character areas through the distribution of Consultation Packs. This was followed up in May 2006 when workshops were held for representatives of these groups to further inform the characterisation and explore the community's aspirations and concerns in each landscape character area.

In August 2006 the Draft Havant Landscape Character Assessment and the Report on Community Consultation were both posted on Havant Borough Council's website. Consultees from the Communities of Interest were invited to comment on

⁴ Landscape Character Assessment Guidance for England and Scotland. The Countryside Agency and Scottish Heritage. 2002

⁵ Roger Evans Associates. *Public Realm Design Framework for Havant Borough Council* October 2005

the Draft Havant Landscape Character Assessment. In September 2006 a sample from the Havant Landscape Character Assessment was presented to the Members on the Local Development Framework (LDF) Panel at Havant Borough Council.

The results of the March and May consultations with the local community, comments from LDF Panel Members and comments from the Communities of Interest will be considered, leading to the final Report being completed in October 2006.

1.8 *Project Steering Group*

The Project Steering Group consisted of:

David Carman, Project Manager – Hampshire County Council
Julie Boschi – Havant Borough Council
Graham Bryant – Countryside Agency
Graham Fairclough – English Heritage
Linda Tartaglia-Kershaw - Hampshire County Council
Mark Wilson - Hampshire County Council

The project was also advised by:

Andrew Biltcliffe - Havant Borough Council
David Hopkins - Hampshire County Council
David Went – English Heritage

KLPC, Wessex Archaeology and Countryside would like to acknowledge the help and support provided by Steering Group members and other members of staff at Hampshire County Council and Havant Borough Council throughout the study.

Appendix 4: National Character Area (NCA) 126: South Coast Plain



Introduction & Summary

Description

Opportunities

Key facts
and data

Landscape
change

Analysis



Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper,¹ Biodiversity 2020² and the European Landscape Convention,³ we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

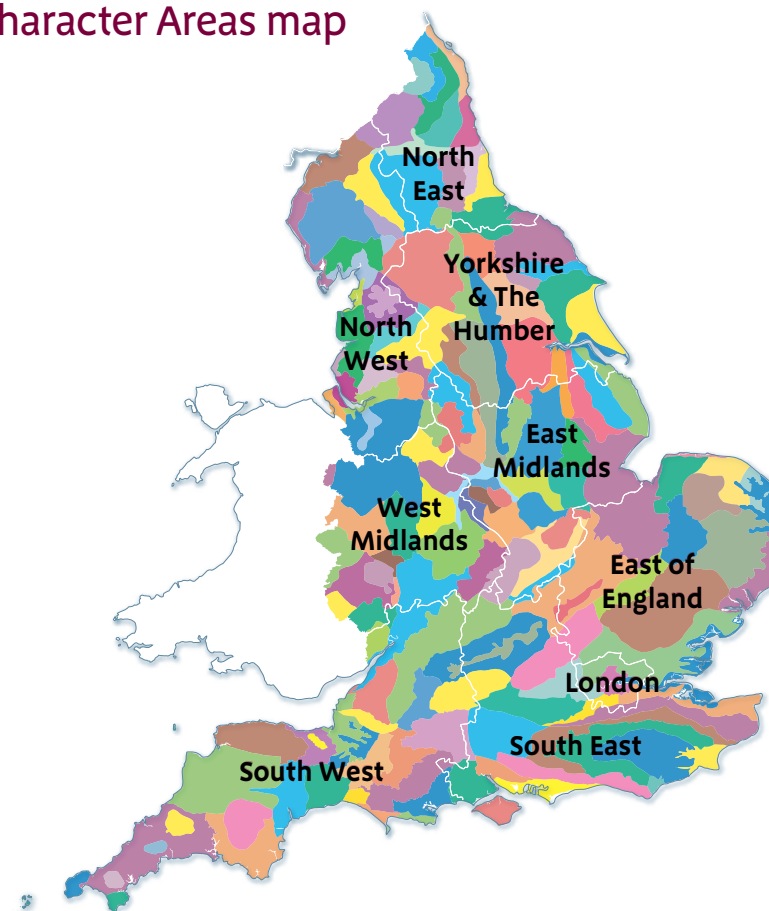
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing ncaprofiles@naturalengland.org.uk.

National Character Areas map



¹ The Natural Choice: Securing the Value of Nature, Defra (2011; URL: www.official-documents.gov.uk/document/cm80/8082/8082.pdf)

² Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf)

³ European Landscape Convention, Council of Europe (2000; URL: <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>)

Summary

The South Coast Plain National Character Area (NCA) is a flat, coastal landscape with an intricately indented shoreline lying between the dip slope of the South Downs and South Hampshire Lowlands and the waters of the English Channel, Solent and part of Southampton Water. The coastline includes several major inlets which have particularly distinctive local landscapes and intertidal habitats of international environmental importance for wildfowl and waders. Chichester Harbour Area of Outstanding Natural Beauty lies within the NCA and the foothills of the South Downs, along the northern boundary, fall within the South Downs National Park.

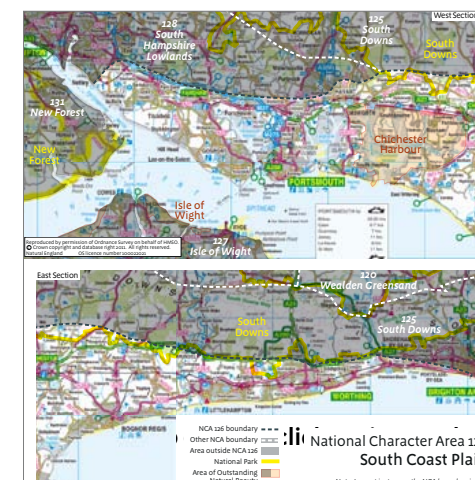
Some three per cent of the area is designated as a Site of Special Scientific Interest, and there are four Special Protection Areas, two Special Areas of Conservation and four Ramsar sites: Chichester and Langstone Harbour, Pagham Harbour, The Solent and Southampton Water and Portsmouth Harbour.

The harbours and the Manhood Peninsula, a small triangular peninsula south of Chichester, are the last relatively undeveloped stretches of coastline within the NCA. Elsewhere, there is significant urban development, with settlements along the coast dominated by the Portsmouth conurbation, trunk roads, suburban villages and an extensive string of seaside towns between Brighton and Southampton. Modern marinas and boatyards have also added to the harbour landscape. Although heavily developed and highly populated, there is a feeling of openness, particularly where sea views reveal wide expanses of sea and sky, with the Isle of Wight forming a backdrop in the west of the area. Long, linear shingle beaches and more locally, sand dunes, are important coastal features.

The area is generally very low lying and heavily defended against flooding and erosion with various schemes in place, including the country's first managed realignment on the open coast at Medmerry.

The economy is intricately linked to marine and recreational activities such as sailing, boat-building, fishing, heritage sites and recreational sports. Other commercial interests are mainly concentrated in the large urban centres such as Portsmouth and Gosport. The area also supports intensive arable farming and horticulture. Demand for residential and commercial property is ever increasing due to the NCA's attractive nature and strategic location for national and international trade.

Future management of this NCA requires balancing the needs of often competing interests. Protection against flooding remains a priority to encourage growth and allow internationally important habitats and species to flourish, while also maintaining the productive landscape and historic and geological features of the area.



Click map to enlarge; click again to reduce

Statements of Environmental Opportunities:

- **SEO 1:** Plan for and manage the effects of coastal change by allowing the operation of natural coastal processes and improving the sustainability of current management practices along the diverse coastline to successfully integrate the needs of the natural environment, landscape, local communities, agriculture, tourism and recreation amid significant urban stretches.
- **SEO 2:** Plan for the creation of a strong landscape framework within and around major settlements and identified growth areas, while managing and enhancing existing greenspace and access, and balancing the needs of agriculture, communities and the natural environment.
- **SEO 3:** Manage and significantly enhance the area's rivers and chalk streams and their wetland valley habitats to provide resilience against climate change and improve flood protection and water quality, particularly in the internationally designated sites such as Chichester and Pagham harbours, for the benefit of local communities and wildlife.
- **SEO 4:** Manage the rich archaeological and historic resource and geological exposures within the farmed, coastal and peri-urban landscape, including the longstanding associations of horticultural and maritime industries and the military, enhancing a strong sense of place.



Hamble Estuary.

Description

Physical and functional links to other National Character Areas

The South Coast Plain National Character Area (NCA) is a narrow strip running along the Hampshire and Sussex coast from the edge of Southampton in the west to Brighton and Hove in the east. The South Hampshire Lowlands NCA rises gently in the north until Portsmouth, after which the higher South Downs NCA forms the backdrop along the remaining northern boundary. The underlying geology is part of the Hampshire Basin which stretches to Dorset and the northern half of the Isle of Wight, within the chalk borders of the Purbeck Hills, Cranborne Chase, South Downs and Salisbury Plain.

The Arun, Adur, Hamble and Meon rivers drain south from the higher ground of the Downs, through this NCA to the coast, along with other smaller streams and rifies. Public water supply relies on surface water abstractions and groundwater from the Lower Greensand aquifer and the Worthing and Chichester chalk blocks. The Solent and Southampton Water Special Protection Area (SPA) and Solent Maritime Special Area of Conservation (SAC) connect this coastline with the South Hampshire Lowlands NCA and New Forest NCA in the west and the Isle of Wight, to which it is also connected by Solent and Isle of Wight Lagoons SAC.

In the west, there are views to the Isle of Wight across the Solent and to the New Forest NCA across Southampton Water. East–west trunk roads define the northern boundary; the M27 starts at Portsmouth and runs west to the New

Forest NCA and the A27 runs east to Brighton and Hastings. The A3(M) cuts north through the Downs, linking this NCA with Surrey and London. The West Coastway Line railway runs between Southampton and Brighton and the port of Portsmouth provides international links.

The Manhood Peninsula is a small triangular peninsula south of Chichester and remote from the rest of the NCA. Its southern headland, Selsey Bill, is a prominent coastal deposition feature, which projects out into the Solent well beyond the line of the rest of the coast. It is one of the last, and largest, relatively undeveloped stretches of coastline between Newhaven and Southampton.

Distinct areas

- Manhood Peninsula.

Key characteristics

- The plain slopes gently southwards towards the coast. From the coastal plain edge there are long views towards the sea and the Isle of Wight beyond.
- The underlying geology of flinty marine and valley gravels extends several miles inland to the dip slope of the South Downs and the South Hampshire Lowlands. This gives rise to deep and well-drained high-quality soils.
- In places, streams and rivers flow south from the higher land of the Downs to the sea.
- Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. These include the internationally important Chichester, Langstone, Portsmouth and Pagham harbours, the Hamble Estuary and the recent coastal realignment site at Medmerry between Chichester Harbour and Selsey.
- There are stretches of farmed land between developed areas, often with large arable fields defined by low hedges or ditches.
- There are isolated remnants of coastal heath in the west.
- Sand dune grasses and intertidal marsh communities are characteristic of the coastline, while small areas of species-rich meadow remain inland.
- The coastline provides feeding grounds for internationally protected populations of overwintering waders and wildfowl and is also extensively used for recreation.

- Along the exposed, open coastal plain and shoreline, tree cover is limited to isolated wind-sculpted woodlands and shelterbelts.
- The area has significant urban development, with settlements along the coastline dominated by the Portsmouth conurbation, suburban villages and seaside towns including Bognor Regis, Littlehampton and Worthing linked by major road and rail systems.
- Historic fortifications along the coast include the Roman fort at Portchester and 19th-century defences and later naval installations built to protect the Portsmouth naval dockyard.



Catamaran departing Portsmouth Harbour.

South Coast Plain today

The South Coast Plain NCA is broadly divided into the coastal margins which are heavily influenced by the sea; the expansive lower coastal plain which occupies most of the area; and the upper coastal plain which forms the transition between the lower plain and the chalk dip slopes of the South Downs and the South Hampshire Lowlands. Superficial deposits have given rise to a range of fertile soils which combine with the flat terrain and favourable climatic conditions to result in high-quality agricultural land. The east-west fold of chalk known as the Littlehampton anticline forms an isolated ridge to the north of Portsmouth, known as Portsdown, which forms a prominent setting to the harbour. Elsewhere, the Downs form a strong backdrop to the whole plain, while there are extensive views to the Isle of Wight.

The plain is crossed by rivers flowing south from the Downs to the sea, including the Meon, Hamble, Adur and Arun, which locally form wide alluvial flood plains. It is also cut by southward-facing chalk streams which each have dry headwater extensions over the upper plain and on into the dip slope of the South Downs. Flooded gravel pits, a legacy of historic extraction, make up some of the largest areas of freshwater in the region.

The lower coastal plain is heavily urbanised. In between development and transport links is a farmed landscape of large open fields with few trees or hedgerows. Drainage ditches, wire fences or low banks are more usual as field boundaries.

To the north and east of the area, the upper coastal plain comprises flat, regular patterns of large fields with the gentle forms and patterns, blending into the

openness of the lower dip slope of the South Downs with a small part of the South Downs National Park falling within the NCA. Here the landscape is varied, incorporating both open arable farmland and low-density settlements, with a more wooded and semi-enclosed (somewhat suburban) character locally, particularly to the west of Chichester. Along the north of the area there is a network of small- and medium-sized broadleaved woodlands, including ancient and semi-natural, well linked by hedgerows and garden exotics providing an enclosed field framework. Elsewhere tree cover varies. This is a fertile area that supports intensive arable farming and horticulture, particularly soft fruit. There are concentrations of glasshouses in some areas and increasing use of polytunnels. Areas where soils are shallow, stony and poorly drained – such as the Arun flood plain – often support good-quality permanent grassland. The thicker gravel deposits support a mixture of high- and medium-quality soils which are intensively farmed where the soils are flintier.

East of Chichester the exposed shoreline is an open, linear landscape of shingle and sand. To the west, the coastline is deeply indented by three natural harbours separated by the Portsmouth and Hayling Island peninsulas. Here broad expanses of sheltered water are edged by an attractive mix of mudflats, marshes, wetland scrub and low-lying fields occasionally interrupted by creeks. Chichester Harbour, for example, is one of the largest natural harbours along the south coast with a diverse landscape of numerous inlets interspersed with fairly open agricultural peninsulas and wind-sculpted woodlands. It is an Area of Outstanding Natural Beauty (AONB) and one of four Ramsar sites and two SPA in this NCA, designated primarily for internationally important numbers of wildfowl and waders, including Brent

geese and dunlin. There are also two SAC – Solent Maritime and Solent and Isle of Wight Lagoons. Along the coastline itself, the vegetation is typified by a scant covering of low-growing, often mat-forming, specialised plants which can tolerate the saline conditions and mineral substrate. On the newly formed ground of the mudflats in the inlets, pioneering intertidal marsh communities have colonised and these demonstrate a well-defined succession of plant types and species towards the land.

Generally the impression is of an overwhelmingly urban landscape, dominated by the Portsmouth conurbation, the city of Chichester and suburban villages, including a few traditional flint hamlets and farm buildings and fragmented by trunk roads and infrastructure. The west is dominated by historic fortifications and marine infrastructure from all periods, reflecting the enduring importance of Portsmouth as the home of the Royal Navy. Portsmouth Harbour has a heavily developed shoreline with docks and associated industrial development dominating the landscape. East along the coast, extensive seaside towns form one of the most concentrated stretches of shoreline ribbon development in Britain. Each coastal town or village has developed almost to the high water mark and there are also caravan parks between some settlements. The harbours and the Manhood Peninsula are the only relatively undeveloped sections. Picturesque harbourside settlements are typically clustered around small boatyards and marinas while moored sailing boats dot the harbour edge. Some inlets, such as Pagham Harbour, still retain an overriding sense of remoteness contrasting with Portsmouth Harbour and the bustling Solent, constantly busy with sailing boats, cross-channel ferries and naval warships and the influence of seaside activities and recreational sailing all along the coast.

The long history of intervention to reduce the risk of flooding and erosion means that the shoreline is generally in a highly modified form and realignment schemes protect the coast, including the country's first managed realignment on the open coast at Medmerry.



Titchfield Haven National Nature Reserve.

The landscape through time

Structurally, the South Coast Plain is part of the larger Hampshire Basin formed when the underlying chalk rocks were folded and faulted by the Alpine Orogeny (mountain-building episode) approximately 15 million years ago. The landform is dominated by the low relief of Tertiary sands, silts and clays that overlie the chalk. An initial fall in sea level, approximately 54–51 million years ago, saw the deposition of the Lambeth Group sands and clays. These are exposed on the shore at Felpham, east of Bognor Regis, and contain a unique diversity of fossil flora. A rise in sea level led to the deposition of the London Clay, a sequence of dark marine clays rich in fossil plants typical of a subtropical rainforest, yielding many type specimens of fossil birds, insects, fish and plants, particularly at Bognor Reef. The overlying Bracklesham Group of sediments were then deposited in alternating intertidal and offshore environments.

Earth movements, associated with the Alpine Orogeny, folded this sequence of rocks, producing the Littlehampton chalk ridge and a parallel ridge to the south, remnants of which now form the Isle of Wight chalk downs. The ancient Solent River flowed between these two ridges until rising sea levels eventually isolated the Isle of Wight from the mainland. Terrace gravels marking the historic shore of the Solent River contain vertebrate remains associated with warmer phases between ice ages, known as interglacials, during the Pleistocene Period 350,000–125,000 years ago. These gravels – exposed on the coast at Lee-on-the-Solent, Bracklesham Bay and Selsey – contain important Pleistocene vertebrate remains and Palaeolithic artefacts. The remains of a nomadic hunter-gatherer ('Boxgrove Man') found in the gravel deposits of a raised beach represent the earliest known human occupation of the British Isles.

The sand and shingle beaches have been shaped by successive processes of erosion and deposition since the last major change in sea level, forming spits across river mouths and inlets.

Neolithic clearance of woodland first opened up the landscape to allow farming of the fertile soils and evidence shows continuous and increasing occupation during the Bronze and Iron ages. The Romans established Chichester as an important new market town and military centre within 20 years of invading, and evidence of continued occupation is reflected by the Roman Palace at Fishbourne, villa and farmstead sites, a temple on Hayling Island and Portchester Castle, developed as one of the Saxon Shore forts.

The coastal plain continued to be densely settled in the Saxon and medieval periods as market towns increased. Some Saxon towns such as Littlehampton developed detached ports. Important examples of Anglo-Saxon architecture survive at sites such as Titchfield Church. In the west, distinctly urban settlements developed during the medieval period. Richard I ordered the construction of a dockyard at Portsmouth and granted the town its first charter in 1194. Havant, Emsworth, Fareham, Gosport and Titchfield developed into market towns and a string of fishing villages developed along the coast.

Portsmouth's strategic location on the south coast of England, protected by the natural defence of the Isle of Wight, made it an ideal base for England's (and later Britain's) Navy. Defensive structures were built to protect the area from the 14th century onwards in response to French raids. Most visible is the 19th-century ring of forts that extend onto Portsdown in the South Hampshire Lowlands NCA. Non-military operation – such as passenger

steamers, fishing and recreational sailing – also flourished, and maritime and associated industries continue to dominate the landscape and economy.

The coastal plain's fertile soils, along with grazing on the adjacent Downs and timber and stock rearing on the Weald, allowed the economy to diversify and the number of market towns to expand.

The agriculture of the area was stimulated by demand from the dockyard and its victualling yard at Gosport, a town which also developed around its military barracks, hospitals and ordnance depots. The area was also important for market gardening. Soft fruits have been harvested in the Hamble Valley for over 150 years, giving it the title of the 'Strawberry Coast'. The thin, stony soils suited shallow-rooted strawberries and the warm prevailing wind coming over the Solent reduced the risk of early frosts. Railways enabled fruit to be delivered across the country on 'strawberry specials' from the mid 1800s.

The coast continued to be of strategic importance during the 20th century. Fortifications were increased during both the First and Second World Wars, such as anti-tank beach block defences at Eastney and pillboxes. Military air bases were established in the First World War and played a significant role in national defence during the Second World War, for example the Battle of Britain airfield at Tangmere, now marked by its control tower and museum. Portsmouth remains the home of the Royal Navy and its historic dockyard and attractions such as HMS Victory and the Mary Rose entice thousands of visitors to the area every year.

This is an area of competing pressures for land. The rich arable lands combined with access to local urban markets and London allowed many farmers to re-build their farmsteads, particularly in the 18th and 19th centuries. As a result there are very few pre-1750 farm buildings. During the 19th and 20th centuries, medieval towns expanded to the extent that few areas of countryside remain near the Hampshire coast. To the east, development of seaside resorts also resulted in the spread of urban areas such as Worthing, particularly after the coming of the railways in the 19th century. The depression of the interwar years, disease, higher wages for agricultural workers and competition from abroad forced many fruit growers out of business during the 20th century, while cheap imports and improved storage and transportation systems also led to a decline in local cereal production and sheep grazing. By the 1980s much of the land previously covered by the vast strawberry fields was developed for housing.

The high rate of urbanisation, coupled with a continued reduction of agriculture and grasslands and combined with coastal squeeze, has led to increasing fragmentation of semi-natural habitats. Farlington Marshes, for example, is surrounded by motorways and housing on three sides while threatened by the rising sea on the other.

In 2005, the 170-metre Spinnaker Tower opened as part of the redevelopment of Portsmouth Harbour. It is visible from miles around, including from the Manhood Peninsula and Isle of Wight.

Realignment schemes, such as at Medmerry and Cobnor Point, continue to alter the coastline and provide opportunities for habitat creation and recreational provision as well as flood protection.

Ecosystem services

The South Coast Plain NCA provides a wide range of benefits to society. Each is derived from the attributes and processes within the area. These benefits are known collectively as 'ecosystem services'. The predominant services are summarised below. Further information on ecosystem services provided in the South Coast Plain NCA is contained in the 'Analysis' section of this document.

Provisioning services (food, fibre and water supply)

- **Food provision:** The fertile soils of the lower plain support intensive arable farming and horticulture, with some dairy, beef and poultry. Permanent grassland is a feature of the poorer quality land. Mixed farming occurs on the thicker gravel deposits.

Fish are an important food source. Shellfish are harvested from the harbour areas and fish landed from the open sea. During the oyster fishing season of 2012/13, 60 tons of oysters were harvested from Chichester Harbour.⁴ The harbours are also vital nursery areas for species including bass, bream, mullet, sole and plaice.
- **Water availability:** Public water supply relies on surface water abstraction and groundwater from the Lower Greensand aquifer and the Worthing and Chichester chalk blocks. Water supply is under pressure throughout the area.
- **Genetic diversity:** The Home Farm of the Goodwood Estate favours rare breeds such as pedigree Southdown sheep, continuing a tradition long held by the dukes of Richmond.

⁴ Sussex Inshore Fisheries and Conservation Authority (URL: www.sussex-ifca.gov.uk/)

Regulating services (water purification, air quality maintenance and climate regulation)

- **Climate regulation:** The soils in this NCA predominantly have low levels of soil carbon (0–5 per cent). However, there are some very small patches, in the west, that reach carbon levels of up to 20–50 per cent. The relatively large areas of flood plain grazing marsh have additional locked-up carbon stores, as do the small areas of woodland.
- **Regulating soil erosion:** Lighter soils make up just under half of the NCA and exposed soils are at risk of erosion on sloping land, exacerbated where organic matter levels are low after continuous arable cultivation or where soils are compacted. Sand dune soils are very unstable, with the extent of erosion depending on the degree to which vegetation has stabilised the dune system.
- **Regulating water quality:** There are three main sources of groundwater pollution within the NCA – agricultural activities, saline intrusion and urban-related activities such as sewage leakage, road run-off and weed control. All the area's rivers are subject to diffuse pollution arising from outside the NCA, including the catchment of Chichester and Pagham harbours, which is of particular concern given their international designations. There are a number of ongoing initiatives to improve water quality in this area.⁵
- **Regulating water flow:** Much of the flood storage capacity has been lost through drainage of marshlands and conversion to intensive agriculture or development both within and upstream of this NCA, particularly affecting the Arun's wide flood plain. Many settlements within the NCA are protected by flood banks.

⁵ Downs and Harbours Clean Water Partnership (www.cleanwaterpartnership.co.uk/here.html)

Policies to reduce flood risk include the storage of water within the Adur catchment on the South Downs (outside this NCA), as well as encouraging the creation of sustainable urban drainage systems and the River Lavant Flood Alleviation Scheme.

- **Pollination:** Nearly 2,000 ha of grassland provides important sources of nectar for pollinating insects, along with hedges, which are vital for the success of many of the area's horticultural crops.
- **Regulating coastal flooding and erosion:** Large lengths of this complex stretch of coastline are in an unnatural form. Much of the coastal frontage has been developed so only limited sections of the shoreline are free to erode naturally, meaning little sediment material goes into the coastal system. As a result of higher water levels, 'coastal squeeze' will occur. This will lead to beaches, intertidal areas and amenity value being reduced or lost. Defences are in place to protect the vulnerable clay headland of Selsey Bill from erosion though not necessarily trying to lock the feature into its present size, shape and orientation.

Reclamation of former coastal lowland for development has produced many areas where the shoreline is artificially seaward of its natural position. Rising sea levels will increase the probability of flooding for low-lying areas. The relevant Shoreline Management Plans are pursuing an overall policy of 'holding the line' and 'managed realignment' such as at the scheme at Medmerry which was the first of its kind on the open coast.

Cultural services (inspiration, education and wellbeing)

- **Sense of place/inspiration:** Views of the sea and maritime and seaside influences generally have inspired artists from Oscar Wilde to Eric Coates, who was inspired to write 'Sleepy Lagoon' (the theme tune for BBC Radio 4's Desert Island Discs) while watching the sea from Selsey.



Sea wall at Southsea, Portsmouth.

- **Sense of history:** The area is rich in historical evidence from all ages including the internationally important Fishbourne Roman Palace. Chichester has enjoyed continuous occupation since it was founded by the Romans as Noviomagus Reginorum, and is dominated by its medieval cathedral, described by Pevsner as ‘the most typical English cathedral’.⁶ The area has a long history of maritime activity. Portsmouth’s historic dockyard, with attractions including Nelson’s flagship HMS Victory and the Mary Rose, entices thousands of visitors to the area every year. Further east, a string of fishing villages grew into popular seaside towns from the Georgian period and include Bognor Regis, Littlehampton and Worthing.
- **Tranquillity:** Tranquillity is a scarce but greatly prized resource within this heavily urbanised NCA. Only 7 per cent of area is classed as undisturbed, while 35 per cent of the area is classified as urban. Pockets of tranquillity are associated with the central rural areas, the Manhood Peninsula and undeveloped harbours, including Chichester Harbour AONB.
- **Recreation:** Coastal and water-borne activities are popular in this NCA and are an important contributor to the local economy. Chichester Harbour alone has over 5,200 moorings and marina berths and 16 sailing clubs. Chichester Harbour AONB has approximately 1.5 million visitors each year. Walkers, cyclists, artists and birdwatchers all enjoy the area. Many just sit and enjoy the view. East Head is one of the most popular recreation sites in the South East. Along the coast, tourism is also vital to the economies of seaside towns such as Worthing and Littlehampton.

- **Biodiversity:** Three per cent (1,700 ha) of the area is designated as Sites of Special Scientific Interest (SSSI) and there are four Special Protection Areas (SPA, two Special Areas of Conservation (SAC and four Ramsar sites. Priority habitats include around 2,000 ha of coastal and flood plain grazing marsh and 1,000 ha of reedbeds.

Chichester Harbour has been designated as a wetland of international importance under the Ramsar Convention (1971) as it regularly holds 20,000 or more wildfowl and waders in winter. It has the third largest population of dark-bellied Brent goose in the country⁷ and supports internationally important populations of dunlin and black-tailed godwit. It also has a small resident harbour seal population. Pagham, Langstone and Portsmouth harbours also have wildfowl numbers of national or international importance and the whole area is important for breeding terns.

A survey of the fish population of Chichester Harbour carried out in 2004 by the University of Portsmouth recorded 32 species, with sand goby, painted goby and black bream the most abundant. Also numerous at some sites were bass, ballan wrasse and corkwing wrasse. Twenty-two species were identified in 2012. The harbours are also vital nursery areas for species such as bass, bream, mullet, sole and plaice which make use of the seagrass beds.

- **Geodiversity:** This NCA includes the site of the remains of Homo heidelbergensis, the world-famous ‘Boxgrove Man’, found in river gravels overlying chalk in a gravel pit just outside Chichester. Terrace gravels marking the historic shore of the Solent River contain important Pleistocene vertebrate remains and Palaeolithic (Early Stone Age) artefacts.

⁶ The Buildings of England: Sussex, N Pevsner and I Nairn (1965)

⁷ Wetland Bird Survey data ([URL: www.bto.org/volunteer-surveys/webs/data](http://www.bto.org/volunteer-surveys/webs/data))

Statements of Environmental Opportunity

SEO 1: Plan for and manage the effects of coastal change by allowing the operation of natural coastal processes and improving the sustainability of current management practices along the diverse coastline to successfully integrate the needs of the natural environment, landscape, local communities, agriculture and recreation amid significant urban stretches.

For example, by:

- Supporting the adaptability of coastal features and habitats to sea level rise and enhancing/creating opportunities for natural adaptation and/or migration where appropriate, to aid the long-term alleviation of coastal flooding in accordance with the strategies of the Shoreline Management Plans.⁸
- Conserving coastal geomorphological features (and the natural processes needed to sustain them).
- Enhancing the area's internationally important natural coastal landscapes, namely Chichester and Langstone harbours, Pagham Harbour, Solent and Southampton Water, and Portsmouth Harbour Special Areas of Protection (SPA), significantly restoring and expanding their coastal habitats – including intertidal mudflats, coastal salt marsh, saline lagoons and coastal grazing marsh – to improve resilience to climate change while aiding flood alleviation and contributing significantly to biodiversity.
- Where existing flood defences are reinforced, working with partners to limit adverse impacts on biodiversity, public access and historic interest.
- Maintaining sites of geomorphological importance and coastal exposures of Lower Tertiary deposits with diverse fossil assemblages, such as at Felpham, Bognor Reef and Bracklesham Bay.
- Identifying further opportunities to create compensation habitats for those lost to 'coastal squeeze', aiming to ensure no net loss of habitat, benefiting biodiversity and the regulation of coastal erosion and flooding.
- Working in partnership to monitor the impact of erosion, particularly at East Head, and responding to change, for example by developing a strategy for managing coastal footpaths at risk from rising sea levels and failing sea defences.
- Promoting access opportunities which educate people about the vulnerability of the coastal habitats in the National Character Area (NCA) and encourage visits of a low-impact nature that avoid any adverse impacts on agricultural management, landscape, habitats and wildlife.
- Improving access to the coast for walking, cycling and disabled people and encouraging reduced car use; and securing opportunities for the public to enjoy the natural environment through the implementation of the England Coast Path while ensuring appropriate protection of sensitive sites.

⁸ South East Coastal Group Shoreline Management Plans (URL: www.se-coastalgroup.org.uk/bh-to-sb-2006/); North Solent Shoreline Management Plan (URL: www.northsolentsmp.co.uk/index.cfm?articleid=6554&articleaction=nthsInt&CFID=8104695&CFTOKEN=57030621)

SEO 2: Plan for the creation of a strong landscape framework within and around major settlements and identified growth areas, while managing and enhancing existing greenspace and access, and balancing the needs of agriculture, communities and the natural environment.

For example, by:

- Developing a comprehensive framework of green infrastructure throughout the NCA and the creation/improvement of other green spaces that link into the heart of urban areas and contribute to urban greening, meeting Accessible Natural Green Space Standards (ANGSt) where possible.
- Working in partnership with local authorities to develop effective solutions to address negative impacts of recreational pressure on bird populations as identified by the Solent Disturbance and Mitigation Project.⁹
- Seeking potential compensation sites and ensuring that adequate mitigation is provided for development that will cause significant adverse impact upon the area's internationally important bird populations.
- Ensuring that all coastal development and access provision respects the area's particular sensitivity to bird disturbance issues.
- Creating new areas of multifunctional greenspace within and surrounding identified growth areas, including community food gardens and significant areas of new saline and freshwater wetlands forming sustainable urban drainage systems to improve water quality, provide a local recreational resource, enhance landscape setting and aid flood alleviation.
- Working with local groups such as the Local Enterprise Partnerships, Local Nature Partnerships, Chichester Harbour Conservancy, local planning authorities and individual businesses to take a strategic view of commercial opportunities that can be delivered in a way that supports the natural environment.
- Engaging early in the scoping of new developments to ensure that they maximise their contribution to sustainable development.
- Seeking to maintain and enhance areas of open countryside in this heavily urbanised NCA, to preserve the distinct settlement pattern and ensure that local communities have access to greenspace for their wellbeing and enjoyment.
- Encouraging a strategic approach to the planning of land use around Chichester and Langstone harbours and the Manhood Peninsula to address the pressures of climate change and development, ensuring that natural processes continue to function and the comparatively wild and tranquil character is retained.
- Ensuring that development and its associated infrastructure (including light, noise and air pollution) does not intrude on the special qualities of Chichester Harbour Area of Outstanding Natural Beauty (AONB) and the South Downs National Park; and ensuring that the landscape character within these areas and their settings is conserved, restored, reinforced or created as appropriate to reflect the ambitions of their respective management plans.
- Promoting and enhancing the rights of way network throughout the area, especially along the coast and linking to the South Downs, while developing new permissive access that links towns and settlements to quality greenspace and other areas of interest as part of a cohesive network of inspiring access provision for all.

⁹ Solent Disturbance and Mitigation Project (URL: www.solentforum.org/forum/sub_groups/Natural_Environment_Group/Disturbance_and_Mitigation_Project/)

SEO 3: Manage and significantly enhance the area's rivers and chalk streams and their wetland valley habitats to provide resilience against climate change and improve flood protection and water quality, particularly in the internationally designated sites such as Chichester and Pagham harbours, for the benefit of local communities and wildlife.

For example, by:

- Working with the Solent Water Quality Association and other partners to achieve the highest water quality and the aims of the Water Framework Directive.
- Promoting the installation of holding tanks for recreational vessels and seeking to provide the necessary infrastructure to pump out holding tanks; ensuring that there are adequate reception facilities for vessel-landed waste and maintaining a Maritime and Coastguard Agency-compliant Port Waste Management Plan.
- Reducing the amount of nutrients entering the harbours from domestic and industrial sources by engaging with the planning process to ensure that new developments incorporate the best possible waste reduction measures, including sustainable urban drainage systems.
- Reducing the amount of nutrients entering the harbours from agricultural sources by continuing with catchment initiatives that engage with and challenge farmers to reduce nutrient leaching, pesticide contamination and soil erosion, especially by establishing buffers of permanent grassland alongside watercourses.
- Seeking opportunities to increase capacity and improve the level of treatment for waste water treatment works discharging into the harbours.
- Expanding and re-linking lowland meadows, flood plain grazing marsh, saline lagoons and other wetland habitats found on the flood plains of the rivers Meon, Adur and Arun and the chalk streams, to enhance adaptation to climate change, increase flood storage capacity, improve water quality and provide wildlife corridors for biodiversity.
- Seeking opportunities to restore natural river geomorphology, bringing rivers back into continuity with their flood plains and re-creating backwaters as a refuge for aquatic species in times of drought.
- Creating wide grassland buffer strips running across slopes and alongside watercourses in areas of arable production, especially within the Arun priority catchment, to provide a buffer to soil erosion and nutrient run-off thereby further helping to improve river water quality.
- Minimising the risk of spreading non-native invasive species to new sites through human activity, for example by promotion of the 'Check, Clean, Dry' campaign¹⁰ and working with partners to co-ordinate and promote control measures for non-native invasive species.
- Working to improve and protect the area's chalk streams, for example by reviewing ecological designations and expanding areas of semi-natural habitat in chalk stream flood plains, within the NCA and upstream. This will act as pollution filtration while also providing biodiversity benefits and information about chalk stream ecology and the negative impacts of unsustainable water use.

¹⁰ The Check, Clean Dry campaign, Environment Agency (URL: <http://www.environment-agency.gov.uk/homeandleisure/wildlife/129217.aspx>)

Continued from previous page

- Targeted expansion of woodland on steeper slopes and adjacent to watercourses to reduce soil erosion, especially within the catchments of the Arun and Meon and the Pagham and Chichester harbours, which may also provide a local source of wood fuel where managed by coppicing.
- Restoring hedgerow boundaries, where they will help to impede cross-land flows within the catchments of the Arun and Meon. This will aid improvements in water quality and provide food sources for pollinating insects, as well as restoring the character of native hedgerows and traditional field patterns – especially where lost in peri-urban areas.
- Seeking appropriate levels of commercial use of the harbours, balancing the need to maintain a vigorous tourism industry with preserving the natural beauty and ecology of the areas; working with partners to educate groups using the water bodies on the needs of others and to give guidance on behaviour and good practice; and supporting changes which encourage users to enjoy congested areas such as Chichester Harbour outside peak times.
- Engaging with local communities and schools to increase appreciation and understanding of their local rivers and water resources.



Portsmouth Harbour and Spinnaker Tower.

SEO 4: Manage the rich archaeological and historic resource and geological exposures within the farmed, coastal and peri-urban landscape, including the longstanding associations of horticultural and maritime industries and the military, enhancing a strong sense of place.

For example, by:

- Promoting the heritage of the urban areas, including the strong maritime and military associations; and engaging communities with their local history and strengthening the physical links with the important historic landscapes that surround them.
- Promoting and protecting the historic environment along the coast – notably Portchester Castle and military remains, including the Napoleonic coastal fortification – and recording heritage features at risk of sea level rise.
- Providing educational opportunities and interpretation of historic and geological features to improve understanding and enjoyment.
- Restoring the traditional field patterns of the rural peninsulas, such as Chichester Harbour AONB and the Manhood Peninsula, through the replacement of lost hedgerows and improvement in the condition of existing hedgerows through replanting gaps.
- Supporting the use of traditional breeds and varieties to provide distinct quality produce to encourage marketing initiatives.
- Working with partners and local interest groups to promote an appreciation and understanding of the geodiversity of the NCA and connecting communities with their local heritage.
- Considering reversion of arable to pasture and scrub clearance where current land cover threatens the integrity of earthworks and monuments, including numerous Roman and medieval remains.
- Maintaining the setting of the cathedral city of Chichester and long views to its prominent cathedral spire, viewed from the Chichester Harbour AONB to the south and the South Downs National Park to the north, and wider views out over the sea.
- Maintaining important inland geology exposed in pits and quarries, for example Downend Chalk Pit Site of Special Scientific Interest, helping to promote an appreciation and understanding of the geodiversity of the NCA and connecting communities with their local heritage.
- Encouraging the use of traditional building materials (such as timber frame, flint, cob and thatch) in conservation projects and promoting the use of the Chichester Harbour AONB design guidance for replacement dwellings in the AONB.
- Supporting the work of partners including Chichester Harbour Conservancy and environmental education groups to establish closer links between the education service and the local farming community, sustainable schools, healthy eating programmes and community services.

Supporting document 1: Key facts and data

**South Coast Plain National
Character Area (NCA): 52,245 ha**

1. Landscape and nature conservation designations

Eight per cent (4,186 ha) of the NCA falls within the Chichester Harbour Area of Outstanding Natural Beauty (AONB).

■ www.conservancy.co.uk

Source: Natural England (2011)

1.1 Designated nature conservation sites

The NCA includes the following statutory nature conservation designations:

Tier	Designation	Designated site(s)	Area (ha)	% of NCA
International	Ramsar sites	Chichester and Langstone Harbours; Pagham Harbour; Solent and Southampton Water; Portsmouth Harbour	1,288	2
European	Special Protection Area (SPA)	Chichester and Langstone Harbours SPA; Pagham Harbour SPA; Solent and Southampton Water SPA; Portsmouth Harbour SPA	1,271	2
	Special Area of Conservation (SAC)	Solent Maritime SAC; Solent and Isle of Wight Lagoons SAC	238	<1
National	National Nature Reserve (NNR)	Titchfield Haven NNR	120	<1
National	Site of Special Scientific Interest (SSSI)	A total of 22 sites wholly or partly within the NCA	1,688	3

Source: Natural England (2011)

Please note: (i) Designated areas may overlap (ii) all figures are cut to Mean High Water Line, designations that span coastal areas/views below this line will not be included.

There are 253 local sites in South Coast Plain covering 2,827 ha, which is 5 per cent of the NCA.

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at: <http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>
- Details of Local Nature Reserves (LNR) can be searched at: http://www.lnr.naturalengland.org.uk/Special/Lnr/Lnr_search.asp
- Maps showing locations of Statutory sites can be found at: <http://magic.defra.gov.uk/website/magic/> – select 'Rural Designations Statutory'

1.1.1 Condition of designated sites

Condition category	Area (ha)	% of SSSI land in category condition
Unfavourable declining	65	4
Favourable	1,056	63
Unfavourable no change	73	4
Unfavourable recovering	476	29

Source: Natural England (March 2011)

- Details of SSSI condition can be searched at: <http://www.sssi.naturalengland.org.uk/Special/sssi/reportIndex.cfm>

2. Landform, geology and soils

2.1 Elevation

Elevation ranges from below sea level (areas by the coast) to a maximum of 99 m across the plain slopes. The average elevation of the landscape is 12 m above sea level.

Source: Natural England 2010, South Coast Plain Countryside Character Area description

2.2 Landform and process

Landform is dominated by the low relief of Tertiary sands, silts and clays that overlie the Chalk. The east-west fold of Chalk known as the Littlehampton anticline forms an isolated ridge to the north of Portsmouth known as Portsdown Hill. This rises from near sea level to over 100 m and creates a dramatic backdrop to Portsmouth Harbour.

Source: South Coast Plain Countryside Character Area description

2.3 Bedrock geology

Structurally, the South Coast Plain is part of the larger Hampshire Basin which was formed when the underlying chalk rocks were folded and faulted by the Alpine Orogeny (mountain-building episode). The Littlehampton anticline, an east-west fold of chalk, forms an isolated ridge called Portsdown Hill to the north of Portsmouth.

During the Tertiary, sediments of the Thanet Sands Formation and Lambeth Group sands and clays were deposited onto the Chalk in a shallow marine setting. As sea levels rose and the sea deepened, the fossiliferous London Clay was laid down. Subsequently, as the sea became shallower again, the Bracklesham Group of clays, silts and sands were deposited in an intertidal

and offshore environment on a large coastal plain. Bracklesham Bay is the type locality for these deposits, and together with the foreshore deposits of this type near Gosport they have yielded fossil fish, bird and plant remains.

Source: South Coast Plain and Hampshire Lowlands Natural Area Profile, South Coast Plain Countryside Character Area description, British Geological Survey maps

2.4 Superficial deposits

Terrace gravels marking the historic shore of the Solent River contain vertebrate remains associated with warmer phases between ice ages, known as interglacials, during the Pleistocene period, 350,000 to 125,000 years ago. These gravels, exposed on the coast at Lee-on-the-Solent, Bracklesham Bay and Selsey contain important Pleistocene vertebrate remains and Palaeolithic (Early Stone Age) artefacts.

The entrances to Chichester, Langstone and Pagham Harbours and the Hamble estuary are guarded by classic sand dune and shingle spit features. At Browdown, west of Gosport, and at other points along the coast, shingle deposits form well developed shingle features, those at Browdown showing clearly defined apposition ridges that have been deposited over many centuries. Further sand dune formations occur at Climping, west of Bognor Regis, where the dunes have formed at the mouth of the River Arun. The estuaries within the area also contain many important examples of salt marshes of differing age and state of evolution. The area provides classic examples of coastal features and valuable opportunities to study modern coastal processes at work.

Source: South Coast Plain and Hampshire Lowlands Natural Area Profile, South Coast Plain Countryside Character Area description, British Geological Survey maps

2.5 Designated geological sites

Designation	Number
Geological Site of Special Scientific Interest (SSSI)	5
Mixed interest SSSI	4

There are no Local Geological Sites within the NCA

- Details of individual Sites of Special Scientific Interest can be searched at:
<http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>



Chichester Harbour AONB.

2.6 Soils and Agricultural Land Classification

Over the superficial gravel lie deep and well-drained brown earths which occur widely over much of the area. Chalky thinner soils have formed over the chalk outlier of Highdown Hill. The range of fertile soils throughout the area combined with the flat terrain and favourable climatic conditions result in high quality agricultural land. Grade 1 land is found predominantly through a central strip, east of Chichester Harbour. Grade 2 is found predominantly east of Chichester Harbour. Grade 3 and 4 land is found in patches mainly to the east of the NCA.

Source: South Coast Plain and Hampshire Lowlands Natural Area Profile, South Coast Plain Countryside Character Area description

The main grades of agricultural land in the NCA are broken down as follows (as a proportion of total land area):

Agricultural Land Classification	Area (ha)	% of NCA
Grade 1	6,911	13
Grade 2	12,832	25
Grade 3	10,798	21
Grade 4	1,866	4
Grade 5	40	<1
Non-agricultural	3,781	7
Urban	15,370	29

Source: Natural England (2010)

- Maps showing locations of statutory sites can be found at:
<http://magic.defra.gov.uk/website/magic/> - Select 'Landscape' (shows ALC and 27 types of soils)

3. Key water bodies and catchments

3.1 Major rivers/canals

The following major rivers/canals (by length) have been identified in this NCA.

Name	Length in NCA (km)
Chichester Canal	6
River Arun	3
River Meon	6

Source: Natural England (2010)

Please note: other significant rivers (by volume) may also occur. These are not listed where the length within the NCA is short.

The rivers crossing the plain locally form wide alluvial flood plains. Southward facing streams, that are locally referred to as 'rifes', cut through the lower plain. Flooded gravel pits comprise some of the largest areas of freshwater in the region.

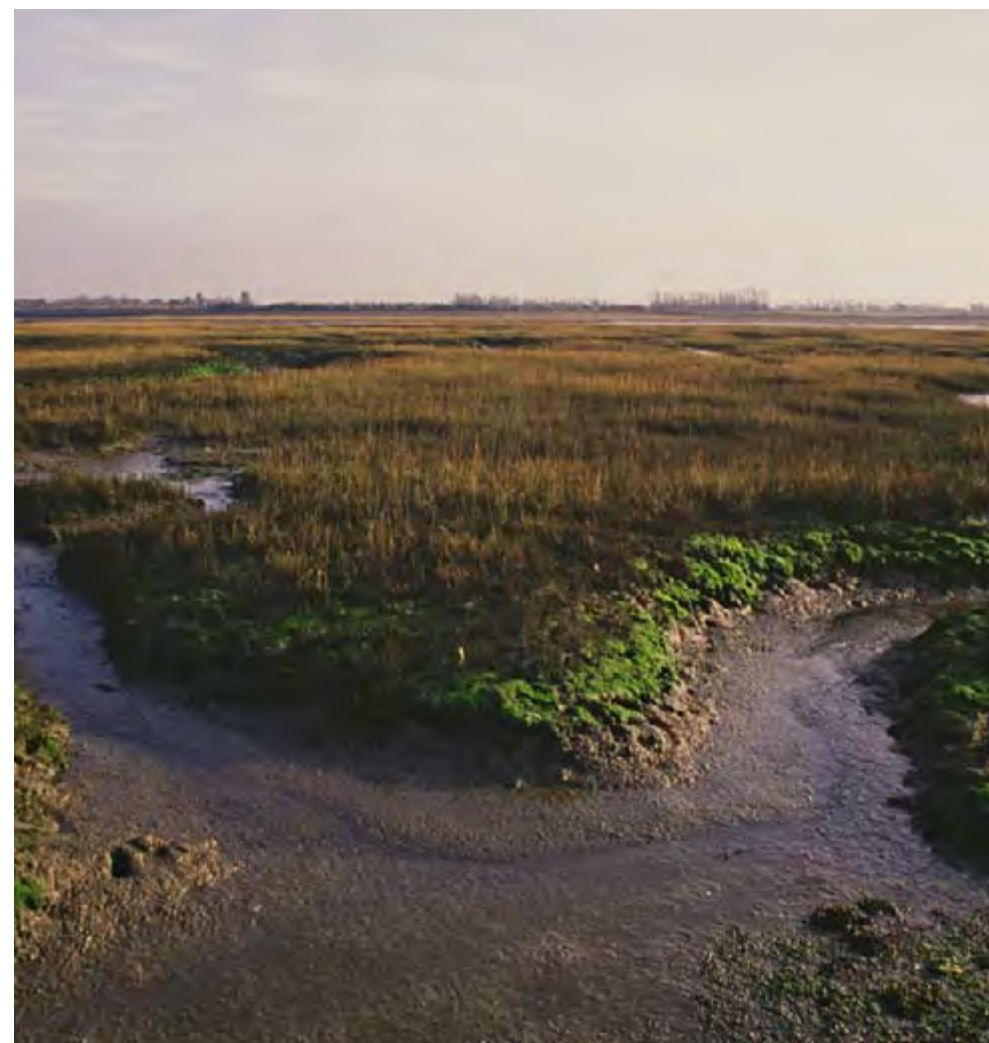
3.2 Water quality

The total area of Nitrate Vulnerable Zone is 37,784 ha, or 72 per cent of the NCA.

Source: Natural England (2010)

3.3 Water Framework Directive

Maps are available from the Environment Agency showing current and projected future status of water bodies at: http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e



Saltmarsh at East Head.

4. Trees and woodlands

4.1 Total woodland cover

The NCA contains 2,633 ha of woodland (where woodlands are over 2 ha in size), covering 5 per cent of the NCA and including 780 ha of ancient woodland.

Source: Natural England (2010), Forestry Commission (2011)

4.2 Distribution and size of woodland and trees in the landscape

There is a strong network of small and medium sized broadleaf woodlands throughout the upper coastal plain. The landscape pattern comprises some ancient woodland, coniferous plantations and small fields, hedgerows and woods. In contrast, the lower coastal plain is relatively treeless and entails a typically homogenous landscape of large fields with few hedgerows or trees. Small areas of wind-sculpted woodland persist on some coastal fringes, particularly around the sheltered inlets.

Source: Natural England (2010)

4.3 Woodland types

A statistical breakdown of the area and type of woodland found across the NCA is detailed below.

Area and proportion of different woodland types in the NCA (over 2 ha).

Woodland type	Area (ha)	% of NCA
Broadleaved	2,241	4
Coniferous	139	<1
Mixed	68	<1
Other	185	<1

Source: Forestry Commission (2011)

Area and proportion of Ancient Woodland and Planted Ancient Woodland within the NCA:

Type	Area (ha)	% of NCA
Ancient semi-natural woodland	620	1
Ancient re-planted woodland (PAWS)	160	<1

Source: Natural England (2004)

5. Boundary features and patterns

5.1 Boundary features

The lower coastal plain has few trees or hedgerows and drainage ditches, wire fences or low banks are more usual as field boundaries. In contrast the upper coastal plain is more wooded and well linked by hedgerows.

Source: South Coast Plain Countryside Character Area description; Countryside Quality Counts (2003)

5.2 Field patterns

Fields throughout the lower coastal plain tend to be large and arable. In contrast, the upper coastal plain typically has smaller fields. The fields largely appear to have been created through a process of enclosure by agreement, with some small areas of more regular enclosure. Typically the fields surrounding settlements are small.

Source: South Coast Plain Countryside Character Area description; Countryside Quality Counts (2003)

6. Agriculture

The following data has been taken from the Agricultural Census linked to this NCA.

6.1 Farm type

Horticulture is the most common farm type in terms of number of holdings (89), followed by cereals (73) and then grazing livestock (55). Between 2000 and 2009 horticulture lost the most number of holdings, falling by 73 holdings or 45 per cent. Both cereals and grazing livestock gained holdings, by 7 and 8 respectively. Most other farm types lost holdings, including mixed farms (9 holdings), general cropping (6) and dairy (2).

Source: Agricultural Census, Defra (2010)

6.2 Farm size

The small farm sizes are most numerous in terms of numbers of holdings, with 78 holdings under 5 ha and 97 holdings between 5 ha and 20 ha, although together these account for just 6 per cent of the farmed area. There are 67 holdings over 100 ha size, which by contrast make up 70 per cent of the farmed area. Farms under 5 ha declined dramatically, losing 74 holdings or around 50 per cent. Farms of over 100 ha also declined by 8 holdings. Farms sized between 20 ha and 50 ha gained the most number of holdings (18), while farms sized between 50 ha and 100 ha also increased by 10 holdings.

Source: Agricultural Census, Defra (2010)

6.3 Farm ownership

2009: Total farm area = 19,824 ha; owned land = 12,007 ha

2000: Total farm area = 22,194 ha; owned land = 14,292 ha

Source: Agricultural Census, Defra (2010)

6.4 Land use

Cereals and grassland dominate this area in roughly equal proportions, with cereals covering 6,950 ha (35 per cent of the farmed area) and grass and uncropped land covering 6,681 ha (34 per cent). Other arable crops cover 1,642 ha (8 per cent). There are also significant areas of vegetables (1,555 ha or 8 per cent) and oilseeds (1,433 ha or 7 per cent). The most significant change between 2000 and 2009 was the decline in cereals, which reduced by 2,506 ha or 26 per cent. Other arable crops also declined by 368 ha. Grass and uncropped land by contrast increased slightly by 274 ha, as did oilseeds which increased by 309 ha.

Source: Agricultural Census, Defra (2010)

6.5 Livestock numbers

Sheep are the most numerous of the livestock (7,100) followed by cattle (5,700) and then pigs (407). All types of livestock fell in numbers between 2000 and 2009, with pigs becoming near absent, falling by 10,500 or 96 per cent. Sheep numbers fell by 3,100 (30 per cent) and cattle numbers by 1,300 (18 per cent).

Source: Agricultural Census, Defra (2010)

6.6 Farm labour

The figures suggest that the majority of holdings are run by principal farmers (440) compared with salaried managers (228). There are more full-time workers (824) than part-time workers (157). There are also 1,050 casual/gang workers. Trends between 2000 and 2009 show a decrease in the number of principal farmers by 148 and an increase in salaried managers by 6. Full-time worker and part-time worker numbers both decreased (by 374 and 285 respectively), while the number of casual/gang workers remained roughly constant (increased by 8).

Source: Agricultural Census, Defra (2010)

Please note: (i) Some of the Census data is estimated by Defra so will not be accurate for every holding (ii) Data refers to Commercial Holdings only (iii) Data includes land outside of the NCA belonging to holdings whose centre point is within the NCA listed.

7. Key habitats and species

7.1 Habitat distribution/coverage

There is a scanty covering of low growing, saline tolerant plants along the coastline. Sand dunes and shingle beaches are found along the shoreline. The most extensive and well developed occur at the mouths of the main harbours such as shingle beaches at Pagham Harbour and sand dunes at East Head at the entrance of Chichester Harbour.

Saline lagoons are found in areas along the coast, including within Pagham Harbour, Birdham Pool in the north-eastern edge of Chichester Harbour and the entrance of Portsmouth Harbour. Salt marshes occur along the harbours and estuaries, particularly within Chichester Harbour. Scrub and small areas of wind-sculpted woodland occur on some coastal fringes. There are a small number of isolated coastal heaths and woodlands on the open plain. A network of broadleaved woodlands, including ancient woodland, is present in the upper coastal plain. Areas of medium quality agricultural land support good quality grassland such as in the Arun flood plain. In addition the NCA contains important arable habitats. These support nationally important assemblages of arable birds.

Source: South Coast Plain and Hampshire Lowlands Natural Area Profile

7.2 Priority habitats

The Government's new strategy for biodiversity in England, Biodiversity 2020, replaces the previous Biodiversity Action Plan (BAP) led approach. Priority habitats and species are identified in Biodiversity 2020, but references to BAP priority habitats and species, and previous national targets have been removed. Biodiversity Action Plans remain a useful source of guidance and information. More information about Biodiversity 2020 can be found at;

<http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/englandsbiodiversitystrategy2011.aspx>

The NCA contains the following areas of mapped priority habitats (as mapped by National Inventories). Footnotes denote local/expert interpretation. This will be used to inform future national inventory updates.

Priority habitat	Area (ha)	% of NCA
Coastal and flood plain grazing marsh	2,085	4
Broadleaved mixed and yew woodland (broad habitat)	1,462	3
Reedbeds	274	1
Lowland meadows	188	<1
Coastal vegetated shingle	122	<1
Coastal sand dunes	108	<1
Fens	98	<1
Saline lagoons	64	<1
Lowland dry acid grassland	64	<1
Mudflats	48	<1
Lowland heathland	45	<1
Lowland calcareous Grassland	38	<1
Purple moor grass and rush pastures	1	<1

Source: Natural England (2011)

Maps showing locations of priority habitats are available at

- <http://magic.defra.gov.uk/website/magic/> select 'Habitat Inventories'

7.3 Key species and assemblages of species

- Maps showing locations of priority habitats are available at: <http://magic.defra.gov.uk/website/magic/>
- Maps showing locations of S41 species are available at: <http://data.nbn.org.uk/>

8. Settlement and development patterns

8.1 Settlement pattern

The lower coastal plain is dominated by suburban villages and extensive seaside towns between Brighton and the edge of Southampton. Smallholdings and bungalows are scattered along Southampton Water, but merge with the suburban outreaches of Fareham towards the Solent. East of Chichester numerous villages form a fairly continuous sprawl, including some farm buildings and traditional flint hamlets. Settlement is more dispersed to the north of the chalk dip slope.

Source: South Coast Plain Countryside Character Area description; Countryside Quality Counts (2003)

8.2 Main settlements

Main towns/cities within and adjacent to the NCA (with populations recorded in 2001) are; Southampton (304,400), Fareham/Portchester (56,160), Gosport (69,348), Havant (45,435), Portsmouth (187,056), Chichester (27,477), Bognor Regis (62,141), Littlehampton (55,716), Worthing (96,964), Brighton (134,293), and Hove (72,335). The total estimated population for this NCA (derived from ONS 2001 census data) is: 505,822.

Source: ONS 2001 Census, Natural England (2012)

8.3 Local vernacular and building materials

Building materials within the coastal margins traditionally reflect the proximity of the sea for importing raw materials, such as timber frames, thatch, flint and cob. Timber framing was widely used for houses until after the 17th century, after which brick was a more common option. The medieval churches around the harbours are made of flint and stone. Many of the villages have retained

their medieval core and are often arranged round a market or green area. The varied vernacular architecture reflects strong ties with its region.

Source: South Coast Plain Countryside Character Area description; Countryside Quality Counts (2003)



View of harbour and Old Portsmouth from fortifications.

9. Key historic sites and features

9.1 Origin of historic features

Evidence of Mesolithic people has been discovered from the mud of areas such as Langstone Harbour. Settlements, such as the palace at Fishbourne and civitas capital of Chichester, reflect that the coastal landscape was well occupied in the Roman period. There are still some existing examples of Anglo-Saxon work, such as in Portchester and Titchfield church. The strategic importance of the area has resulted in significant defence works along the coast. Portchester Castle dates from the Roman period but from the 14th century onwards measures to defend the important naval base of Portsmouth have been constructed, most visibly the 19th century ring of forts that extend onto Portsdown in the South Hampshire Lowlands character area. Other military features include several hospitals and First and Second World War airfields at Tangmere and Shoreham.

Source: Countryside Quality Counts Draft Historic Profile, Countryside Character Area description

9.2 Designated historic assets

This NCA has the following historic designations:

- 10 Registered Parks and Gardens covering 427 ha
- No Registered Battlefields
- 99 Scheduled Monuments
- 3,619 Listed Buildings

Source: Natural England (2010)

- More information is available at the following address:
www.english-heritage.org.uk/caring/heritage-at-risk/
- www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/

10. Recreation and access

10.1 Public access

- Three per cent of the NCA ha is classified as being publically accessible.
- There are 673 km of public rights of way at a density of 1.3 km per km².
- There are no National Trails within the South Coast Plain NCA.

Source: Natural England (2010)

The following table shows the breakdown of land which is publically accessible in perpetuity:

Access designation	Area (ha)	% of NCA
National Trust (Accessible all year)	120	<1
Common Land	61	<1
Country Parks	83	<1
CROW Access Land (Section 4 and 16)	232	<1
CROW Section 15	95	<1
Village Greens	29	<1
Doorstep Greens	0	0
Forestry Commission Walkers Welcome Grants	629	1
Local Nature Reserves (LNR)	933	2
Millennium Greens	0	0
Accessible National Nature Reserves (NNR)	120	<1
Agri-environment Scheme Access	0	0
Woods for People	416	<1

Sources: Natural England (2011)

Please note: Common Land refers to land included in the 1965 commons register; CROW = Countryside and Rights of Way Act 2000; OC and RCL = Open Country and Registered Common Land.

11. Experiential qualities

11.1 Tranquillity

Based on the CPRE map of tranquillity (2006) it appears that the lowest scores for tranquillity are associated with the major urban areas, particularly along the coast from Portsmouth and Southampton to Brighton. The highest scores for tranquillity are associated with land north of Selsey.

A breakdown of tranquillity values for this NCA are detailed in the table below:

Category of tranquillity	Score
Highest	35
Lowest	-105
Mean	-21

Sources: CPRE (2006)

More information is available at the following address: www.cpre.org.uk/what-we-do/countryside/tranquil-places/in-depth/item/1688-how-we-mapped-tranquillity

11.2 Intrusion

The 2007 Intrusion Map (CPRE) shows the extent to which rural landscapes are 'intruded on' from urban development, noise (primarily traffic noise), and other sources of visual and auditory intrusion. This shows that there is very little undisturbed land within the NCA as it covers the large urban areas of Southampton and Portsmouth and the arterial route of the A/M27 runs the length of it. A breakdown of intrusion values for this NCA is detailed in the following table:

Intrusion category	1960s (%)	1990s (%)	2007 (%)	Percentage change (1960s-2007)
Disturbed	44	58	58	14
Undisturbed	28	11	7	-21
Urban	23	24	35	12

Sources: CPRE (2007)

Notable trends from the 1960s to 2007 are the dramatic loss of undisturbed areas (a loss of 21 per cent).

- More information is available at the following address:
www.cpre.org.uk/resources/countryside/tranquil-places



Worthing seafront.

12. Data sources

- British Geological Survey (2006)
- Natural Area Profiles, Natural England (published by English Nature 1993-1998)
- Countryside Character Descriptions, Natural England (regional volumes published by Countryside Commission/Countryside Agency 1998/1999)
- Joint Character Area GIS boundaries, Natural England (data created 2001)
- National Parks and AONBs GIS boundaries, Natural England (2006)
- Heritage Coast Boundaries, Natural England (2006)
- Agricultural Census June Survey, Defra (2000,2009)
- National Forest Inventory, Forestry Commission (2011)
- Countryside Quality Counts Draft Historic Profiles, English Heritage (2004)*
- Ancient Woodland Inventory, Natural England (2003)
- Priority Habitats GIS data, Natural England (March 2011)
- Special Areas of Conservation data, Natural England (data accessed in March 2011)
- Special Protection Areas data, Natural England (data accessed in March 2011)
- Ramsar sites data, Natural England (data accessed in March 2011)
- Sites of Special Scientific Interest, Natural England (data accessed in March 2011)
- Detailed River Network, Environment Agency (2008)
- Source protection zones, Environment Agency (2005)
- Registered Common Land GIS data, Natural England (2004)
- Open Country GIS data, Natural England (2004)
- Public Rights of Way Density, Defra (2011)
- National Trails, Natural England (2006)
- National Tranquillity Mapping data, CPRE (2007)
- Intrusion map data, CPRE (2007)
- Registered Battlefields, English Heritage (2005)
- Record of Scheduled Monuments, English Heritage (2006)
- Registered Parks and Gardens, English Heritage (2006)
- World Heritage Sites, English Heritage (2006)
- Incorporates Historic Landscape Characterisation and work for preliminary Historic Farmstead Character Statements (English Heritage/Countryside Agency 2006)

Please note all figures contained within the report have been rounded to the nearest unit. For this reason proportion figures will not (in all) cases add up to 100 per cent. The convention <1 has been used to denote values less than a whole unit.

Supporting document 2: Landscape change

Recent changes and trends

Trees and woodlands

- An increase in Woodland Grant Schemes suggests that the character of the area's woodlands is probably being maintained. Both the restoration of existing woodlands and coppice management have been identified as being of high priority within the area, as well as the high potential for the creation of new woodlands.
- Dutch elm disease and storm events have also had a significant visual impact, with the loss of many of the characteristic, wind-shaped trees and woodlands.

Boundary features

- Between 1999 and 2003, Environmental Stewardship capital agreements for linear features included fencing (14 km), hedge management (4 km), hedge planting and restoration (21 km) and restored boundary protection (8 km). The estimated boundary length for the NCA is 1,347 km. Total length of agreements between 1999 and 2003 is equivalent to about 4 per cent of this total.
- By 2011 a further 200 km of hedges had been brought into management through Environmental Stewardship.
- Many hedgerows are in need of restoration.

Agriculture

- According to Countryside Quality Counts data there has been a continued reduction in agricultural area and extent of grasslands between 1990 and 2003 suggesting that the erosion of agricultural character (coupled with that of boundary features) was ongoing, albeit at a reduced rate.
- Hampshire Fare is a successful campaign championing local produce established in 1991.
- Goodwood Farm achieved full organic status in 2004, becoming the largest lowland organic farm in the UK.
- Uptake of agri-environment schemes has been good within the AONB since 2005 with 11 farms and 998 ha within Entry Level (including organic), five farms and 592 ha within the Higher Level tier (including organic) and 1,023 ha with older schemes such as Countryside Stewardship.

Settlement and development

- The area has a high rate of change to urban, with most of the larger settlements showing evidence of extension of urban and fringe into peri-urban. However, extent of new development beyond the peri-urban is limited and so overall character has probably been maintained.
- The South East Plan originally identified significant areas of growth throughout and surrounding the NCA.

- The Solent Disturbance and Mitigation Project¹¹ has produced evidence regarding visitor access patterns from current and future housing around the coast and how their activities and the distances and time for which different bird species respond to different activities.
- The realignment scheme at Medmerry will create footpaths, bridleways and viewpoints to enjoy, which will be an asset for the local community and local tourism.

Semi-natural habitat

- The extent of agri-environment agreements for management of grazing marshes is limited. Littoral sediment SSSI are mostly in favourable or recovering condition. Character of the resource has probably been maintained.
- The coastal realignment scheme at Medmerry will create 183 ha of new intertidal habitat and up to 300 ha of other wetland habitats. This will make a significant contribution to intertidal habitat gains in the Solent. The site will be managed by the Royal Society for the Protection of Birds under a management plan.
- The scheme removes the need to manage shingle defences. This will allow the Medmerry beach to develop and evolve naturally with coastal processes and form a more sustainable and valuable vegetated shingle habitat.

Historic features

- In 1918 about 2 per cent of the NCA was historic parkland. By 1995 it is estimated that 53 per cent had been lost. About 28 per cent of the remaining parkland is covered by a Historic Parkland Grant, and about 15 per cent is included within an agri-environment scheme.
- About 68 per cent of historic farm buildings remain unconverted. About 93 per cent are intact structurally. These data suggest that important aspects of the historic landscape remain neglected.
- The remains of Homo heidelbergensis were first found at Boxgrove in 1994, comprising the partial tibia of a male. In 1996 two incisor teeth from another individual were found. In 2003 English Heritage announced it would buy the remains of the quarry to ensure the preservation of the site complex.
- The historic dockyard in Portsmouth Harbour was restored as one of the Millennium Projects and there are a number of other projects planned within the area, including the establishment of a research and teaching centre for maritime heritage studies.
- Significant archaeological discoveries at the Medmerry site may revise traditional views regarding the historical development of the area. Investigation of the medieval fish weir is increasing understanding of how this structure was used to corral fish and a bronze-age cremation area is also being excavated and researched.

¹¹ Solent Disturbance and Mitigation Project (URL: www.solentforum.org/forum/sub_groups/Natural_Environment_Group/Disturbance_and_Mitigation_Project/)

- The Heritage Lottery funded 2004 Archaeological Research Framework and accompanying 2007 Research Synthesis provide a comprehensive baseline of the archaeological resource of the AONB. The HLF programme developed a strong archaeology partnership through a steering group that continues to oversee research.

Coast and rivers

- The Medmerry managed realignment scheme between Chichester Harbour and Selsey Bill was the first of its kind on the open coast and one of the most significant flood management achievements on the south coast to date in terms of climate change adaptation and managing the effects of coastal change. It involved the realignment of the coastline to a newly constructed floodwall several kilometres long and one kilometre inland, providing flood protection for over 300 homes, the local water treatment works and the only road in to Selsey. It also created over 183 ha of new intertidal habitat and over 300 ha of new terrestrial wetland habitats.
- Medmerry will create important new wildlife habitats and open up new footpaths, cycleways and bridleways. There is another habitat creation project at Cobnor Point.
- There is limited uptake of management agreements for coastal and riverine habitats. The biological river water quality in 1995 was predominantly good and it has been maintained. The chemical water quality in 1995 was predominantly very good and it has been maintained.

- In 2008, a £29m nitrogen removal scheme to improve the quality of treated wastewater at Peel Common Treatment Works at Fareham was completed.
- 2009 saw the launch of the Downs and Harbours Clean Water Partnership set up to tackle diffuse water pollution issues affecting the quality of ground, surface and coastal waters in West Sussex and East Hampshire.¹²
- Preparation work for major dredging of Portsmouth Harbour to allow passage of the Royal Navy's 65,000-tonne aircraft carriers has begun.
- The Arun and Rother Connections project (ARC), is a HLF funded collaborative project involving all interested partners to improve water quality and flow in the catchments and encourage local people to appreciate the services provided by these rivers. It involves major works to ease fish passage, river and chalk stream restoration, surveys and removal of non-native invasive aquatic plant species, wetland habitat and heathland restoration as well as engaging communities and landowners and improving access and interpretation.

Minerals

- Lidsey Oil Field has been in production since 2008. Lidsey has one vertical producing well in the Jurassic, Great Oolite reservoir.

¹² Downs and Harbours Clean Water Partnership (URL: www.cleanwaterpartnership.co.uk/here.html)

Drivers of change

Climate change

- As a low-lying coastal area in south-east England, this NCA is vulnerable to the effects of climate change, particularly sea level rise, increased severity and frequency of storm events and drought.
- The coastline is particularly vulnerable to sea level rise, with flooding a major issue for the future of the urban-dominated area. Accurate measurements from the tidal gauge at Portsmouth show that since 1991, sea level has risen by 10 cm, an increase of 6.6 mm a year. Sea level rise is inevitably worrying in a landscape where ground height differences are measured in only a few metres. Relatively small increases in sea level will have an impact on the coastal communities, habitats and the species they support and how people currently use and manage the land.
- North Solent Shoreline Management Plan (SMP) aims to identify sustainable coastal defence options based upon economic criteria, while having an overview of both the natural environment and the human and built environment.
- Important semi-natural habitats, including those of the designated natural harbours of Chichester and Langstone, may suffer. Mudflats, salt marsh and shingle habitats may be adversely affected by coastal squeeze where flood defences prevent migration. There may also be loss of coastal grazing marsh, reedbeds and saline lagoons where coastal realignment is permitted. Further realignments are required to ensure that losses of intertidal habitat in the Solent between 2025 and 2100 are offset. Finding and implementing further sizable opportunities in the Solent is a considerable challenge.
- Flooding due to increased autumn/winter rainfall and more frequent, more intense storm events could also potentially affect stretches of the area's rivers, including the Arun, Adur, Meon and Hamble, while hotter, drier summers could lead to summer drought, exacerbated by increased demand for irrigation with a resulting deterioration of semi-natural wetland habitats along the flood plain, including species-rich meadows and field ponds, as well as remnant areas of heath along the coast.
- A longer growing season with increasing temperatures may encourage the introduction of novel crops such as sunflowers, navy beans and soya and different crop timings into the arable-dominated landscape, altering its character.
- The composition of the semi-natural woodlands of the upper coastal plain may be affected by increased storminess, periods of drought and the prevalence of pests and diseases. Rising sea levels and coastal erosion may also lead to the loss of coastal oaks.
- The south coast generally is liable to be first point of entry for new species moving north from the continent.
- Most of the area's coastal footpath network is located along existing sea defences, embankments or the foreshore itself. Options will need to be sought to relocate footpaths and other recreational resources inland if significant change seems likely.

Other key drivers

- The Solent coastline provides feeding grounds for internationally protected populations of overwintering waders and wildfowl and is also extensively used for recreation. The Solent Disturbance and Mitigation Project resulted in comprehensive research to assess human activity on bird populations and there is support for a mitigation and avoidance plan to minimise impact.
- Portsmouth is identified as a centre of significant change, a regional hub and an international gateway, and is expected to accommodate around 20 per cent of the new dwellings planned for the South Hampshire sub-region as a whole by 2026.



The area supports internationally important populations of bird species including the black-tailed godwit.

- An urban extension is planned at Chichester, with over 7,000 new dwellings to be accommodated, while significant growth is also planned for the coastal settlements that dominate the east, including Worthing, Shoreham (a growth point) and Brighton and Hove (lying just outside the boundary).
- A strategic development area (SDA) will be allocated within Fareham Borough, north of the NCA, to comprise 10,000 new dwellings, with significant employment land to be provided on greenfield sites.
- Just outside the NCA in the South Hampshire Lowlands, the city of Southampton is identified as a regional hub and centre of significant change.
- There are various discharges of waste into the NCA from urban populations, roads, industry and through dispersed inputs such as agricultural run-off. The area includes part of one of the world's busiest shipping lanes and there are resulting problems with litter disposal as well as the constant danger of serious pollution incidents (and the 'clean-up' operations which follow them which may also be damaging) all of which can threaten the fragile ecology of the designated sites
- Most of the NCA is densely populated and includes what amounts to a linear conurbation which is under constant pressure for further development.
- There is likely to be further pressure for solar arrays in this area due to its geographical location.

Supporting document 3: Analysis supporting Statements of Environmental Opportunity

The following analysis section focuses on a selection of the key provisioning, regulating and cultural ecosystem goods and services for this NCA. These are underpinned by supporting services such as photosynthesis, nutrient cycling, soil formation and evapo-transpiration. Supporting services perform an essential role in ensuring the availability of all ecosystem services.

Biodiversity and geodiversity are crucial in supporting the full range of ecosystem services provided by this landscape. Wildlife and geologically-rich landscapes are also of cultural value and are included in this section of the analysis. This analysis shows the projected impact of Statements of Environmental Opportunity on the value of nominated ecosystem services within this landscape.



Sailing in Chichester Harbour AONB.

Statement of Environmental Opportunity	Ecosystem Service																		
	Food provision	Timber provision	Water availability	Genetic diversity	Biomass provision	Climate regulation	Regulating water quality	Regulating water flow	Regulating soil quality	Regulating soil erosion	Pollination	Pest regulation	Regulating coastal erosion	Sense of place / Inspiration	Sense of history	Tranquillity	Recreation	Biodiversity	Geodiversity
SEO 1: Plan for and manage the effects of coastal change by allowing the operation of natural coastal processes and improving the sustainability of current management practices along the diverse coastline to successfully integrate the needs of the natural environment, landscape, local communities, agriculture, tourism and recreation amid significant urban stretches.	↗ *	↔ **	↔ **	○ *	↔ ***	↑ ***	↗ **	↑ ***	↑ **	↑ ***	↗ *	↗ **	↑ ***	↑ ***	↗ **	↗ *	↑ ***	↑ **	↗ **
SEO 2: Plan for the creation of a strong landscape framework within and around major settlements and identified growth areas, while managing and enhancing existing greenspace and access, and balancing the needs of agriculture, communities and the natural environment.	↗ *	↗ ***	↔ **	↗ *	↔ **	↗ **	↗ ***	↗ ***	↗ **	↗ **	↗ ***	↗ ***	↑ ***	↑ ***	↗ **	↗ **	↑ ***	↑ ***	↔ *
SEO 3: Manage and significantly enhance the area's rivers and chalk streams and their wetland valley habitats to provide resilience against climate change and improve flood protection and water quality, particularly in the internationally designated sites such as Chichester and Pagham harbours, for the benefit of local communities and wildlife.	↗ **	↔ **	↗ ***	↗ ***	↗ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↗ ***	↑ ***	↑ ***	↑ ***	↑ ***	↑ ***	↔ ***
SEO 4: Manage the rich archaeological and historic resource and geological exposures within the farmed, coastal and peri-urban landscape, including the longstanding associations of horticultural and maritime industries and the military, enhancing a strong sense of place.	↗ ***	↔ ***	↔ ***	↑ ***	↔ ***	↗ ***	↗ ***	↔ ***	↗ ***	↗ ***	↗ ***	↗ ***	↔ ***	↑ ***	↑ ***	↗ ***	↑ ***	↗ ***	↑ ***

Note: Arrows shown in the table above indicate anticipated impact on service delivery: ↑ = Increase ↗ = Slight Increase ↔ = No change ↘ = Slight Decrease ↓ = Decrease. Asterisks denote confidence in projection (*low **medium***high) ° symbol denotes where insufficient information on the likely impact is available.

National Importance;
Regional Importance;
Local Importance

Landscape attributes

Landscape attribute	Justification for selection
Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks.	■ Internationally designated wetland and coastal habitats. ■ Picturesque harbourside settlements. ■ The coastal area (particularly in and around Langstone Harbour) has extensive palaeoenvironmental evidence. ■ Future changes in sea level may become an important issue given that the South Coast Plain is flat and low-lying. ■ Pressures for recreational uses and marina/harbour developments along the coast. ■ The conservation of wetlands, including those of the intertidal zone, is important to the area.
Major urban development including Portsmouth and Worthing linked by the A27/M27 corridor dominate much of the South Coast Plain.	■ Small villages engulfed by the expansion of urban coastal developments with many locally valued 'strategic gaps'. ■ Ribbon development of seaside towns and caravan parks. ■ Pressures for recreational uses and marina/harbour developments along the coast. ■ Major east-west road and rail routes.
Fertile soils support a prosperous market garden and horticultural trade reflecting the relatively warm temperatures and long growing season.	■ Concentrations of large modern glasshouses and small but increasing use of polytunnels. ■ Historically associated with fruit growing, especially strawberries for London, the passenger steamer trade and the Royal Navy. ■ Successful schemes to boost local produce. ■ Loss of hedges and hedgerow trees owing to field enlargement. ■ Areas of medium-quality agricultural land where soils are shallow, stony and poorly drained often support good quality permanent grassland.
The Plain is crossed by several rivers in places forming wide alluvial flood plains.	■ The lower plain is cut by southward-flowing streams, locally termed 'rifes', each of which have dry headwater extensions over the upper plain. ■ Many chalk streams. ■ Some projects to improve water quality such as ARC (Arun and Rother Connections). ■ The chalk rivers of the NCA are of importance for several key wetland and aquatic species.
The landscape is part of a broad plain of flinty marine and valley gravels extending several miles inland.	■ Historic mineral extraction, landfill and flooded gravel pits. ■ Flooded gravel pits make up some of the largest areas of freshwater in the region.
Open and exposed coastal landscape.	■ Views to the Isle of Wight. ■ Rock islands as coastal protection measures immediately off the coast have a major visual influence.

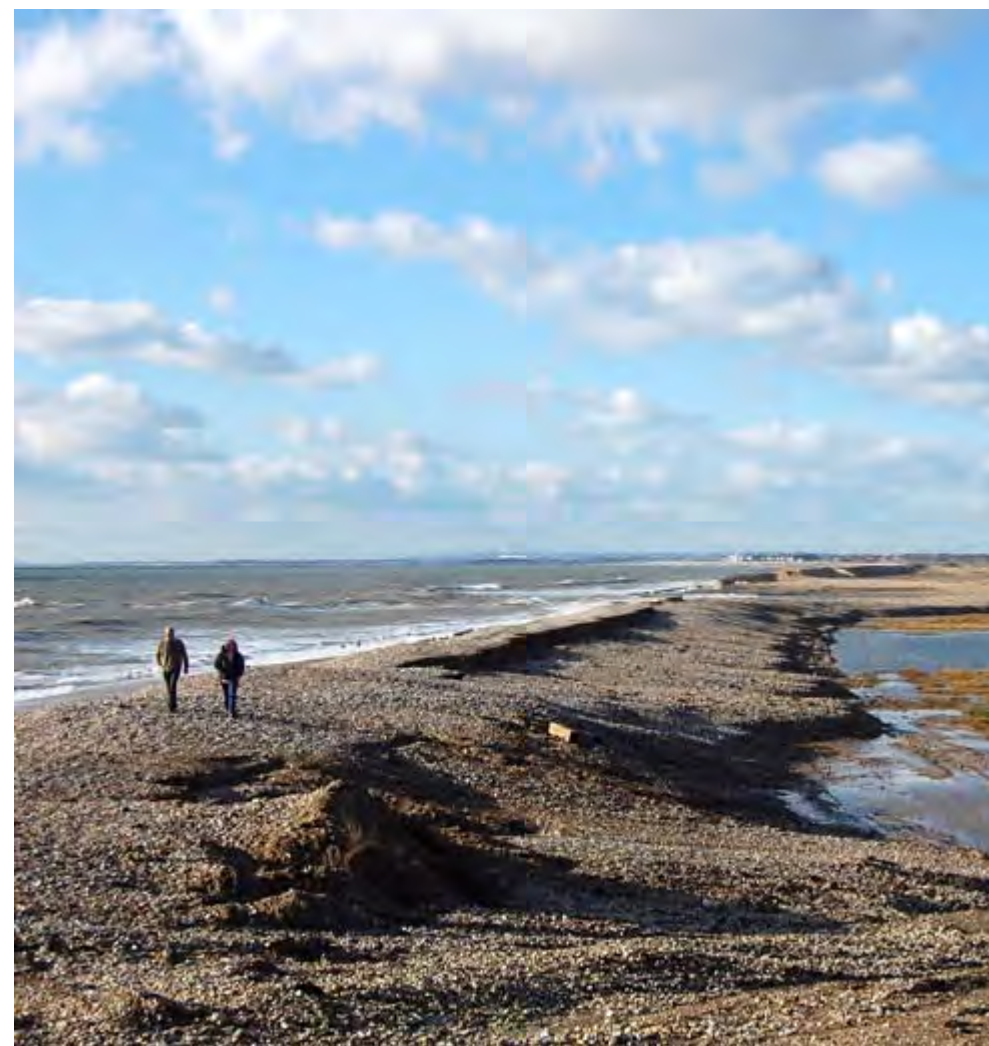
Landscape attribute	Justification for selection
Important historical sites from all periods.	- Defensive structures demonstrating the area's long association with the military (especially Royal Navy) and strategic importance. - Many significant Roman sites including Fishbourne Roman Palace. - Medieval buildings including Chichester Cathedral. - Bosham is traditionally the place where King Canute demonstrated that he was unable to hold back the sea. - Surviving field barns are an important remnant of a once widespread building type. - Dovecotes are found on some high status farms.
Areas of remnant heathland.	- Once a common and widespread feature of the landscape in the Hampshire Basin and now confined to small isolated fragments within the NCA such as Hamble Common. - Remaining sites offer considerable potential for heathland restoration.
Large flocks of wildfowl.	- The Solent coastline provides feeding grounds for overwintering waders and wildfowl and is also extensively used for recreation. - Internationally important numbers of several overwintering species including dark-bellied Brent geese, black-tailed godwit and dunlin. - Also significant breeding area for many species, such as terns. - The southern tip of the Manhood Peninsula is a favoured migratory point for many species of birds and insects.



Arable fields in the South Coast Plain with the South Downs in the background.

Landscape opportunities

- Manage the coastal habitats and features that include intertidal sand and mud, coastal salt marsh, coastal sand dunes coastal vegetated shingle, coastal heathland, beaches, coastal and flood plain grazing marsh and saline lagoons including areas of international importance, promoting opportunities for natural regeneration/migration where appropriate or possible and/or creating compensation habitats in areas of managed realignment to ensure no net loss of habitats such as salt marsh and mudflats.
- Manage and improve the productive agricultural landscape, including the creation of arable field margins, restoration of hedgerows and conservation headlands that help to support the area's farmland bird populations and pollinators.
- Promote and enhance the area's surviving historic environment that includes important Roman remains across the area, as well as the significant military and maritime heritage assets, historic parkland and traditional buildings.
- Plan for the creation of significant new landscapes that provide a framework for new and existing development and its associated infrastructure.
- Ensure realignment site management allows intertidal habitats to develop and expand effectively to support and enhance the biodiversity interest and characteristic landscape.



Coastal realignment at Medmerry.

Ecosystem service analysis

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Food provision	Soils Climate – relatively high temperatures and long growing season Market gardening Dairy, sheep and pigs Arable Vineyards Poultry Fish	High proportion (38 per cent) of Grade 1 and 2 land in between large urban centres. This is a fertile area which supports intensive arable farming and horticulture, with some dairy, beef and poultry. Areas of medium-quality agricultural land where soils are shallow, stony and poorly drained often support good quality permanent grassland such as on the Arun flood plain. Fish, and particularly shellfish, are widely harvested from the harbour areas. The Selsey crab is a particular delicacy.	Regional	The western part of the NCA falls into an area known as ‘highlight zone’ – south-facing landscape reflecting light off Solent and protected by Isle of Wight creates ideal conditions, particularly for fruit. Vineyards are increasing in popularity and there have been experiments with other more exotic crops such as olives. County food group Hampshire Fare is a not-for-profit community interest company established in 1991, representing around 200 producers, hospitality venues, shops and cookery schools, which campaigns to heighten the awareness and consumption of Hampshire’s quality produce. Goodwood Farm achieved full organic status in 2004, becoming the largest lowland organic farm in the UK. Milk and cream from the Dairy Shorthorn herd are processed at the farm, including being made into traditional cheeses. Produce is sold locally or used in facilities on site or during events. During the oyster fishing season of 2007/08, 58 tons of oysters were harvested from Chichester Harbour. Seven charter fishing boats operate within Chichester Harbour. Deterioration in water quality in the harbours would threaten this service.	Support safeguarding high-quality agricultural land and encourage land management practices which protect soil assets and the benefits they provide. Manage the agricultural landscape in sustainable ways to improve soil and water regulation and improve long-term viability of agriculture and yields, protecting the natural assets of the area. There is a need to safeguard soils and high quality agricultural land when planning development. Crop diversity within the farming system could also be beneficial for maintaining soil quality. Opportunities to enhance the agricultural landscape through creation of habitat mosaics where forage and nesting sites are provided for pollinators such as conservation headlands, arable field margins and wildflower mixes. Support measures to protect and improve water quality to the harbours such as modifications to water treatment works and control of agricultural run-off through the catchment sensitive farming scheme to allow the harvesting of seafood to continue. Support sustainable harvest of native oysters.	Food provision Regulating soil quality Regulating water flow Regulating water quality Biodiversity Sense of place/ inspiration

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Timber provision	Parkland Woodland	Woodland cover for this NCA is 5 per cent, covering a strong network of small and medium sized broadleaf woodlands	Local	This NCA is sparsely wooded and there are few suitable locations to extend woodland.	There are limited opportunities to improve management of broadleaf woodlands in this NCA to produce more timber.	Timber provision
Water availability	Chichester aquifer Rivers Chalk streams	Public water supply relies upon surface water abstractions and groundwater from the Lower Greensand aquifer and the Worthing and Chichester chalk blocks. Most of the area overlies post-Carboniferous rock, although there are small areas to the east that overlie an important chalk aquifer. Water supply is under pressure throughout the area, with the River Meon in the west mostly classed as over-abstracted, and most of the remaining area classed as over-licensed or no water available (including the groundwater units around Portsmouth and North Hayling). The Chichester chalk aquifer supports baseflows to spring fed rivers such as the rivers Ems and Lavant.	Regional	The main abstractions in the Arun and West Sussex Streams are for public water supply followed by industry and agriculture while in the west, it is for public water supply followed by fish farming and watercress growth. Consequently, summer flows are naturally low. Exploitation of the aquifer to supply potable water is seriously threatening this natural resource of chalk rivers and spring fed fens and fen-grasslands that are dependent upon the continual supply of unpolluted chalk spring water. This is likely to be an increasing problem as drought caused by climate change and increasing population put extra pressure on water supply.	Action to reduce demand would ease pressure on supplies that, in some case, are already fully exploited in dry years. Encourage the incorporation of sustainable drainage systems into all new developments. Ensure that sufficient water levels are maintained in ecologically sensitive and important streams and rivers. Seek opportunities to restore natural river geomorphology, bringing rivers back into continuity with their flood plains and re-creating backwaters as a refuge for aquatic species in times of drought. Encourage cultivation practices that reduce demand for water for irrigation of crops.	Water availability Regulating water quality Regulating soil quality Biodiversity

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Genetic diversity	Traditional breeds Local varieties	The Home Farm of the Goodwood Estate favours rare breeds such as Dairy Shorthorn and Sussex cattle, Southdown sheep and Tamworth and Saddleworth pigs.	Regional	The pedigree Southdown sheep are also shown locally, continuing a tradition long held by the dukes of Richmond.	Opportunities exist to build on the Hampshire Fare campaign to promote more use of traditional breeds to produce high-quality produce.	Genetic diversity Food production Sense of history Sense of place/ inspiration
Biomass energy	Fertile soils Woodland	5 per cent of the area is woodland and biomass from existing woodland sources will be limited.	Local	Potential miscanthus yield is predominantly high as a result of the fertility of the soil, with areas of low/medium potential around Portsmouth and Chichester harbours and the urban areas to the east, while short rotation coppice yields may be restricted close to the coast due to prevailing salt laden winds. For information on the potential landscape impacts of biomass plantings within the NCA, refer to the tables on the Natural England website. ¹³	There are potential opportunities for both short rotation coppice and miscanthus to be accommodated but these would need to be located appropriately within the landscape.	Biomass energy
Climate regulation	Soils Wetlands, including grazing marsh Woodland	The soils in this NCA predominantly have low levels of soil carbon (0–5 per cent). However, there are some very small patches, in the west, that reach carbon levels of up to 20–50 per cent. 2,000 ha of grazing marsh contribute significantly to carbon sequestration.	Regional	The relatively large areas of flood plain grazing marsh have additional locked up carbon stores, as do the small areas of woodland. Realignment schemes, such as Medmerry, can increase the extent of wetland habitats which will help compensate for the effects of climate change.	Where habitats are lost to coastal squeeze, compensation habitats have to be sought where natural regeneration is not possible or practical. There is potential to increase organic matter levels on arable land. Improvements in soil structure will also help improve water quality.	Climate regulation Regulating soil quality Regulating water quality Regulating soil erosion

¹³ URL: www.naturalengland.org.uk/ourwork/farming/funding/ecs/sitings/areas/default.aspx

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality <i>continued on next page</i>	Rivers and chalk streams Estuaries Aquifers Treatment works	72 per cent of the area is a nitrate vulnerable zone. All the area's rivers are subject to diffuse pollution arising from outside the NCA.¹⁴ There are three main sources of groundwater pollution within the unit: agricultural activities, saline intrusion and urban related activities (sewage leakage, road run-off, weed control etc.). Potentially polluting agricultural activities include the application of organic and inorganic fertilisers and the use of pesticides and herbicides. The pollution risks from agricultural sources are locally a real threat to groundwater quality due to the large expanses of arable land and the nature of the chalk aquifer and soils which allow rapid leaching of pollutants. Where groundwater quality has been assessed it is generally good with an area of poor quality in the centre of the NCA. The ecological quality of the area's rivers is more varied, with stretches classed as either moderate or bad towards the east but good in the west.	Regional	The area is heavily urbanised and intensive agriculture, recreational activities and transport systems all add to pressures on water quality. These are likely to increase with further planned development and effects of climate change such as drought causing low flows and more frequent storm events leading in increased run-off. As well as recreational sailing in the harbours, the area includes part of one of the world's busiest shipping lanes and there are resulting problems with litter disposal as well as the constant danger of serious pollution incidents (and the 'clean-up' operations which follow them and may also be damaging) all of which can impact upon water quality and threaten the fragile ecology of the designated sites. The River Arun suffers from the effects of diffuse agricultural pollution largely arising in the wider catchment outside this NCA, forming part of the Arun and Western Rother Defra Priority Catchment. Equally the River Meon and the catchments of Chichester and Pagham harbours are vulnerable to diffuse agricultural pollution arising from outside the NCA. This is of particular concern given the international designations of these harbours as SPAs. Many of the rivers are heavily modified. In 2008, a £29m nitrogen removal scheme to improve the quality of the treated wastewater returned to the environment at Peel Common was completed.	Work with water companies to investigate and implement innovative solutions to point source pollution and untreated waste water. Consider reviewing ecological designations for the area's chalk streams. Work with partners to expand areas of semi-natural habitat in chalk stream flood plains, within the NCA and upstream, to act as pollution filtration. Provide information about chalk stream ecology and the negative impacts of unsustainable water use. Reduce the amount of nutrients entering the harbours from domestic and industrial sources by engaging with the planning process to ensure that new developments incorporate the best possible measures for reducing problems from waste, including sustainable drainage systems (SuDS). Promote the installation of holding tanks for recreational vessels and seek to provide the necessary infrastructure to pump out holding tanks. Ensure adequate reception facilities for vessel landed waste and maintain a Maritime and Coastguard Agency-compliant Port Waste Management Plan. Increase the amount of farmland in and upstream of this NCA managed under principles established by the Catchment Sensitive Farming Programme or its water company equivalent.	Regulating water quality Regulating soil quality Regulating soil erosion Biodiversity Recreation

¹⁴ Defra catchment priorities identified under the England Catchment Sensitive Farming Project

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality <i>continued from previous page</i>				Serious concerns have been raised at the ability of waste water treatment facilities to cope with current and future housing development. The quality of water in Chichester Harbour is not statutorily assessed as bathing water and is not therefore monitored in accordance with the EC Bathing Water Directive by the regulator. However, the discharge of sewage into the Harbour may have environmental health implications particularly for people enjoying activities on the water such as sailing and kayaking. There have been a number of efforts to improve water quality in this area including Portsmouth Water's Downs and Harbours Clean Water Partnership The Arun and Rother Connections project (ARC), is a HLF funded project to improve water quality and flow in the catchments and encourage local people to appreciate the services provided by their river. It involves major works to ease fish passage, river and chalk stream restoration, surveys and removal of non-native invasive aquatic plant species, wetland habitat restoration (fen, reedbed, species rich flood plain meadow and wet woodland) and heath restoration as well as engaging communities and landowners and improving access and interpretation.	Buffer watercourses with semi-natural vegetation – permanent grassland, scrub, woodland – to intercept diffuse pollution by sediment run-off and nutrients, particularly upstream beyond the borders of the NCA. Seek opportunities to restore natural river geomorphology, bringing rivers back into continuity with their flood plains. Expand and link lowland meadows, flood plain grazing marsh and other wetland habitats found on the flood plains of the rivers and chalk streams. Work with the Solent Water Quality Association and other partners to achieve the highest water quality and achieve the aims of the Water Framework Directive. Control the amount of nutrients entering the harbours from agricultural sources by encouraging catchment initiatives that engage and challenge farmers to reduce nutrient leaching, pesticide contamination and soil erosion.	

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water flow	Rivers Flood plains Wetland Harbours Coast	The Arun has a wide flood plain with slow river flows, although much of this flood storage capacity has been lost through drainage of marshlands and conversion to intensive agriculture both within and upstream of this NCA. The Meon runs over chalk, rainfall soaks into the ground here instead of running off into the river. A tidal sluice on the Lower Meon maintains the freshwater marsh of Titchfield Haven, with storage of water identified as being important to both long-term flood alleviation and wetland conservation. There are also several chalk fed streams that run in this NCA such as the Lavant and the Bosham stream. Settlements within the NCA, such as Arundel and Littlehampton, are protected by flood banks. The River Lavant has a long history of flooding in Chichester.	Regional	Significant flood events have occurred several times in the last 40 years in the Arun and Western streams catchments and river banks need repair and maintenance. The River Lavant Flood Alleviation Scheme is designed to divert flows away from Chichester and then safely discharge them into Pagham Harbour. Policies to reduce flood risk in Worthing, Shoreham and Brighton include the storage of water within the Adur catchment on the South Downs (outside this NCA) and encouraging the adoption of Sustainable Urban Drainage Systems. Major dredging work has begun in Portsmouth Harbour to enable it to accommodate new 65,000-tonne aircraft carriers.	Explore and where appropriate implement water retention measures to help maintain water levels in rivers during periods of drought. Seek opportunities to restore natural river geomorphology, bringing rivers back into continuity with their flood plains and re-creating backwaters as a refuge for aquatic species in times of drought. Incorporate sustainable drainage systems (SuDS) in all new development, including features such as porous surfaces, swales, green roofs and more green space. Plan for and manage for the effects of coastal change by allowing the operation of natural coastal processes and the creation of new habitats to reduce flooding to built-up areas. Ensure that realignments are managed so that intertidal habitats can develop and expand effectively.	Regulating water flow Regulating water quality Biodiversity

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil quality	Soils Rivers Coastal salt marshes Harbours	High proportion (38 per cent) of Grade 1 and 2 land in between large urban centres. There are nine main soilscape types in this NCA: ■ Freely draining slightly acid loamy soils, covering 43 per cent of the NCA. ■ Loamy soils with naturally high groundwater (33 per cent). ■ Loamy and clayey soils of coastal flats with naturally high groundwater (7 per cent). ■ Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (7 per cent) ■ Loamy and clayey flood plain soils with naturally high groundwater (2 per cent). ■ Shallow lime-rich soils over chalk or limestone (1 per cent). ■ Sand dune soils (1 per cent). ■ Freely draining slightly acid but base-rich soils (1 per cent). ■ Freely draining very acid sandy and loamy soils (1 per cent).	Regional	The freely draining slightly acid loamy soils may be valuable for aquifer recharge, requiring the maintenance of good structural conditions to aid water infiltration and requiring the matching of nutrients to needs to prevent pollution of the underlying aquifer. The loamy soils with naturally high groundwater have a low bearing strength where groundwater remains high and are therefore at increased risk of soil compaction from mechanised operations, stock grazing or recreational use in wetter conditions. Diffuse pollution (such as from applied manures and very fine sediments) is also possible as a result of run-off due to persistently high groundwater levels or from local flooding. Both of these soils may have potential, especially under arable cropping, for increased organic matter levels through management interventions. The large urban centres and transport links surrounding agricultural land mean that pollution of soils via run-off from roads is a constant problem. Maintaining quality of soils will help safeguard future yields and wider ecosystem service provision.	Continue to apply the principles and best practices employed through initiatives such as Catchment Sensitive Farming. Identify areas where soils are most at risk of damage from cultivation and work with landowners and farmers to adopt sensitive soil management practices as appropriate. Work to improve treatment of waste water and prevent run-off from roads by promoting measures such as extending verges and hedgerows. Maintain salt marsh and other intertidal habitats as a buffer between the sea and agricultural land and to protect against saline intrusion. Seek to keep the highest quality soils in agricultural production.	Regulating soil quality Food provision Regulating soil erosion Biodiversity Regulating water quality

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil erosion	Soils Rivers	The River Arun forms part of the Arun and Western Rother Defra Priority Catchment under the England Catchment Sensitive farming and suffers from sedimentation largely as a result of soil erosion higher in the catchment outside this NCA. Many parts of the area are susceptible to flooding.	Local	The lighter soils make up just under half of the NCA (dominated by freely draining slightly acid loams), and have enhanced risk of soil erosion on moderately or steeply sloping land where cultivated or bare soil is exposed, often exacerbated where organic matter levels are low after continuous arable cultivation or where soils are compacted. There is also the potential for wind erosion on some coarse textured cultivated variants of the freely draining slightly acid loams. Sand dune soils are very droughty and unstable, with the extent of erosion depending on the degree to which vegetation has stabilised the dune system. A few of the component soils of the freely draining base-rich soils (just 1 per cent of the NCA) may be susceptible to capping and slaking, increasing the risk of soil erosion, and these soils need to be managed carefully to reduce risks with careful timing of cultivations and maintenance of vegetation cover. The remaining soils have a low risk of soil erosion, except where coarser textured variants of loamy soils with naturally high groundwater occur on sloping or uneven ground. The light soils of the coastal plain may be susceptible to wind erosion in the future under climate change. Coastal flooding can damage soils and cause erosion.	Continue to apply and extend the reach of tried and tested techniques for reducing soil erosion resulting from agriculture that are being promoted among the farming community by projects such as Catchment Sensitive Farming. Opportunity to create areas of semi-natural habitat and low-input grasslands (including grassland buffer strips) to minimise soil compaction, allow dense vegetation to improve water retention to minimise soil run-off and improve water quality. Promote the retention of mudflats, coastal salt marshes and sand dunes to provide a cost effective defence against soil erosion and prevent saline intrusion from damaging soils.	Regulating soil erosion Regulating water quality Regulating soil quality Regulating water flow

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Pollination	Grassland parks and gardens Hedges Heathland	With nearly 2,000 ha of grassland, this area provides important sources of nectar for pollinating insects. Gardens and allotments within urban areas also provide food sources for pollinating insects	Regional	In a productive agricultural area, including soft fruit, pollinators are critical for the future of insect dependent crops and increases in this service may be required in order to provide greater options for future cropping. This service could be increased by restoration of wetland habitats, and the creation of conservation headlands and arable field margins. This could have a beneficial impact on biodiversity by linking habitats and creating network of habitats in close proximity.	Opportunities to enhance the agricultural landscape through creation of habitat mosaics where forage and nesting sites are provided for pollinators such as conservation headlands, arable field margins and wildflower mixes providing additional environmental benefits. Seek opportunities to increase field margins, species-rich hedgerows and beetle banks to encourage a network of habitats and food sources for pollinating insects close to areas of agricultural production.	Pollination Food production Biodiversity
Pest regulation	Grassland Wetland Woods Rivers Field margins Parks and gardens	The semi-natural habitats adjacent to arable farmland support populations of pest regulating invertebrate, bird and mammal species.	Local	This service could be increased by restoration of wetland habitats, verges, conservation headlands and arable field margins creating connecting networks of habitats.	Opportunities for a landscape scale approach which provides the necessary connectivity and extent of habitats to sustain populations of predators and enable them to move between sites. Manage semi-natural habitats to increase diversity of structure and composition and increase populations of pest-regulating species. Seek opportunities to increase field margins, species-rich hedgerows and beetle banks to encourage a network of habitats for pest regulating species close to areas of agricultural production.	Pest regulation Food production Biodiversity

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating coastal erosion and flooding	Coastal vegetated shingle Intertidal sand and mudflats Coastal sand dunes Shingle beaches Hard sea defences Estuaries	A complex stretch of coastline including river estuaries and shingle beaches. Much of the coastal frontage is developed, with the major settlements including Portsmouth, Worthing and Bognor Regis. Large lengths of this shoreline are in an unnatural form and the reclamation of extensive areas of former coastal lowland for development has produced many areas where the shoreline is artificially seaward of its natural position. The clay headland of Selsey Bill shelters the coastline to the immediate east from the predominant south-westerly storms; sea defences are in place to protect the vulnerable cliffs from erosion.	Regional	The relevant shoreline management plans are pursuing an overall policy of 'holding the line' and 'managed realignment'¹⁵ such as the scheme at Medmerry which was the first of its kind on the open coast.¹⁶ Some of the coastal features are highly valued for their geodiversity and the rare plants and animals they support. Because it is highly developed, limited sections of the shoreline are free to erode naturally meaning that there is little material going into the system. Changing climatic patterns are likely to result in increased weathering of coastal cliffs and more extreme weather events, which will test coastal defences. As a result of higher water levels 'coastal squeeze' will occur. This will lead to beaches, intertidal areas and amenity value being reduced or lost. This is particularly threatening to low lying tidal mudflats and salt marshes in areas of conservation importance, especially Chichester and Pagham harbours that are internationally designated as an SPA and Ramsar site, supporting bird populations that are highly dependent on the habitats provided by the intertidal areas. An issue of special interest to local residents and boat owners in the AONB is the continued erosion of East Head. Proposals for the medium to long-term management of East Head are contained within the Pagham to East Head Coastal Defence Strategy.¹⁷ This is a complex problem as any major defence works would undermine the area's character and the reasons for its nature conservation designations. The Strategy proposes a scheme of Adaptive Management that seeks to respond to change and to preserve the social, economic, environmental and amenity value of East Head for the 100-year life of the Strategy. The emphasis will not necessarily be on trying to lock the feature into its present size, shape and orientation.	Opportunities to create compensation habitats for those lost to 'coastal squeeze', aiming to ensure no net loss of habitat, benefiting biodiversity and the regulation of coastal erosion and flooding. Ensure that realignment sites are managed to develop their full potential to support and enhance the biodiversity interest and characteristic landscape.	Regulating coastal erosion and flooding Recreation Biodiversity

¹⁵ South Downs Shoreline Management Plan, South Downs Coastal Group (URL: www.sdgc.org.uk/)

¹⁶ Medmerry managed realignment scheme (URL: www.environment-agency.gov.uk/homeandleisure/floods/109062.aspx)

¹⁷ Pagham to East Head Coastal Defence Strategy, Environment Agency (2009; URL: www.environment-agency.gov.uk/static/documents/Leisure/PEHCDS_STAR_v5_Final_-_compressed.pdf)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of place/ inspiration	Coastal landscape Harbours Views of Isle of Wight and the South Downs	Sense of place is provided by the sea and intricately indented shoreline of the exposed coastal landscape, and notably the natural harbours of Chichester and Pagham. Across the Solent, the Isle of Wight forms a distinctive backdrop. There are also a few surviving traditional settlements displaying a unifying local vernacular of timber frame, flint, cob and thatch. This is further supported by the pattern of large rectilinear fields enclosed by drainage ditches, remnant tracts of valley meadow and coastal heath.	Regional	In such an urban area, sense of place is achieved primarily by views of the sea, which are possible from most places within the NCA. Eric Coates was inspired to write 'Sleepy Lagoon', the theme tune for Desert Island Discs, while watching the sea from Selsey. Portsmouth, with its importance as a major route to the continent and military connections, was a frequent inspiration to artists and writers during the 19th century. In Jane Austen's novel Mansfield Park, Portsmouth is the hometown of the main character Fanny Price, Dickens' Nicholas Nickleby joins a theatre troupe in the town and Gilbert and Sullivan's HMS Pinafore is set in the harbour. Oscar Wilde wrote The Importance of Being Earnest during a visit to Worthing. Spinnaker Tower is a 170-metre tower opened in 2005 as part of the redevelopment of Portsmouth harbour. It is visible from miles around and affords 360-degree views of the surrounding area, including from the Manhood Peninsula and Isle of Wight.	Encourage a strategic approach to the planning of land use around Chichester and Langstone harbours and the Manhood Peninsula to address the pressures of climate change and development, ensuring that natural processes continue to function and the comparatively wild and tranquil character is retained. Ensure that realignment sites are managed to develop their full potential to support and enhance the characteristic landscape.	Sense of place/ inspiration Tranquillity Sense of history Biodiversity

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of history	Roman sites Historic buildings Naval defences Harbour settlements Traditional buildings Parkland	Several important Roman sites and medieval buildings. Small flint villages, isolated dwellings and farm buildings. Military sites and structures from all periods. About 68 per cent of historic farm buildings remain unconverted. About 93 per cent are intact structurally. The Heritage Lottery Funded 2004 Archaeological Research Framework and accompanying 2007 research synthesis provide a comprehensive baseline of the archaeological resource of the AONB. There are 10 registered parks and gardens within the NCA covering 427 ha.	International	Archaeological and historical features include Roman villa sites such as Fishbourne Roman Palace, Chichester cathedral set within the historic city of Chichester and a post-medieval abbey at Titchfield. Picturesque harbourside settlements such as Bosham and isolated hamlets in rural areas provide additional historic context. There are also numerous historic naval associations at Portsmouth including Napoleonic fortifications such as the distinctive line of round Napoleonic forts that march out across the Solent guarding its eastern entrance and the entrance to Portsmouth Harbour, locally known as Palmerston's Follies. The area also has strong associations with aerial combat, with Goodwood Aerodrome, Shoreham Airport and Lee-on-Solent still operational. The former First World War, Second World War and Cold War airfield at Tangmere now houses an aviation museum. Displays include the aircraft in which world air speed records were achieved in 1946 and 1953 along the coast at Littlehampton. Shoreham is the oldest licensed airfield in the UK and has a Grade II* listed Art Deco style terminal building. The rich arable lands combined with access to local urban markets and London allowed many farmers to re-build their farmsteads, particularly in the 18th and 19th centuries. This re-building means that there are very few pre-1750 farm buildings. Buildings for cattle are predominantly 19th century. Earlier cattle buildings would be considered important. Traditional building materials are of timber frame, flint, cob and thatch that all contribute to the area's sense of place. Many villages have retained their attractive medieval and late medieval core. A number of historic settlements and heritage assets now subsumed into the larger conurbation are considered at risk of losing their identity and historical context. The HLF programme developed a strong archaeology partnership through a steering group that continues to oversee research within the AONB which informs engagement with local schools, visitors, landowners and residents within the AONB to help develop a wider understanding and appreciation of the historical value.	Opportunities should be sought to enhance the setting, interpretation and condition of the remaining assets. The restoration and conversion of vernacular buildings should be sympathetic to local distinctiveness and use local materials where possible. Encourage partners to use the results of the Archaeological Framework when prioritising and commissioning research both within and around the AONB, to guide the management of the historic environment. Encourage and support communities to seek funding to develop local heritage projects and initiatives. Encourage interpretation to improve understanding of the area's heritage including internationally recognised assets such as Portsmouth historic dockyard, Fishbourne Roman Villa and Chichester Cathedral. Support initiatives to improve sustainable transport links between these sites.	Sense of history Recreation Sense of place/ inspiration

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Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Tranquillity	Harbours Coastline Woodland	Only 7 per cent of the area is classed as undisturbed, down from 28 per cent in the 1960s; 35 per cent of the area is classified as urban. The main areas of low level tranquillity are around the major towns – Portsmouth, Chichester, Fareham, Bognor Regis and Worthing and along road corridors such as the A27, M27 and the M275.	Local	Tranquillity is a scarce resource within this heavily urbanised NCA. Pockets of tranquillity are associated with the central rural areas and undeveloped harbours, including parts of Chichester Harbour. Tranquillity is also associated with the edges of remoter ancient woodlands at the foothills of the South Downs.	Encourage a strategic approach to the planning of land use around Chichester and Langstone harbours and the Manhood Peninsula to address the pressures of climate change and development, ensuring that natural processes continue to function and the comparatively wild and tranquil character is retained.	Tranquillity Sense of place/inspiration Biodiversity

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Recreation <i>continued on next page</i>	Coastline Harbours Rights of way Open access land One National Nature Reserve (NNR) Parks and gardens Historic attractions Wildlife	Recreation is dominated by the seaside resorts of the urban east (such as Worthing and Bognor Regis) as well as the caravan parks, ribbon development and harbourside tourism that characterise much of the rest of the coast. There is a 670 km rights of way network at a density of 1.29 km per km² and 230 ha of open access land, covering 0.45 per cent of the NCA. Titchfield Haven NNR is managed by Hampshire County Council. Water-borne recreation is popular in this NCA. Chichester Harbour with 28 km² of water, 27 km of well marked and lit channels and with easy access to the Solent is an ideal water recreation centre. The Harbour has over 5,200 moorings and marina berths, and 16 sailing clubs. Chichester Harbour AONB has approximately 1.5 million people visiting each year. The internationally designated wildlife sites make this a popular area for birdwatching.	National	With a low beach gradient and the lack of any obvious dangers such as rips or obstacles, East Wittering and the whole stretch of Bracklesham Bay is a favourite with surfers with one of the UK's longest running surf clubs, Shore Surf Club, founded in 1969. Most of the coastal footpath network is located along existing sea defences, embankments or the foreshore itself. Should significant changes appear likely, options will need to be sought to relocate footpaths and other recreational resources inland. Popular birdwatching areas outside the internationally designated sites include Titchfield Haven, which has a network of accessible routes and a hide. Chichester Harbour AONB is one of the most important areas for water recreation in the country. There is considerable congestion and overcrowding on the water, particularly at weekends in the summer and conflict between different types of harbour user. Chichester Canal is currently under-used Walkers, cyclists, artists and birdwatchers are among those who enjoy Chichester Harbour AONB. There are strong indications that the number of visitors will continue to increase. Continuing development within and adjacent to the AONB is likely to lead to increased population pressure. Visitor impact needs to be monitored and addressed to minimise the effect on the very resource people come to enjoy.	Secure the long-term future of the coastal footpaths, investigating managed realignment and permissive route options where possible. Develop a strategy for managing those at risk from rising sea levels and failing sea defences. Support the provision of a high-quality network of footpaths, cycle routes and wheelchair paths through the Rights of Way Improvement Plans and other initiatives. Promote the Solent Disturbance Mitigation Project as a basis for formulating coherent policies for minimising impact of increased development and recreation provision on internationally important bird populations. Work with partners to educate groups using the water bodies on the needs of others and to give guidance on behaviour and good practice and balance the demand for more and improved boating facilities with environmental considerations. Support changes which encourage users to enjoy congested areas such as Chichester Harbour outside peak times. Support the use of Chichester Canal to link Chichester to the AONB through the Chichester Canal Trust.	Recreation Sense of place/inspiration Sense of history Biodiversity

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Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Recreation <i>continued from previous page</i>		In response to concerns over the impact of recreational pressure on birds within protected areas in the Solent, the Solent Disturbance and Mitigation Project was initiated to determine visitor access patterns around the coast and how their activities may influence the birds.	National	Much work has already been undertaken by Chichester Harbour Conservancy in association with Action in Rural Sussex, Age Concern and other local organisations to further the work of the Local Strategic Partnership group to reduce isolation among older people. Goodwood Estate runs an extensive education programme including forest schools and hands-on sessions at its farm. The peregrine falcon nest on the spire of Chichester Cathedral is widely viewed via a webcam each spring and receives great attention from local and national media. The Solent Disturbance and Mitigation Project (SDMP) provides evidence that recreational pressures from new development within 5.6 km of the Solent coastline may have an adverse affect on internationally protected birds.	Support the work of partners including Chichester Harbour Conservancy and Environmental Education Groups to establish closer links between the harbour education service and the local farming community, sustainable schools and healthy eating programmes and community services. Ensure that realignment sites are managed to develop their full potential to support and enhance access and interpretation where appropriate. Work with partners to develop a plan for avoidance and mitigation to minimise impact of recreational activities on internationally protected bird population.	

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biodiversity <i>continued on next page</i>	Internationally designated sites SSSI One NNR Coastal habitats Grazing marsh Heathlands Meadows Woodlands Gardens	Some 3 per cent (1,700 ha) of the area is designated as Site of Special Scientific Interest (SSSI) and there are four Special Protection Areas (SPAs), two Special Areas of Conservation (SAC) and four Ramsar sites. The marine environment of Chichester Harbour AONB is afforded protection through the Solent Maritime SAC European designation. Horsea Island is one of the sites chosen by Butterfly Conservation for trials of disease resistant elms for the benefit of white-letter hairstreak butterfly since 2000. Relatively small fragments of coastal grazing marsh occur, with larger areas at Farlington Marshes and the marshes on the eastern side of Hayling Island. Heathland is no longer a significant habitat within the area, although pockets such as Hamble Common survive.	International	Chichester Harbour has been designated as a wetland of international importance under the Ramsar Convention (1971) as it regularly holds 20,000 or more wildfowl and waders in winter, has the third largest population of dark-bellied Brent geese in the country (with Pagham, Langstone and Portsmouth harbours also in the top 12) and has internationally significant populations of Dunlin and black-tailed godwit. It is also an important site for nesting terns. A subtidal survey of habitats and species within the harbour identified 200 maritime taxa including invertebrates, algae and fish. There is also a colony of harbour seals and water voles are regularly seen. In recent years Chichester Harbour has not regularly supported significant numbers of breeding terns, probably due to a combination of disturbance and erosion of historical breeding sites. However, the NCA as a whole is important for breeding terns. Between Shoreham and Bognor Regis the coastline supports fringing shingle beaches where pioneer plant communities survive in places. These contain characteristic plants such as yellow-horned poppy and sea kale as well as rarities such as starry clover. The relict dunes at Bognor Reef support the nationally rare chiding pink, as does Pagham Beach where the long-winged conehead, sand dart and Matthew's wainscot moth can also be found. The Hampshire Wildlife Trust reserve at Farlington Marshes and the marshes on the eastern side of Hayling Island provide some more extensive and well developed examples of coastal grazing marsh.	Ensure that realignments are managed so that intertidal habitats can develop and expand effectively. Where existing flood defences are reinforced, work with partners to limit adverse impacts on biodiversity. Improve water quality by reducing the amount of nutrients entering the harbours from domestic and industrial sources by engaging with the planning process to ensure that new developments incorporate the best possible measures for reducing problems from waste, including SUDS. Improve water quality by reducing the amount of nutrients entering the harbours from agricultural sources by continuing with catchment initiatives that engage and challenge farmers to reduce nutrient leaching, pesticide contamination and soil erosion. Seek to secure the future of breeding terns (particularly Little Terns) in the harbours. There are opportunities to extend and possibly link areas of coastal grazing marsh as part of flood defence measures. Preserve scarce areas of heathland and seek opportunities to improve and extend.	Biodiversity Food production Regulating water quality Regulating water flow Regulating coastal erosion and flooding Recreation Sense of place/inspiration

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biodiversity <i>continued from previous page</i>		European native oyster populations have experienced an acute decline since the 19th century due to the combination of over-fishing and associated habitat loss, combined with the anthropogenic and environmental pressures of pollution, disease and the presence of non-native species.		Historically heathland was much more extensive, linking with the hunting forests of Bere and Waltham Chase in south Hampshire so there may be opportunities to extend or re-create small areas. There is increasing concern at the disturbance caused to nature conservation interests by increased recreational pressure from housing development. IFCA identified 22 species of fish within Chichester Harbour. A survey carried out in 2004 by the University of Portsmouth recorded 32 species, with sand and painted gobies and black bream the most abundant. Also numerous at some sites were bass, ballan wrasse and corkwing wrasse. Several species, such as the bass, bream, mullet, sole and plaice use the harbour as a nursery area with a large percentage of juveniles making up the survey samples.¹⁸ The Solent oyster population has declined in the last decade and shows no sign of broad scale recovery. The Chichester oysters are considered to be a component of this wider population. The native oyster fishery has been locally important in Chichester Harbour since at least Roman times. Closer scrutiny of the impact of activities, such as oyster dredging and bait digging, on the subtidal and intertidal biodiversity within the AONB may be required in future to determine the impact on favourable conservation status.	Support inclusion of high-quality greenspace within new and extended development for the wellbeing of local communities and to provide links between important biodiversity sites. Support the Sussex Sea Fisheries Committee in maintaining the bass nursery area. Support management of native oysters in Chichester Harbour, including implementation of temporary closure of fisheries to allow populations to recover when necessary.¹⁹ Support the bait digging Code of Conduct and work within the SEMS Management Scheme to monitor the level and impact of bait digging.	

¹⁸ A survey of the fish population of Chichester Harbour, P Farrell, University of Portsmouth (2005)

¹⁹ Chichester Harbour Oyster Partnership Initiative (URL: www.sussex-ifca.gov.uk/index.php?option=com_content&view=article&id=132&Itemid=204)

Service	Assets/attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Geodiversity	Upper raised beach deposits Coastal exposures	Remains of Homo heidelbergensis were first found at Boxgrove in 1994, comprising the partial tibia of a male. In 1996 two incisor teeth from another individual were found. In 2003 English Heritage announced it would buy the remains of the quarry to ensure the preservation of the site complex.	International	Boxgrove is a site of national archaeological importance because of the discovery in 1994 and 1995 of 500,000 year old human fossils of a nomadic hunter-gatherer ('Boxgrove Man' and associated artefacts), found in the gravel deposits of a raised beach which remain the oldest such fossils ever discovered in the UK. There were also animal bones which are the oldest found specimens of their species, such as the wing bone of the great auk found at the site in 1989. The coastal exposures of Lower Tertiary deposits reveal diverse fossil assemblages, such as at Felpham, Bognor Reef and Bracklesham Bay. Selsey is a key Quaternary site for a sequence of freshwater and estuarine deposits of Ipswichian Interglacial age. Mammal remains including rhinoceros, horse and hippopotamus have also been recorded from the deposits. Much potential exists for vertebrate research at this locality, particularly with regard to stratigraphy and pollen zonation. East of Langstone a low cliff line at high water mark exhibits a complex of Brickearth and Coombe Rock deposits and at East Head there is a sizeable sand dune and shingle system both of which are of geomorphological importance. Pagham Harbour is a key site for coastal geomorphology and also has an outstanding palaeobotanical site of great importance to studies of Tertiary floras. Generally a good place to study coastal processes at work.	Interpret and promote the Boxgrove site to encourage interest and understanding of the area's geodiversity. Maintain coastal exposures of Lower Tertiary deposits revealing diverse fossil assemblages, such as at Felpham, Bognor Reef and Bracklesham Bay. Maintain important inland geology exposed in pits and quarries, such as Downend Chalk Pit SSSI, helping to promote an appreciation and understanding of the geodiversity of the NCA and connecting communities with their local heritage. Conserve coastal geomorphological features (and the natural processes needed to sustain them) including sand dune systems, sand and shingle spits and banks (for example East Head). Encourage the use of traditional building materials in conservation projects (for example timber frame, flint, cob and thatch) and promoting the use of the Chichester Harbour AONB Design Guidance for replacement dwellings in the AONB. Continue to research, monitor and record geomorphological processes to inform management decisions. Provide access to sites of geological interest where appropriate and interpret the geological features and dynamic coastal processes to improve understanding and appreciation. Encourage research, monitoring and recording of geomorphological processes.	Geodiversity Recreation Sense of place/inspiration Sense of history

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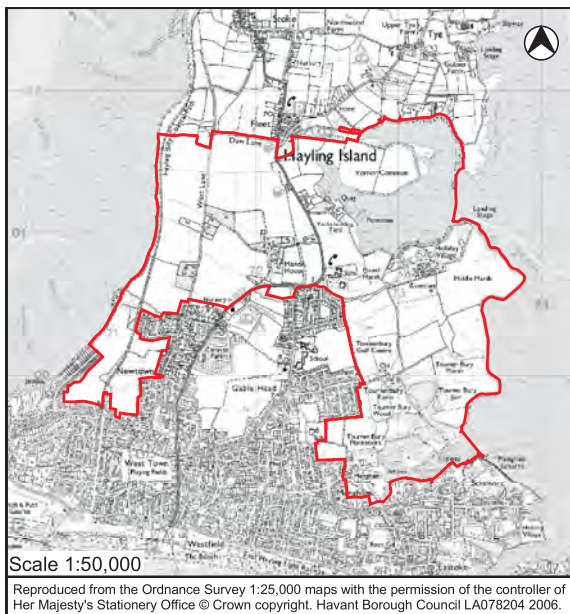
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Appendix 5: Havant Borough Townscape, Landscape and Seascape Character Assessment – LCA 31: Central Hayling Plain Extract





LCA31

Central Hayling plain



Harbour Walk – Chichester Harbour



Manor House



Large open field pattern



Mill Rythe Holiday Home



Oak trees at gateway to South Hayling



Low tide on Mill Rythe

LCA31 Central Hayling plain

Introduction

The area contains four landscape character types: Open Lower Harbour Plain LCT H; Enclosed Lower Harbour Plain LCT I; Broad Inlet LCT L; and Minor Inlet LCT M. A full description of the characteristics common to these types is set out in Section 4. The area is composed of a complex mix of twenty two historic landscape character types: Medium to Large Regular Fields with Wavy Boundaries (1.6); Small Regular Fields with Straight Boundaries (Parliamentary Type) (1.9); Medium Fields with Straight Boundaries (Parliamentary Type) (1.10); Small Rectilinear Fields with Wavy Boundaries (1.16); 19th Century Plantations (4.5); 20th Century Plantations (4.12); Salterns (8.3); Harbours and Marinas (8.5) Mudflats (8.7); Navigation Channels (8.9); Boatyard (8.11); Late Victorian Settlement (9.6.2); Late 20th Century Residential (9.6.7); Caravan Sites (9.11); 19th Century Schools (9.12.1); 20th Century Schools and Playing Fields (9.12.2); Small Farmsteads (9.13); Manor House/Estate (9.14); Golf Courses (11.2); Industrial Complexes and Factories (12.3); Disused Railway (13.5.2); and Prehistoric and Roman Military and Defence (14.1) (Figure 1).

Location

Located on Hayling Island to the north of the settlement of South Hayling and to the south of the settlement of Fleet.

Relationship to adjacent character areas

LCA30 Stoke and north west Hayling: Limited intervisibility due to the dense hedgerow character of LCA30. A small number of hedgerows provide continuous links between these two LCAs, although they become more intermittent in character within LCA31. Less ribbon development along section of A3023 contrasts with intermittent ribbon development within LCA30.

LCA33 Chichester Harbour: To the east there are open views across the harbour. Broad coastal grazing marsh connects these two landscapes, although visually intrusive sea defences along the harbour edge dilutes the connection.

LCA32 Langstone Harbour: To the west there are open views across the harbour. Small areas of coastal grazing marsh connect to the harbour landscape.

LCA35 West Town Hayling Island: The northern edge of the urban environment of LCA35 is particularly visible against the open landscape character of LCA31. Hedgerows connect back into the urban conurbation, where their original alignment is marked by mature remnant hedgerow trees. Open landscape character of LCA31 continues at Gables Head into LCA35.

LCA36i South Hayling: The more enclosed hedgerow character to the south softens views of the urban edge around Mengham. Periphery open spaces (school playing fields etc) within LCA36 connect to the wider open landscape of LCA31.

Beyond the Borough boundary: Long views to the west from the old line of the Hayling Billy out across to the contrasting urban conurbation of Portsea Island, to the opposite bank and Portsmouth. Limited but open views from the public domain out to the rural landscape character of Thorney Island.

Historic development

Historically, this was one of the most sparsely settled parts of the island, and remains so today. The marshes in the eastern half of the LCA were used for sheepgrazing, and a shepherd's hut is shown on Middle Marsh throughout the 19th century.

The Tournier Bury Iron Age univallate hillfort would have dominated the western side of the entrance to Chichester Harbour, and may have had some military significance, though its precise use is not known.

The present Georgian brick Manor House and Manor Farm are thought to be situated on the site of a former monastic Grange associated with Hayling Priory. During the 18th century it was known as 'Great Farm', and was situated within Far Copse (now Manor Wood).

A tide mill is recorded at Mill Rythe as early as the 13th century, and continued in use until the late 19th century. Although now lost, the form of the mill pond survives, as does the dam at its south-eastern end. The quay formerly associated with the mill now functions within a yacht building yard and marina.

The farmland adjacent to Langstone Harbour on the west side of the LCA was used during WW2 as a fire decoy site, to draw enemy bombs away from Portsmouth. The one major 20th century development in this LCA was the pre-war construction of Warner Brothers 'Sunshine Holiday Camp', now Mill Rythe Holiday Village, on Pound Marsh, adjacent to which a school has more recently been built.

Characteristics of *Central Hayling plain*

Physical: landform, soils and land cover

- A predominantly flat landscape slightly mounded towards the central area. To the east the shoreline is characterised by minor inlets, Mill Rithe and Mengham Rithe, compared to the western shoreline which is relatively straight
- In the north geological bands of the Lambeth Group are followed by London Clay, with a fine band of Bognor Sand exposed over the London Clay stretching from the east at Middle Marsh to the edge of Langstone Harbour to the west
- Overlain by river terrace deposits with a wide band of raised marine deposits along the eastern edge with a further narrower band of raised beach deposits loosely aligning along the 5mAOD contour line. The minor inlets contain beach and tidal flat deposits
- Predominantly loamy soils with a naturally high water content producing Grade 2 agricultural land internally, with poorer non agricultural land along the western perimeter and Grade 4 land along the eastern perimeter. This has resulted in a productive arable landscape in the centre of the LCA with large fields with thin or non-existent hedgerows. Towards the west a thin band of rough grassland scrub aligns the harbour edge
- Towards the east the loamy and clayey soils of the coastal flats exist stretching over Verner Common and across to Middle Marsh. This has resulted in poor quality Grade 4 agricultural land producing an open

- landscape with vegetation cover of rough grassland and amenity grassland associated with the Tournerbury Golf Centre
- Centrally the drainage pattern exists of straight manmade ditches which align some hedgerows, while others sit within the open agricultural plain. To the east within the area covered by rough grassland, the drainage pattern is more organic in form, forming a fringe of short channels feeding into the harbour
 - The forked broad inlet at Verner Common is drained by Mill Rithe. While the minor inlet at Mengham House drains into Mengham Rithe
 - Natural irregular low brown/sandy coloured shoreline. Although the use of rubble (off white in colour) adjacent Tournier Bury Fort as a flood defense has iron out these local irregularities
 - A concentration of oak trees exists at the entrance to South Hayling linking back along the hedgerows to the Manor House and to the primary school. Other individual oak trees stand alone within the area of the Tournerbury Golf Centre
 - Mature pines and garden conifers emphasis the historic landscape at Mengham House
 - Tournier Bury Wood provides an important area of woodland within this open landscape
 - Strong wooded character to Mengham Creek.

Biodiversity

- The outer borders of this character area consist of coastal habitats which are included in the Chichester Harbour and Langstone Harbour SSSI's. The area is covered by a significant part of the Chichester Harblour designation in the north east. These two areas are also designated as SPA, SAC and Ramsar site
- The west of this landscape character area consists mainly of arable land, there is a small mosaic between two large patches of arable land which consists of coastal grazing marsh, broadleaved woodland and semi-improved neutral grassland
- The western edge of the area is bordered by a thin strip of intertidal shingle whilst the centre of the area consists of arable land with large patches of broadleaved woodland and residential development (providing habitat through gardens) with larger patches of improved grassland as well as dense scrub and semi improved neutral grassland
- A patch of arable land in the east of the area separates this mosaic from a larger, more open mosaic which makes up the south eastern corner of the area. This mosaic consists of a very large area of coastal grazing marsh with semi-improved neutral grassland and a pond to the north of it. There is a large area of amenity grassland, some improved grassland and a large patch of broadleaved woodland with scattered scrub and young tree planting
- There are two ponds in the south of the area and one pond under 0.5 hectares. The habitat mosaic on this side is bordered on the eastern side by engineered coastal features which separates it from a coastal habitat mosaic. The coastal habitat mosaic consists of continuous saltmarsh, scattered saltmarsh and intertidal mud and shingle as well as open sea.

Historic and built environment

- The western and eastern areas of the LCA are defined by medium to large regular fields with wavy boundaries. In the western area this relates to the longevity of farmland, whilst in the eastern area this relates to the more recent reclaiming of salt marshes and drainage. Few hedgerow boundaries survive in this area but the character of the enclosure pattern is retained through wire fences and farm tracks
- The northern central area is characterised by medium regular sized fields with straight boundaries. This relates to the later enclosure of land to the north of Manor Farm. Few hedgerow boundaries survive in this area but the character of the enclosure pattern is retained through wire fences and farm tracks
- The north east area of the LCA has a historic landscape character of small regular fields with straight boundaries, which has been reclaimed from former unenclosed salt marsh and Verner Common
- The south eastern area around Tournier Bury is characterised by woodland plantation and small rectilinear fields with wavy boundaries. The well preserved hedgerows preserve this historic landscape character in this area
- A number of farmsteads exist along the 5mAOD contour line (along West Lane and Manor House) surrounded by thick hedgerow vegetation and small woodlands
- A short section of 7 dwellings lie as ribbon development along the A3032
- Flint walls used at Mengham House
- WW2 pill boxes adjacent western shoreline
- Recreation facilities are also catered for with a holiday village at Middle Marsh, characterised by dense development, areas of tarmac for car parking and some non-native tree and shrub planting. There is also a golf course at Tournierbury Farm with a new club house and area for car parking
- This LCA contains a number of significant sites of both archaeological and historic interest - Tournier Bury Iron Age hillfort, the Manor House on the possible site of a monastic Grange, Mengham House and the mill pond of the former Hayling Tide Mill. The relative paucity of later building on this part of the island means that these features continue to have prominence in the landscape, and help to preserve its historic character
- Raised sea wall indicating early reclamation of marshland for agriculture
- Form and outline of former mill pond, including survival of mill dam.

Experiential: tranquility, visual perceptions and access

- In areas adjacent the A3032, tranquility is reduced due to the heavy volume of traffic and the open nature of the landscape. However in contrast good levels of tranquility are appreciated along the Hayling Billy Coastal Path and to the west around the minor inlets and to the rear of the adjacent urban areas
- An agricultural landscape with colour depending on time of year and crop selection. Areas of linseed oil producing blocks of blue/purple flowers have been apparent in a small number of fields in the recent years
- The Hayling Billy Coastal Path aligns adjacent the shoreline to the west. Access to the eastern shore is restricted by the private golf course. Access along the eastern side of the urban edge of South Hayling is evident with a number of public rights of way.

- Historically only a number of points of access have developed; these include the pontoons within the Mill Rytte minor inlet.

Visual: openness/enclosure, prominence and visibility

- An open landscape with blocks of trees and shrub vegetation screening and concentrated around farmsteads allowing long views across adjacent areas of the open arable landscape
- Strong wooded character to Mengham Creek provides sense of enclosure
- Key viewpoints are from the Hayling Billy Coastal path across Langstone harbour basin to Portsmouth and the Spinnaker Tower
- To the east from the public rights of way views across the open golf course to Chichester Harbour can be appreciated
- There are open views from around the minor inlet at Verner Common to Middle Marsh and the marina at Black Point and beyond.

Specific local key issues

- Expansion of the recreation facilities into the undeveloped coastal plain to the east
- Loss of mature trees
- Poor quality harbour edge treatment eroding natural contours and colours of shoreline
- Poor edge treatment (such as at Mill Rytte holiday village) with ancillary facilities often exposed to open adjacent landscape
- Poorly landscaped playing fields adjacent open rural landscape
- Visible urban edge
- Coastal habitats could be affected by flood and sea defences
- Potential further expansion of northern boundary of South Hayling which could increase the visible urban edge and erode the remaining rural qualities of this area.

Designations

Chichester Harbour Area of Outstanding Natural Beauty (narrow eastern area)

5 listed buildings

Tourner Bury SAM

12 unlisted historic buildings

Chichester and Langstone Harbours RAMSAR site

Chichester and Langstone Harbours SPA

Solent Maritime SAC

Chichester Harbour SSSI

Langstone Harbour SSSI

Hayling Billy C SINC

Hayling Billy D SINC

Hayling Billy E SINC

Hayling Billy F SINC

Hayling Billy G SINC

Saltmarsh Lane C SINC
Saltmarsh Lane E SINC
Tournerbury Farm A SINC
Tournerbury Farm B SINC
Hayling Secondary School Playing Field SINC
South of Daw Lane A SINC
South of Daw Lane C SINC
South of Daw Lane D SINC
South of Daw Lane H SINC
Verner Common West SINC
Pound Marsh B SINC
Mill Rythe Lane Saltmarsh SINC
Mill Rythe Holiday Village SINC
Landfill Meadow SINC
West Hayling Local Nature Reserve

Landscape and built form strategy and guidelines

The landscape strategy is to *conserve* and *enhance* the local landscape character. The following guidelines apply:

Land management

- Maintain, manage and replant to retain concentration of oak trees at entrance of South Hayling which currently provides a gateway feature
- Improve the vegetated character of the school playing fields at Hayling Secondary School, by maintaining and managing the existing mature oak trees, and replanting new trees to soften the urban edge and provide links to the adjacent rural countryside
- Maintain the historic character of the landscape around Mengham House, by preserving, managing the existing 'gardenesque' trees and when the case may arise replant trees of similar species and character
- Manage ponds for the benefit of biodiversity
- Manage scrub to prevent encroachment on other habitat types.

Built form and development

- Reduce visual impact of A3023 through hedgerow planting. Restrict development of the built form along the A3032 to maintain open rural character
- Any redevelopment of the existing farmsteads and properties along West Lane must avoid additional visual intrusion of the built form on the adjacent open landscape. Also important trees within these sites must be managed and protected
- Improve edge treatment of Mill Rythe Holiday Village. Reduce urbanizing character of approaching driveway by appropriate management
- Provide pedestrian access to eastern shoreline

-
- Further development along Manor Road to the west of its junction with Church Road should be avoided in order to preserve the setting of the important group of listed and historic buildings at Manor House.

Plans

Plan 1: Topography (13956/P08)

Plan 2: GIS Zone of Theoretical Visibility (13956/P09)

Plan 3: Landscape Planning Policy Context (13956/P10)

Plan 4: Published Landscape Character (13956/P11)

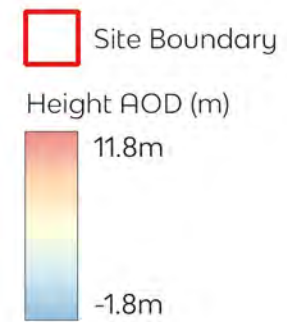
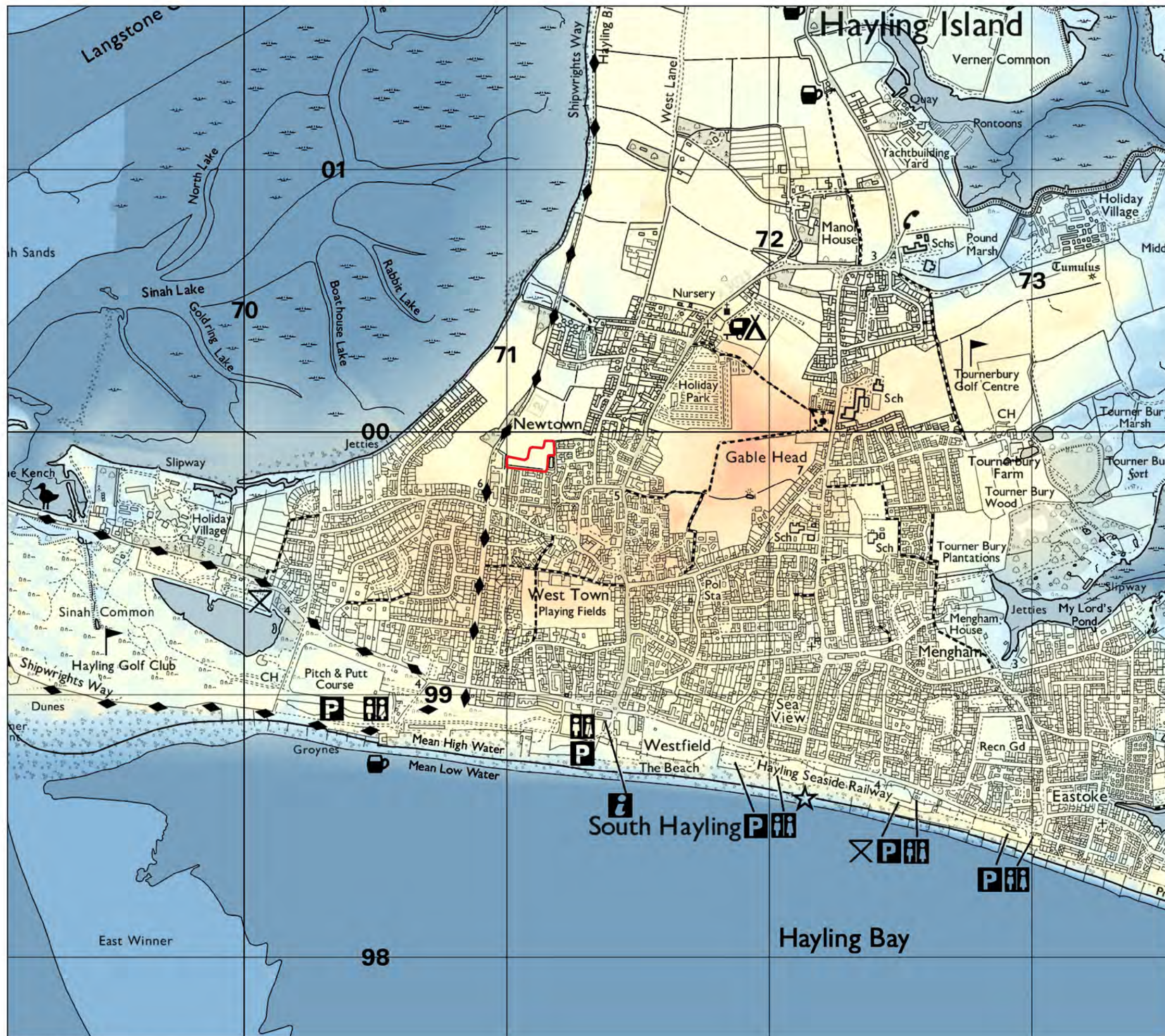
Plan 5: Local Landscape Context (13956/P12)

Plan 6: Viewpoint Location Plan (13956/P19)

Plan 7: Photosheets 1-8 (13956/P20)

Plan 8: Landscape Strategy (13956/P21a)

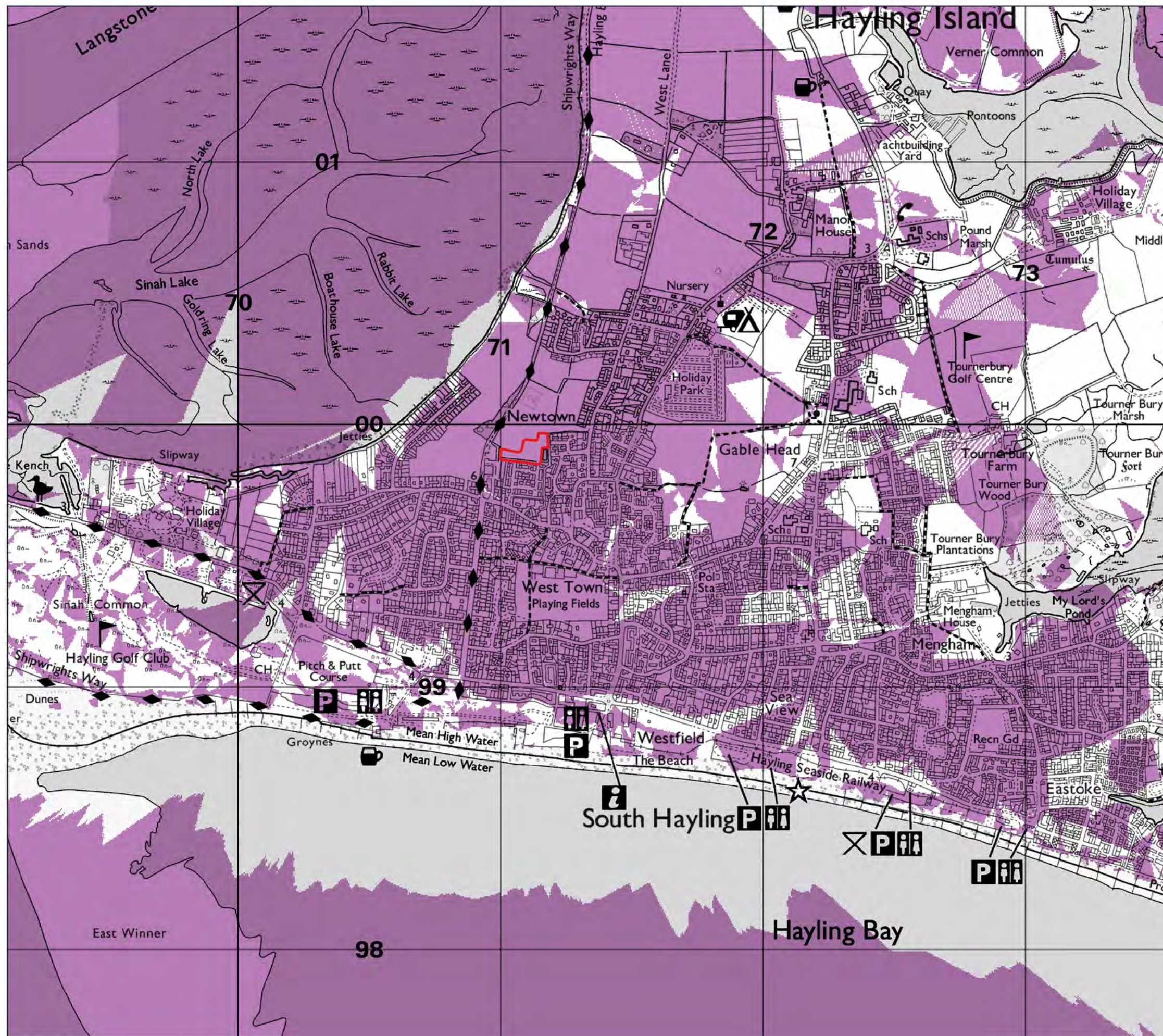




Project	Land north of The Oysters, Hayling Island
Drawing Title	Topography
Scale	1:15000 @A3
Drawing No.	13956/P08
Date	08 2021
Checked	MP/LS



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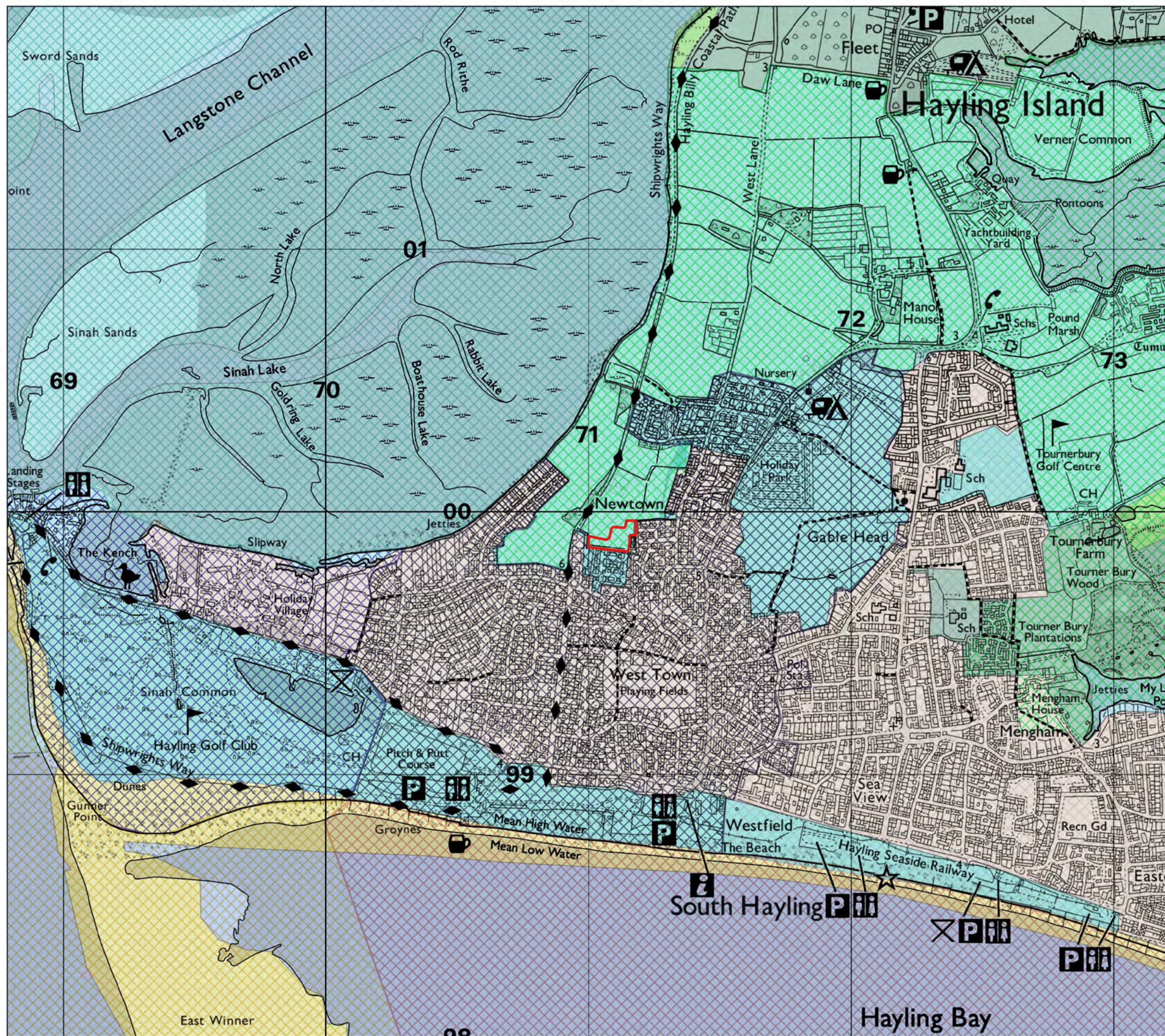


- Site Boundary
- Zone of Theoretical Visibility (ZTV)
- Potential Visibility

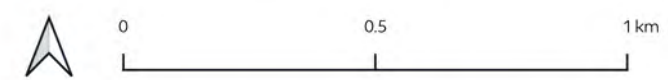


Project	Land north of The Oysters, Hayling Island
Drawing Title	GIS Zone of Theoretical Visibility
Scale	1:15000 @A3
Drawing No.	13956/PO9
Date	08 2021
Checked	MP/LS





- Site Boundary**
- Hampshire County Integrated Character Assessment, Hampshire County Council (2012):
- Harbour Channels
 - Coastal Sea
 - Intertidal Estuary and Harbour
 - Settlement
 - Open Coastal Shore
 - Coastal Reclaim and Grazing Marsh
 - Coastal Plain Enclosed
 - Coastal Plain Open
- Havant Borough Townscape, Landscape and Seascape Character Assessment, Kirkham Landscape Planning Consultants (2007):
- LCA31: Central Hayling Plain
 - LCA32: Langstone Harbour
 - LCA34: Sinah Common and the Kench
 - LCA35: West Town, Hayling Island
 - LCA36i South Hayling
 - LCA38: Langstone Harbour Mouth
 - LCA39: South Coast Hayling Island



Project	Land north of The Oysters, Hayling Island
Drawing Title	Published Landscape Character
Scale	1:15000 @A3
Drawing No.	13956/P11
Date	08 2021
Checked	MP/LS



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 Site Boundary

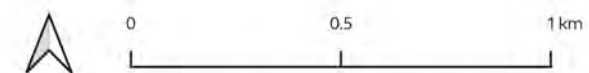


0 0.2 0.4 km

Project	Land north of The Oysters, Hayling Island
Drawing Title	Site Context Plan
Scale	1:15000 @A3
Drawing No.	13956/P12
Date	08 2021
Checked	MP/LS



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Project	Land north of The Oysters, Hayling Island
Drawing Title	Photoviewpoint Location
Scale	1:18000 @A3
Drawing No.	13956/P19
Date	08 2021
Checked	MP/LS



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Representative Photo Viewpoint Information Sheet

View 1: Taken from Charleston Close to the east of the Site, looking west'



Date of Photo: 15/04/2021 15:06
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 34mm
Horizontal FOV: 90°

OS: 471199, 099931



Photoviewpoint 6: Taken from permissive route on the coast to the west of the Site, looking east. This footpath is not a designated Public Right of Way



Date of Photo: 15/04/2021 14:42
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 34mm
Horizontal FOV: 90°

OS: 470955, 100358



Photoviewpoint 2: Taken from Billy Road in the new development to the south of the Site, looking north.



Date of Photo: 15/04/2021 15:19
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 34mm
Horizontal FOV: 90°

OS: 471052, 099850



Photoviewpoint 7: Taken from Public Right of Way footpath 108/93/1 to the east of the Site, looking west



Date of Photo: 15/04/2021 16:21
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 34mm
Horizontal FOV: 90°

OS: 471884 , 099996



Photoviewpoint 3: Taken from the Hayling Billy Coastal Path to the south-west of the Site, looking north-east



Date of Photo: 15/04/2021 14:28
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 35mm
Horizontal FOV: 90°

OS: 470983, 099969



Photoviewpoint 8: Taken from Solent Way on Portsea Island to the west of the Site, looking east.



Date of Photo: 15/04/2021 16:42
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 50mm
Horizontal FOV: 90°

OS: 467674, 101743



Photoviewpoint 4: Taken from the Hayling Billy Coastal Path (Shipwrights Way) to the west of the Site, looking east.



Date of Photo: 15/04/2021 14:33
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 35mm
Horizontal FOV: 90°

OS: 471131, 100254



Photoviewpoint 5: Taken from Public Right of Way footpath 108/521/1 to the north of the Site, looking south



Date of Photo: 15/04/2021 14:48
Weather: Overcast / Good Visibillity
Visualisation Type: Type 1
Camera: Canon EOS 1100D
Frame Type: Single Frame
Projection: Planar
Lens Focal Length: Canon 34mm
Horizontal FOV: 90°

OS: 471316, 100428



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Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status: Planning

Date: August-21

Project: Land north of The Oysters, Hayling Island

Figure: Data Sheet





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When printed, cylindrical images need to be curved around the viewer to represent real-world viewing angles. Alternatively they could be viewed flat by moving the head to maintain a constant viewing distance across the panorama. (Ref: LI TGN 06/19)



Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 15:06

Taken From: 471199, 099931

Direction of View: West

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 1



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Visualisation Type: Type 1
Image Enlargement: 100%
Page Size: A3

Project No: 13956
Client: Hayling Island Builders (HIB) Limited
Status: Planning

Date: August-21
Project: Land north of The Oysters, Hayling Island
Figure: Data Sheet: PVP 2

Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length





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Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 15:19

Taken From: 471052, 099850

Direction of View: North

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 2



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Visualisation Type: Type 1
Image Enlargement: 100%
Page Size: A3

Project No: 13956
Client: Hayling Island Builders (HIB) Limited
Status: Planning

Date: August-21
Project: Land north of The Oysters, Hayling Island
Figure: Data Sheet: PVP 3

Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

0cm 10cm
(Original image size 390 x 260mm)



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When printed, cylindrical images need to be curved around the viewer to represent real-world viewing angles. Alternatively they could be viewed flat by moving the head to maintain a constant viewing distance across the panorama. (Ref: LI TGN 06/19)



Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 14:28

Taken From: 470983, 099969

Direction of View: East

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0.05km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status: Planning

Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 3



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Visualisation Type: Type 1
Image Enlargement: 100%
Page Size: A3

Project No: 13956
Client: Hayling Island Builders (HIB) Limited
Status: Planning

Date: August-21
Project: Land north of The Oysters, Hayling Island
Figure: Data Sheet: PVP 4

Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

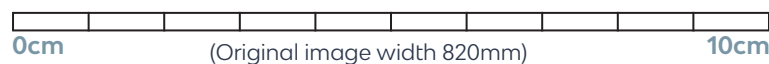
0cm 10cm
(Original image size 390 x 260mm)



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Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 14:33

Taken From: 471131, 100254

Direction of View: South

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0.29Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 4







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Visualisation Type: Type 1
Image Enlargement: 100%
Page Size: A3

Project No: 13956
Client: Hayling Island Builders (HIB) Limited
Status: Planning

Date: August-21
Project: Land north of The Oysters, Hayling Island
Figure: Data Sheet: PVP 6

Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

0cm 10cm
(Original image size 390 x 260mm)



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Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021

Taken From: 470955, 100358

Direction of View: South-East

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0.44Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 6



Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length



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Visualisation Type: Type 1
Image Enlargement: 100%
Page Size: A3

Project No:	13956	Date:	August-21
Client:	Hayling Island Builders (HIB) Limited	Project:	Land north of The Oysters, Hayling Island
Status:	Planning	Figure:	Data Sheet: PVP 7



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Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 16:21

Taken From: 471884 , 099996

Direction of View: West

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 0.7Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 7



Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length



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When printed, cylindrical images need to be curved around the viewer to represent real-world viewing angles. Alternatively they could be viewed flat by moving the head to maintain a constant viewing distance across the panorama. (Ref: LI TGN 06/19)



Please note: To view this image digitally, calibrate this scale bar, on screen, for a correct scale representation and view the image at a comfortable arm's length

Date Taken: 15/04/2021 16:42

Taken From: 467674, 101743

Direction of View: South East

Field of View 90°

Camera: Canon EOS 1100D

Distance to site: 3.8Km

Projection: Cylindrical

Lens: Canon 34mm

Visibility: Overcast/ Good Visibility

Visualisation Type: Type 1

Image Enlargement: 96%

Page Size: A1 width

Project No: 13956

Client: Hayling Island Builders (HIB) Limited

Status:	Planning
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Date: August 2021

Project: Land north of The Oysters, Hayling Island

Title: Photoviewpoint: 8



-  Site Boundary
-  Existing Native Trees
-  Proposed Street Trees
-  Proposed Native Trees
-  Proposed Meadow Planting
-  Proposed Hedgerow Planting
-  Proposed Attenuation Basin
-  Proposed Housing
-  Proposed Footpath
-  Proposed Wetland Shrub Planting



Project Land north of The Oysters, Hayling Island

Drawing Title **Landscape Strategy Plan**

Scale 1:5000 @ A3

Drawing No. 13956/P21a

Date August 2021

Checked MP/LS





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