



Farlington Water Treatment Works

Proposed DAF Treatment Building and Associated Facilities Landscape and Visual Appraisal: Desk-Based Study

Portsmouth Water Ltd.

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Executive Summary

Atkins has been commissioned to appraise landscape and visual effects of a proposed water treatment building and associated infrastructure at Farlington Water Treatment Works (WTW), Portsmouth, hereon referred to as the 'proposed works'.

The proposed works will involve constructing an industrial building to enclose dissolved air flotation (DAF) plant equipment within an existing, disused reservoir basin. This will take place on previously developed industrial land. The proposed works will also involve the extension of an existing vehicular and pedestrian access point with adjacent verge planting, a sludge storage tank and underground pipelines linking to existing infrastructure and treatment buildings within the WTW. A plan of the existing site and proposed works, along with cross-sections and other illustrative material can be found within the Appendices of this document.

During the LVA process for this development, the global COVID-19 pandemic has resulted in strict government, professional institute and employer's health and safety precautions being placed on all 'non-essential' work; as defined by those bodies. For this reason, a physical site survey was not possible at the time of writing, therefore the LVA process has taken a two-stage approach: Stage 1 has undertaken the desk-based study and scoped the potential receptors to be reviewed at stage 2. Stage 2 will involve a site survey and an appraisal of the effects of the proposed works on the landscape and visual amenity within its context. The methodology of this approach is outlined later in this document.

A 2km study area was agreed with the relevant officer at the local planning authority and a desk-based study has been undertaken. It was found that several landscape elements of local, national and international importance were found within the study area including Scheduled Ancient Monuments, Grassland Habitats and important coastal habitat areas such as Special Protection Areas and Ramsar sites. It is likely that the proposed works will have some effect on the character and amenity of its surrounding landscape, but this is not supposed to be of a high severity overall.

It was also found that there are several sensitive visual receptors on and around the site within the 2km study area including residential properties, public rights of way and open access land. It is likely that the development will have the most severe effect on the amenity of the nearby residential properties and a lesser, but still notable, effect on other nearby receptors.

Generally, the proposed works are not likely to have an adverse effect on receptors outside of the 2km study area as distance, topography and intervening urban settlements and existing vegetation are predicted to screen or reduce the perception of change on landscape and visual amenity.

There is likely to be some opportunity for works to mitigate against adverse effects on the landscape and visual character of the nearby environment or enhance the existing scenario which could result in the proposed works sitting more comfortably into the landscape.

This document is a presentation of a desk-based baseline conditions survey that was undertaken as part of the ongoing Landscape and Visual Appraisal (LVA) process.

1. Site Description

Farlington WTW is located at the north eastern extent of the administrative boundary of Portsmouth City Council, approximately 6 kilometres north-east of Portsmouth city centre. The primary access to the WTW is provided via a barrier entry from Gillman Road, with a secondary access from Gillman Road further to the south. The WTW is bordered by Portsdown Hill Road (B2177), Portsmouth Golf Course to the north of the B2177 and residential areas to the east and south. The boundary with Havant Borough Council lies just north of the B2177.

The Farlington WTW property area is approximately 1,500m² and comprises existing water treatment equipment housed within a series of buildings which are clustered towards the centre of the site. This includes a concrete basin within a brick boundary wall (a former Slow Sand Filter), and a bulk fuel tank located on a reinforced concrete slab. Several underground reservoirs and pipework occupy the remainder of the site laterally with access circulation routes throughout.

The WTW site is divided into several parcels of land by metal palisade fencing which also acts to disrupt views across the site and from Gillman Road, which cuts roughly through the centre of the wider WTW site north-south, creating a trench-like feature with earth embankments either side, leading back up to the grassland. Metal palisade fencing as well as post and wire fencing provide the boundary to most of the wider WTW site and is enclosed by residential property boundaries to the south, east and west.

The site gently slopes down towards the coast, with the water treatment buildings and facilities set within the gradient of the site. The underground reservoirs and wider site are topped with a managed lowland calcareous chalk and lowland meadow grasslands creating an artificially sculpted yet green topography. The wider site is interspersed with open areas of grassland and scrub vegetation. The northern extents of the site are curtailed more characteristically by hedgerow and scrub vegetation (such as *Crataegus monogyna*) with several semi-mature to mature trees.

The site sits at an elevated position relative to the nearest residential settlement to its south, with a panoramic outlook towards Portsmouth, Hayling Island and the English Channel.

1.1. Surroundings

The local landscape is dominated by existing residential areas to the south of the site, Portsmouth Golf Course and Fort Purbrook, located to the north of Portsdown Hill Road. These are surrounded by intermittent mature shrubs and hedge planting and mature trees. Open fields lie to the east of Farlington WTW, with residential areas beyond.

At its closest point, the Farlington WTW buildings are 70m north of the residential property boundaries of Woodfield Avenue, providing adequate separation from the WTW.

There is an existing residential property situated approximately 20m north west of the development site, owned by and formerly inhabited by a staff member of Portsmouth Water. The property is within the boundary of the Portsmouth Water Company site and uses the same access road as the WTW.

There are no public rights of way within the development site itself, but public right of way routes 513 and 514 traverse the hillside around 200m to the north of the site and the Wayfarer's Way long distance path runs east-west along Portsdown Hill Road before contouring Fort Purbrook. Both paths offer impressive panoramic views south towards the coastal landscape, Portsmouth conurbation and out to sea.

Two scheduled ancient monuments lie close to the site. Fort Purbrook is located around 200m north west of the western extents of the WTW site and Bevis' Grave Long Barrow and Early medieval cemetery is located on a small densely vegetated patch of land north of Portsdown Hill Road around 250m east of the north eastern-most point of the WTW site.

Several listed buildings are located near to the site, with the nearest being a Wells Coates designed house by the name of 'Sunspan' around 360m east of the WTW's eastern boundary. Several other listed buildings lie within the urban settlement of Farlington to the south and within the wider 2km site study radius. These features, as well as other key landscape elements have been illustrated on Appendix 1 Landscape Context Plan.

The site is positioned roughly 1km to west of the A3(M) and around 900m north of the A27 which connect to create a link to London to the north and Portsmouth to the south. There is a railway line that runs east-west 1km to the south of the site, which links between Portsmouth and towns further north, with the nearest train station located in Bedhampton to the east.

Slightly further south of the site (C.1.4km) is Farlington Marshes, which is a sensitive landscape and parts have been designated as a SSSI and Ramsar site. This forms part of an intricate network of marshes, creeks, mudflats and natural harbours that characterise the local coastline and provide wildlife and recreational value of international and local value respectively.

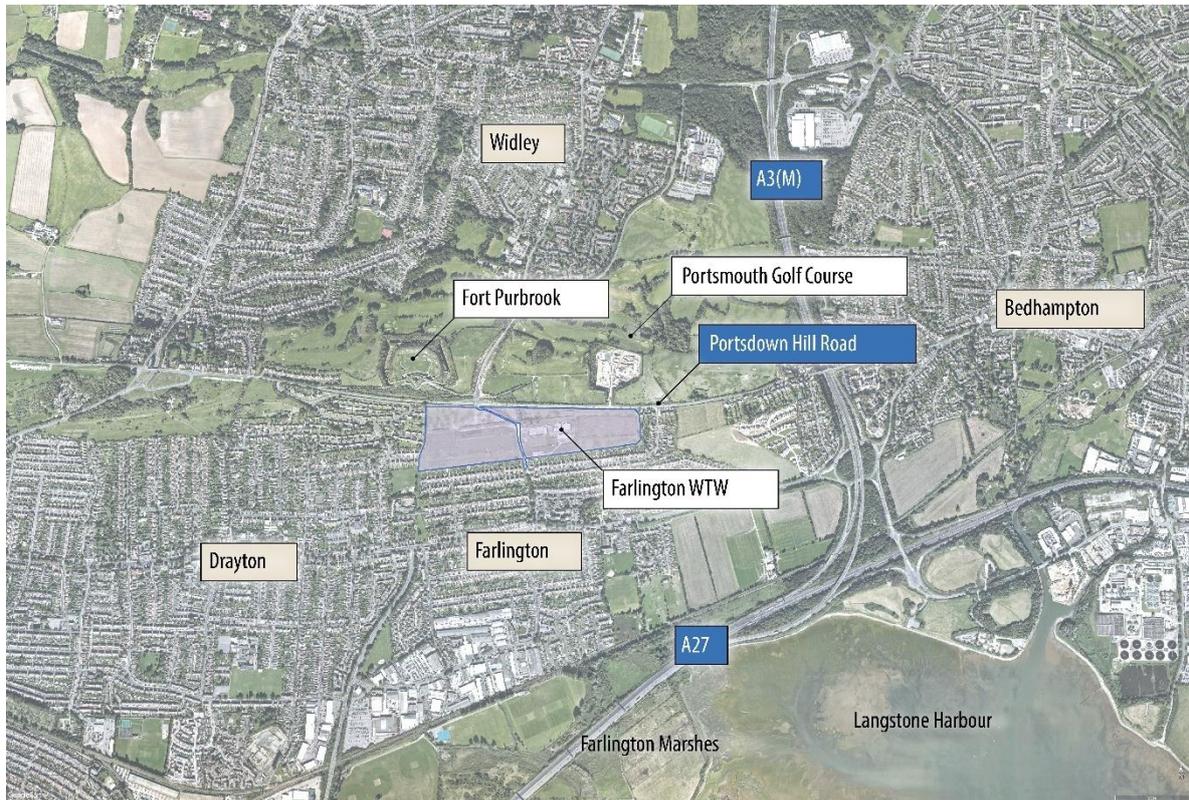


Figure 1-1 - Location of Farlington WTW within the wider landscape

2. Legislative and Policy Context

2.1. National Planning Policy Framework (NPPF) 2019

The National Planning Policy Framework (NPPF) was updated in February 2019. It is a key part of the Government's reforms which aim to create a less complex and more accessible planning system, to protect the environment and to promote sustainable growth. The NPPF emphasises that the purpose of planning is to help achieve sustainable development, resulting in positive growth and economic, environmental and social progress. The NPPF is based upon a presumption in favour of sustainable development.

The following key policies are applicable to this proposal:

- Policy 11: Making effective use of the land; 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. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that as much use as possible of previously developed land;
- Policy 12: 'Achieving well-designed places: Developments are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change'; and
- Policy 15: 'Conserving and enhancing the natural environment: Developments should aim to protect and enhance valued landscapes and recognise the wider benefits of ecosystem services, including trees and woodland'.

2.2. National Planning Policy Guidance (NPPG) 2016

The Landscape section of the NPPG states: 'how can the character of landscapes be assessed to inform plan-making and planning decisions. The guidance also advises the following:

- 'One of the core principles in the National Planning Policy Framework is that planning should recognise the intrinsic character and beauty of the countryside. Local plans should include strategic policies for the conservation and enhancement of the natural environment, including landscape. This includes designated landscapes but also the wider countryside'.
- 'Where appropriate, landscape character assessments should be prepared to complement Natural England's National Character Area profiles. Landscape Character Assessment is a tool to help understand the character and local distinctiveness of the landscape and identify the features that give it a sense of place. It can help to inform, plan and manage change and may be undertaken at a scale appropriate to local and neighbourhood plan-making. Natural England provides guidance on undertaking these assessments'.

2.3. The Portsmouth Plan (2012)

The Portsmouth Plan (Core Strategy) was adopted on 24th January 2012 and sets the planning strategy to 2027. It is the overarching planning policy document, which forms part of a wider set of local planning policy documents known as the Local Development Framework (LDF). The Plan sets out a vision for Portsmouth to be the 'premier waterfront city, with an unrivalled maritime heritage - a great place to live, work and visit.'

The policies that are relevant to this study are:

- Policy PCS13 – A Greener Portsmouth states that the City Council will work collaboratively to protect, enhance and develop Local Wildlife Sites by:
 - Recognising the benefits of local sites for nature conservation and its enjoyment for residents and visitors;
 - Designating sites through the site allocations plan;

- Resurveying designated sites periodically as well as others which could meet the criteria for selection. Such sites will be adopted through refreshes of the site allocations plan and given 'candidate' status prior to that;
 - Ensuring that the intrinsic habitat value of the site can be retained or enhanced through development proposals; and
 - Allowing development only if it clearly outweighs the substantive nature conservation value of the site, an impact on the site cannot be avoided or mitigated and compensatory measures are provided.
- Policy PCS23 – Design and Conservation states that all new development must be well designed and, in particular, respect the character of the city. Among other criteria, the policy seeks to achieve the following relevant aims:
 - Development that relates well to the geography and history of Portsmouth, particularly in the city's conservation areas, listed buildings, locally listed buildings and scheduled ancient monuments;
 - Appropriate scale, density, layout, appearance and materials in relation to the particular context;
 - Protection of the city's important views and settings of key buildings across the sea, harbours and from Portsdown Hill;
 - Protection of amenity and the provision of a good standard of living environment for neighbouring and local occupiers as well as future residents and users of the development.

3. Method of Assessment

3.1. Introduction

The production of this LVA has been undertaken to appraise the effects of introducing the proposed works into the surrounding landscape, and upon the sensitive visual receptors that have been identified; to assist in the development consent decision making process.

An LVA consists of two separate, but interrelated sections: landscape appraisal and visual appraisal.

A landscape appraisal is the systematic description and analysis of the physical landscape features and elements within the landscape (collectively referred to as the 'landscape resource') and of the landscape character, followed by an appraisal of the effects of the proposed works on this landscape resource and character. The landscape resource would include elements such as: landform, vegetation cover, settlement and transport patterns, land use, building styles and historical and cultural components.

Visual appraisal is the description and analysis of specific views of the landscape and the general visual amenity of the area as experienced by people residing, visiting and travelling through the landscape, followed by an appraisal of the effects of the proposed works on those views and visual amenity.

The methodology for this appraisal has drawn upon guidance from the Guidelines for Landscape and Visual Impact Assessment 2013 third edition (GLVIA3), published by the Landscape Institute and the Institute of Environmental Management & Assessment. Additional guidance was sought from the Landscape Institute's Technical Guidance Note 1/20 (10 Jan 2020) Reviewing Landscape and Visual Impact Assessments (LVIA's) and Landscape and Visual Appraisals (LVA's). This has guided the scoping, terminology, and overall approach to the appraisal and has informed professional judgement, a key part of any form of landscape and visual appraisal process.

The methodology for the appraisal has involved undertaking desk studies, the collection of baseline data and has scoped the potential receptors and some anticipated effects on receptors.

During the Landscape and Visual Appraisal process of this development, the global COVID-19 pandemic has meant that strict health and safety precautions were advised to be placed upon professionals by the Government, the Landscape Institute and Atkins Ltd. These precautions have

rightfully restricted site survey activity, and as a result, a site survey has not yet taken place and will be required to be carried out later to fully appraise the landscape and visual effects of the development. When possible, a site visit will further inform the appraisal of landscape character and quality of the study area; an evaluation of the townscapes as appropriate, and an assessment of properties and local views potentially affected by the proposed works, supported by photomontages.

The appraisal has also outlined opportunities for mitigation measures, to inform the design process in a way that seeks to reduce potential adverse effects where appropriate.

3.2. Baseline Methodology

Both the landscape and visual baseline have been established during a desk study at this time. A site survey will take place later when COVID-19 health and safety precautions have been relaxed sufficiently. The desk study used mapping and literature to gather an understanding of the study area and its surroundings. This included a review of Ordnance Survey mapping, several Landscape Character Assessments at a regional and local level, the identification of any key designations that may be affected by the proposed works and review of national and local planning policy and site information such as ecological site allocation data.

The assessment of visual effects is informed by the selection of key viewpoints within the study area that represent typical or characteristic views. Within the GLVIA3 there is no set criteria for defining a study area, or key views. However, upon consideration of the proposed works, key views have been selected making use of one or more of the following three criteria:

- 'The proposed works is near the visual receptor or represents the addition of a new, uncharacteristic element in the view'; and
- 'The view is expansive covering a large area of the landscape around the proposed works, or highly valued by users such as a footpath through a part of the landscape with a known historic dimension'.

However, meeting one or more of the above criteria, does not automatically classify a view as a 'key view'. The above criteria combined with professional judgment, have been applied to determine which views are key in this assessment.

3.3. Establishing the Study Area

The study area was established during an initial desk-based study and will be reviewed and amended as appropriate following a physical site survey of the baseline conditions. At this time, it is considered that a 2km study area offset from the red line boundary, is appropriate in order to identify likely significant effects on landscape and visual amenity as a result of the proposals within this land parcel. This radius has been upheld following agreement from the relevant local planning authority officer during pre-application liaison. Following guidance from GLVIA3, a two-stage decision-making process was undertaken:

Firstly, a zone of theoretical visibility (ZTV) analysis was undertaken. This is a digital analysis that predicts the radius of visibility towards the proposed building based on Ordnance Survey bare-ground terrain heights. This illustrates a scenario if existing built form and vegetation were non-existent. The results of this ZTV can be seen in figure 3-1 and found as an Appendix to this document.

Secondly, utilising the data from the ZTV, consideration was then given to other environmental factors evident on mapping data and a decision proportionate and appropriate to the scale and nature of the development was made that considers:

- The topography of much of the surrounding areas;
- The presence of numerous intervening elements such as buildings and tree belts, which limit longer range views from areas around the proposed development;
- The nature of the proposals, (which share the inherent characteristics of the elements that comprise the immediately surrounding areas); and
- The scale and massing of the proposals, which are of a similar scale to many of the surrounding existing built elements.

At distances beyond 2km the proposed development and associated elements may be visible, but they would be barely perceptible; effects would, therefore, be of limited significance.

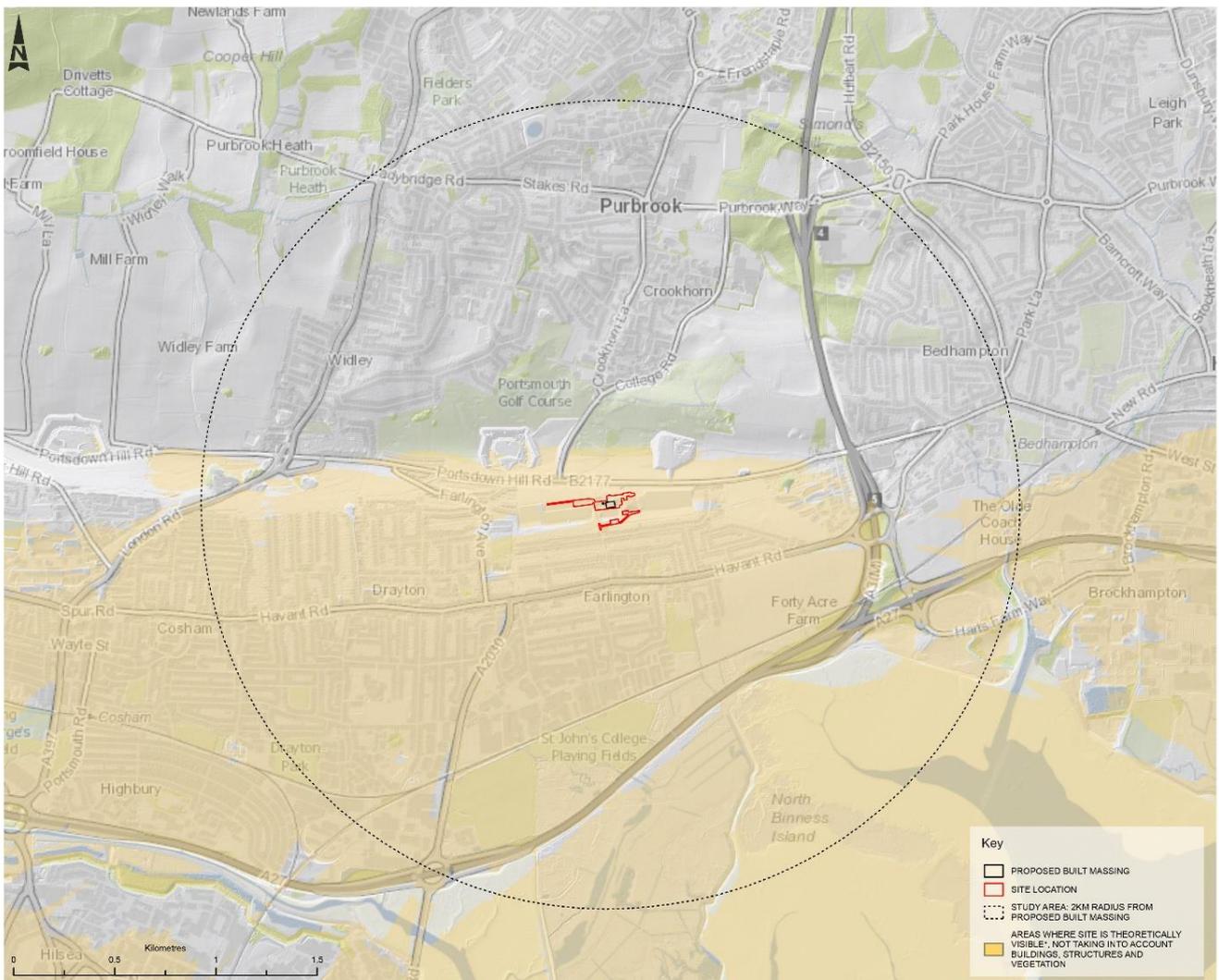


Figure 3-1 - Zone of Theoretical Visibility Plan (ZTV)

3.4. Methodology

Terminology

The definition of the terminology used in this report is specific to this study. It has been developed to ensure that, as far as possible, an objective and consistent assessment is made, and to ensure that the terminology used is appropriate to the development and landscape setting. Terminology is defined used GLVIA3 criteria where applicable.

The terms 'impact' and 'effect' have been given the following definitions and used in this LVA process accordingly: the 'impact' is what will happen, i.e. the trees will need to be removed. The 'effect' is the result of the impact, i.e. the views will open-up and the woodland pattern will be interrupted.

The term 'study area' as used in this report relates to the area of landscape that has been described and assessed as part of this LVA. The term 'proposed works' refers to all elements of the new development at Farlington Water Treatment Works as described elsewhere in this document.

The term 'site' refers to the area that contains the 'proposed works' as indicated by the red line on the Planning Application and Applicant Ownership Boundary Plan shown in Figure 1-2.

Other assessment criteria and terminology definitions used in this report are set out in the relevant sections as necessary.

Approach

In accordance with the above guidance, this LVA has been carried out as a two-stage approach due to COVID-19 as follows:

Stage 1 – Desk based

- Through the gathering of baseline information – a description of existing (baseline) conditions have been derived, against which, the proposed works have been assessed by way of detailed desk-based study.
- A high-level assessment of potential impacts has been undertaken using digital imagery, considering the impacts that would occur during the construction phase and after completion during operation – through identification of possible impacts, and an appraisal of the likely effects. Where a judgement has been made that there will be no measurable effects from a given impact on a receptor, then this receptor will be ‘scoped out’ at this stage of the assessment.

Stage 2 – Site Survey and Appraisal of likely effects

- Undertaken once COVID-19 health and safety precautions have been relaxed sufficiently;
- A site survey will take place to gather additional baseline condition information and to take photography from key viewpoints and receptors and to gather more information on landscape character;
- Opportunities for the provision of mitigation and enhancement measures will be identified as non-embedded ‘design’ measures, which may be appropriate, so as to reduce, control or manage identified likely effects resulting from the proposed works;
- The prediction of likely residual effects following the implementation of a mitigation strategy will take place following the site survey; and
- A conclusion - including any recommendations that have been identified within the assessment process.

3.5. Desk Study

A desk study was carried out involving a review of published texts, maps and other available background information. Analysis of this information contributes to an understanding of the site in terms of general landscape character and wider landscape context, special values and interests, local value, landform, location of Public Rights of Way, the extent and type of vegetation, and land use. This analysis also enables the identification of potentially important and sensitive receptors, such as: designated landscapes, users of Public Rights of Way and residential properties.

Documentation used in this desk study was obtained from the following sources:

- Multi-Agency Geographic Information for the Countryside (MAGIC) web site;
- Open Source Ordinance Survey Data;
- Aerial and street-level photography;
- National Character Area Profiles, Natural England; and
- Regional Landscape Character Assessment (Hampshire Integrated Landscape Character Assessment. Relevant articles from 2012).

3.6. Site Survey

During the second phase of the LVA process, a site survey will be undertaken. This will aim to identify the key receptors and constraints in respect of the impact of the development on the landscape and visual amenity of the study area site visit will be carried out by a competent professional, once COVID-19 precautions have been relaxed sufficiently to:

- Validate and qualify the results of the desk study and the extents of the study area;
- Gain an understanding of the existing landscape character;
- Identify key visual receptors and identify which of these have views of the site;

- Provide a representative photographic record from typical viewpoints to represent visual receptors;
- Record an assessment of the landscape on both an objective and subjective basis from each of those viewpoints; and
- Consider the potential scope, nature and likely effects of mitigation measures that should be considered.

A series of panoramic photographs will be taken during the site visit, to illustrate the visibility of the proposed works from a range of key viewpoints.

3.7. Assessment of Potential Landscape and Visual Effects

Landscape Effects

The effects on landscape character is determined by first considering and defining the quality of the landscape character. The criteria for determining landscape quality are set out in Table 3-1, the sensitivity of the landscape to change in Table 3-2 and the magnitude of effects in Table 3-5 These will then be combined to give a justifiable relativity to the effects of change the development has on the landscape as a resource.

These tables have been devised using criteria set out within GLVIA3, Countryside Agency and Scottish Natural Heritage (2002) Landscape Character Assessment – Guidance for England and Scotland and the definitions of landscape as set out by the European Landscape Convention.

Table 3-1: Landscape quality

Table	Description
High	Areas that exhibit a strong positive character with valued and distinctive features that combine to give the experience of unity, richness and harmony. These are landscapes that are considered to be of particular importance to conserve and which may be sensitive or very sensitive to change. Nationally designated landscapes of historical or national scenic value may be present.
Very attractive	Areas with a strong structure and a balanced combination of landform and land cover, including woodland and high distribution of trees, hedges and shrubs; or a balanced combination of built form and open space including parks, gardens and squares. Attractive features are present, including rivers and streams and valued buildings and open spaces. Several landscape and heritage designations may apply including Ancient Woodlands and Conservation Areas.
Good	Areas that exhibit positive character, but which may have evidence of the degradation or erosion of some features, resulting in areas of more mixed character including a balance of developments. There is a reasonable distribution of vegetation or of built and open space and the overall area is pleasant. Isolated settlements may be present within extensive areas of open space. Designations of landscape or heritage value may be present
Ordinary	Areas with a distinguishable structure often dominated by land use including roads, isolated housing, vegetation and countryside, resulting in an area of mixed character. Not of high attraction but may include areas with a positive character. There are some detracting features although there is scope to improve through management. Land may have a local landscape designation.

Table	Description
Poor	Areas generally negative in character with few if any valued features. Mixed land use dominates and includes industrial development with no aesthetic value. Lack of management and intervention has resulted in degradation. There are extensive detracting features. Lacking in a positive character and much scope for positive enhancement. No designations apply.

Table 3-2: Sensitivity of the Landscape to change

Sensitivity	Definition
High	Important landscape components or landscapes of particularly distinctive character; likely to be subject to national designations; be vulnerable to relatively minor changes
Medium	Moderately important landscape components or landscapes; often with local landscape designations; reasonably tolerant of change
Low	Relatively unimportant immature landscape elements or landscapes; could be damaged or already heavily developed; tolerant of substantial change

Visual Effects

The visual effects of the development are appraised in a similar way. The sensitivity of visual receptors (criteria indicated in Table 3-4) will be determined and combined with the magnitude of effect as (defined in Table 3-5). Key representative viewpoints will be used to assess and illustrate the visual effects from a range of visual receptors surrounding the Scheme; once a site survey has been undertaken. These tables have also been devised using criteria set out within GLVIA3.

Table 3-4: Sensitivity of the visual receptors

Sensitivity	Definition
High	Occupiers of residential properties
Medium	Users of all outdoor recreational facilities including heritage attractions, sports pitches, areas of open access land, community facilities and public rights of way where appreciation of the view is an intrinsic part of the experience
Low	People at their place of work, people travelling through or passing the affected landscape in cars, trains or on other transport routes, and public spaces and public rights of way where appreciation of the view is not an intrinsic part of the experience

Magnitude of Effects

Table 3-5: Magnitude of effect

Magnitude of effect	Definition
High adverse	Total loss or major alteration to key elements, features, characteristics or views of the existing conditions. Introduction of elements considered to be totally uncharacteristic of the existing character and view.
Medium adverse	Partial loss of or alteration to one or more elements, features, characteristics or views of the existing conditions. Introduction of elements that would be prominent but not necessarily considered to be substantially uncharacteristic of the existing character and views.

Magnitude of effect	Definition
Low adverse	Minor loss of or alteration to one or more key elements, features, characteristics or views of the existing conditions. Introduction of elements that may not be uncharacteristic when set within the existing landscape and views.
Negligible / None	No or very minor loss or alteration to one or more key elements, features, characteristics or views of the existing conditions. Introduction of elements that are not uncharacteristic with the surrounding existing landscape and views. On balance, minor changes approximating the 'no change' situation.
Low beneficial	Minor positive alteration to one or more key elements, features, characteristics or views of the existing conditions. Introduction of elements that may not be uncharacteristic when set within the existing landscape and views.
Medium beneficial	Partial positive alteration to one or more views, elements, features or characteristics of the existing conditions. Introduction of elements that would be prominent but not necessarily considered to be substantially uncharacteristic of the existing character and views.
High beneficial	Major positive alteration to key views, elements, features, characteristics of the existing conditions. Introduction of elements considered to be totally characteristic of the existing character and view.

4. Assessment Assumptions and Limitations

It is assumed that residential receptors will not be assessed individually, instead, in some instances, properties will be grouped where appropriate, a single viewpoint will be selected to be representative of the most severely affected of the group. In this way, although there is not a separate photographic view for each individual residential receptor, the assessment covers every receptor expected to be affected by the proposed works.

Photography will likely only be possible to illustrate views from beyond the curtilage of properties, on the nearest publicly accessible roads and footpaths, and therefore, may not represent views from within the top floor of dwellings. The predicted influence of the proposed works on views from inaccessible areas may only be reported as part the LVA process if the impacts are expected to differ noticeably from the representative view noted on site. An appropriate and proportionate professional judgement will be used to inform these instances.

The impact of the COVID-19 pandemic has naturally segmented this LVA process and the desk-based study will need to be revisited and revised accordingly when the remainder of the appraisal is undertaken, accounting for changes in either development design or landscape and visual conditions.

5. Study Area

5.1. Landscape

A combination of desk top information and satellite imagery tools were used to inform the extents of the study area for both the landscape and visual effects. This will be reviewed when a site visit is carried out.

Due to the extent of the works being undertaken, which consists of localised additions to an existing WTW site, and also the current screening afforded by the existing vegetation and built up nature of the surrounding area, it is expected that the most severe landscape effects would be restricted to

the land locally adjacent to the proposed works; addressing the elevated nature of the site's topography within its surroundings. Therefore, in terms of landscape effects, the study area has been defined as the area up to a maximum distance of 2 km from the proposed works boundary. Any effects upon landscape receptors located outside the study area are likely to be negligible. This has subsequently been agreed with the relevant officer at the local planning authority during pre-application liaison.

5.2. Visual

The visibility towards the proposed works is largely restricted by the existing Farlington WTW buildings from the east. From the north the topography restricts views and from the south and west the mature vegetation provides some existing screening from residential settlements. The surrounding landscape slopes gently downwards towards the coastline from north to south providing an elevated position that could broaden receptors located in the south, west and east. The above as well as the visual receptor groups below will need to be reviewed following a site survey in Stage 2. Visual receptor groups that have been selected for appraisal, include the following:

- Residential properties;
- Users of Public Rights of Way and the Wayfarer's Way long distance path;
- Users of public open spaces, open access land and sports facilities such as Portsmouth Golf Course;
- Visitors to and the visual setting of other heritage assets such as Fort Purbrook and Bevis' Grave Scheduled Ancient Monument's, The Roman Villa to the north of the study area is disregarded due to the fact that it will likely be screened from view by the existing topography;
- People in their places of work and education; and
- Road users.

6. Baseline Conditions

6.1. Areas of Public Access and Recreational Assets

Portsmouth Hill is an area of access land that spans the southern slopes of the east-west ridge to the north of the Portsmouth conurbation. This is an important piece of green infrastructure to the city of Portsmouth. The land contains a mosaic of grassland and woodland habitat interlaced with informal trails and recreational features. Portsmouth Hill in general affords wide-sweeping views south across Portsmouth, the coastline and beyond out to sea and the Isle of Wight. A densely wooded arm of this extends in front of Fort Purbrook located just north of Portsmouth Hill Road from the north western boundary of Farlington WTW, most views out from this part of the land are expected to be limited, however a viewpoint located near the fortifications of Fort Purbrook will need to be reviewed during a site survey in the second stage of this LVA process.

A local community park is located immediately adjacent to the south western corner of the WTW; this is almost fully enclosed by residential properties and the Solent Infant School to its south.

Portsmouth Golf Course sits around 230m to the north of the proposed development site at its nearest point. Parts of the golf course occupy an elevated position on top of Portsmouth Hill and offer wide sweeping views south towards Portsmouth and out to sea.

Heritage Assets

Three scheduled ancient monuments are located within the study area: Fort Purbrook, located near to the north western boundary of the WTW site on the northern side of Portsmouth Hill Road, Bevis' grave long barrow and medieval cemetery, located around 230m east of the WTW site along Portsmouth Hill Road and a Roman villa and section of Roman road south west of Littlepark Wood. The latter of which is likely to be separated both visually and in terms of landscape setting from the proposed works by the existing elevated topography along Portsmouth Hill to its south.

Several listed buildings fall within the study area. The nearest is a grade II listed residential house named Sunspan. Designed by acclaimed 20th century designer Wells Coates the house is a white, 1930's building around 370m to the east of the WTW site with wide sweeping views towards the coast. Several other residential properties and existing vegetation are likely to visually separate the building from the proposed works.

Just beyond Sunspan along Portsdown Hill Road lies the grade II listed building known as 'The Towers', which is now used as Bedhampton Castle Care Home. It is likely that the existing local topography will screen the proposed works from this building; as shown in Figure 3-1 ZTV.

Several other listed buildings occur further away within the study area, however these are enclosed by urban settlement in Farlington, Bedhampton and Purbrook and are not likely to be subject to more than negligible effects.

The Old Bedhampton conservation area falls within the study area. This is situated around 1.5km east of the proposed works to the west of Havant and Brockhampton. The conservation area encompasses the historic village at its centre and the formal open space to the east. Due to the localised nature of the conservation area's appraised characteristics it is assumed that effects on this asset will be negligible.

Landscape and Environmental Designations

Areas within the site are designated by the City of Portsmouth as a Site of Importance for Nature Conservation (SINC), this is a locally valuable non-statutory designation. The SINC contains both Lowland Calcareous Grassland and Lowland Meadow Grassland habitats.

Just over 750m south of the WTW site lies Farlington Marshes, designated as a Local Nature Reserve. This is a 125 hectare site of flower-rich grazing marsh on the northern shore of Langstone Harbour. It is seen to be internationally important to the bird life that it supports and forms part of the wider international protection sites in this location.

Chichester and Langstone harbours are areas of coastal lagoons, mudflats, grasslands and open water occupying the vast inlet to the east of the Portsmouth conurbation. They are both designated as Special Protection Areas (SPA) and Ramsar sites. Langstone harbour is also designated as a Site of Special Scientific Interest (SSSI).

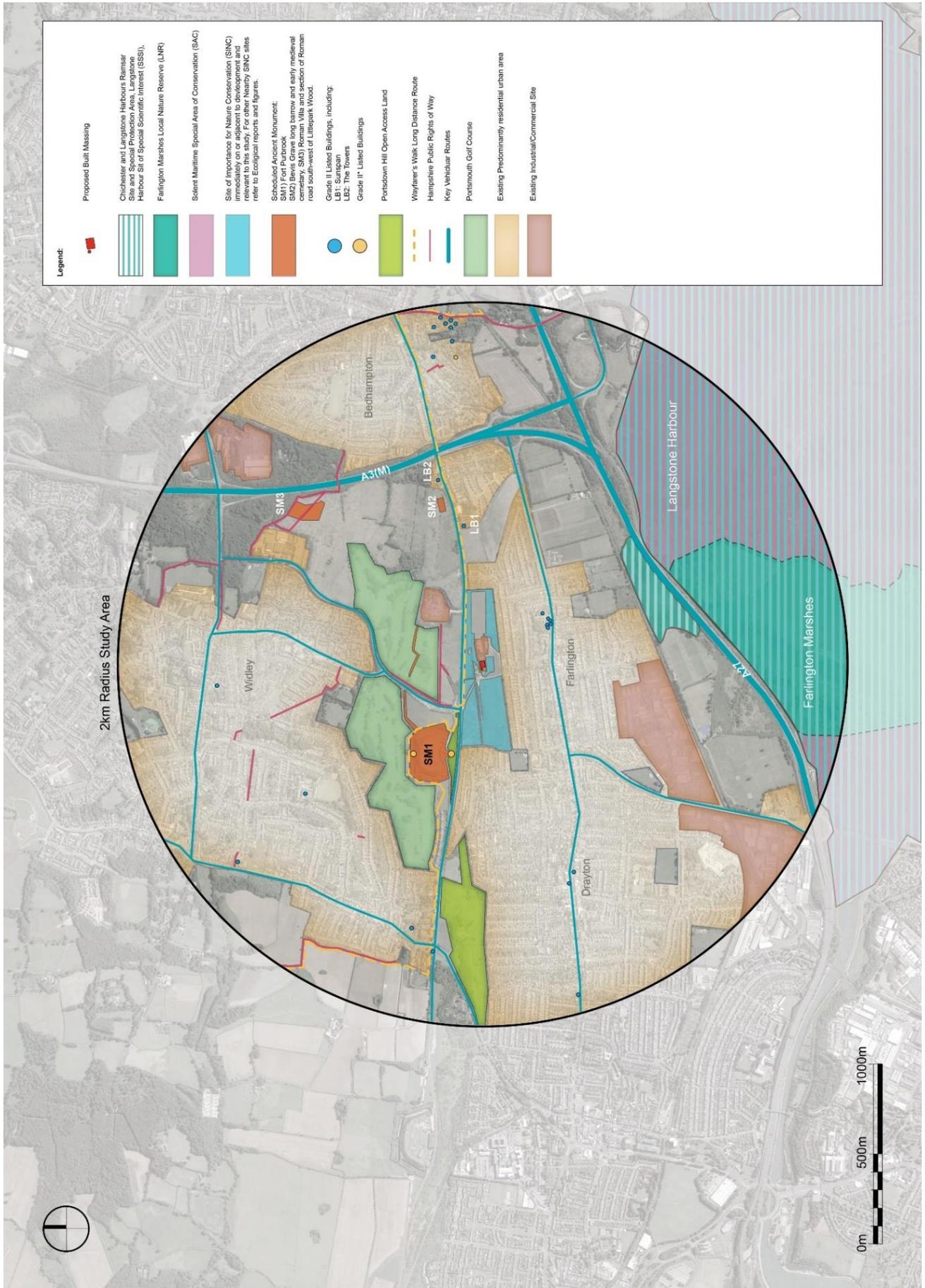
The entire maritime coastal area within the study site falls within the Solent Maritime Special Area of Conservation (SAC).

Public Rights of Way and Sustainable Travel Routes

No public rights of way (PROW) run through or adjacent to the development site, however two PROW's (Hampshire routes 512 and 514) are located on the slope to the north of the site, along the southern boundary to Portsmouth Golf Club. Route 512 runs east-west and offers sweeping views across the local coastline, over Portsmouth and out to sea.

The Wayfarer's Way long distance path runs east-west along Portsdown Hill Road directly adjacent to the WTW site, before looping up Portsdown Hill and around the northern extents of Fort Purbrook. This path again offers varied and sweeping views of the local coastline to the south and provides an important connection to Portsdown Hill as a green infrastructure asset.

Figure 6-1 – Landscape Context Plan



6.2. Landscape Character and Notable Elements

National Character Area

In response to the Natural Environment White Paper, Biodiversity 2020 and the European Landscape Convention, Natural England has produced the National Character Assessment which divides England into 159 areas based on the qualities within a region that make their landscapes distinct. The characteristics of and opportunities and recommendations for improvement in each character area are subsequently described within a National Character Area Profile.

The development site lies within National Character Area 126: South Coast Plain. The key relevant characteristics of this area are:

- 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, well drained and high-quality soils;
- There are stretches of farmed land between developed areas, often with large arable fields defined by low hedges or ditches;
- Sand dune grasses and intertidal marsh communities are characteristic of the coastline, while small areas of species-rich meadow remain inland;
- 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; and
- 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.

This development site also lies close to the neighbouring National Character Area 128: South Hampshire Lowlands, however as topography local to the site rises and subsequently separates the site from character area 128, the proposed works are not likely to have an impact on its landscape character and its key characteristics were therefore deemed not relevant to this study.

Hampshire Integrated Character Assessment

The Hampshire Integrated Character Assessment lists the site as part of area 10b: Portsmouth Harbour. The landscape type is defined as a settlement, due to the surrounding built up areas however there is currently no assessment information available for this area. A more detailed character description can be provided once a site survey has been undertaken.

A desk-based study of satellite and eye level imagery has highlighted that the local area slopes gently down towards the coastline and is predominantly a suburban residential area of mainly 20th century housing stock interspersed with occasional recreation grounds and managed farm and grassland with regular field patterns. These fields are generally divided by stock proof fencing, intermittent hedgerows, scrub vegetation and the occasional stand of mature trees. The residential settlements are interlaced with a hierarchy of circulatory roads and are bound on their northern extent by Portsdown Hill Road and to the south and east by the A27 and A3(M) respectively.

The green landscape within and immediately adjacent to the development site reinforces some of the above characteristics but also creates some more unique features within the landscape. The site interrupts the continuity of the residential areas adjacent and the artificially sculpted underground reservoir areas form distinctive green terraces that allow wide views out to the coast and beyond, while supporting a valuable piece of grassland habitat. This in all seems to extend the green, sloped characteristics of the neighbouring regional character area: 8i Portsdown Hill Open Downs.

The characteristics of character area 8i: Portsdown Hill Open Downs relevant to this study are:

- An outlying chalk escarpment set in a predominantly low-lying clay and coastal landscape giving the landscape added prominence;
- Large predominantly arable fields with straight boundaries set between drove lanes, with more irregular fields around the Wallington stream and some fringe areas;

- Generally low hedges or no hedges, and occasionally banks to field boundaries associated with drove routes;
- Very small copses including 19th century plantations – otherwise a distinct lack of trees and woodland. Chalk scrub on southern scarp side;
- Elevated east-west ridge line gives rise to long panoramic views over the Forest of Bere to the north and Portsmouth, the harbours, The Solent and the hilly profile of the Isle of Wight to the south;
- Victorian Palmerston forts which form a series of historic landmarks on the hill top with grassy moats and banks of glacial;
- A popular green lung with easy access from settlements to the south – with significant areas of open access on the steeper facing slopes; and
- 20th century housing development spreading up the southern and eastern slopes.

6.3. Visual Baseline

Scoping for Visual Receptors

The desk-based study has informed the scope of the visual receptors to be reviewed during a site survey and at this time include residential receptors, PROW's, Heritage Assets, public open spaces, recreational assets and open access land and road users. The effect on places of work and education nearby is likely to be negligible due to the screening effect of topography and built environment. These receptors are as follows:

- Residential property located within the Farlington WTW site, around 25m north west of the proposed works (this property is owned by Portsmouth Water and was formerly occupied by the site manager);
- Residential properties along Woodfield Avenue to the immediate south of the WTW site;
- Residential properties along Grant Road to the immediate south and south west of the WTW site;
- Residential receptors to within the cluster of houses off of Farlington Avenue to the immediate west of the WTW site.
- Residential receptors along Beverly Grove to the immediate east of the WTW site.
- Wayfarer's Way long distance path running east-west along Porstdown Hill Road
- Wayfarer's Way long distance path running north-south down Portsdown Hill adjacent to Fort Purbrook;
- Public Right of Way route 512 running east-west around 170m north of the WTW site;
- Public Right of Way route 514 running north to south around 150m north of the WTW site;
- Portsdown Hill Open Access Land Adjacent to the southern entrance to Fort Purbrook;
- Portsmouth Golf Course around 170m north of the WTW site;
- Recreation ground 170m south west of the proposed works site, north of Solent Infant School;
- Fort Purbrook Scheduled Ancient Monument.
- Portsdown Hill Road running east-west 40m north of the proposed works site; and
- Gillman Road running north to south immediately to the west of the proposed works site

Viewpoints that represent views from affected receptors will be identified and photographs will be taken from each location when a site survey is undertaken during the second stage of this LVA process.

7. Potential Effects Identified During the Desk Based Study

This section provides an overview of potential effects that could result from the proposed works during construction and operation. At this stage, these effects are provisionally outlined based on a digitally generated review of the 3D built form and will inform the scoping of a site survey but are intended to inform a more in-depth decision-making process at the outline planning application stage. All of these potential impacts and effects will be reviewed and revised accordingly as the LVA process progresses following a site survey.

The proposed works have the potential to affect landscape and visual receptors, both during construction and during operation.

7.1. Construction

Landscape

The key landscape impacts expected during construction are the loss of screening, the presence of construction machinery, as well as the introduction of man-made features.

Temporary impacts to landscape character during construction could result from:

- The presence of construction plant, materials, machinery, construction compounds and the provision of construction lighting; and
- The removal of vegetation where it is required to facilitate the works, has the potential to alter the local landscape character within the study area.

The proposed work could also temporarily affect the existing levels of tranquillity within the local area; particularly as perceived by those living near the site to the south and west. It is assumed that there would be limited negative effects on the setting of the nearby heritage assets during construction. Disruption of the grassland habitats found on site has been assessed by a competent Ecologist and will result in adverse effects on a small area of the landscape biodiversity of the site that will require suitable mitigation.

Whilst the proposed works are likely to lead to adverse temporary effects on the local landscape character during the construction phase, there is not likely to be effects on a wider than local level.

Visual Impacts

Temporary impacts to visual receptors during construction are likely to result from:

- The erection of temporary construction equipment and structures such as cranes and scaffold works;
- The formation of temporary spoil areas;
- The formation/construction of roads and structures;
- Movements of construction vehicles;
- The creation of new earthworks; and
- Creation and use of site compounds.

The presumption at this stage of the LVA process is that the greatest temporary construction impacts would most severely affect the residential receptors at the property within the WTW site 25m to the north west of the proposed works, residential properties to the south and west along Woodfield Avenue, Grant Road and the houses off Farlington Avenue respectively.

Construction activities associated with the main building would be prominent. The alteration of existing views during the construction stage would also occur to wider local views, and receptors, particularly visitors to Fort Purbrook and pedestrian users of Gilman Road. The location of site compounds will likely temporarily affect the visual amenity of residential receptors to the south of the site, these effects are likely to ease however once construction is complete.

The magnitude of temporary visual effects of site traffic is assumed to be low at this stage, due to ease of access from Portsdown Hill Road and the activity's transient nature.

Due to existing vegetation and site topography, it is likely that the temporary construction effects on pedestrian users of the Wayfarer's way at Portsdown Hill Road will be negligible but will have a greater effect on views from the path near to Fort Purbrook. This is also representative of effects on views from the scheduled ancient monument itself, the open access land along Portsdown Hill to the Fort's immediate south and public rights of way 512 and 514 to the north of the site. It is likely however that the sweeping character of these views out to the south coast and beyond will be largely maintained and effects are likely to be minor, with the new development becoming partially set into the existing industrial development to the east and residential settlement to the south.

Views are also likely to be effected to some degree from Portsmouth Golf Course during construction, however due to the temporary nature of the works and the fact that the works will be taken place downhill from the golf course, set against the existing residential settlement, the character of the views out from the Golf Course will largely be maintained, with any effects likely to be minor.

7.2. Operation

Landscape Impacts

During operation, potential impacts on the landscape character are likely to include:

- Disruption to the landscape character and existing grassland habitat of the site through the introduction of a new large building, sludge storage tank and underground services; and
- Introduction of additional built massing into the edge of the character area 10b: Portsmouth harbour and the perceived connection between character area 8i: Portsdown Hill Open Downs.
- Introduction of built form into the setting of Fort Purbook scheduled ancient monument and the views that characterise character area 8i: Portsdown Hill Open Downs

The operational effects will be long-term and permanent. This is likely to have the greatest effect on the existing grassland character. It is likely that proposed mitigation measures will need to include some if not complete replacement of any grassland habitat or trees removed. Consideration of the scale of the built structures in relation to the location of the sensitive receptors when planning replacement or screening planting, will help to reduce the effects and provide landscape and visual enhancements.

These changes will adversely affect the landscape character of the area; however, the effect is likely to be of low severity overall; especially if suitable mitigation measures are implemented.

It should also be considered that most of the proposed works will be located within an existing, disused filtration basin, making use of previously developed land and setting the main massing of the proposed built form against the existing industrial treatment buildings; which are of a similar scale.

Due to the distance between the proposed works and the landscape designation sites of local, national and international importance at Farlington Marshes and Chichester and Langstone Harbours, combined with the intervening existing urban settlements and vegetation, it is likely that any effect the proposed works will have on them will be negligible.

Visual Impacts

The presumption at this stage in the LVA process is that the main permanent visual impacts would be the introduction of the proposed DAF building, associated storage tank and a new access road into the existing landscape.

This is likely to have the greatest effect on the visual amenity of receptors in the residential property 25m north west of the proposed works and residential properties to the south of the site along Woodfield Avenue and Grant Road and on residential properties to the west off Farlington Avenue and to the east along Beverly Grove.

The permanent alteration of existing views will also affect wider local views within the study area, and receptors, particularly users of Wayfarer's Way adjacent to Fort Purbrook, users of the open access land to the south of Fort Purbrook and users of Hampshire public rights of way 512 and 514. It is likely however the almost complete retention of the wide sweeping views that characterise this place and form an integral part of its enjoyment, combined with their elevated position and the screening nature of existing vegetation, this will likely mean that there is no severe effect on amenity here.

Views of and from Portsmouth Golf Course are also likely to experience permanent change, however the almost complete retention of the wide sweeping views that characterise this place and form an integral part of its enjoyment, combined with the elevated nature of its location and the screening effect of existing vegetation is likely to mean that effects will not be severe. Users of the recreation ground to the south west of the WTW site are likely to experience minor effects on their visual amenity, due to the screening effect of the artificial WTW site topography and densely positioned local residential properties; furthermore use of this park is likely to be temporary and its users generally transient.

The screening nature of the mature hedgerows, shrub, tree and scrub vegetation along Portsdown Hill Road is likely to screen most views of the site from the immediate north. This will likely mean that road users on Portsdown Hill Road and pedestrians using this stretch of Wayfarer's Way will only experience minor changes to their visual amenity and of a low severity; with any glimpse views of the proposed works likely to be negligible due to the transient nature of these activities.

Vehicular and pedestrian users of Gillman road are likely to see a larger change in their visual amenity, however the low frequency of traffic, the transient nature of these activities and the existing high sided embankments and metal palisade fencing lining this thoroughfare combine to create a low existing amenity value, the effects of the proposed works on this receptor are likely to be of low severity.

8. Potential Design, mitigation and enhancement measures

8.1. Introduction

At this stage, the outline design proposals for the development have made some effort to sit sensitively into their landscape and address potential visual effects to the south of the development. Several design options have been considered to alter the scale and form of the built massing, with roof profile a key consideration in visual mitigation from negative effects to the south. The development sits on previously developed, Portsmouth Water land and largely occupies, where practicable, an existing, sub-grade basin. It may still be necessary to develop mitigation measures further as the design of the building progresses.

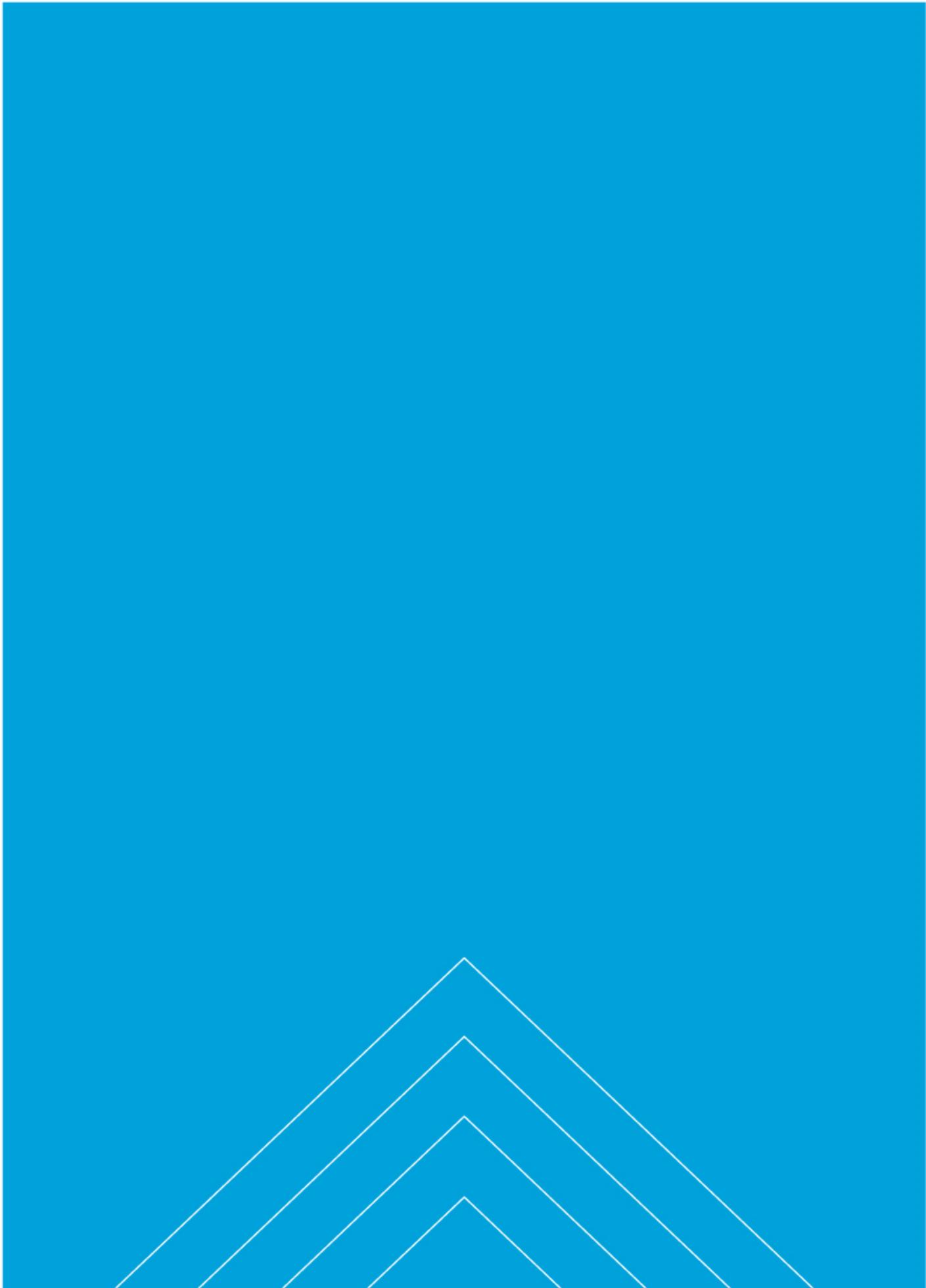
8.2. Mitigation measures

Summary of Mitigation opportunities

The below table gives examples of mitigation measures that this development could benefit from to reduce adverse effects on its environment. These will be reviewed as the design of the building is developed at a later stage and the LVA process is progressed. Any stakeholder engagement feedback should also inform the development of mitigation measures.

Table 8-1 Summary of potential mitigation opportunities

Potential Impact	Mitigation Opportunity
Loss of grassland habitat on site	<ul style="list-style-type: none"> Relocate grassland habitat elsewhere within the site, making use of un-used previously developed land where possible. This could be undertaken using translocation, redistribution or reinstatement. Reference should be made to recommendations to this effect outlined within document: HTW-ATK-XX-FR-RP-Z-0003 'Farlington WTW Ecological Impact Assessment'
Loss of trees and Mature Vegetation	<ul style="list-style-type: none"> Where possible, retain trees particularly those which assist in screening the proposed works from adjacent receptors. Existing trees located along the northern boundary of the site provide a partial screening buffer to Fort Purbrook and Portsdown Hill Road. Where areas of trees may be earmarked for removal, replacement planting where possible within the site could aid in screening to Fort Purbrook and residential receptors along Grant Road, Woodfield Avenue and to the west. This mitigation opportunity could importantly be informed by stakeholder engagement. Any planting on site must not contribute to further loss of grassland habitat within the SINC through either displacement or longer-term impacts such as shading. Planting design should also align with any strategy that aims to replace or enhance the above grassland habitat Proposed mitigation planting, is to be composed of species appropriate to their respective locations, including native tree species suited to the local soil conditions.
Introduction of built elements	<ul style="list-style-type: none"> Consideration is to be given to the use of appropriate building materials, allowing the buildings to integrate into the landscape. Material choices should consider the local vernacular and landscape character. New vegetation such as trees or large shrubs could be skilfully planted to screen views from nearby receptors where possible. Any planting on site must not contribute to further loss of grassland habitat within the SINC through either displacement or longer-term impacts such as shading. Planting design should also align with any strategy that aims to replace or enhance grassland habitat.



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