

CHAPTER 17: SEASCAPE, LANDSCAPE AND VISUAL EFFECTS

17. SEASCAPE, LANDSCAPE AND VISUAL EFFECTS

17.1 Introduction

This chapter reports on the findings of the Seascape Landscape and Visual Impact Assessment (SLVIA) of the proposed Aberdeen Harbour Expansion Project (the 'development') at Nigg Bay, Aberdeen (the 'site'). The findings are supported by evidence gathered as a result of a desktop study and field assessment carried out in December 2014 and May 2015 respectively, with baseline photos for the photomontages taken in June 2015. The chapter describes the relevant landscape and seascape planning context as well as other designations and environmental constraints relevant to the site. It then describes the character and visual amenity of the surroundings and analyses the key views towards the site from both the land and the sea. It then considers the potential significant effects which would result as a consequence of the development proposals.

The site location for the assessment is shown on Figure 17.2d: Representative Viewpoints and Photomontage Locations. Some aspects of the development have the potential to produce both direct and indirect impacts on the land/seascape resource and on visual receptors during construction and operation. The report records the current baseline data, identifies and describes potential effects, assesses their significance and considers measures to reduce or offset any significant negative effects, with a final summary of residual effects.

Land/seascape character is considered to be of importance in its own right and is valued for its intrinsic qualities irrespective of whether it is seen by people. Effects on the land/seascape include physical changes as well as changes to character. It may also include effects on areas designated for scenic or landscape qualities. Effects on visual amenity relates to changes in views and the appearance and prominence of a development in those views. Visual amenity effects are perceived by people and are therefore clearly distinguished from, although closely linked to, effects on character. The assessments are considered separate, although linked, processes.

This chapter is supported by ES Appendix 17-A (Tables 17A.1-17A.4: Land/Seascape and Visual Amenity Significance of Effect Tables) and Appendix 17-B SLVIA – Aberdeen Greenspace Network.

It is also supported by the following Figures:

- Figures 17.1a – 17.1g: Terrain Analysis and Zones of Theoretical Visibility;
- Figures 17.2a – 17.2d: Designations and Features; Access; Landscape and Coastal Character Areas; and Representative Viewpoints and Photomontage Locations;
- Figures 17.3a – 17.3o: Baseline Photo Views; and
- Figures 17.4a – 17.4l: Visual Amenity Photomontages,

17.2 Legislation and Planning Policy Context

This section outlines the policy that is relevant to SLVIA. Policy, legislation and guidance applicable to the wider project can be found in Chapter 4: Planning and Legislation.

17.2.1 National Planning Policy

17.2.1.1 Scottish Planning Policy (2014)

Scottish Planning Policy (SPP), 2014, is the Scottish Government's Statement on Land Use Planning Policy. In relation to Landscape and Natural Heritage, the government recognises there is constant change in the landscape and aims to *“facilitate positive change while maintaining and enhancing distinctive landscape character”*. SPP also recognises that different landscapes will have different capacities to accommodate new development, and therefore *“the siting and design of development should be informed by local landscape character”*.

17.2.1.2 Scotland's Third National Planning Framework 2014

Under Scotland's National Planning Framework (NPF3) Section 6: Delivery, national developments are discussed as delivering the strategy for improving key gateways, international transport connections, improving links within Scotland and promoting key projects are of national significance.

The NPF3 makes reference to Aberdeen Harbour as *“a nationally-important facility which supports the oil and gas sector, provides international and lifeline connections and makes a significant contribution to the wider economy of the north east. Expansion of the harbour is required to address current capacity constraints, and to consolidate and expand its role. We expect development proposals for this to come forward in the lifetime of NPF3, including new harbour facilities and onshore transport links.”*

17.2.2 Regional Planning Policy

17.2.2.1 The Aberdeen City and Shire Structure Plan 2009

The Structure Plan provides a vision aimed at developing the economy, maintaining and improving the quality of the environment, whilst providing a high quality of life up to 2030. The plan is designed to provide a framework for the local level plans with objectives and targets to achieve the aims set out. The various topic areas covered within the plan include; economy, sustainable development, population, quality of environment, sustainable mixed communities, and accessibility.

One of the key objects relating to landscape and design includes 'Quality of environment' which states: *“to make sure new development maintains and improves the region's important built, natural and cultural assets.”*

17.2.3 Local Planning Policy

17.2.3.1 Aberdeen Local Development Plan 2012

The Aberdeen Local Development Plan (LDP) was adopted in February 2012, and replaced the Aberdeen Local Plan 2008. This document sets out the planning policies and future land use/sites required to deliver the current Aberdeen City and Shire Structure Plan 2009. The LDP is accompanied by the additional documents; proposals map, constraints map, city centre map which provide details of relevant policies which apply to the various localities. Local policies are also supported by supplementary guidance and technical advice notes.

Policies relating to landscape are outlined below:

Policy D6 – Landscape states that any “*development will not be acceptable unless it avoids:*”

- i. significantly adversely affecting landscape character and elements which contribute to, or provide, a distinct ‘sense of place’ which point to being either in or around Aberdeen or a particular part of it;*
- ii. obstructing important views of the City’s townscape, landmarks and features when seen from busy and important publicly accessible vantage points such as roads, railways, recreation areas and pathways and particularly from the main city approaches;*
- iii. disturbance, loss or damage to important recreation, wildlife or woodland resources or to the physical links between them;*
- iv. sprawling onto important or necessary green spaces or buffers between places or communities with individual identities, and those which can provide opportunities for countryside activities.*
- v. Development should avoid significant adverse impacts upon existing landscape elements, including linear and boundary features or other components, which contribute to local amenity, and provide opportunities for conserving, restoring or enhancing them.”*

The key policies which relate to the site within the LDP include:

Policy NE1 – Green Space Network states that development should “*protect, promote and enhance the wildlife, recreational, landscape and access value of the Green Space Network. Proposals for development that are likely to destroy or erode the character or function of the Green Space Network will not be permitted. Where major infrastructure projects or other developments necessitate crossing the Green Space Network, such developments shall take into account the coherence of the network. In doing so, measures shall be taken to allow access across roads for wildlife and for access and outdoor recreation purposes.*”

Policy NE7 – Coastal Planning states that any “*development will be permitted in the developed coastal areas only where it is demonstrated that a coastal location is necessary. Development will only be permitted in undeveloped coastal areas if it can be demonstrated that... It respects the character, natural and historic environment, plus, the recreational value in the surrounding area, or in all cases... Public access to and along the coast will be protected and promoted wherever possible.*”

17.3 Assessment Methodology and Significance Criteria

The aim of the seascape, landscape and visual impact assessment is to establish the following:

- A clear understanding of the site and its wider seascape/landscape setting, identifying its character, resources, value and sensitivity to the development;
- An assessment of the composition, character and aesthetic value of views from visual receptors including occupiers of residential properties, views from the sea and people using amenity landscapes, and the sensitivity of views;
- The nature of the different development scenarios and mitigation measures;

- The potential direct and indirect effects of the proposal on the seascape/landscape resource (i.e. seascape/landscape elements and character) and on visual receptors; and
- Commentary on the residual effects on the seascape/landscape resource/character and visual amenity in relation to the development scenario, and compliance with seascape/landscape policy.

The methodology for the assessment is based on current best practice and guidance from the following sources:

- 'Guidelines for Landscape and Visual Impact Assessment'¹, Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) 2013;
- 'Landscape Character Assessment Guidance for England and Scotland'², Natural England 2002;
- 'Advice Note 01/11: Photography and Photomontage in Landscape and Visual Impact Assessment', Landscape Institute, 2011³; and
- 'Guidance on Coastal Character Assessment – Consultation Draft',⁴ Scottish Natural Heritage, 2015.

This assessment considers two separate, but inter-linked issues as follows:

- Land/Seascape Effects: the effects of the development on the physical and cultural characteristics of the site and on the surrounding land/seascape character; and
- Visual Effects: the effects of the development on views from visual receptors and on the amenity value of these views.

17.3.1 Establishment of Baseline Data

The baseline work adopted for the land/seascape and visual assessment comprised a combination of desktop and field studies to identify and record the character, elements, features and aesthetic and perceptual factors. The baseline assessment included the following activities:

- A review of all relevant documents and land/seascape planning policy and guidance;
- Geographical Information System (GIS) analysis of the topography surrounding the site and production of Zone of Theoretical Visibility (ZTV);
- Identification of representative viewpoints and key receptors for these views and classifications of sensitivity in consultation with Scottish Natural Heritage (SNH);
- A site visit to undertake an assessment of the character of the area, together with the sensitivity of the land/seascape to change; and
- A description of the key features associated with the development that would alter the characteristics of the land/seascape and visual baseline.

17.3.2 Definition of Receptor

Baseline data, alongside the description of the site, forms the basis for the identification and description of the changes that will result in the seascape, landscape and visual amenity of the area. The land/seascape resource needs to be understood in terms of its constituent elements, its character

and the way this varies spatially, geographic extent, history, condition, the way it is experienced, including the value attached to it. A receptor is a defined aspect of the seascape/landscape resource that has the potential to be affected by a proposal.

The visual baseline establishes the area in which the site may be visible, the different groups of people who may experience views of the site, the places where they will be affected and the nature of the views and visual amenity at those points. Visual receptors are individuals and/or defined groups of people who have the potential to be affected by a proposal.

17.3.3 Land/Seascape Baseline

The landscape baseline includes an overview of the elements that form the baseline for the assessment, using text and graphical representation to describe:

- Topography; the sea bed, above and below water including intertidal zone of Nigg Bay basin;
- Cover, distribution and type of land use, open space and greenspace network, including statutory and non-statutory designations relevant to the landscape and visual assessment such as National Scenic Areas and Areas of Great Landscape Value;
- Development patterns and scale, including age, massing and density of buildings, levels of enclosure, skyline characteristics, building materials and landmark features;
- Vegetation patterns and extents;
- Transport routes (including road and rail), National Trails and other access routes including cycle-ways, bridleways, footpaths (including Core Paths), historic green lanes and waterways;
- Historic landscapes, registered parks and gardens, listed buildings and other key historic components; and
- Existing landscape character assessments prepared by authorities including national level character assessment and local land/seascape assessment derived from observation for the purposes of the project.

The baseline elements include a review of existing character area assessments covering the full extent of the study area. Character areas are defined as areas with broadly homogenous characteristics and the identification of character areas is influenced by published character assessments, including those prepared at national, county and/or district scales. Whilst there are landscape character assessments covering the land based areas, there are currently no published seascape character assessments along this coastline. This assessment has therefore drawn on the coastal aspects of the published landscape character assessments in order to better understand the seascape area around Nigg Bay, and has supplemented this with desk and field based observation.

17.3.3.1 Landscape Condition

The condition of each character area is described with reference to the following criteria:

- Good: components are regularly maintained to a high standard;
- Fair: components are relatively well maintained; and

- Poor: components are poorly maintained or damaged.

The condition of the character area is based on the physical state of the landscape, including its intactness and the state of repair of individual features and elements.

17.3.3.2 Landscape Value

The likely value of the character areas is based on which users may value the areas, and where relevant, any statutory, non-statutory or local plan designations. The presence of any combination of attributes is considered when assessing the value of the character area. Based on the guidance provided within the Guidelines for Landscape and Visual Impact Assessment (GLVIA) [3rd Edition] the factors influencing the value of the landscape are set out in Table 17.1.

Table 17.1: Landscape value criteria

Value of the Land/Seascape	Criteria
Internationally valued	World Heritage Sites Part of an internationally recognised element of the country's character of interest to international tourism
Nationally valued	National Parks National Scenic Areas
Locally valued	Designated areas by local authorities A public, semi- public private open space that is of value to the local community
Limited value	Commercial, industrial or disused area providing little value to the community or residents

17.3.4 **Visual Baseline**

The information described below has been produced to illustrate visual aspects of the site. Computer generated Zone of Theoretical Visibility (ZTV) maps have been produced and are shown on Figures 17.1a – 17.1f, which illustrate a range of height parameters. The assessment has been based on the realistic worst case scenario to assist in viewpoint selection and to provide an appreciation of the potential influence of the site in the wider landscape. The worst case scenario for temporary effects has been taken to be shipping vessels in the harbour (height of 25 m) (Figure 17.1f). The worst case scenario for permanent effects has been taken to be the structures in and around the harbour with the tallest structures being the fuel and composite bulk tanks at approximately 20 m high. The list of relevant ZTV figures are as follows:

- Figure 17.1a: Terrain Analysis at the Wider and Local Context;
- Figure 17.1b: Zone of Theoretical Visibility: Existing Site/Baseline;
- Figure 17.1c: Zone of Theoretical Visibility: Development up to 5.0 m - Gatehouse/welfare buildings up to height 3 m;
- Figure 17.1d: Zone of Theoretical Visibility: Development up to 10 m – Breakwaters;
- Figure 17.1e: Zone of Theoretical Visibility: Development up to 15 m – Water Tanks;
- Figure 17.1f: Zone of Theoretical Visibility: Development up to 20 m – Fuel, Mud Tanks;
- Figure 17.1g: Zone of Theoretical Visibility: Development up to 25 m – Oil shipping vessels 25+ meters.

The ZTVs have been compiled using Ordnance Survey Terrain 5 data comprising spot heights and contours (within a 10 m resolution) to produce a Digital Terrain Model (DTM). The DTM was overlaid on a 1:10,000 Ordnance Survey base map.

The use of this type of ZTV map is considered good practice and is useful as a tool to assist in assessing the visibility of the development within the site. However, it should not be considered an absolute measure of visibility. Whilst a ZTV map indicates the potential area from which it might be possible to secure views to part(s) of the site, the use of the map needs to be qualified on the following basis:

- There will be a number of areas within the ZTV where it might be possible to view parts of the development, but that may not be accessible to the general public or well frequented;
- A ZTV map does not account for the effects of screening and filtering of views as a result of intervening features, such as buildings, trees, hedgerows, weather conditions; and
- A ZTV map does not account for the likely orientation of a viewer – for example when travelling in a vehicle.

The combined effect of these limitations means that ZTV mapping tends to over-estimate the extent of visibility – both in terms of the land and sea area from which the site is visible, and the extent of visibility of the structures from a particular viewpoint. Therefore ZTV maps do not truly represent the ‘visual impact’ of the site.

17.3.5 Photographs and Panoramas

Panorama photograph and photomontage locations were selected through consultation with Scottish Natural Heritage (SNH) and Photomontage Viewpoints were identified for key representative views of the development, as seen from a key receptor. Some initial locations were not included in the assessment as they clearly did not have a view of the development, or the view would have been a very similar to others and would not have added to the understanding of the overall visual amenity effects of the development.

All baseline photographs (see Figure 17.3a to Figure 17.3o) were taken with a digital equivalent of a 35 mm SLR camera, with 50 mm focal length lens, at eye level (1,600 mm). They seek to illustrate the full extent of the proposals within the local landscape that would be experienced at each viewpoint.

Photomontage images have also been produced to illustrate an observer’s view of the development (see Figure 17.4a to Figure 17.4l). Photomontages were not created for all the viewpoints assessed in the SLVIA, only a representative sample, to gain an appreciation of the likely significant visual effects.

The development has been shown from the selected viewpoints in wireframe format (see Figure 17.4a to Figure 17.4l). Ordnance Survey Landform Profile data with a 50 m resolution was used to construct the landform seen in the wireframe view. Proposed structures, other nearby built development and structures and viewpoint location coordinates have been added to the DTM as necessary. Since the SLVIA assesses the worst case scenario, the wireframes were constructed to reflect potential permanent infrastructure and the largest of the vessels likely to visit the harbour (temporary effects). The wireframe views were taken from a set viewer height of 2 m above the terrain model (the terrain

model has an accuracy of 3 m at grid points). For the remainder of the viewpoints, not supported by photomontages, the assessment has been based on objective professional judgement.

17.3.6 EIA Scoping Consultation

In their EIA Scoping Response (see ES Appendix 1-D), SNH provided the following advice:

- The third edition of the Guidelines for LVIA should be used to inform the assessment;
 - Waterman confirm that this guidance was used for this assessment, as noted above;
- Consultation on scope and methodology to be undertaken with SNH and Aberdeen City Council (ACC). More detailed landscape assessment work should be undertaken to inform site design and relationship with Torry. SNH is undertaking work on the proposed approach to coastal character assessment.
 - Waterman confirm that further extensive consultation was undertaken with SNH to establish the location of key viewpoints and agree the methodology for the SLVIA. During this round of consultation, ACC agreed to defer to SNH's opinion on these matters.
- Impacts of lighting require assessment, including photomontages from selected viewpoints;
 - The photomontages produced to inform the SLVIA include proposed lighting columns. The assessment of visual impact from various key viewpoints take full account the inclusion of lighting columns within the proposed development.

17.3.7 Assumptions and Limitations

The visual analysis is based on views from external spaces within the public domain and not from inside buildings or private spaces. However, comment and assessment in relation to views from private spaces have been made where appropriate.

The assessment process aims to be objective and to quantify effects as far as possible. However, it is recognised that subjective judgement is appropriate, if it is based upon training and experience, supported by clear evidence, reasoned argument and informed opinion. Whilst changes to a view can be factually defined, the evaluation of landscape character and visual effect does require qualitative judgements to be made. The conclusions of this assessment therefore combine systematic observation and measurement with informed professional interpretation.

The initial field survey was undertaken during the winter months with vegetation lacking any leaf cover, which represents a 'worst case scenario' in terms of visibility and the screening effect of vegetation. Further field studies in the spring were undertaken to inform the differing effects of seasonality, particularly in relation to the visual analysis. The photographs presented for the photomontages were taken in early summer. Whilst summer conditions with full leaf cover would normally provide greater screening and a reduction in visibility, the views are free of intervening vegetation and therefore not affected by seasonality in the usual way. The images therefore represent the worst case situation. The site survey was conducted in good clear conditions in December, and partially overcast but clear conditions in May suitable for undertaking the assessment.

17.4 Methodology for Assessment of Effects

17.4.1 Approach to Assessing Effects

To predict and describe the potential effects on the landscape and visual resource, baseline information is combined with the different components of the development during the construction and operational phases, and considers:

- Land/seascape character and resources, including effects on the aesthetic values of the landscape caused by changes in the elements, characteristics, character and qualities of the landscape;
- Designated landscapes, registered parks and gardens, and recreational interests; and
- Visual amenity, including effects upon potential viewers and viewing groups caused by changes in the appearance of the landscape as a result of the development.

The assessment takes into account the spatial and temporal nature of potential effects as follows:

- **Direct effects** are those imposed on land/seascape elements on the site (those that occur within the development site) as a direct result of development, such as the loss of existing trees or other vegetation;
- **Indirect and secondary effects** may occur some distance from the site (outside of the development site, but within the study area) as a consequence of the development occurring, such as the removal of screen vegetation which would allow views in from surrounding areas;
- **Permanent or temporary effects** - temporary effects predominantly arise during construction, whereas permanent effects predominantly arise once the scheme has been completed. However, it is recognised that the construction period may have both temporary and permanent effects arising; and
- **Adverse effects** are those that cause detriment to the pre-development situation; **beneficial effects** are those that restore or improve the landscape; and **neutral effects** might change the existing situation, but on balance make the situation neither better nor worse.

17.4.2 Scope of Assessment

17.4.2.1 Spatial Scope

The SLVIA Scoping Study looked at a total area within a 10 km radius to the west, and 5 km to the north and south from the site, and considered the scope of the proposed assessment i.e. where it is unlikely that there would be significant effects, including effects on character areas, designations, viewpoints, settlements or routes. These areas were 'scoped out' of the assessment. Due to the nature of the landform and hills in the surrounding landscape it was considered that a ZTV for an area of 2 km radius from the site would be adequate.

17.4.2.2 Temporal Scope

An initial site visit was carried out in December 2014 during the winter season to establish the landscape and visual baseline during the winter months, when potential screening from deciduous trees would be diminished due to loss of their leaves. However, it was found that there are few trees in

the area and that seasonality was not going to affect the assessment. A further, more detailed survey was undertaken in May 2015 to review and identify potential additional key viewpoints.

For the assessment of large scale infrastructure developments it is normal to consider operational effects post-construction in the year of opening (Year 1) when mitigation planting will not be fully effective, and then to consider the longer term effects (15 years plus) once planting is more mature. However, there is little scope for mitigation planting due to the open character of the coast and the lack of existing vegetation within the character area. As a consequence, a 15 year assessment has not been pursued as it would result in the same effects as year 1. Therefore landscape and visual impacts were assessed for the construction phase and the completed development/operational phase. Following the identification of potential mitigation measures, a summary of residual effects has been presented at the end of the assessment.

17.4.2.3 Cumulative Assessment

A review of other proposed developments in and around the area, either in planning or that have been granted planning permission (and not yet built) was carried out, based on the projects listed in Section 5.12 of Chapter 5: Environmental Impact Assessment Process. It was considered that there are no proposals on the list that would have a cumulative impact when assessed in combination with the proposed harbour expansion and therefore a cumulative impact assessment of land/seascape and visual amenity has not been conducted.

17.4.3 **Assessment of Sensitivity, Magnitude and Significance**

17.4.3.1 Sensitivity

Sensitivity is a term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. The overall sensitivity of the landscape can be defined as embracing a combination of the sensitivity of the landscape resource (in terms of both its character as a whole and the individual elements contributing to character) and the visual sensitivity of the landscape.

The term 'sensitivity' has been used in this chapter rather than 'value' as it is more appropriate for assessments of landscape and views.

Criteria used to assess the sensitivity of landscape and visual receptors are set out below in Table 17.2.

Table 17.2: Sensitivity criteria

Sensitivity to Change	Criteria
Very High	<p>Landscape Receptor Internationally designated/recognised landscape of exceptional quality and distinctive intact character with a large number of features and strong sense of place; Extremely susceptible to minor levels of change which would permanently alter the key characteristics of the landscape (e.g. Ramsar Site, World Heritage Site, Special Area of Conservation, Special Protection Area, Biosphere Reserve).</p> <p>Visual Receptor Visitors to a nationally or internationally designated landscape or on a nationally designated route who are stationary and in a location specifically to enjoy the view; Residents in homes in a nationally or internationally designated landscape who have open, uninterrupted views in the direction of the development.</p>
High	<p>Landscape Receptor Nationally or regionally designated/recognised landscape of high quality and distinctive character (e.g. Conservation Area); Susceptible to change which would permanently alter key characteristics and elements of the landscape (National Parks, Site of Special Scientific Interest).</p> <p>Visual Receptor Visitors to a nationally or internationally designated landscape or on a nationally designated route who are engaged in recreational activities (i.e. walkers, horse-riders); Residents in homes in a nationally or internationally designated landscape who have views in the direction of the development which may be partial or interrupted by foreground elements; Residents in homes in locally valued landscapes who have open, uninterrupted views in the direction of the development.</p>
Medium	<p>Landscape Receptor Locally designated/recognised landscape with some distinctive and/or designated characteristics and features in reasonable condition; Capable of tolerating low levels of change without affecting the key characteristics and elements (e.g. Local Green Space, Local Nature Reserve).</p> <p>Visual Receptor Visitors to locally valued landscapes who are there specifically for the purpose of enjoying the view; Residents in homes in locally valued landscapes who have views in the direction of the development which may be partial or interrupted by foreground elements; People travelling on local roads or on trains in nationally or internationally designated landscapes with the purpose of enjoying the view.</p>
Low	<p>Landscape Receptor Undesignated landscape representative of defined landscape character types with local value but low quality; Few distinctive characteristics, features or elements many of which may be in a poor state of repair; Landscape capable of moderate levels of change/improvement/enhancement.</p> <p>Visual Receptor Residents in homes in non-designated or low value landscapes who have open, uninterrupted views in the direction of the development; People travelling in vehicles on local roads or within trains with a purpose to their journey other than to enjoy the view; People engaged in sports or recreation where the focus is more on the activity rather than the view.</p>

Table 17.2: Sensitivity criteria continued

Sensitivity to Change	Criteria
Very Low	<p>Landscape Receptor Undesignated landscape of very low quality and condition which is not representative of its defined landscape character type; Landscape potentially capable of accommodating high levels of change/improvements/enhancement.</p> <p>Visual Receptor Residents in homes in non-designated or low value landscapes who have views in the direction of the development which may be glimpsed, partial or interrupted by foreground elements; People travelling swiftly in vehicles on major roads with a purpose to their journey other than to enjoy the view; People working in businesses and industry who are focussed on their work.</p>

17.4.3.2 Magnitude

Each effect on a receptor needs to be assessed in terms of its size or scale, the geographical extent of the area influenced, and its duration and reversibility. The assessment will consider the magnitude of change the development would exert on the receptor because of:

- The proximity of the development to the receptor – generally the magnitude of effect reduces with increasing distance as it progressively exerts less influence;
- The extent to which the development can be seen, and the extent to which landform, woodland, buildings etc. intervene; and
- The visibility of the development and its resulting effects on character.

The assessment of the magnitude of potential visual impacts is an assessment of the extent of change upon visual amenity as a direct result of the development, and depends upon several factors including:

- The scale of change in the view with respect to the loss and/or addition of new features;
- The degree of contrast, or integration of/compatibility with any new features with existing features in the view;
- The duration of the effect (temporary or permanent, intermittent or continuous). Temporary effects are considered to be less significant than longer term or permanent effects;
- The distance of the receptor from the source of the effect;
- The angle of view and presence of intervening vegetation or features;
- The dominance of the impact feature in the view; and
- Seasonal variation.

It is generally assumed that the visual effects of the development will reduce as viewing distance increases. However, the magnitude of visual effects at any given distance will vary according to a range of factors. These include the extent of the new buildings and structures that would be visible; their position in the view; the presence of other conspicuous features; and the extent to which views of the development would be screened or filtered by intervening landform or by landscape elements such as trees, woodlands, hedgerows, or built structures; and the extent of mitigation planting.

The assessment will assume that the change would be seen in clear visibility and under appropriate lighting conditions and considers:

- The attributes of the landscape where the development would be sited (i.e. the scale and character of the landscape in which it would be viewed; the presence or absence of landscape features; and the scale/enclosure of the landscape within the field of view);
- The design and siting of the development itself; and
- The atmospheric conditions prevalent at the time of viewing.

Criteria used to assess the magnitude of predicted landscape and visual amenity effects range from Very High to No Change and are set out below in Table 17.3.

Table 17.3: Magnitude criteria

Magnitude of Change	Criteria
Very High	<p>Landscape Receptor Permanent change to landscape character; All/most key characteristics/features/elements of the landscape would be affected; The proposal would be completely incompatible or inconsistent with the area and its surroundings.</p> <p>Visual Receptor The proposal would be completely incompatible or inconsistent with the area and its surroundings. Total permanent/long term loss or major change in the existing view, change very apparent involving high level of change in character and composition of baseline, i.e. pre-development view.</p>
High	<p>Landscape Receptor Permanent change to landscape character; Numerous key characteristics/features/elements area would be affected; The proposal would introduce prominent features/elements which would be inconsistent with the existing character and would affect large areas of the landscape.</p> <p>Visual Receptor The proposed development would form/remove the dominant feature/focus of the view; The view would be fundamentally changed as a result of the proposed development.</p>
Medium	<p>Landscape Receptor Permanent change to landscape character; Some key characteristics/features/elements would be affected; The proposal would introduce some elements which would be inconsistent with the existing character which would affect a limited area of the landscape.</p> <p>Visual Receptor Notable partial/long term loss or alteration to the existing view, change apparent involving change in character and composition of baseline, i.e. pre-development view.</p>
Low	<p>Landscape Receptor Long-term or temporary change of landscape character; Very few key characteristics/features/elements would be affected; The proposal would introduce some elements which would affect a very limited number of key characteristics/features/elements within a highly localised area of the landscape.</p> <p>Visual Receptor Minor permanent/long term loss or alteration in baseline, i.e. pre-development view, change will be distinguishable from the surroundings whilst composition and character of view, although altered will be broadly similar to pre-change circumstances.</p>

Table 17.3: Magnitude criteria continued

Magnitude of Change	Criteria
Very Low	<p>Landscape Receptor Long- term or temporary change to landscape character; The key elements of the proposals would lead to no discernible change to the key characteristics of the landscape character; The proposal would introduce a few elements which would affect a very limited number of key characteristics/features/elements within a highly localised area of the landscape.</p> <p>Visual Receptor Very minor permanent/long term loss or change in the existing view, change barely distinguishable from surroundings. Character and composition of view substantially unaltered.</p>
No Change	<p>Landscape Receptor There would be no change to the key characteristics of the landscape or any effect on any landscape receptors.</p> <p>Visual Receptor No Change would be perceptible either positive or negative.</p>

17.4.3.3 Significance of Effect

The two principal criteria determining significance are the sensitivity of the receptor to change as a result of the development, and the magnitude of the impact or effect. In order to come to an overall conclusion on the significance of landscape and visual effects, the separate judgements about the sensitivity of the receptors and the magnitude of the effects need to be combined.

The assessment will combine the sensitivity of the receptors with the predicted magnitude of impact in order to establish the significance of the landscape and visual effects as shown in Table 17.4.

Table 17.4: Significance of effect matrix

Magnitude of Change	Sensitivity to Change					
		Very Low	Low	Medium	High	Very High
Very High		Moderate	Moderate/Major	Major	Major	Major
High		Minor/Moderate	Moderate	Moderate/Major	Major	Major
Medium		Minor	Minor/Moderate	Moderate	Moderate/Major	Major
Low		Negligible/Minor	Minor	Minor/Moderate	Moderate	Moderate/Major
Very Low		Negligible	Negligible/Minor	Minor	Minor/Moderate	Moderate
No Change		No Effect	No Effect	No Effect	No Effect	No Effect

Based upon the significance matrices within Table 17.4 the assessment of potential and residual landscape and visual effects can be described as being:

- **Major 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 and uncharacteristic of the landscape. The development would be visually intrusive and would have an adverse effect upon the landscape;
- **Moderate Adverse:** The development would cause considerable permanent loss or alteration to one or more elements of the landscape, to include the introduction of elements that are

prominent but may not be substantially uncharacteristic of the landscape. The development would be visually intrusive and would have an adverse effect upon the landscape;

- **Minor Adverse:** The development would cause minor permanent and/or temporary loss or alteration to one or more elements of the landscape. This includes the introduction of elements, which may not be uncharacteristic of the existing landscape. The development would cause limited visual intrusion;
- **Negligible:** The development would cause very limited changes to the landscape and/or views, but creates no significantly discernible effects;
- **None:** There would be no effect as a result of the development on either the landscape character or the visual amenity of the built environment;
- **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 views;
- **Moderate Beneficial:** The development would fit in well with the scale, landform and existing pattern of the landscape, and maintain and/or enhance the existing landscape character. The development would create a noticeable but improved change in the views; and
- **Major Beneficial:** The development would fit in very well with the scale, landform and existing pattern of the landscape, and bring considerable enhancements. The development would create a significant improvement in views.

17.4.4 Duration of Effects

Construction works for the development would occur over a three year period from 2016 to 2019, with the construction of the harbour to be undertaken in phases.

17.4.5 Consultations

Consultations have taken place with Scottish Natural Heritage (SNH) as part of both the iterative design and scoping stages of the development. The location and number of representative views and Photomontages were selected in consultation with SNH.

17.5 Baseline Conditions

17.5.1 Designations

17.5.1.1 Historic Landscape

Whilst there are no listed buildings on the site itself, there are two listed structures in the vicinity: Girdleness Lighthouse and Fog Signal about 50 m to the north of the site which is a Category A building; and St Fittick's Church and churchyard approximately 200 m west of the site which is Category B listed. To the north and north-west, there is a large concentration of listed buildings within the city centre area of Aberdeen and a smaller cluster approximately 1.5 km to the north-west of the site. The disused fisherman's hut on site, though not designated, provides a historic link to the bay's past usage.

The site does not contain any Scheduled Monuments. However there are a number within the periphery/locality of the site. The closest two features are St Fittick's Church approximately 10 m to

the west, and the Torry Battery approximately 500 m to the north of the site. Other Scheduled Monuments include Balnagask motte (600 m to the north-west), and Tullos Cairn (500 m to the south-west), Crab's Cairn (500 m to the south), Baron's Cairn (1 km to the south-west), Cat Cairn and Dyke on Tullos Hill/Loirston Country Park (1.5 km to the south-west).

The site is not located within a conservation area. The nearest conservation area, 'Footdee' is located to the north-west of the site on the north side of the River Dee within the old harbour area. There are a number of conservation areas situated within close proximity to each other within the city centre of Aberdeen for example 'Ferryhill, Marine Terrace and Bon Accord/Crown Street' approximately 2.5 km to the north-west. The only exception not located within Aberdeen city centre is the area of 'Cove Bay' situated approximately 3.5 km to the south of the site.

Further information on the above historic assets is contained within Heritage Desk Based Assessment and Impact Assessment reported in Chapter 24: Archaeology and Cultural Heritage.

17.5.1.2 Inventory of Gardens and Designed Landscape

Within the area surrounding the site there is only one park/garden listed under the 'Inventory of gardens and designated landscapes in Scotland': Duthie Park, which is located on the north side of the River Dee (2.7 km west of the site), and was first opened to the public in 1883. The park contains a range of features from a bandstand, to lawn areas, play areas, fountains, ponds, tree and shrub planting. The most notable feature are the David Welch winter gardens which contain tropical and arid climatic range plants. The glasshouses contain the second largest collection of bromeliads and of giant cacti within the UK.

The local topography provides a natural barrier and screening of views from Duthie Park to the development.

17.5.1.3 Greenspace and Access

Aberdeen city has a strategic network of greenspaces connecting various, urban and rural green spaces habitats and species. These spaces have been tiered under Core, Linkage and Stepping Stone categories. Most of the surroundings of the Site fall under the 'Core' Green space network (illustrated on Figures 17.2a and 17.2b), which are subject to Policy NE1 of the Aberdeen Local Development Plan. For further detail on the Greenspaces in and around the site refer to ES Appendix 17-B. Relevant elements of the Green space network have been assessed within this chapter

The following access routes (illustrated on Figure 17.2b: Access) are briefly described below in the context of recreation and the potential effects of the development on their amenity. However, the actual routes are discussed in more detail within Chapter 18: Traffic and Transport.

Running alongside the site is the National Cycle Network Route 1 (NCN1); Coast and Castles North (Edinburgh to Aberdeen) section, which follows the Coast Road in the south from Cove Bay and joins with Greyhope Road to the north of Nigg Bay before crossing the River Dee into Aberdeen city centre. This route also forms part of the European cycle route EuroVelo Route 12 and the North Sea Trail which join with other countries running around the North Sea coastline to support sustainable tourism and explore the cultural heritage of communities along the North Sea coast.

There is one route listed as 'other' on the National Catalogue of Rights of Way (CROW) and Other Routes that lies directly within the site. Footpath GC31 is on the Catalogue of Rights of Way (CROW), is part of the Aberdeen Coast Path, and starts near the Scottish Water sewage treatment works in Nigg Bay, travels around Girdle Ness headland and runs along the coastline towards Cove Bay. This route overlaps with NCN 1, EuroVelo Route 12 and the North Sea Trail.

Under the Aberdeen City Council Core Paths Plan 2009, a number of access routes are located within the periphery of the site. Core Paths were enacted under the Land Reform (Scotland) Act 2003. One of the access routes, Core Path No. 78, follows the coastline around Nigg Bay, and parts of the site boundary overlap with the line of the route. Core Path 78 runs from the centre of Aberdeen, over the River Dee and south out towards Cove Bay. This forms part of the Torry Coastal Trail and Torry Industrial and Maritime Trail, a key tourist/leisure path with key destination features along the route, such as the Walker Point Lighthouse. It also overlaps with GC31, NCN 1, EuroVelo Route 12 and the North Sea Trail as they pass round Nigg Bay and the Girdle Ness headland.

Other routes close to the proposal site which join with Route 78 include Core Path No. 104, which runs along St Fittick's Road; Core Path No. 108 to the west of the site, running through the residential area of Balnagask and park; and Core Path No. 103 which runs from Nigg, through Tullos and joins with Core Path 104.

Tory Battery and the Girdle Ness headland are popular locations for watching dolphins. In 2015 Dolphinwatch attracted an estimated 5,000 visits, with visitors coming from abroad as well as from across the United Kingdom. Bottlenose dolphins were present on 95% of the days that the RSPB were onsite with a Dolphinwatch group.

17.5.1.4 Nature Conservation

There are four Local Nature Reserves (LNR) within the locality of Aberdeen, of varying size and habitat diversity. The most notable sites to the north/north-west of Aberdeen include the Donmouth LNR, and the Den of Maidencraig. However Kincorth Hill LNR is closest to the Site, which is situated within the area of Kincorth to the southwest of Aberdeen. The area of Loirston Country Park and Tullos Hill adjacent to the site provides a connecting 'greenfinger' towards this area. Kincorth Hill includes *"a variety of different habitat areas including coniferous, and deciduous woodland, grassland with ponds and heaths."*

There are two Local Nature Conservation Sites (LNCS) within close proximity to the site providing a range of habitats for local flora and fauna as well as beneficial access to open space to local residents. The Site is adjacent to the Balnagask to Cove LNCS. This is described as an area including *"coastal cliffs, caves, shingle beaches, coastal and neutral grassland, as well as European dry heath and coastal heath"*.

Tullos Hill is located adjacent to the site and is designated as a Local Nature Reserve. Tullos Hill, is described as forming *"part of the 'Gramps'.... Comprising a mixture of broadleaved woodland, rank neutral grassland, scrub woodland, bracken, acid grassland and dry heath. In addition there are small patches of lowland birch woodland and wet heath."*

17.5.1.5 Sites of Special Scientific Interest (SSSI)

The site includes one SSSI within the development area, located in the south-west of Nigg Bay. The 4.47 hectare SSSI is designated under geological criteria, due to the presence of glacial deposits. The successional sediment deposits left behind due to the last Ice Age provide a unique understanding of the glacial history of Scotland, and previous course of the River Dee prior to the new route being cut through the current harbour. The Nigg Bay SSSI geological feature contributes to the seascape in this locality and whilst it is a feature of national importance, the seascape contribution is at a local level. Further information on the SSSI is provided in Chapter 9: Ground Conditions and Contamination, and Chapter 10: Nature Conservation.

The next closest SSSI within the locality is at Cove, situated along the coastline to the south, and includes 15 hectares of land of biological interest.

17.5.2 **Land and Seascape Features**

17.5.2.1 Trees, Woodland and Existing Vegetation

The prevailing vegetation character of the area is that of tufted coastal meadow grass on banks, cliffs and headlands. The close cropped nature of the vegetation emphasises any undulating landform. To the south, the vegetation type changes in the open coastline fields to closely cropped grass due to the presence of livestock on agricultural pasture.

There is very little in the way of tree cover or large areas of native scrub and woodland. The only isolated area of larger vegetation is a strip of scrub to the rear of the water treatment works, following along the line of the railway embankment. To the west, in the area of Tullos Hill the existing vegetation changes with a greater emphasis on the natural coastal character of minimal maintenance tufted coastal grass, large sweeping areas of gorse, and isolated low scrub. Tullos Wood is a mixed deciduous and evergreen woodland. A large portion of the hill towards the east near Nigg Bay has been recently planted with a mix of native transplants.

St Fittick's Community Park lies directly to the west of the bay shoreline (and west of the Coast Road) and has been planted with a mix of deciduous and evergreen native plants (part of the East Tullos Burn and wetland project). The golf course to the north of the site includes patches of gorse and bramble, which provide a strong contrast to the short mown bright green grass of the golf course.

17.5.2.2 Landform and Topography

In general, the topographic contours of the area follow the route cut through the landscape by the River Dee. Land towards the centre of Aberdeen is relatively flat following the coastline up towards the River Don. The land begins to rise towards the west, around the area of Kingswells in the north and Cran Hill in the south, rising in a westward direction.

The local topography creates a well contained cove around Nigg Bay, with higher landform to the north and south. The higher ground stretches out from Girdle Ness to South Kirkhill/top of St Fittick's Road 35 m Above Ordnance Datum (AOD) in the north and Greg Ness and Tullos Hill 55 m AOD in the south. These two 'linear' forms create an area of flatter ground towards the centre of the crescent, which produce a perceived broad open valley stretching from Balnagask towards Kincorth. The other

additional high point within the topography in the periphery of the site is at Torry at approximately 50 m AOD.

The area of the shoreline to the west of Nigg Bay is fairly flat, and gently slopes down from the coastal grassland area at 4 m AOD to 0.5 m AOD at the tidal zone. Overall the whole of Nigg Bay provides a fairly consistent sea bed level which is assumed to range -5 m up to the headland areas.

The landform of the local area when viewed from higher ground at Tullos Hill, appears rolling, and undulating following the contours of isolated high points, hills and the course of the river valley. Locally around the site the landform changes from one side of the bay to the other. In the north is the rocky shoreline around Girdle Ness headland with a significant drop to the sea.

The most noticeable higher ground is towards Girdleness Lighthouse, where a prominent angled cliff face near to the old fishing station abuts the sea with a rocky outcrop. A concrete retaining structure is positioned as the cliff meets Greyhope Road and the car park area. The car park is the flattest point in the area, from where it gently profiles off into the sea, with the shoreline creating a mixed sandy and pebbly beach with some larger rocks.

To the north of Greyhope Road is the characteristic rolling topography of the humps and hills within the coastal links golf course, which joins with higher ground towards Girdleness. From the point of the water treatment works, the shoreline becomes gradually more pebbly and rocky until Greg Ness where prominent rocky outcrops jut out into the sea creating the headland feature. The shoreline to this point gradually rises from the sea onto a smaller shelf, whilst rising steeply to meet the point where the coast road and railway line cut through the landform of Tullos Hill.

The smooth flowing profile of Tullos Hill, behind the water treatment works, provides a distinctive landform when compared to the northern headland with its rolling nature. Further afield away from the periphery of the site, much of the distant topography is not noticeable when viewed from the bay. However the higher ground at the nature reserve of Kincorth Hill 100 m AOD, with Tollochill Wood 88 m AOD beyond, are the most prominent features.

17.5.2.3 Land and Sea Use

Currently there are a range of recreational uses in the area of Nigg Bay. The existing car park close to the junction with St Fittick's Road allows people to access to the bay and coastal paths, with other opportunities including bird watching. Although Aberdeen is already well serviced with sandy beaches to the north of the River Dee, Nigg Bay is easily accessible and offers an alternative for communities in the south.

Historically Nigg Bay was used as an area for fishing and although fishing has declined, fishing is still active in the bay today (see Chapter 22: Commercial Fishing). Historic use is evident in the disused fishing house on the north side of the bay. The area just to the north and west of Nigg Bay has a long association with agriculture, and examples of medieval ridge and furrow still exist on the area around Balnagask golf course. The predominant land use of the area has changed with the area now being used for recreation, from golf, nature watching, to the walking/cycling routes of the Coastal Trails and of specific interest, such as the Torry Industrial and Maritime Trail.

To the north of these areas is the winding course of the River Dee with the commercial harbour of Aberdeen at the mouth where it meets the sea, whilst the surrounding area is urban. To the west of Nigg Bay the land use becomes more residential with the urban grain prevailing. The area of Balnagask closer to the coast, has a large area of greenspace (St Fittick's Park) featuring play areas, the ruins of St Fittick's church and numerous paths. In 2012 the City Council funded the restoration of East Tullos Burn in St Fittick's Park, from a hard-engineered straightened channel into a more natural stream and associated functional floodplain. An important design element was the creation of wetlands and associated off-channel features to provide the same function as a Sustainable Urban Drainage Systems (SUDS), but in a more aesthetic and natural way. To the south the land use generally becomes more industrial with the industrial estates of Tullos and Altens to the south-east. Situated between the two industrial sites are the areas of Tullos Hill and Loirston County Park which are primarily used for leisure by local residents, and also forms part of the nature reserve. Along the coast the prevailing land use is pasture and rough grazing land, which follows the coastline from Greg Ness and Doonies Hill to Cove in the south.

17.5.2.4 Tranquillity/Noise/Light

Although Nigg Bay is beyond the city fringe and open to the sea, it is not a wild and tranquil zone. Whilst the predominant element is the sea and coastal influence with a degree of quiet, at night, the roads, railway, water works, harbour entrance, adjacent residential and industrial areas will all generate noise and light on an occasional basis. These characteristics will be more apparent on some days more than others as they will be dependent on local weather conditions.

17.5.3 **Character**

17.5.3.1 National Character

SNH has recorded 21 regions covering the whole of Scotland. These regions are classified as having their own distinct natural heritage character. The identity of these regions results from the interaction of geology, landforms, landscapes, wildlife and land use. The site is located within the south-western edge of the region classified as Zone 9 North East Coastal Plain. The key characteristics of this area are described as:

"The landform of almost all of this zone is gently undulating. Inland, to the west and south, it begins to rise into the higher ground of the adjacent zones and this western fringe is where the highest ground of the zone is located (1,531 feet at Glen of Foundland).

Coastal landforms are both extensive and distinctive in this zone which has east and north facing coastlines. Rocky cliffs and coasts occur along much of the Moray Firth coast, and as promontories on the eastern seaboard. Dramatic, sweeping sandy bays with extensive dune systems are typical of the North Sea edge, where they form one of the longest extents of such coast in the UK.

Rivers and river valleys are locally important landform features. In the zone they form the lowest reaches of rivers that rise in the Cairngorm Mountains further inland."

17.5.3.2 Regional Character

The site and surrounding area forms part of a series of regional landscape character assessments. The site is covered by the No. 80: Landscape Character Assessment of Aberdeen, by SNH. The assessment was carried out in 1996, and since that time there is potential for significant change in development patterns and pressures to have taken place. However the information is useful for providing an overview of the key landscape/coastal characteristics of the area.

The No. 80 Landscape Character Assessment of Aberdeen describes 27 landscape character areas. The site and most of its surroundings fall into three different areas: **Area 23:** Girdle Ness/Nigg Bay, **Area 24:** Kincorth and Tullos Hills, and **Area 25:** Doonies to Cove Coast. These individual character areas are described in more detail below. Overall the character areas can be described as:

- Area 23: In good landscape condition, and a locally valued landscape;
- Area 24: In fair landscape condition, and a locally valued landscape; and
- Area 25: In good landscape condition, and a locally valued landscape.

Area 23: Girdle Ness/Nigg Bay

This Landscape Character Area (LCA) is described as *“exposed and elevated headland of Girdle Ness at the mouth of the River Dee, and the shallow depression of Nigg Bay and its hinterland. The area is bounded to the south by the hummocky form of Tullos Hill. The shallow area inland from Nigg Bay was a previous location of the Dee estuary. The landform of the area varies from the craggy shoreline rocks to the smooth grassy expanses of the golf course and Nigg Bay hinterland areas.*

There is little tree cover within the area, most of which is devoted to recreational uses as public open space and a golf course. Close-mown grass forms most of the vegetation cover of the area. There is very little variation from this, despite the proximity of the area to the urban edge.

The only buildings within the area itself are the Old Torry Battery, Girdle Ness Lighthouse, the ruins of St Fittick’s church, and the long sewage outfall into the sea. The western edge of the area is dominated by the adjoining urban developments of Torry and Balnagask. The southern extremity adjoins the main railway line south and the rising ground of Tullos Hill.... Coastal roads run around the rim of the area.

From within the area outward views are varied, ranging from the urban area and the rising flank of Tullos Hill to views of the sea eastward of Nigg Bay. From Girdle Ness and the high ground south of Torry there are extensive northward views across the harbour, city, and the beach curving away towards Balmedie. From the lower ground close to the railway line views are possible to the industrial estates at Tullos as well as the residential areas of the city. Girdle Ness is a focal point from any areas outside the character area.”

The key characteristics of this area include:

- *“Distinctive coastal landform;*
- *The open character of the landscape, particularly close to the coast;*

- *The large expanse of mown grassland between the rail and Balnagask;*
- *Occasional but distinctive buildings e.g. ruined chapel, sewage treatment works; and*
- *Views of the city and coast.”*

Area 24: Kincorth and Tullos Hills

This LCA is described as “gently rounded linear ridge of elevated ground comprising Kincorth and Tullos Hills. This forms the south-eastern horizon to the city and is an important skyline feature. From the top of the hills, panoramic views can be obtained of most of the city and its surrounding countryside. The eye is particularly drawn to the line of the River Dee and the Grampian Foothills beyond.

The hills are predominantly used for recreation... relics of previous use can be found in the shape of bronze age burial cairns, wartime camps and nineteenth century quarries. Few trees are located on the hills, although the remnants of Tullos Wood located in the area. There are pockets of heather heath which area being invaded by gorse.

There is no settlement within this area, but it is surrounded on all sides by urban development in the form of roads, industrial estates, housing, pylons and radio masts.”

The key characteristics of this area include:

- *“The hill topography forms a distinctive edge to the city and screens some industrial development from parts of Aberdeen;*
- *It has an open character and is dominated by heath vegetation; and*
- *It allows wide views over the city.”*

Area 25: Doonies to Cove Coast

This LCA is described as consisting “of a narrow strip of farmland which slopes gently to the tops of adjacent rugged coastal cliffs. Extensive views eastwards to the sea can be gained, although these may be obscured in parts by the railway embankment. Views inland are generally restricted due to rising land and the industrial development which is located on it.

Landuse is mainly agricultural... recreation is connected with Doonies Model Farm in the north. There is also a coastal footpath along the top of the cliffs. Exposure and salt spray limit the range of vegetation. However, there are some wind-stunted trees around Altens Farm, Burnbanks and Loirston Manor. Apart from this, agricultural grassland is the dominant vegetation type.

The main settlement in the area is the seasonal fishing village of Burnbanks. Scattered traditional-style farmsteads are located throughout the area, and there are views to the large Altens industrial estate that is located immediately west of the area. Minor roads traverse the area, and the main Aberdeen-Edinburgh railway route follows the line of the coast.”

The key characteristics of this area include:

- *“Coastal cliffs;*
- *The open, agricultural character;*
- *The presence of a main railway line;*
- *Minor roads;*
- *Views to the sea; and*
- *Views to the adjacent industrial estate.”*

17.5.3.3 Local and Coastal Character

Local *Landscape Character Areas* [LLCA]

Overview of LLCA: The site is situated in a natural bay, within a broad valley created by higher ground to the immediate north and south. These coastal headland areas have steep, rocky outcrops which jut out into the sea. The majority of the site, includes the area of coast called Nigg Bay from Girdle Ness in the north to Greg Ness in the south. The central area of Nigg Bay is flatter with a weathered rocky shoreline, and the car park situated off St Fittick’s road offers a good visual prospect over the bay.

The site is bordered in the north by Balnagask golf course, and Girdleness Lighthouse with an associated fog horn, where the land rises to the remains of the Old Battery before falling away to the north down to the mouth of the River Dee. To the west the residential areas of Torry and Balnagask are evident on the higher ground following the ridgeline from Girdle Ness. To the immediate western boundary is the remains of St Fittick’s Church, and the sewage treatment works adjacent to the site boundary where the perceived ‘valley’ in the landform follows the line of the Aberdeen – Edinburgh railway line. In the south the land rises again up towards the Coast Road and Tullos Hill, creating the steep rocky shoreline which drops off into the sea.

The following key characteristics apply to the local landscape character and are illustrated on Figure 17.2c: Landscape and Coastal Character Areas.

LLCA A: Golf Course

Key characteristics:

- Expansive area of rolling green managed land;
- Long open views to the sea to the east and south-east; and
- Distinctive location for golf a course.

LLCA B: Managed Grass and Woodland

Key characteristics:

- Area of mown grass and young woodland with a network of footpaths, with play areas;
- Views of Nigg Bay and out to sea;
- St Fittick’s Church is a key landmark within this LLCA; and
- Provides a greenspace between Aberdeen city’s urban edge and the coast.

LLCA C: Industrial Units/Works

Key characteristics:

- Several discrete areas dedicated to industrial use;
- Area comprises the industrial characteristics arising from the adjacent East Tullos and Altens Industrial Estates and the water works buildings within Nigg Bay;
- Characterised by medium to large industrial units, industrial equipment such as cranes and machinery, soil/storage heaps and numerous access roads/car parks; and
- Higher levels of noise than adjacent coastal/countryside area.

LLCA D: Rough Hill Pasture

Key characteristics:

- Area situated in and around Tullos Hill and high ground;
- Largely wooded with areas of grazing;
- Publicly accessible area with footpaths connecting to the long distance coastal trail;
- Acts as a buffer between East Tullos Industrial Estate and the coast; and
- Some expansive views of the coast, Girdleness Lighthouse and the open sea from the western section of this area.

LLCA E: Reclaimed Grassland

Key characteristics:

- Part of Tullos Hill, previously used as a landfill site; and
- Predominantly reclaimed grassland and new tree planting; and
- Characterised by long stretches of steel fencing and numerous vent pipes associated with the reclamation works.

LLCA F: Grazed Pasture

Key characteristics:

- Distinct area of farmland by the coast;
- Small fields of livestock grazing;
- Doonies Rare Breed Farm located within old farm buildings;
- Railway lines divides the area into two sections, although both sides have the same characteristics of grazing pasture; and
- Extensive views out to sea and along the coast to rocky headlands and key landmarks such as Girdleness Lighthouse.

Local Coastal Character Areas [LCCA]

Overview of LCCA:

Maritime Influences: Nigg Bay sweeps round in a distinct curve terminating at Girdle Ness to the north and Greg Ness to the south. The bay is the transition zone between the rocky coast to the south and the sandy beaches to the north, of Aberdeen. At Nigg Bay the coast retains its rocky features (both rocky cliffs and benches), but is large enough to have built up a shingle beach which is visible off-

shore. The central section of the bay is covered in shingle with a band of sand which is further exposed at low tide. The coastal edge along the headlands is rocky and at low tide these rocks are further exposed giving a rougher texture to the coast.

Maritime Development and Activity: There is frequent boat traffic off shore due to the close proximity to Aberdeen Harbour. At present boats converge on a point just north of Girdle Ness and then proceed to enter the harbour. The existing harbour structures (North & South piers) remain out of sight and it is only the marine traffic off shore that is noticeable. Girdleness lighthouse is the most striking land based maritime feature and sits on a prominent position between Greyhope Bay and Nigg Bay. The bay is fished by a few local fisherman. Evidence of past use connected to the sea includes some salt pans and a kelp works, lying just behind the beach in the central part of the bay. An underground Victorian sewage system is noticeable via above ground structures, including the Valve House and the Outfall (visible at low tide).

Character and Experience of the Coastline: Generally, this section of coastline faces east with localised variation. The landscape is expansive with predominantly grazed/amenity grassland, with no trees and little in the way of woody vegetation on the high ground. On the higher ground above the cliffs there is a sense of openness and exposure, which contrasts with the more intimate bays. In some locations on higher ground Nigg Bay is not visible and the view continues uninterrupted up the coast or out to sea. Elsewhere, the full sweep of the bay is revealed. Within Nigg Bay a sense of enclosure is reinforced by the two headlands (Girdle Ness and Greg Ness) that extend out into the sea on either side. The experience of being close to the sea is present, but is visually tempered by the roads/carpark and tall residential flats that dominate the hinterland.

Character of Immediate Hinterland: The hinterland varies in character along the coast line. To the south it comprises farms, grazed fields and is characterised by its openness. To the west of the beach, the landscape moves from shingle bank, to rural road, newly planted woodland, historic Church and immediate grounds, close mown amenity grass and then the residential tower blocks in Balnagask forming clear landmarks. To the north the amenity grassland of the golf course dominates. To the south west are the water works, the former landfill site, and the industrial areas on the edges of Tullos Hill. Transport links are also a key feature with the coast road running round the back of Nigg Bay beach and linking in with St Fittick's Road. The main line railway runs along the south and south western side of the bay, before it curves west into the city of Aberdeen and due south, along the coast.

Settlement Pattern, Built Development and Infrastructure: A large area of residential development lies to the west of the bay, and includes 2 to 3 storey houses and flats and high rise tower blocks. The rail infrastructure and roads are prominent. The Coast Road/Greyhope Road and St Fittick's Road are key access routes, providing wide panoramas over the bay and sea beyond. A large car park near the junction between the coast road and St Fittick's Road provides a vantage point for viewing the bay and accessing the beach.

Wildness/Isolated Coast: Whilst the coastline to the south of Nigg Bay is undeveloped and rocky, the character of the coast changes at Nigg Bay. The headlands (Girdle Ness and Greg Ness) retain the rocky edge, whilst the bay is more sheltered with a shingle beach. The carpark immediately behind the

beach has been built up with a section of sea wall. To the north of Girdle Ness, the influence of the harbour is more apparent with breakwaters and shipping traffic. The bay is well-used by recreational users including golfers. The key characteristic of the bay is one of an actively used and managed landscape, rather than undeveloped coast.

Visual Amenity: From the coast there are long views out towards the sea and this includes the golf course, which has wide panoramic views. Rail and road users also have extensive views of the coast and beyond. From the sea, the view into the Bay is from a relatively short distance as it is contained by the headlands which curtail the extent of the view.

The following key characteristics apply to the local coastal character and are illustrated on Figure 17.2c: Landscape and Coastal Character Areas.

LCCA 1: Headland and Rocky Shore

Key characteristics:

- Rocky coastline interrupted by a few pockets of shingle beach;
- Panoramic views from the cliff tops out to sea;
- Sense of openness and distinctive natural rugged landscape;
- Vegetation is limited to close cropped grass; and
- Girdleness Lighthouse is a key landmark and popular site for dolphin watching.

LCCA 2: Shingle Beach

Key characteristics:

- Crescent shaped section covered with shingle and some sand which is exposed at low tide;
- LCCA has a sense of containment because of its natural shape bounded by Girdle Ness and Greg Ness to the north and south;
- Easily accessible area serviced by a car park off the coast road;
- Marine traffic off-shore is part of the scene; and
- Southern part designated as an SSSI for its geological value.

LCCA 3: Harbour Entrance

Key characteristics:

- Rocky shoreline with man-made breakwater structures;
- High levels of ship/boat movements in and out of harbor; and
- Generally, a contained feel with views of the harbour and associated infrastructure dominating.

17.5.4 Visual Amenity Baseline

The assessment of visual amenity is based on a number of representative views taken from the surrounding environs of the site. To assist with the assessment, GIS analysis of the topography of the site and surrounding area was carried out based on a Zone of Theoretical Visibility (ZTV). These zones identify the relative theoretical visibility of the site from the surrounding areas but do not account for the effects of intervening vegetation or built form. The ZTV analysis helps to identify where visibility may exist and provides a focus for field work. The following descriptions cover the baseline composition of views and likely receptors, and refer to the viewpoint locations illustrated on

Figure 17.2d: Representative Views and Photomontage Locations. Images of these views are also included in Figures 17.3a to 17.3o: Baseline Photo Viewpoints.

17.5.4.1 Visual Analysis

As illustrated in the visual analysis (Figures 17.1a to 17.1g: Terrain Analysis and Zones of Theoretical Visibility), the site is located to the south-east of the urban settlement of Aberdeen. To the north is Girdle Ness and an extensive area of golf course with notable features such as the Lighthouse. To the east is coastline and the North Sea. Whilst the southern area becomes more farmland interspersed with industrial land use, the west is parkland with the residential area of Balnagask. The site is clearly visible from the west and north, especially from the more accessible elevated locations. The site is also seen from its immediate southern boundary. Further south the topography of the coastal fringe screens out local views down into the bay.

There are a series of six ZTVs that illustrate the theoretical visibility of the site (Figures 17.1a – 17.1g). The maps are based on a series of height bands varying from existing baseline to proposed development up to 25 m in height. These ZTVs are colour coded to assist with the analysis of visibility as follows:

- **Dark Blue:** no visibility of any of the site area;
- **Light Blue:** up to 25% of the site area is theoretically visible;
- **Yellow:** up to 50% of the site area is theoretically visible;
- **Orange:** up to 75% of the site area is theoretically visible; and
- **Red:** up to 100% of the site area is theoretically visible.

17.5.4.2 Baseline ZTV

Taking the worst case scenario of up to 25 m AOD as an eventual height parameter of ships using the proposed development (Figure 17.1g), the main cone of potential visibility extends south-westwards towards Kincorth. This cone of vision extends approximately 1.5 km towards the urban area of Torry and includes Balnagask golf course. An adjacent cone, disconnected from the other, travels along the coastline for a distance of approximately 3 km towards Cove Bay.

The principle cone of potential visibility is largely yellow with a greater percentage of red and orange areas nearer to the perimeter of the site. Overall, this suggests that the shipping in the harbour may be seen from areas adjacent to the site. The red and orange zone covers areas of Tullos Hill nature reserve in the area of Doonies Hill northern aspect as well as the lower area of Balnagask and up to Torry Academy. The secondary cone also extends southwest from the site, and also covers portions within the site on its southern boundary. The red/orange zone closest to the site is limited, while further south the colour changes to green/blue showing a limited potential visibility. Apart from these two main cones of potential visibility, the ZTV also identifies other potential areas:

- To the north along part of the sea front and the area around Seaton are areas of orange. However, views are highly unlikely, due to distance and likely obstructions (such as buildings) that will limit any potential views into the site; and

- To the north the urban area of Stocket Hill, Rose Hill and Kingswell, are within another red band, but this is also less likely to be visible due to the built up nature of the area and city centre of Aberdeen.

Field survey work subsequently revealed that the presence of built form, topography and the occasional block of vegetation in the landscape acts to screen the site from many potential areas of visibility. In particular the field work found that:

- From the north the views to the site are screened by the natural landform of Girdle Ness and the natural valley created by the River Dee. However, potential views remain closer towards the northern boundary of the site;
- From the east, the site is clearly visible from its immediate surroundings and further out to sea. This is due to the openness of the coastline, the nature of the cove of Nigg Bay and the unobstructed views into the area;
- From the south, the site is partly concealed by the natural topography. However the nature of the landform of Tullos Hill and Greg Ness provides some elevated views down into Nigg Bay; and
- From the west, the site is potentially more visible as there is little vegetation within the immediate surroundings of the site to provide screening, and topography provides for elevated views towards the site, especially from Torry.

The visual analysis has identified the following principal receptor groups which may be sensitive to visual change within the site:

- Balnagask/Nigg Bay golf course users (Recreational/Leisure);
- NCN1/EuroVelo 12/North Sea Trail users and other promoted routes (Recreational);
- Sea Breeze Cottage (Residents);
- Nigg Bay car park and users (Recreational/Leisure);
- Balnagask (Residents);
- Torry (Residents);
- Doonies Farm and Picnic area (Recreational/Leisure);
- Railway users on line from Aberdeen to Edinburgh (Recreational/Leisure/Business);
- Walker Park Users (Recreational/Leisure);
- Tullos Hill Nature Reserve (Recreational);
- Kincorth Hill Nature Reserve (Recreational);
- Kincorth (Residents);
- Girdle Ness headland/Coast Road/Greyhope Road Users (Recreational/Local Road Users);
- Altens Industrial Estate Workers (Business);
- St Fittick's Road (Local Road Users);
- Kingswells/Newpark (Residents);



- Users of Loirston Country Park/Tullos Woods (Recreational);
- Users of the Esplanade and seafront and Donmouth Nature Reserve (Recreational); and
- Sea vessels users along coast.

17.5.4.3 Representative Views

The views listed in Table 17.5 are considered as representative of the above receptors and have been agreed with SNH as a definitive list for assessment purposes.

Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations)

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 1	View from Balnagask Golf Course/towards Greyhope Road looking south-west towards the site	396489, 805401 Approx. 450 m to the north-west of the site	Golf course users	Medium (Visitors to locally valued landscapes, enjoying the view)	Extensive views from the golf course over Nigg Bay towards the sea. Almost the entire site is seen within this view.
Viewpoint 2	View from footpath along the coastal walking and cycling trails (including Dolphinwatch participants who explore the headland).	397219, 805272 Approx. 100 m to the north	Access users	Medium (Visitors to locally valued landscapes, enjoying the view)	Extensive views from the coastal walk over Nigg Bay towards the sea. Almost the entire site will be seen within this view.
Viewpoint 3	View from Greyhope Road (including Dolphinwatch participants who explore the headland) in front of Sea Breeze Cottage looking south towards the site.	397195, 805275 Approx. 80 m to the north	Pedestrians & recreational users on footpath.	Medium (Visitors to locally valued landscapes, enjoying the view)	Extensive views from the road in front of the cottage over Nigg Bay towards the sea. Most of the site is visible from here.
			Motorists & tourists on Greyhope Road including Commuters/residents/tourists	Medium (People travelling local roads with purpose of enjoying the view)	
			Residents of Sea Breeze Cottage	High (Residents in locally valued landscapes with un-interrupted views in the direction of the site)	
Viewpoint 4	View from car park opposite Nigg Bay off Coast Road looking east into the site.	396601, 804981 Within the site boundary.	Stationary motorists, recreational/tourists purposes	Medium (People travelling local roads with purpose of enjoying the view)	Extensive views into Nigg Bay and out towards the sea. Most of the site is visible from here.

Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations) continued

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 5	View from Coast Road at entrance to treatment works, looking north-east.	396489, 804487 Approx. 60 m to the south-west	Motorists on Coast Road including Commuters/residents/tourists	Medium (People travelling local roads with purpose of enjoying the view)	Extensive views from the road over Nigg Bay towards Walker Park and the sea. Most of the site is visible from here.
			Workers within treatment works	Very low (Workers engaged in activities unconnected to visual amenity)	
Viewpoint 6	View from picnic area/car park off Coast road adjacent to Doonies Rare breeds farm, looking north	396659, 803553 Approx. 750 m to the south-west of the site	Stationary motorists, recreational/tourists purposes in picnic area	Medium (Visitors to locally valued landscapes, enjoying the view)	View from just behind Doonies Hill towards the site and along site's southern boundary. Clear views over coastal landscape.
			Tourist/visitors to Rare breeds farm	Low (People engaged in recreation where the focus is more on the activity rather than the view)	
Viewpoint 7	View from coast footpath northeast of Cove Bay settlement, looking north	395399, 801184 3.5 km to the south-west of the site	Access/recreational users	Medium (Visitors to locally valued landscapes, enjoying the view)	Distant view of the site and coastal landscape filtered by built/land form.
Viewpoint 8	View from Hareness Road looking north-east towards the site	395820, 802548 1.9k m to the south-west	Workers within Altens industrial estate	Very low (Workers engaged in activities unconnected to visual amenity)	Potential partial views of the site largely screened by built form.
			Motorists on Hareness Road including commuters, visitors	Low (People travelling in vehicles with a purpose other than enjoying the view)	

Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations) continued

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 9	View from Tullos Hill looking north-east towards the site	395767, 804221 500 m to the south-west.	Leisure/recreational users of open space and nature reserve	Medium (Visitors to locally valued landscapes, enjoying the view)	Views towards the site, over coastal landscape and wide range views out to sea.
Viewpoint 10	View from Abbotswell Crescent looking north-east towards the site.	394637, 802908 2.3 km to the west of the site.	Residents of Abbotswell Crescent	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Distant view of the site filtered by other built form.
Viewpoint 11	View from Abbotswell Crescent looking north-east towards the site.	394232, 803479 2.5 km to the west of the site.	Residents of Abbotswell Crescent	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Distant view of the site filtered by other built form.
Viewpoint 12	View from Rockall Place looking east towards the site.	395352, 804592 1 km to the west of the site	Residents of Rockall Place	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Distant view of the site filtered by other built form.
Viewpoint 13	View from Balnagask Road looking south-east towards the site	396023, 805114 1 km to the north-west of the site	Residents of Balnagask Road	Low (Residents in non-designated landscape with views towards the site.)	Views of the site filtered by other built form. Potential views from the taller buildings.
			Motorists	Low (People travelling in vehicles with a purpose other than enjoying the view)	
Viewpoint 14	View from Balnagask Circle looking east towards the site.	395967, 804774 600 m to the west of the site	Residents of Balnagask Circle	Low (Residents in non-designated landscape with views towards the site.)	Clear view of the site from the end properties on Balnagask Circle and from the tower blocks. Most of the site is seen from here.
			Balnagask Park visitors/users	Low (People engaged in recreation where the focus is more on the activity than the view)	

Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations) continued

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 15	View from St Fittick's Road, on edge of Balnagask Golf Course looking south-east towards the site	396151, 805105 Bordering the site's northern boundary	Motorists traveling along St Fittick's Road	Low (People travelling in vehicles with a purpose other than enjoying the view)	Extensive views from the golf course over Nigg Bay towards the sea. Almost the entire site is seen within this view.
Viewpoint 16	View from footpath looking south-east towards the site	396298, 804997 300m to the west of the site	Visitors to St Fittick's Church	Medium (Visitors to locally valued landscapes, enjoying the view)	Clear view of the site and surrounding open land.
Viewpoint 17	View from unclassified road near Fairley Road looking south-east towards the site	387649, 806557 8.9 km to the north- west	Residents	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Potential distant views.
			Motorists for access to dwellings and bus route	Low (People travelling in vehicles with a purpose other than enjoying the view)	
Viewpoint 18	View from Kincorth Hill	394285, 802862 3 km to the south-west	Leisure/recreational users of open space and nature reserve	Medium (Visitors to locally valued landscapes, enjoying the view)	Potential for partial views to the site, through the existing built form and vegetation.
Viewpoint 19	View from unclassified road near the A90 looking north-east towards the site.	392080, 801638 5.2 km to the south-west	Residents near Tollohill Wood	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Potential distant views.
			Motorists including residents.	Low (People travelling in vehicles with a purpose other than enjoying the view)	
Viewpoint 20	View from Arbroath Way looking north-east towards the site.	393954, 803151 3 km to the west/south-west	Residents along Arbroath Way and of Kincorth Land Tower	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Potential distant filtered views of the site from the tower block.

Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations) continued

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 21	View from public footpath adjacent to Esplanade and Beach Ballroom, looking south towards the site.	395333, 807224 2.5 km to the north	Pedestrians including residents and tourists.	Medium (Visitors to locally valued landscapes, enjoying the view)	Potential distant views.
Viewpoint 22	View from the Esplanade and public footpath near to Donmouth Nature Reserve at mouth of River Don, looking south-west.	395350, 809039 4.2 km to the north	Motorists along Coast Road including Commuters/residents/tourists	Medium (Visitors to locally valued landscapes, enjoying the view)	Potential distant views of the site.
			Pedestrians	Medium (Visitors to locally valued landscapes, enjoying the view)	
Viewpoint 23	View from Coastal Path at Gregg Ness looking north	397086, 804234 50 m to the west	PRoW users	Medium (Visitors to locally valued landscapes, enjoying the view)	Extensive views from the coastal walk over Nigg Bay towards the sea. Almost the entire site will be seen within this view.
Viewpoint 24	View from lay-by on Coast Road, adjacent to signal mast/View from mainline railway.	396820, 804033 Approx. 280 m to the south.	Motorists along Coast Road. Users of main line railway including Commuters/residents/tourists	Medium (Visitors to locally valued landscapes, enjoying the view)	Extensive views from the coastal road over Nigg Bay towards the sea and Walker Park. Almost the entire site will be seen within this view.
Viewpoint 25	View from footpath on Tullos Hill looking north-east towards the site	395879, 804162 Approx. 750 m to the south-west.	Leisure/recreational users of open space and nature reserve	Medium (Visitors to locally valued landscapes, enjoying the view)	Potential filtered views of the site.
Viewpoint 26	View from sea, looking south-west towards the site	397904, 805224 Approx. 250 m to the north-east.	Predominantly commercial vessels, occasional tourist related craft.	Low People travelling on the sea with a purpose to their journey other than to enjoy the view.	Extensive views from the sea to the coastline and Nigg Bay.
Viewpoint 27	View from sea, looking west towards the site	397904, 804768 Approx. 250 m to the east.	Predominantly commercial vessels, occasional tourist related craft.	Low People travelling on the sea with a purpose to their journey other than to enjoy the view.	Extensive views from the sea to the coastline and Nigg Bay.
Viewpoint 28	View from sea, looking north-west towards the site	397904, 804156 Approx. 250 m to the south-east.	Predominantly commercial vessels, occasional tourist related craft.	Low People travelling on the sea with a purpose to their journey other than to enjoy the view.	Extensive views from the sea to the coastline and Nigg Bay.



Table 17.5: Representative views (Figure 17.2d: representative viewpoints and photomontage locations) continued

Viewpoint	Description	Approximate Coordinates and Distance from Closest Boundary of the Site	Visual Receptors	Sensitivity of Visual Receptor	Visibility
Viewpoint 29	View from Torry Academy on Tullos Circle looking east towards the site	394993, 804730 Approx. 1.5 km to the west.	Residents on Tullos Circle and users of Torry Academy.	Very Low (Residents in non-designated landscapes with views towards the site, which are interrupted)	Potential distant filtered views of the site.

17.6 Assessment of Effects

17.6.1 Description of Development

The assessment of likely significant effects has been based on the fixed scheme design and the descriptions of construction and completed development as set out in Chapter 3: Description of Development. Construction activities will overlap with some completed activities and some operational activities and therefore they need to all be seen as a continuum. This means that some of the permanent effects may be apparent during the main construction period. As a consequence of this overlap, temporary and permanent effects will be considered within the phase where the main magnitude of change arises.

Construction

During the construction period the development would give rise to a change in the seascape, landscape and visual amenity arising from site preparation and construction activities. Construction activity is predominantly a period of temporary change; however any earthmoving, dredging or building work would result in permanent changes to the landscape/seascape. The activities in themselves could also be a source of significant disruption and visual intrusion. The principal construction operations (as set out in Chapter 3: Description of the Development) likely to have temporary effects on land/seascape character and visual amenity include:

- Site clearance and preparation works, including ground modelling, removing retaining features and earth moving (temporary and permanent effects arising);
- Drilling, blasting and dredging works to create main channel and harbour area (temporary and permanent effects arising);
- Site access and haulage routes using the existing road infrastructure;
- Local diversions to roads and footpaths (temporary effects will be considered under Construction and permanent effects under Completed Development);
- Fixed construction plant;
- Mobile construction plant, such as excavators, cranes and lorries;
- Activities associated with disposal of materials (vehicle movements);
- Stockpile and material (including waste) storage areas;
- Erection of welfare facilities, site compounds and protective hoardings;
- Security and safety lighting; and
- The presence of partially constructed breakwaters, quays and buildings (temporary effects of partially constructed infrastructure will be considered under Construction and permanent effects under Completed Development)

Completed Works

The impact of the completed works would persist during the operational life of the development. The principal aspects of the proposals which are likely to have permanent effects on the land/seascape character and visual amenity of the site and its surroundings, are summarised as:

- Extent of breakwaters to north and south;
- Areas of hardstanding on quays;
- Buildings, storage tanks (fuel/water/composite bulk), dockside cranes, and lighting columns;
- Changed access roads, vehicle parking, and footpaths;
- Fencing, lighting and security equipment;
- Vessels entering, docking and then exiting the harbour (temporary effects arising); and
- General harbour operations such as unloading/loading, deliveries, parking etc.

17.6.2 Land/Seascape Effects

In order to ensure that this chapter provides a concise and focused description of the potential effects on land/seascape character as a result of the construction and operational phases, a summary of the significant effects is set out below. The full assessment is provided in Tables 17A.1 to 17A.4 in ES Appendix 17-A.

17.6.2.1 Construction Phase

There would be **temporary and permanent, major adverse effects** to the coastal character of Area 23: Girdle Ness/Nigg Bay and the Local Coastal and Landscape Character Areas, which is significant in EIA terms.

- Girdle Ness/Nigg Bay and Local Coastal and Landscape Character Areas cover the site. The local landscape and coastal characteristics are taken together as they are interrelated and form a continuous land/seascape. The proposals would affect the perceived open nature of the landscape and relationship of sea to coastline in Nigg Bay. This would result in a change of form, where the open exposed shoreline would change to developed quay area. In the short term, during construction, a welfare and batching plant would be located on Girdle Ness creating a feature out of context with the current character of the area. The setting of Nigg Bay and its key features (natural/exposed) would change during the construction period.

There would be **temporary and permanent, moderate adverse effects** to recreational users of National Cycle Network (NCN) Route 1/EuroVelo 12/North Sea Trail and the Access Routes, GC31 and CP78, which is significant in EIA terms.

- NCN Route 1/EuroVelo 12/North Sea Trail and GC31 mirror that of Core Path 78, but run along the local coastal road. Access would be disrupted by the development during construction as the new harbour entrance and access arrangements to St Fittick's Road and Greyhope Road are installed;
- Initial stages of site preparation and construction would affect these routes. The proposed southern breakwater access road would leave the Coast Road before going down the headland of Greg Ness. There would be some disruption to the cycling and walking trails; and

- The route of CP78 travels along Greyhope Road and then joins GC31 and follows the coastline from Greg Ness round Nigg Bay and out to Girdle Ness headland. Changes to St Fittick's Road in Nigg Bay and the construction of the main entrance and security gate would directly affect the path. The experience of this route would also change with construction activity going on out in the bay (breakwaters) and adjacent to the shoreline. The proposed southern breakwater access road would also cross directly over CP78 at the headland of Greg Ness.

There would be **temporary and permanent, moderate adverse effects** to the local landform and topography in and around Nigg Bay, which is significant in EIA terms.

- Dredging of the bay and cutting into the local rock formations beneath the water would transform the underwater topography of the bay. Spar buoys and some grading of the slopes on the eastern side of the bay in the vicinity of the SSSI would alter the existing character of the bay rock formations under the water. However, this will not change the key characteristics of the Nigg Bay SSSI;
- During construction, the development would locally change the landform from west of Walker Park to the water treatment works in the east. The construction of the new quays would involve stabilisation of existing cliffs and the interruption of beach and intertidal zone. The realigned Greyhope Road would modify the undulating nature of the southern golf course removing some of the existing topography to provide level access, while the North Quay would alter the rocky shoreline to create a level deck structure. The area of West Quay would be disrupted in order to construct the deck;
- There would be localised changes to Greg Ness to provide a level access route off the Coast Road and infill material to construct the south breakwater. The surrounding topography would be generally unaffected by the development.

There would be **temporary and permanent, moderate adverse effects** to the coastal character of Area 25: Doonies to Cove Coast, which is significant in EIA terms.

- Only the proposed southern portion of the development proposal falls within this LCA. The development would not change the overall perception of the topography and the character of the coastal cliffs. There would be no change to the dominant open agricultural character on the cliff tops. However, the new access road to the southern breakwater would alter local land level. The construction of the southern breakwater would mean an extension of Greg Ness headland with ballast brought in to form the breakwater. The breakwater would be a wide linear formation jutting out from the cliffs in a north-east direction and would contrast with the more rugged coastline features. The area associated with the southern access road would be disrupted.

There would be **temporary and permanent, minor adverse effects** experienced by fisherman still using the bay for fishing, which is not significant in EIA terms.

- Traditionally the area would have supported both agriculture and fishing activities. The construction of the harbour in Nigg Bay would interrupt and prevent fishing activity within the bay during.

17.6.2.2 Completed Development

There would be **permanent, major adverse effects** to the coastal character of Area 23: Girdle Ness/Nigg Bay and the Local Coastal and Landscape Character Areas, which is significant in EIA terms.

- Character Area 23: Girdle Ness/Nigg Bay and Local Coastal and Landscape Character Areas cover the majority of the site. This LCA covers the area of the site, and is defined as an open character landscape. The proposals would permanently affect the perceived open nature of the landscape and relationship of sea to coastline in Nigg Bay. This would result in a change form, where open exposed shoreline would change to developed quay area. The setting of the Bay and its key features (natural/exposed) would be fundamentally changed.

There would be **permanent, moderate adverse effects** to recreational users of National Cycle Network (NCN) Route 1/EuroVelo 12/North Sea Trail and the Public Rights of Way (PRoWs) Access Routes, GC31 and CP78, which is significant in EIA terms.

- NCN Route 1/EuroVelo 12/North Sea Trail GC31, CP78 access along this part of the coast would be affected by the development. The changes to the junction with St Fittick's Road would mean that the existing route would remain diverted once the new main entrance and security gate are installed to the new harbour. The experience of this route would also change as the aspect changes from natural coastline to an urban harbour, and a greater proportion becomes a road route. However, the effects are contained and the majority of these long routes/trails would continue uninterrupted in the long term and the adverse change to the experience of the route would only be for a short part within Nigg Bay.

There would be **permanent, moderate adverse effects** to the local topography within the Site in Nigg Bay, which is significant in EIA terms.

- The dredged channels and cuts into the local rock formations beneath the water would change the underwater topography of the bay on a permanent basis. Spar buoys and graded slopes on the eastern side of the bay in the vicinity of the Nigg Bay SSSI would alter the existing character of the bay rock formations under the water. However, this would not change the key characteristics of the SSSI.
- The development would change the local landform from west of Walker Point to the water treatment works. The proposed new quays would cut into the existing cliff faces. Within the area of the main entrance, the harbour would extend to the edge of the golf course, introducing engineered retaining features.
- The realigned Greyhope Road would modify the undulating nature of the southern golf course, flattening the topography. North Quay would alter the rocky shoreline to create a level deck structure. Nigg Bay beach would be removed and the area of West Quay levelled to create one level deck structure with the North Quay.

There would be **permanent, moderate adverse effects** to the coastal character of Area 25: Doonies to Cove Coast, which is significant in EIA terms.

- **Character Area 25:** only the southern portion of the site falls within this character area. The Development would not change the overall perception of the topography and the character of the coastal cliffs. However, the new access road to the southern breakwater would alter local land level. The southern breakwater would mean an extension of Greg Ness headland. The breakwater would be a permanent wide linear formation jutting out from the cliffs in a north-east direction and would contrast with the more rugged coastline features.

There would be **permanent, minor adverse effects** to fisherman that use the bay for fishing, which is not significant in EIA terms.

- Traditionally the area would have supported both agriculture and fishing activities. The construction of the harbour in Nigg Bay would prevent fishing activity within the bay.

17.6.3 Visual Amenity Effects

In order to ensure that this chapter provides a concise and focused description of the potential effects to visual amenity as a result of the construction and operational phases, a summary of the significant effects is set out below. The full assessment is provided in Tables 17A.3 and 17A.4 in ES Appendix 17-A. The tables should be read alongside Figures 17.4a to 17.4l: Photomontage Viewpoints.

17.6.3.1 Construction Phase

There would be **temporary, major adverse effects** to recreational receptors, residents, and motorists/tourists (including some Dolphinwatch participants who travel around the headland) at Viewpoint VP3 on Greyhope Rd, and VP4, VP5, and VP24 on the Coast Road, which is significant in EIA terms.

- **VP3:** The view from Greyhope Road in front of Sea Breeze Cottage [Residents/Motorists/Recreation] looking south towards the site.

During the initial stages the larger number of ships using the area would be perceived as dredging takes place, and the building up of the proposed north and south breakwaters. The southern breakwater would be visible within the view as the angle of the breakwater comes off the Greg Ness headland along the horizon, extending approximately 10 m above sea level. The north breakwater would become a dominant feature as it juts out from the shoreline centrally in the view. The North Quay would be out of sight behind the cliffs to the right of the view. The construction of the South East Pier would be visible as it sits out in the middle of the bay and construction activity on West Quay would be visible in the distance at the base of the cliffs below the Coast Road on Greg Ness headland. The view would fundamentally change as a result of the construction activities.

- **VP4:** view from car park opposite Nigg Bay off Coast Road [Motorists] looking east into the site.

This area would form part of the site boundary and part of the north quay. The car park would be removed, Greyhope Road diverted to join with St Fittick's Road, and the Coast Path amended to follow the new road alignment. In front of the view there would be wide hard standing area of the North Quay reaching up to the shoreline to the north. West Quay would be angled towards the south in the direction of water treatment works and would be just in the view at the bottom of Tullos Hill. The view would fundamentally change as a result of the construction activities.

- **VP5:** view from Coast Road [motorists] at the entrance to treatment works, looking north-east.

Dredging works and vessels bringing materials for the breakwaters would be noticeable from this viewpoint. The north breakwater would become a prominent feature along the horizon extending to central position within the view. There would be an oblique view of the south breakwater extending from the Greg Ness headland. Much of the coastline to the centre right of the image would be retained with minimal intrusion. However, the north end of West Quay would be apparent as well as North Quay. Just below the Lighthouse the corner of the North Quay would turn to the East Quay running parallel with the breakwater. The Coast Road would be retained. However, the junction with the new harbour entrance and Gatehouse would be visible to the left of the view. The view would fundamentally change as a result of the construction activities.

- **VP24:** view from lay-by on Coast Road [Motorists], adjacent to signal mast and the view from main line railway [Rail Users].

Dredging works and vessels bringing materials for the breakwaters would be noticeable from this viewpoint. The north breakwater would become a prominent feature, enclosing the bay. The construction of North and East Quays would be clearly visible with the expansive concrete deck structures extending out into the bay. The south breakwater would be out of sight behind the cliffs to the right of the view. The junction with the new harbour entrance and Gatehouse would be just visible to the left of the view. The construction compound and batching plant would be visible on the headland. The view would fundamentally change as a result of the construction activities.

- **VPs 26, 27 and 28:** views from sea looking south-west, west, and north-west towards the site [Recreation].

The view into Nigg Bay is extensive, especially of the western and southern beach and Greg Ness headland. The three tall blocks of flats and other residential areas in Balnagask are prominent in the background. Initial construction activities would be the dredging vessels, drilling rigs and barges bringing in material to construct the breakwaters. As the north breakwater is constructed it would enclose the bay and screen-off views of construction activities on the landward side. As the water and composite bulk tanks are built they would appear above the north breakwater. The quayside cranes and lighting columns would also be visible. The south breakwater would extend out from the land giving an oblique view to the left. In VP26, the existing buildings around the Girdle Ness Lighthouse would partially screen the construction compound and batching plant on the headland. In VP27 and VP28, only some of the construction compound and batching plant on the Girdle Ness headland would be visible. In VP28 the view is more distant and the Balnagask tower blocks and others further afield in Aberdeen are more dominant in the view and as they break the horizon, they bring the urban form into view. In VP28, the south breakwater would extend out from the land cutting off all views into the bay and from this angle would be perceived as joining the two headlands. The height of the breakwater and its proximity to the viewpoint would mean that it would screen construction activities within the new harbour. The quayside cranes and lighting columns would just be visible above the breakwater. For VP26 and VP27 the view would change as a result of the construction activities. For VP28 construction activities would alter the existing mid-distance view. However, these effects are mitigated by distance, visibility and once the south breakwater is constructed, all other activity would be screened.

There would be **temporary, moderate adverse effects** to recreational receptors, motorists and residents, at VP1 (Balnagask Golf Course), VP2 on the coastal footpath, VP13 (Balnagask Road), VP14 at Balnagask Park, VP15 on St Fittick's Road, VP16 at St Fittick's Church, VP23 on the coastal footpath, and VPs 26, 27 and 28 (out at sea) , which is significant in EIA terms.

- **VP1:** view from internal road within Girdle Ness/Balnagask Golf Course up from club house [Recreation], looking south-east towards the site.

During the initial site preparation and construction phases, a number of floating platforms, dredging vessels and service boats would be using the area. This would increase the sea-based activity in and around the bay. The construction of the proposed north and south breakwaters would follow the dredging activity. The building of the southern breakwater would be the most visible as it would be seen extending Greg Ness headland. As it extends out, the breakwater would appear to enclose the area of Nigg Bay by creating a visible barrier to the bay mouth. The north breakwater construction activity would just be visible in the centre of the view. The realigned Greyhope Road would also become more prominent within the view as it is currently partially screened. The new highway arrangement would create a junction just below St Fittick's church and the construction of this junction would be visible in the mid-ground to the right of the view. Also within this area the construction of the Gatehouse and West Quay would be partially visible and partly obscured by topography. The views out to Girdleness Lighthouse would be free from interruption from this location. However, the temporary construction compound and batching plant would partially interfere with these views. Construction activities would partially alter the existing mid-distance view.

- **VP2:** view from footpath along the various coastal walking and cycling trails [Recreation].

The view of Nigg Bay is partially screened by Greyhope Road and Breeze Cottage. During the initial stages a larger number of ships using the area would be perceived as dredging takes place and the building up of the proposed north and south breakwaters. The southern breakwater would be the most dominant within the view as the angle of the breakwater comes off the Greg Ness headland, extending approximately 10 m above sea level. The north breakwater would be just visible behind the corner of Greyhope Road. Construction activities would alter the existing mid distance view.

- **VP13:** view from Balnagask Road looking south-east towards the site [Residents/Recreation].

At ground level, partial glimpses of Nigg Bay are possible and there are occasional views between buildings. From some flats with south west facing windows un-obscured views of the site are possible. Construction activity at southern and western ends of the site would be visible where glimpsed between buildings. For residents, construction activity would be notable in the view. This would be an alteration to the existing view.

- **VP14:** view from Balnagask Circle looking east towards the site [Residents/Recreation].

The construction of the north breakwater would be on the horizon and would extend from the shoreline adjacent to the Lighthouse. The sea would be just visible beyond the finished height of the breakwater, but construction activity would disrupt this view. The construction work on the North and West Quays would be visible as would the main entrance and gatehouse area. The diverted Greyhope Road would be barely noticeable as it joins with St Fittick's Road, due to the flat nature of the land. The batching plant and welfare facilities next to the Lighthouse would be

screened from view due to the topography on the southern side of Girdle Ness. Construction activity would be dominant in the view, fundamentally changing the focus and natural characteristics of the view. The play areas to the east of the residential are on open areas grass with un-obscured views of the site. For residents using the local park, construction activity would be visible and noticeable.

- **VP15:** view from St Fittick's Road, on edge of Balnagask Golf Course looking south-east towards the site [Motorists].

During dredging for the new harbour, vessels would be clearly seen within the view. Construction of the breakwaters would also be visible as they contain the extent of Nigg Bay. As the north and south breakwaters are constructed, they would appear to converge at the centre of the bay creating a linear wall feature enclosing the bay. East Quay and South East Pier would be prominent in the mid-distance. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road. North Quay would be screened by intervening landform. The works compound beside the Lighthouse would also be screened from view. The view would be fundamentally changed as a result of the proposed development.

- **VP16:** view from footpath looking south-east towards the site [Recreation].

Greyhope Road would be seen with the junction with St Fittick's Road not far south from this view. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road as it creates a larger area of hardstanding. During dredging for the new harbour, vessels would be clearly seen within the view. Construction of the breakwaters would also be visible as they contain the extent of Nigg Bay. As the north and south breakwaters are constructed, they would appear to converge at the centre of the bay creating a linear wall feature enclosing the bay. East Quay and South East Pier would be prominent in the mid distance. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road. North Quay would be screened by intervening landform. The works compound beside the Lighthouse would also be screened from view. The view would be fundamentally changed as a result of the proposed development.

- **VP23:** view from Coastal Path (CP78) at Greg Ness looking north [Recreation].

Most of the proposed development would be visible from this location as the viewpoint provides a wide perspective round most of Nigg Bay. In the mid-distance on the right is Girdle Ness and the Lighthouse. On the left is the residential area of Balnagask. The construction compound and batching plant would be visible on the headland. The north breakwater would be seen head-on, with the South East Pier enclosing the bay in the middle of the view. The south breakwater would be just out of view to the right. Parts of the West and North Quays would be visible to the left of the view. Dredging activity and then construction of the breakwaters and quays would be in full view from this location. However, the coastal cliffs on the north side of Greg Ness would screen part of West Quay and the South East Pier would screen parts of North Quay. Therefore the later stages of construction, including the deck structures and tanks would be partly screened. The Gatehouse and new entrance would be just visible to the left. Dredging and other vessels would be seen at close quarters, entering and leaving the bay from this position. Construction activity would form the dominant focus and fundamentally change the view.

There would be **temporary, minor adverse effects** to residents, recreational receptors and workers at VP5 (water works), and at VP9 (Tullos Hill), which is not significant in EIA terms.

- **VP5:** view from Coast Road at entrance to treatment works [Workers], looking north-east.

Most construction activities would not be viewed as the treatment works are screened by bunding and vegetation. However, the view would be altered.

- **VP9:** view from Tullos Hill looking north-east towards the site [Recreation].

Extensive views out over the North Sea. However, site works and construction activity would not be visible from this location due to intervening topography which screens-off Nigg Bay. The vantage point provides a view of the headland of Girdle Ness with the Lighthouse. The only visible area during the construction period would be the batching plant and welfare facilities next to Girdleness Lighthouse, which would be visible to its western side. The accommodation camp by the lighthouse on Girdle Ness would be diminished in size due to the distance.

17.6.3.2 Completed Development

There would be **permanent, major adverse effects** to recreation, residents, motorists/tourists at VP3 on Greyhope Rd and at VP4, VP5 and VP24 on the Coast Road, which is significant in EIA terms.

- **VP3:** view from Greyhope Road (including Dolphinwatch participants who explore the headland) in front of Sea Breeze Cottage looking south towards the site [Recreation/Motorists/Residents].

The south breakwater would be visible within the view as the angle of the breakwater comes off the Greg Ness headland along the horizon, extending approximately 10 m above sea level. The north breakwater would be the dominant feature as it juts out from the shoreline centrally in the view. North Quay would be out of sight behind the cliffs to the right of the view. The construction of the South East Pier would be visible as it sits out in the middle of the bay and West Quay would be visible in the distance at the base of the cliffs below the Coast Road on Greg Ness headland. The view would be fundamentally changed when compared to the current view. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP4:** view from car park opposite Nigg Bay off Coast Road looking east into the site [Motorists].

This area would form part of the site boundary and part of the North Quay. In front of the view would be the wide hardstanding area of the North Quay reaching up to the shoreline to the north and West Quay angled towards the south in the direction of the water treatment works just in view at the bottom of Tullos Hill. All of the inner harbour area would be visible. However, as this viewing area would be removed during construction, the operation of the proposed development would have a maximum impact on this viewpoint. The location of this viewpoint would not be publically accessible once the development is operational, i.e. there would be a loss of the viewpoint. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP5:** view from Coast Road at entrance to treatment works, looking north-east [Motorists].

The north breakwater would become a prominent feature along the horizon extending to central position within the view and blocking views out to sea. Just below the Girdleness Lighthouse the corner of the North Quay would turn to the East Quay running parallel with the breakwater. The new harbour entrance and Gatehouse would be visible to the left of the view. Lighting columns,

occasional dockside cranes and the water and mud tanks would all be noticeable within the view. There would be temporary effects arising from vessels entering and exiting the harbour and docking. Ships docked at North and East Quays would be in the mid-distance. If a cruise liner were to dock at West Quay, the view would be obscured. The view would be fundamentally changed when compared to the current view. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact. In the case of the cruise ships, they are expected to only use the harbour for a maximum of 30 days per year and therefore the impact would be infrequent.

- **VP9:** view from Tullos Hill looking north-east towards the site [Recreation].

Extensive views out over the North Sea. However, site works and construction activity would not be visible from this location due to intervening topography which screens-off Nigg Bay. The vantage point provides a view of the headland of Girdle Ness with the Lighthouse. The only visible area during the construction period would be the batching plant and welfare facilities next to Girdleness Lighthouse, which would be visible to its western side. The accommodation camp by the lighthouse on Girdle Ness would be diminished in size due to the distance.

- **VP24:** view from lay-by on Coast Road [Motorists], adjacent to signal mast and view from main line railway [Rail].

The north breakwater would become a prominent feature, enclosing the bay. North and East Quays would be clearly visible with the expansive concrete deck structures extending out into the bay. The south breakwater would be out of sight behind the cliffs to the right of the view. The junction with the new harbour entrance and Gatehouse would be just visible to the left of the view. Vessels within the harbour would disrupt the view of the bay, but views out to sea would still be possible.

There would be **permanent, moderate adverse effects** to recreational users, motorists/tourists and residents at VP1 (Balnagask Golf Course), VP2 on the coastal footpath, VP13 (Balnagask Rd), and VP14 at Balnagask Park, at VP15 (St Fittick's Road), and VP23 on the coastal footpath, which is significant in EIA terms.

- **VP1:** View from internal road within Girdle Ness/Balnagask Golf Course [Recreation], looking south-east towards the site.

The south breakwater would be the most visible breakwater from this viewpoint. It would appear to enclose the area of Nigg Bay by creating a visible barrier to the bay mouth. The north breakwater would just be visible in the centre of the view. Tall lighting columns and the occasional crane on West Quay would be visible. The realigned Greyhope Road would also be prominent within the view, although over time the trees planted within St Fittick's Community Park would grow up to obscure the view of the road. The new junction just below St Fittick's Church would be just visible in the mid-ground to the right of the view. Also within this area the construction of the Gatehouse and West Quay would be partly visible and partly obscured by topography. The views out to Girdleness lighthouse are free from interruption from this location. Sea based activity in and around the bay would increase with ships docking and exiting the harbour. Whilst in dock only the upper parts of the ships would be visible whilst docked at the North and East Quays. If a ship was docked at West Quay it would interrupt views towards Greg Ness. The expansive view would remain with open views out to the headlands and sea beyond. There would be a notable

alteration to the centre view, a result of the southern breakwater and temporary impact of visiting vessels. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP2:** view from footpath along the various coastal walking and cycling trails [Recreation].

The view of Nigg Bay is partially screened by Greyhope Road and Breeze Cottage. The south breakwater would be the most dominant within the view as the angle of the breakwater comes off the Greg Ness headland, at a height of approximately 10 m above sea level. The north breakwater would just be visible behind the corner of Greyhope Road. Vessels entering and exiting the harbour would be seen in close proximity at this viewpoint. The expansive view would remain with open views out to Greg Ness and out to sea. There would be a notable alteration to the centre view as a result of the southern breakwater and temporary impact of visiting vessels. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP 13:** view from Balnagask Road looking south-east towards the site [Residents].

At ground level, partial glimpses of Nigg Bay are possible and there are occasional views between buildings. From some flats with south west facing windows, unobscured views of the site are possible. Operational activity at southern and western ends the site would be visible where glimpsed between buildings. For residents, dockside infrastructure and operational activity would be notable in the view. There would be notable alteration to the existing view. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP14:** view from Balnagask Circle looking east towards the site [Residents/Recreational].

The north breakwater would be on the horizon and would extend from the shoreline adjacent to the Lighthouse. The sea would be viewed just beyond the breakwater, but vessels within the harbour would disrupt this view (temporary/occasional). The composite bulk and water tanks on the North Quay would be visible as would the main entrance and gatehouse area (permanent). The south breakwater would be partly screened from view due to the topography on the southern side of Girdle Ness. The new harbour and associated operational activities would be dominant in the view, changing the focus and natural characteristics of the view. The play areas to the east of the residential are on open areas grass with un-obscured views of the site. For residents using the local park, construction activity would be visible and noticeable.

- **VP15:** view from St Fittick's Road, on edge of Balnagask Golf Course looking south-east towards the site [Motorists].

The north and south breakwaters would appear to converge at the centre of the bay creating a linear wall feature enclosing the bay. East Quay and South East Pier would be prominent in the mid-distance. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road. North Quay would be screened by intervening landform. Vessels docking within the harbour would interrupt the view. A cruise liner docked at West Quay would block views out to sea and of Greg Ness. The view would be fundamentally changed as a result of the proposed development. Ships entering and exiting the harbour and whilst stationary at the docks would be a temporary impact.

- **VP16:** view from footpath looking south-east towards the site [Recreation].

Greyhope Road would be seen with the junction with St Fittick's Road not far south from this view. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road as it creates a larger area of hardstanding. The north and south breakwaters would appear to converge at the centre of the bay creating a linear wall feature enclosing the bay. East Quay and South East Pier would be prominent in the mid distance. The most prominent element in the view would be the Gatehouse and West Quay area located at the current end of St Fittick's Road. North Quay would be screened by intervening landform. The view would be fundamentally changed as a result of the proposed development.

- **VP23:** view from Coastal Path (CP78) at Greg Ness looking north [Recreation].

Most of the proposed development would be visible from this location as the viewpoint provides a wide perspective round most of Nigg Bay. In the mid-distance on the right is Girdle Ness and the Lighthouse and on the left, the residential area of Balnagask. The north breakwater would be seen head on, with the South East Pier enclosing the bay in the middle of the view. The south breakwater would be just out of view to the right. Parts of the West and North Quays would be visible to the left of the view. The coastal cliffs on the north side of Greg Ness would screen part of West Quay and the South East Pier would screen parts of North Quay. Therefore some of the operational activities within the harbour would be partly screened. The water and mud tanks, occasional dockside crane and lighting columns would be partly visible above the breakwaters. The Gatehouse and new entrance would be just visible to the left. Vessels would be seen at close quarters, entering and leaving the bay from this position. Operational activity would form the dominant focus and fundamentally change the view.

There would be **permanent, minor adverse effects** to recreational users at VPs 26, 27 and 28 out at sea, which is not significant in EIA terms.

- **VPs 26, 27 and 28:** view from sea looking south-west, west, and north-west towards the site [Recreation].

The view into Nigg Bay is extensive, especially of the western and southern beach and Greg Ness headland. The three tall blocks of flats and other residential areas in Balnagask are prominent in the background. In VP28, the Balnagask tower blocks and others further afield in Aberdeen break the horizon and bring the urban form into view. For VP26 and VP27, the north breakwater would enclose the bay and screen-off operational activities on the landward side. The water and composite bulk tanks would be visible above the north breakwater. The quayside cranes and lighting columns would also be visible. The south breakwater would extend out from the land giving an oblique view to the left. Vessels would be seen coming and going from the harbour entrance and would be seen in context with the main harbour area for Aberdeen to the right of the view. The south breakwater would extend out from the land cutting off all views into the bay and from this angle and would be perceived as joining the two headlands. The height of the breakwater and its proximity to the viewpoint mean that it would screen harbour-side activities within the new harbour. The quayside cranes and lighting columns would just be visible above the breakwater.

17.7 Mitigation Measures

17.7.1 Construction

Due to the nature of the proposed construction activities it is inevitable that some adverse effects would occur to the seascape, landscape and visual amenity of the site and its immediate environs during the site preparation and construction stages of the development. The significance of these effects can, however, be limited by implementing the following strategies with detail plans to be provided as a condition of planning:

- Adoption of a Construction Environmental Management Plan (CEMP) to ensure good site management and housekeeping;
- Careful siting of construction machinery, materials and welfare facilities to avoid unnecessary intrusion, particularly with regards to the privacy of adjacent areas; and
- Erection of temporary hoarding around construction areas to clearly delineate working areas.

Footpaths and recreational routes that coincide with the proposed construction activities would be temporarily diverted. Whilst the experience of some part of the coastal route would be temporarily affected, the routes would remain open and accessible on diverted paths. However, it is recognised that the character of these routes would be negatively affected and in some situations the diverted paths may remain permanently diverted (e.g. the Coastal Trail near the proposed harbour entrance).

17.7.2 Completed Development

Due to the size of the infrastructure planned, the need to use the full bay area, and the majority of visual receptors being at a greater height looking down into the bay, the scheme cannot be effectively screened with vegetation. The character of the coast is also one of open, grassy cliff tops and headlands and therefore any significant tree planting would be out of character. The existing St Fittick's Community Park has areas of young woodland planting and over the years this will mature into a small wood. The wood, once mature, will provide a degree of localised screening of West Quay and the access roads/main entrance. However, the planting is on low ground near to the site and most receptors to the west of the site would be viewing the proposed development from higher ground and would see over the top of the trees. Vessels within the harbour would extend above the tree line.

With limited opportunity for tree and shrub planting on or close to the development site, landscaping is likely to comprise re-instatement of temporary working areas disturbed by the works and off site compensatory planting. As a consequence the residual effects are predominantly the same as the pre-mitigation situation.

During the detailed design stage, a full landscape mitigation scheme will be developed, with species details, plant schedules and specifications. The landscape mitigation scheme will:

- Develop a landscape scheme to incorporate Habitat Creation and Management Plan (HCMP) biodiversity measures, reinstatement of temporary work areas, and landscape planting proposals;
- Propose deliverable off-site planting of trees and shrubs to provide local landscape and wildlife benefits; and

- Develop mitigation proposals for place making/green infrastructure proposals with strong links to local communities and consideration of 'gateway' to city/innovation (green walls).

17.8 Likely Residual Effects

17.8.1 Construction

The likely significant residual effects to seascape and landscape character during construction works are presented in Table 17.6. For the reasons described in Section 17.7 (Mitigation Measures), in the majority of cases the residual significance of the effect remains unchanged from the pre-mitigation effect.

Table 17.6: Likely significant residual effects to seascape and landscape character

Likely Significant Residual Effects to Seascape and Landscape Character - Construction Phase				
Land/seascape Receptor	Issue	Potential Effect	Mitigation	Residual Effect
Area 23: Girdle Ness/Nigg Bay & LLCA/LCCA	Change in character	Temporary & Permanent Major Adverse	Limited scope	Temporary and Permanent Major Adverse
Access - National Cycle Network Route 1/Eurovelo 12/North Sea Coast Trail/GC31/CP78	Interference with route and experience	Temporary & Permanent Moderate Adverse	Proposed diversions (temp during construction). Implementation of a CEMP may provide some marginal benefits	Temporary and Permanent Moderate Adverse
Nigg Bay topography & landform	Reshaping seabed within bay & changes to beach & cliffs	Temporary and Permanent Moderate Adverse	Limited scope	Temporary and Permanent Moderate Adverse
Area 25: Doonies to Cove Coast	Change in character	Temporary and Permanent Moderate Adverse	Limited scope	Temporary and Permanent Moderate Adverse
Land/sea use	Interruption of fishing activities	Temporary & Permanent Minor Adverse	Limited scope	Temporary and Permanent Minor Adverse

The likely significant residual effects to visual amenity during construction are presented in Table 17.7:

Table 17.7: Likely significant residual effects to visual amenity

Likely Significant Residual Effects to Visual Amenity – Construction Phase					
Visual Receptor	Issue	Potential Effect	Mitigation	Residual Effect	
Viewpoint 1	Recreation - notable alteration of the view	Temporary Moderate Adverse	Implementation of a CEMP may provide some marginal benefits	Temporary Moderate Adverse	
Viewpoint 2	Recreation - notable alteration of the view	Temporary Moderate Adverse		Temporary Moderate Adverse	
Viewpoint 3	Recreation – fundamental change in the view	Temporary Major Adverse		Temporary Major Adverse	
	Motorists – fundamental change in the view	Temporary Major Adverse		Temporary Major Adverse	
	Residents – fundamental change in the view	Temporary Major Adverse		Temporary Major Adverse	
Viewpoint 4	Motorists – fundamental change in the view	Temporary Major Adverse		Implementation of a CEMP may provide some marginal benefits	Temporary Major Adverse
Viewpoint 5	Motorists – fundamental change in the view	Temporary Major Adverse			Temporary Major Adverse
	Workers – change in view	Temporary Minor Adverse			Temporary Minor Adverse
Viewpoint 9	Recreation - alteration of the view	Permanent Minor Adverse			Permanent Minor Adverse
Viewpoint 13	Recreation – change in view	Temporary Moderate Adverse			Temporary Moderate Adverse
	Residents – notable alteration of the view	Temporary Moderate Adverse	Temporary Moderate Adverse		
Viewpoint 14	Residents – notable alteration of the view	Temporary Moderate Adverse	Temporary Moderate Adverse		
	Recreation - notable alteration of the view	Temporary Moderate Adverse	Temporary Moderate Adverse		
Viewpoint 15	Motorists – notable alteration of the view	Temporary Moderate Adverse	Implementation of a CEMP may provide some marginal benefits		Temporary Moderate Adverse
Viewpoint 16	Recreation - notable alteration of the view	Temporary Moderate Adverse			Temporary Moderate Adverse
Viewpoint 23	Recreation - notable alteration of the view	Temporary Moderate Adverse		Temporary Moderate Adverse	

Table 17.7: Likely significant residual effects to visual amenity continued

Likely Significant Residual Effects to Visual Amenity – Construction Phase				
Visual Receptor	Issue	Potential Effect	Mitigation	Residual Effect
Viewpoint 24	Motorists/Rail – fundamental change in the view	Temporary Major Adverse		Temporary Major Adverse
Viewpoint 26	Recreation - alteration of the view	Temporary Moderate Adverse		Temporary Moderate Adverse
Viewpoint 27	Recreation - alteration of the view	Temporary Moderate Adverse		Temporary Moderate Adverse
Viewpoint 28	Recreation - alteration of the view	Temporary Moderate Adverse		Temporary Moderate Adverse

17.8.2 Completed Development

The likely significant residual effects to seascape and landscape character once the proposed Development has been completed and is operational are presented in Table 17.8. For the reasons described in Section 17.7 (Mitigation Measures), in the majority of cases the residual significance of the effect remains unchanged from the pre-mitigation effect.

Table 17.8: Likely significant residual effects to seascape and landscape character

Likely Significant Residual Effects to Seascape and Landscape Character – Completed Development				
Land/seascape Receptor	Issue	Potential Effect	Mitigation	Residual Effect
Area 23: Girdle Ness/Nigg Bay & LLCA/LCCA	Change in character	Permanent Major Adverse	Limited scope	Permanent Major Adverse
Access - National Cycle Network Route 1/Eurovelo 12/North Sea Coastal Trail/GC31/CP78	Interference with route and experience	Permanent Moderate Adverse	Proposed temporary diversion	Permanent Moderate Adverse
Nigg Bay topography and landform	Reshaping seabed within bay & changes to beach & cliffs	Permanent Moderate Adverse	Limited scope	Permanent Moderate Adverse
Area 25: Doonies to Cove Coast	Change in character	Permanent Moderate Adverse		Permanent Moderate Adverse
Land/sea use	Interruption of fishing activities	Permanent Minor Adverse		Permanent Minor Adverse

The likely significant residual effects on visual amenity once the proposed development has been completed and operational are presented in Table 17.9. For the reasons described in Section 17.7 (Mitigation Measures), in the majority of cases the residual significance of the effect remains unchanged from the pre-mitigation effect.

Table 17.9: Likely significant residual effects to visual amenity

Likely Significant Residual Effects to Visual Amenity – Completed Development				
Visual Receptor	Issue	Potential Effect	Mitigation	Residual Effect
Viewpoint 1	Recreation - notable alteration of the view	Permanent Moderate Adverse	Limited Scope	Permanent Moderate Adverse
Viewpoint 2	Recreation - notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
Viewpoint 3	Recreation – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
	Motorists – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
	Residents – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
Viewpoint 4	Motorists – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
Viewpoint 5	Motorists – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
	Workers – alteration of the view	Permanent Minor Adverse	Increased screening as existing planting matures	Negligible
Viewpoint 9	Recreation - alteration of the view	Permanent Minor Adverse	Limited Scope	Permanent Minor Adverse
Viewpoint 13	Residents – notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
Viewpoint 14	Residents – notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
	Recreation - notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
Viewpoint 16	Recreation - notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
Viewpoint 15	Motorists – notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse

Table 17.9: Likely significant residual effects to visual amenity continued

Likely Significant Residual Effects to Visual Amenity – Completed Development				
Viewpoint 23	Recreation - notable alteration of the view	Permanent Moderate Adverse		Permanent Moderate Adverse
Viewpoint 24	Motorists/Rail – fundamental change in the view	Permanent Major Adverse		Permanent Major Adverse
Viewpoint 26	Recreation - alteration of the view	Permanent Minor Adverse		Permanent Minor Adverse
Viewpoint 27	Recreation - alteration of the view	Permanent Minor Adverse		Permanent Minor Adverse
Viewpoint 28	Recreation - alteration of the view	Permanent Minor Adverse		Permanent Minor Adverse

17.9 Summary and Conclusion

The land/seascape and visual impact assessment has considered the character and visual amenity baseline for the site and surrounding area. Sensitive receptors have been identified and an assessment of the potential effects arising from the construction and operation the proposed development, have been reported.

The topography creates a well contained cove around Nigg Bay, with higher landform to the north and south. Historically, the area was used for agriculture and fishing and although fishing has declined, a few fishermen are still active in the bay. There is little in the way of tree cover or large areas of native scrub or woodland. The prevailing vegetation character of the area is that of tufted coastal grass on headlands, banks and cliffs. Recreational use lies in the Balnagask golf course, cycle route NCN Route 1 and coastal footpaths. The landscape character within the Girdle Ness/Nigg Bay area (Area 23) is in good landscape condition and is a locally valued landscape. The site is not subject to any landscape related designations, although part of the site is designated as a Geological SSSI. The landscape character area is not subject to specific landscape related designations.

Nigg Bay is well contained visually and whilst taller structures are shown on the ZTVs as being seen over a wide area, in reality most views would be diminished by intervening topography, vegetation, buildings and distance. The visual amenity of the area is predominantly coastal, with a backdrop of the settlement and industrial areas of Aberdeen. The existing entrance to Aberdeen Harbour is in close proximity, which means that large vessels are part of the scene, coming and going from the heart of the city. Key visual receptors in and around the bay are residential, recreational, motorists, and the occasional worker.

During the construction and operational phases, the proposed development is predicted to give rise to a number of significant temporary and permanent adverse effects to the local seascape and landscape character and to visual amenity. The Aberdeen Harbour Expansion Project is a major infrastructure development and, as such, would inevitably change the characteristics of the area where it is located and would be visible with limited opportunity for soft landscape screening.

The proposed development would significantly affect the character in and around Nigg Bay, changing the key characteristics of the coastline in this locality. Being out of the city and screened by local topography, the proposed development would not obstruct any of the important views of the city's townscape, landmarks and features. Where it is seen (likely to be the upper parts of shipping vessels within the harbour), it would be viewed as an extension of, and in the context of, the existing harbour. Whilst there would be temporary and permanent adverse effects on recreation (footpaths/cycle route) with diversions and reductions in experience, these would be for short stretches of the overall routes.

Overall, the proposed development would keep ancillary buildings and infrastructure to a minimum. It would be contained within Nigg Bay, keeping the quays and breakwaters to essential dimensions.

17.10 References

1. GUIDELINES FOR LANDSCAPE AND VISUAL IMPACT ASSESSMENT, Landscape Institute and Institute of Environmental Management and Assessment, 2013
2. LANDSCAPE CHARACTER ASSESSMENT GUIDANCE FOR ENGLAND AND SCOTLAND, Natural England, January 2002
3. ADVICE NOTE 01/11: Photography and Photomontage in Landscape and Visual Impact Assessment, Landscape Institute, 2011
4. GUIDANCE ON COASTAL CHARACTER ASSESSMENT – Consultation Draft, Carol Anderson Landscape Architects for Scottish Natural Heritage, September 2015

Figure 17.1: Zone of Theoretical Visibility

Figure 1a: Terrain Analysis at the Wider and Local Context

Figure 1b: Zone of Theoretical Visibility: Existing Site/Baseline

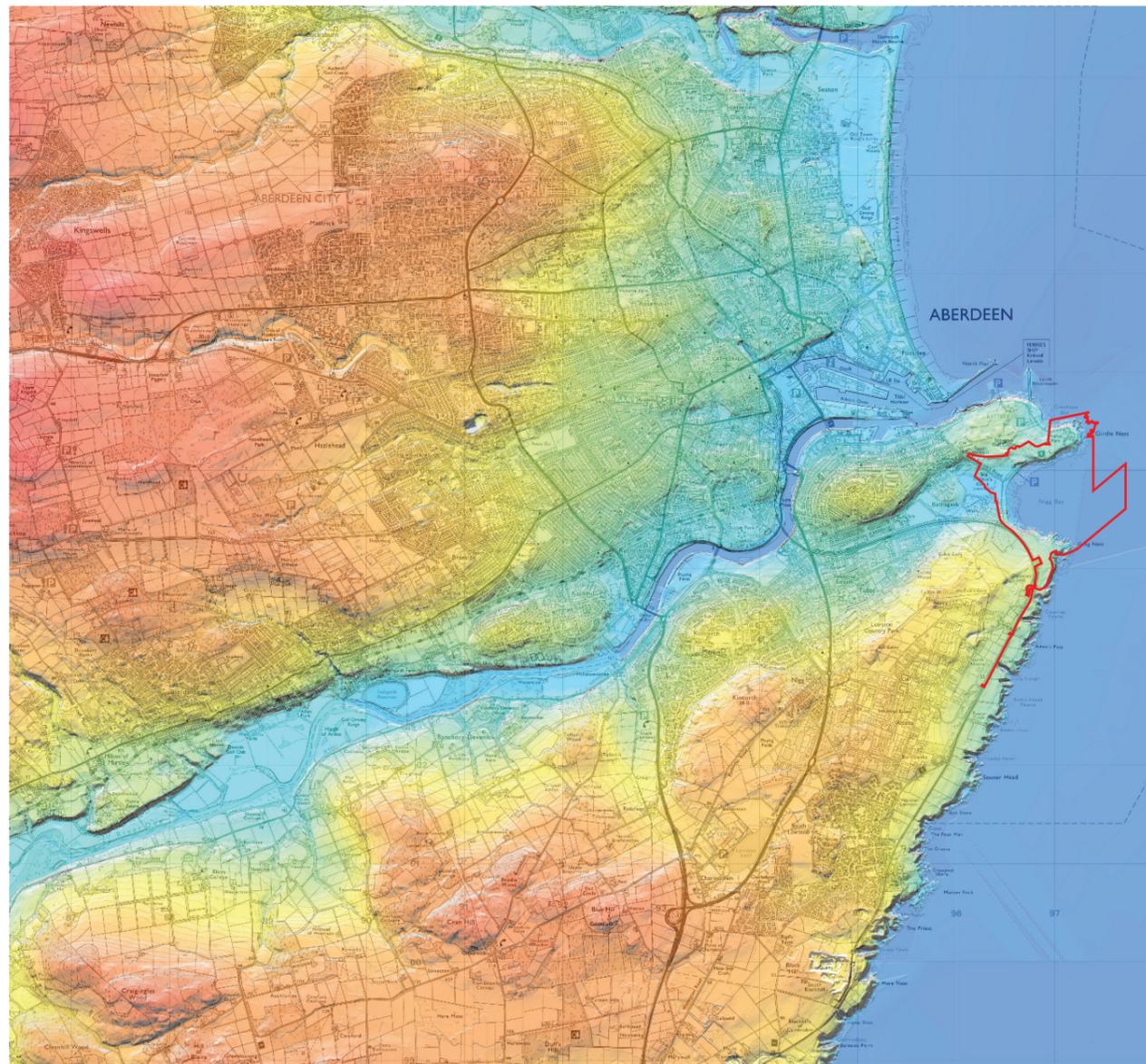
Figure 1c: Zone of Theoretical Visibility: Development up to 5.0 m

Figure 1d: Zone of Theoretical Visibility: Development up to 10.0 m

Figure 1e: Zone of Theoretical Visibility: Development up to 15.0 m

Figure 1f: Zone of Theoretical Visibility: Development up to 20.0 m

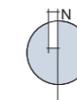
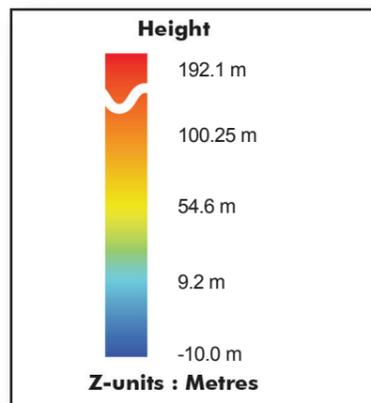
Figure 1g: Zone of Theoretical Visibility: Development up to 25.0 m



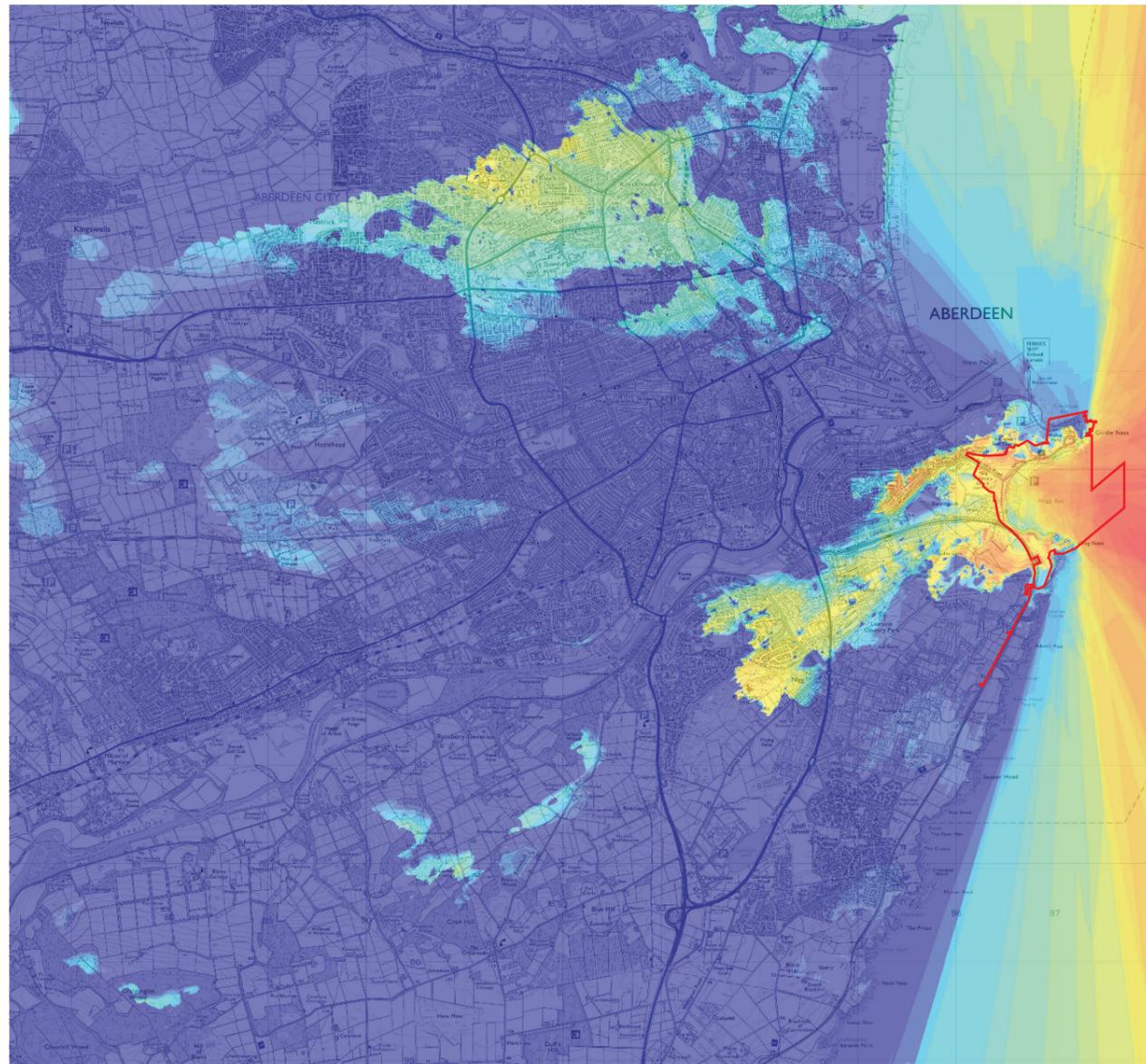
TOPOGRAPHY - WIDER CONTEXT



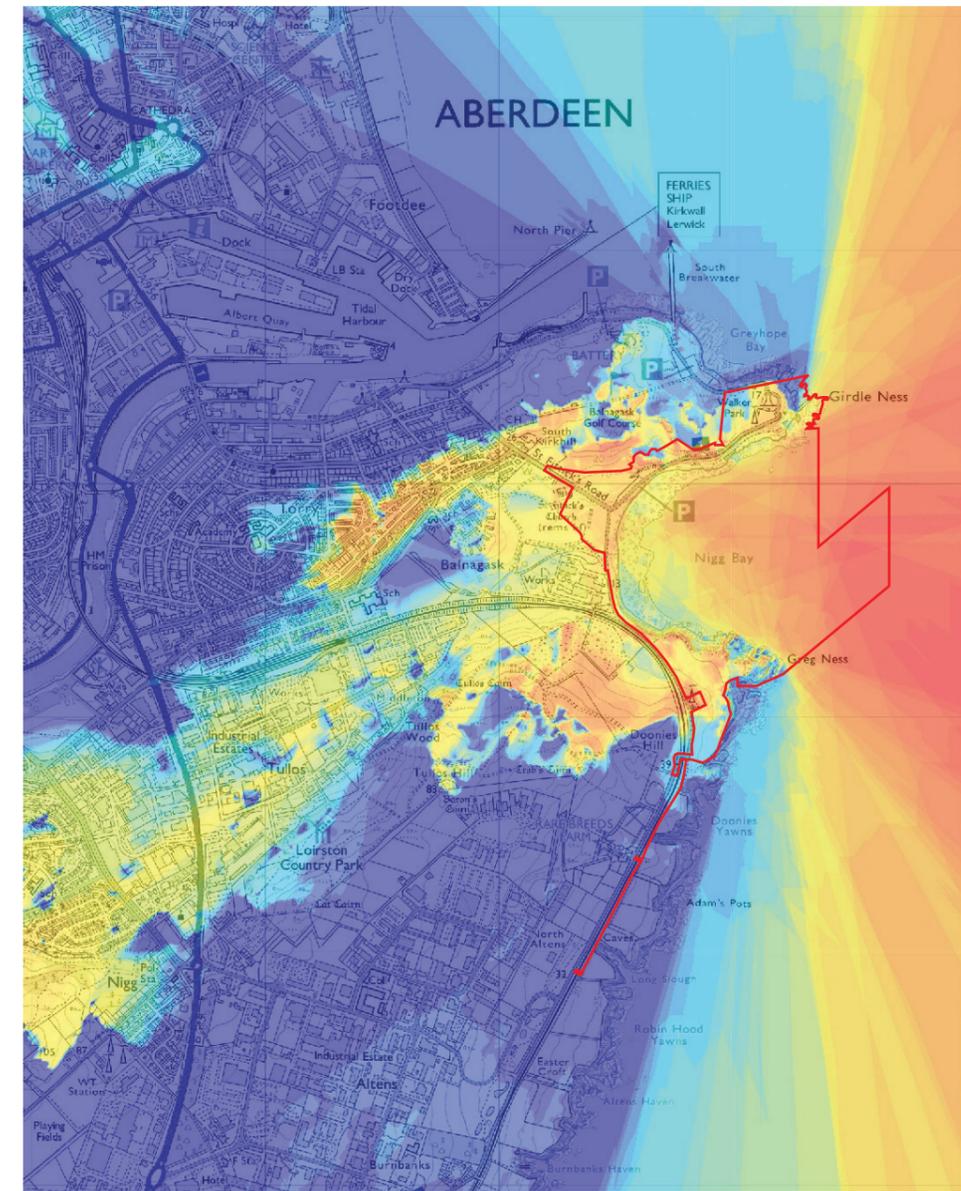
TOPOGRAPHY - LOCAL CONTEXT



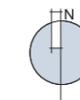
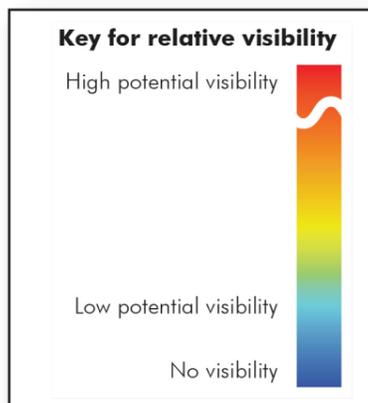
Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1a: Terrain Analysis at the Wider and Local Context
Figure Ref	WIB14221-100-GR-SLVIA-01a
Date	August 2015
File Location	\\nt-1ncs\weed\projects\lead14221\100\graphics\slvia\issued figures



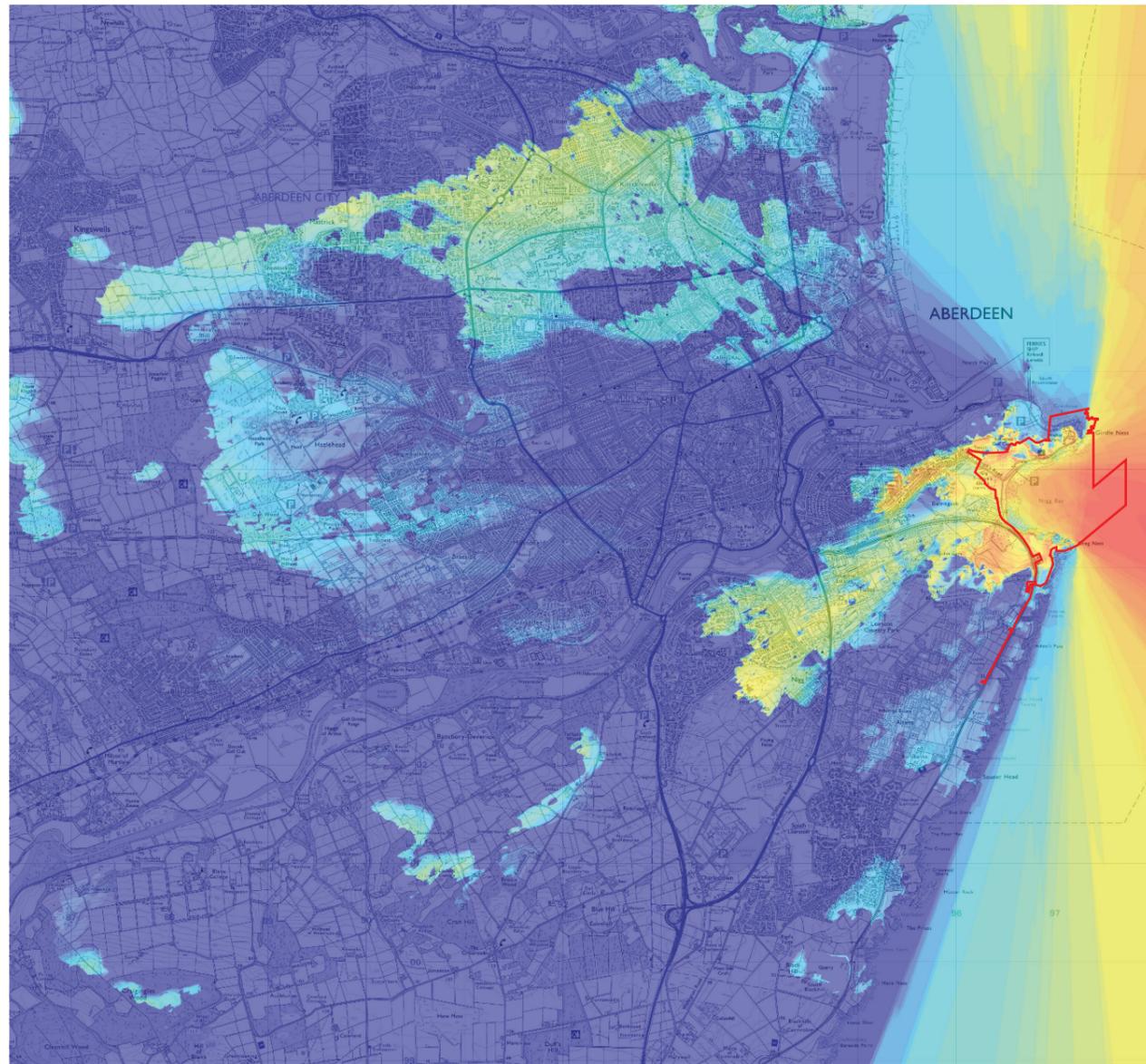
Zone of Theoretical Visibility: Existing Site/Baseline - wider context



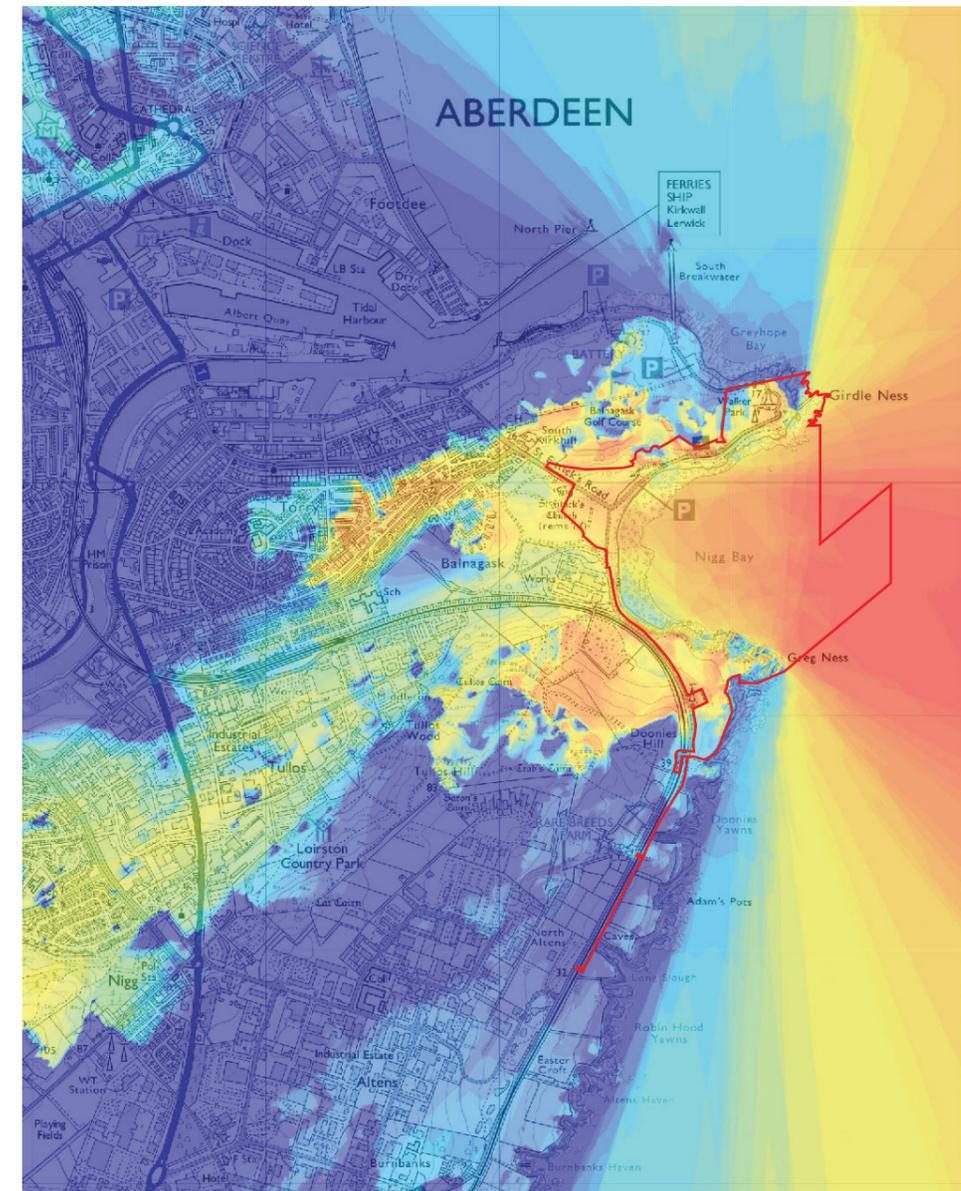
Zone of Theoretical Visibility: Existing Site/Baseline - local context



Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1b: Zone of Theoretical Visibility: Existing Site/Baseline
Figure Ref	WIB14221-100-GR-SLVIA-01b
Date	August 2015
File Location	\\nt-lncs\weed\projects\lead14221\100\graphics\slvia\issued figures

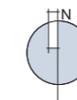
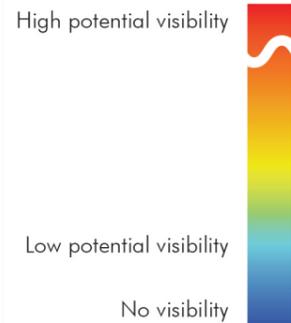


Zone of Theoretical Visibility: Development up to 5.0 m in height - wider context



Zone of Theoretical Visibility: Development up to 5.0 m in height - local context

Key for relative visibility



Project Details

WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title

Figure 1c: Zone of Theoretical Visibility: Development up to 5.0m

Figure Ref

WIB14221-100-GR-SLVIA-01c

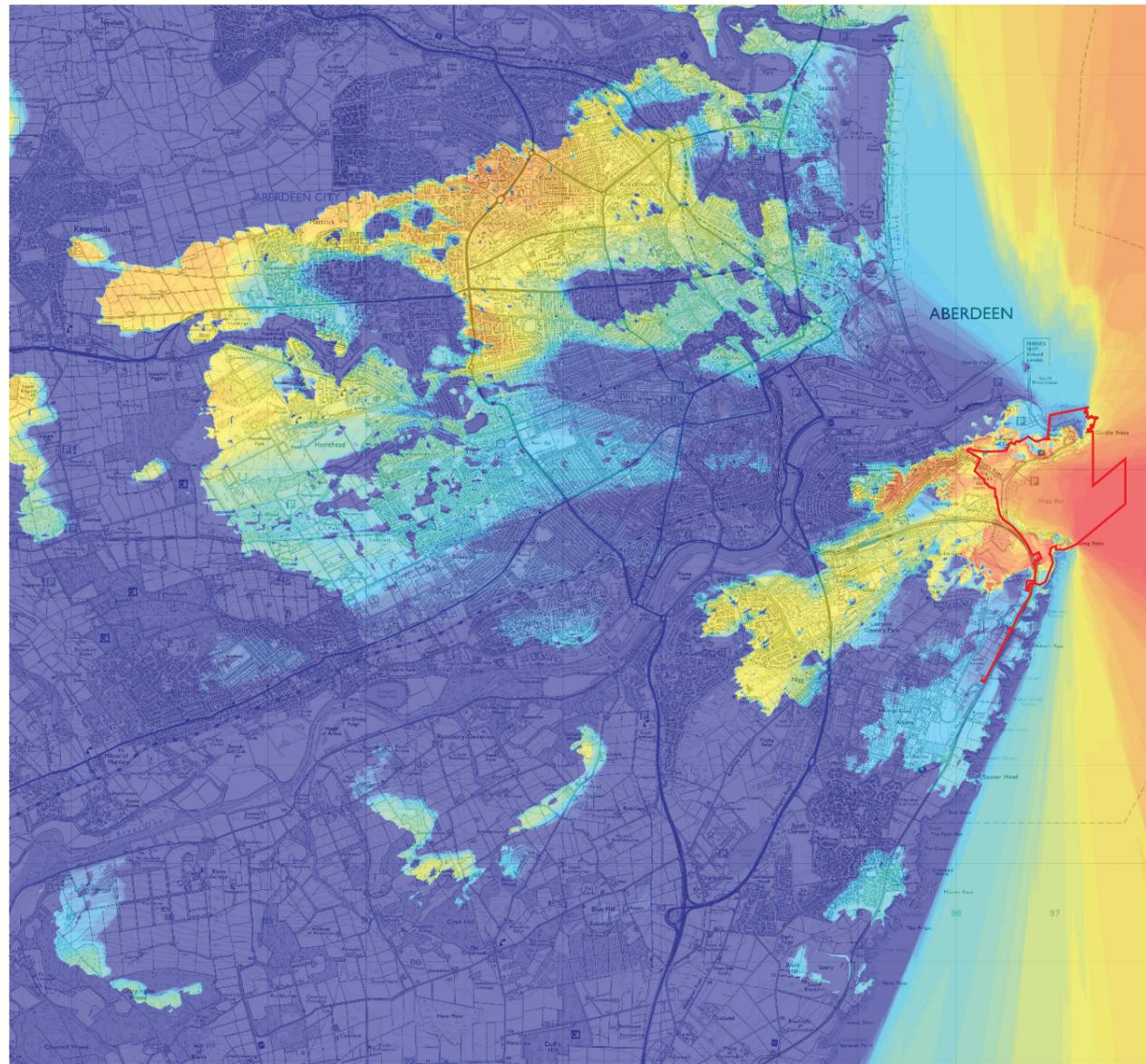
Date

August 2015

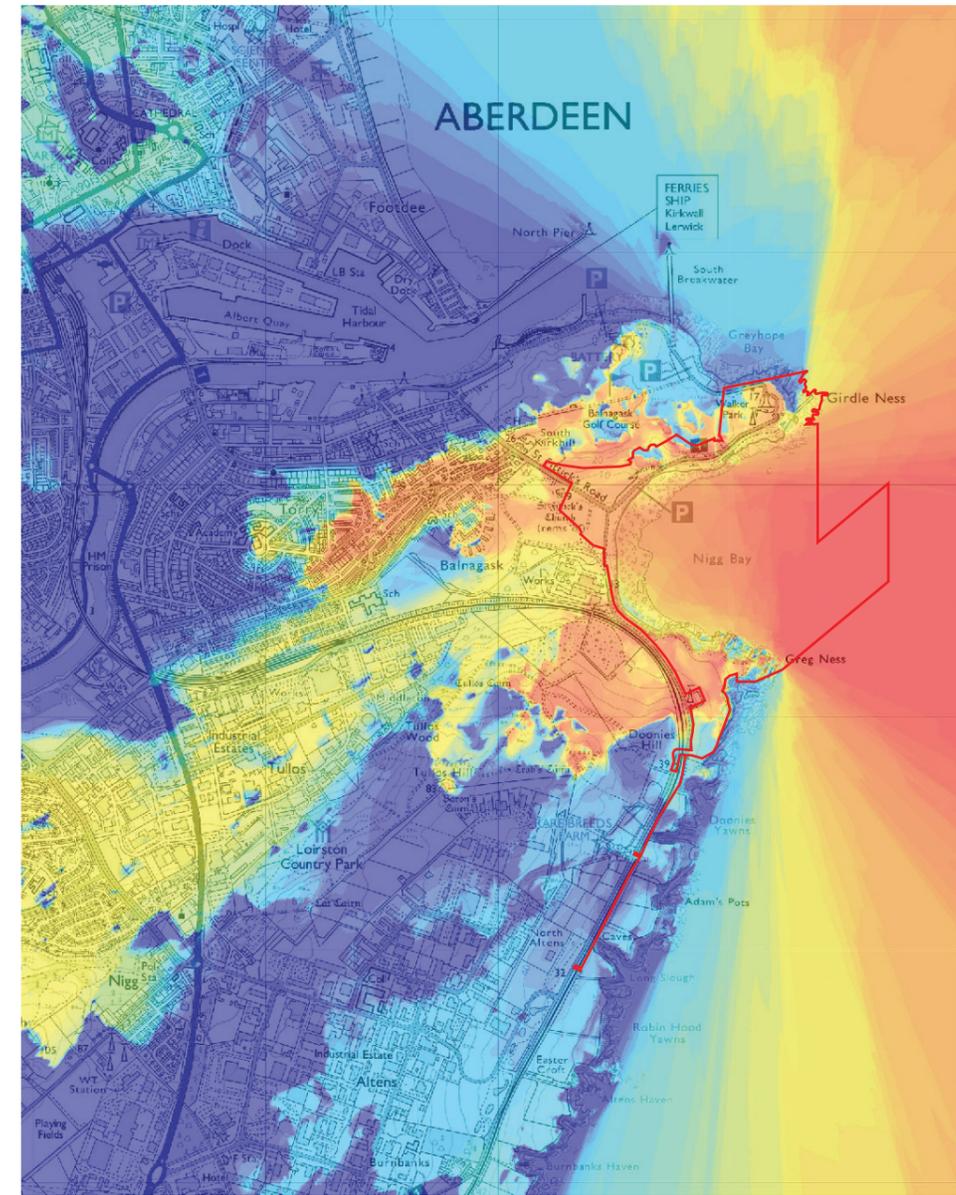
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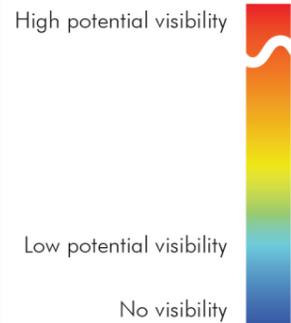


Zone of Theoretical Visibility: Development up to 10.0 m in height - wider context



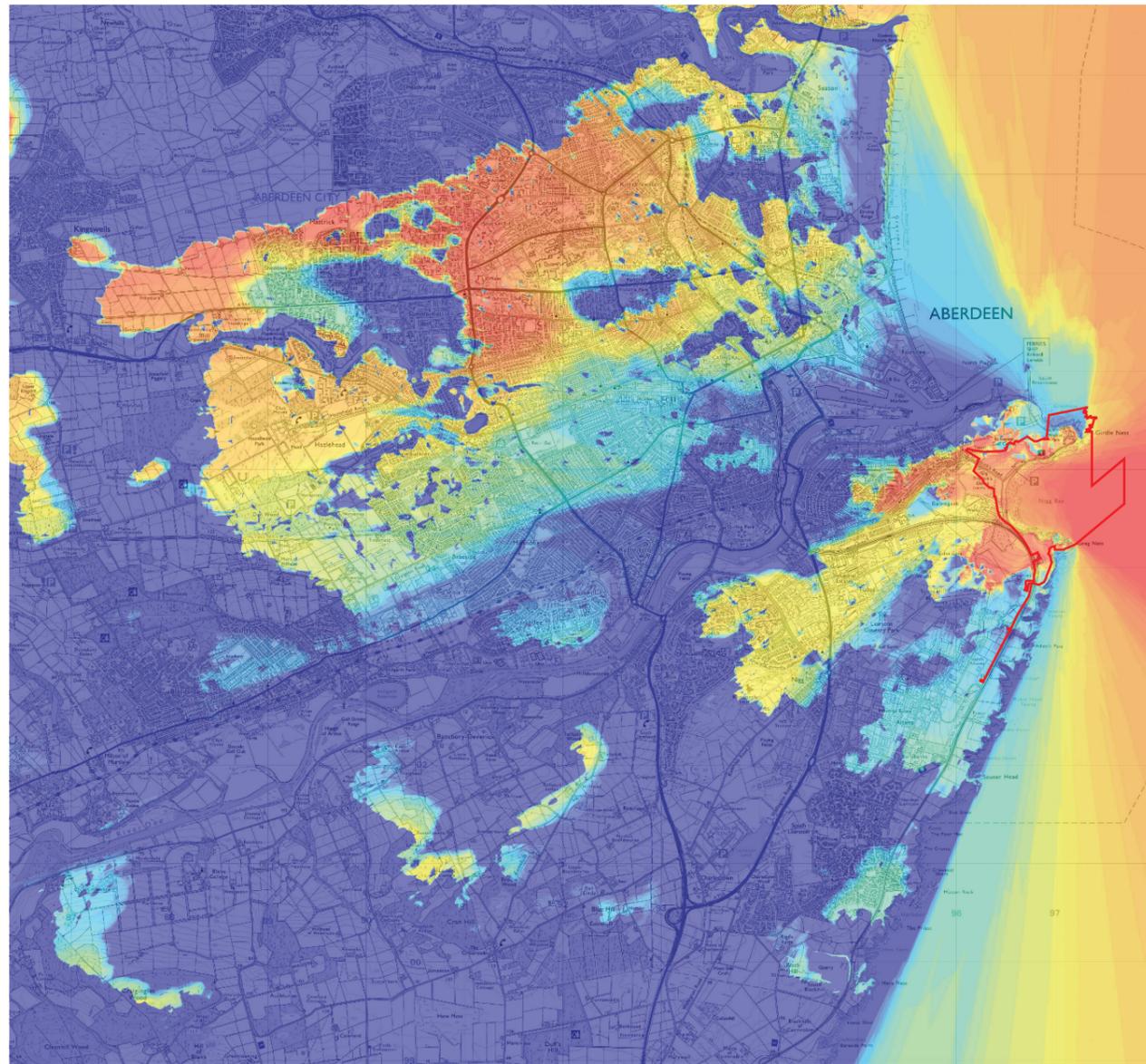
Zone of Theoretical Visibility: Development up to 10.0 m in height - local context

Key for relative visibility

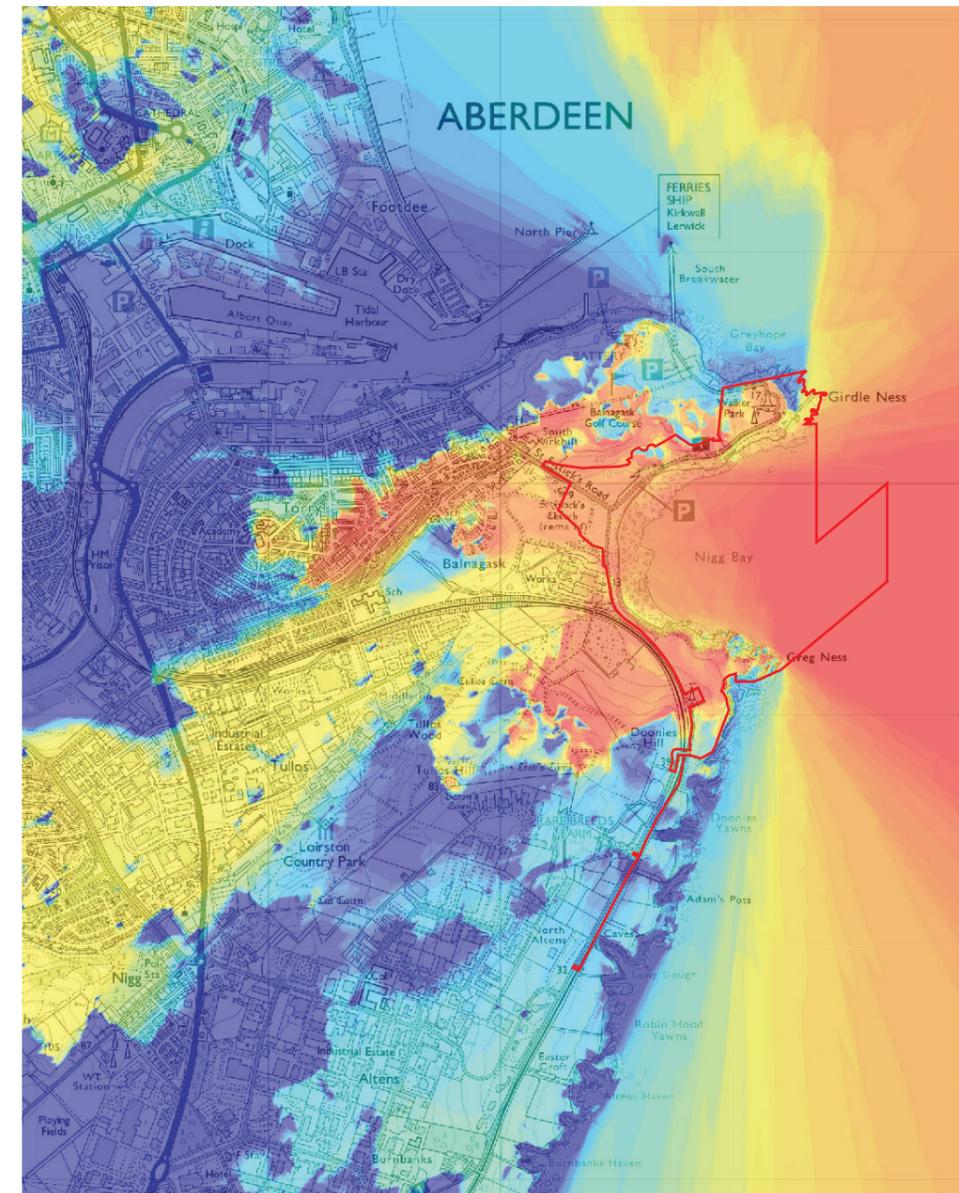


Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1d: Zone of Theoretical Visibility: Development up to 10.0m
Figure Ref	WIB14221-100-GR-SLVIA-01d
Date	August 2015
File Location	\\nt-incs\weed\projects\lead14221\100\graphics\slvia\issued figures



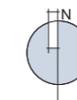
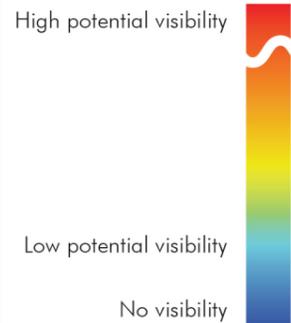


Zone of Theoretical Visibility: Development up to 15.0 m in height - wider context

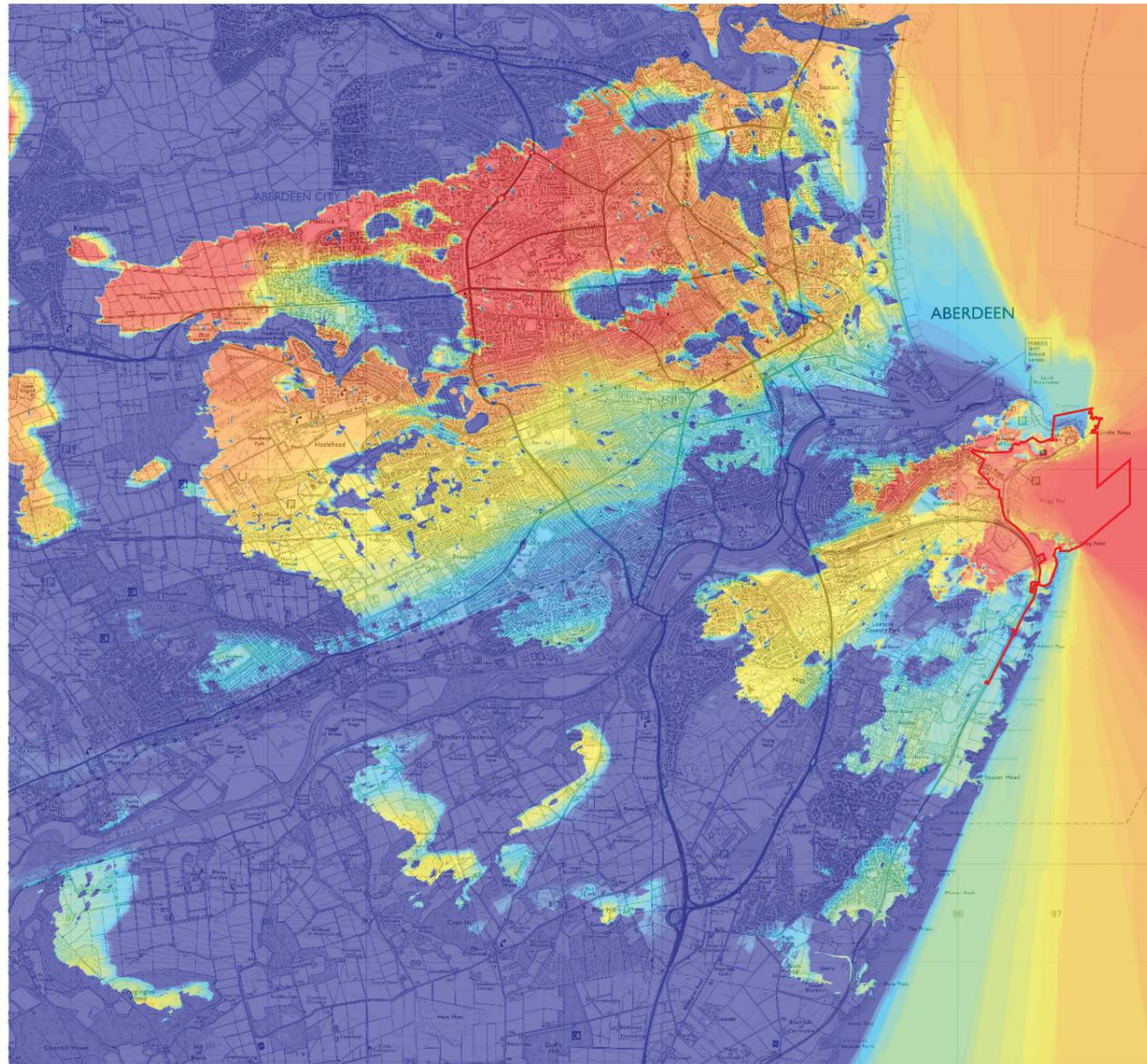


Zone of Theoretical Visibility: Development up to 15.0 m in height - local context

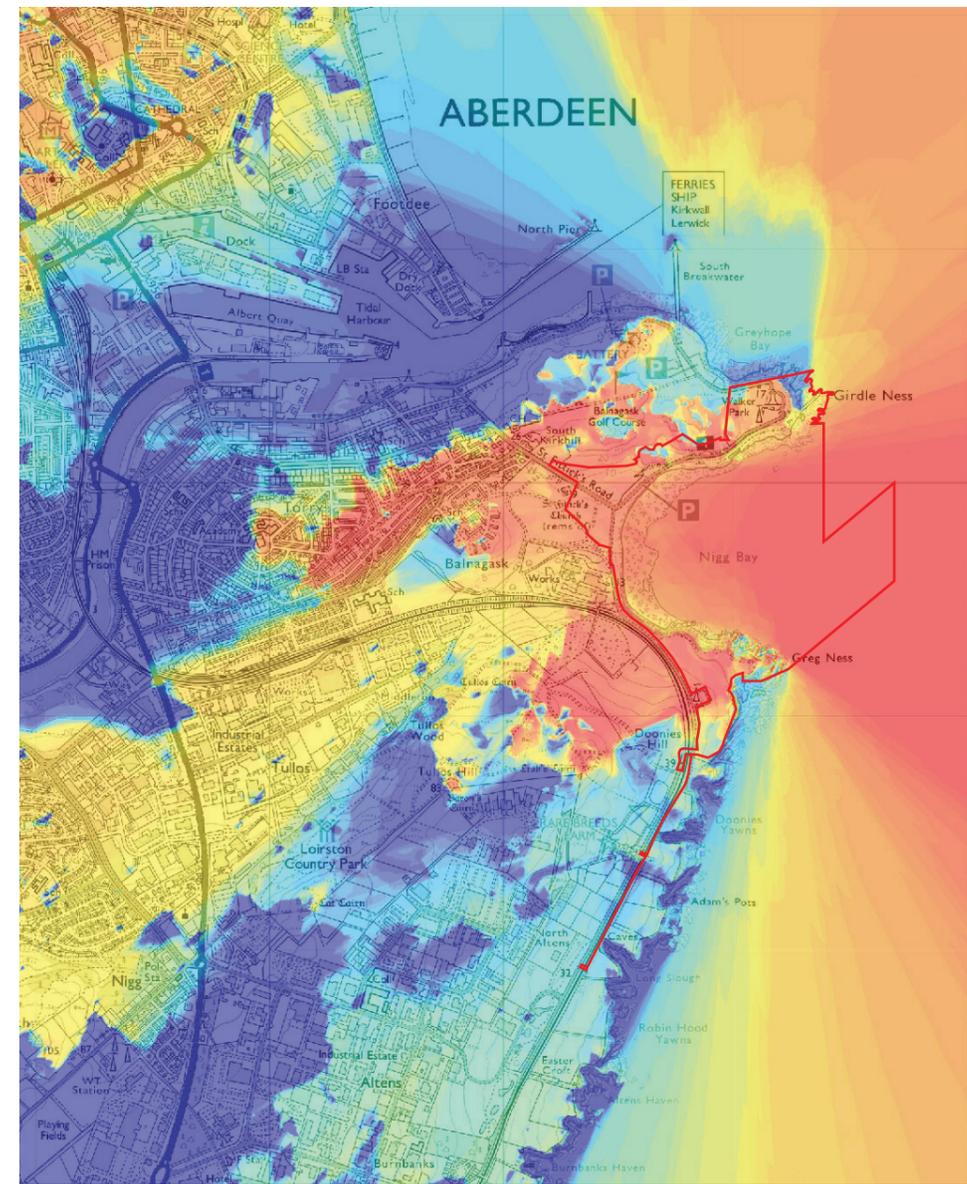
Key for relative visibility



Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1e: Zone of Theoretical Visibility: Development up to 15.0m
Figure Ref	WIB14221-100-GR-SLVIA-01e
Date	August 2015
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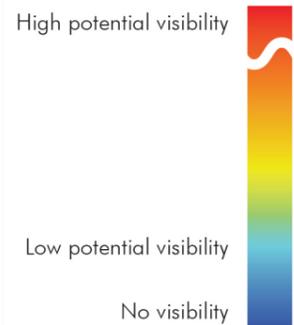


Zone of Theoretical Visibility: Development up to 20.0 m in height - wider context



Zone of Theoretical Visibility: Development up to 20.0 m in height - local context

Key for relative visibility



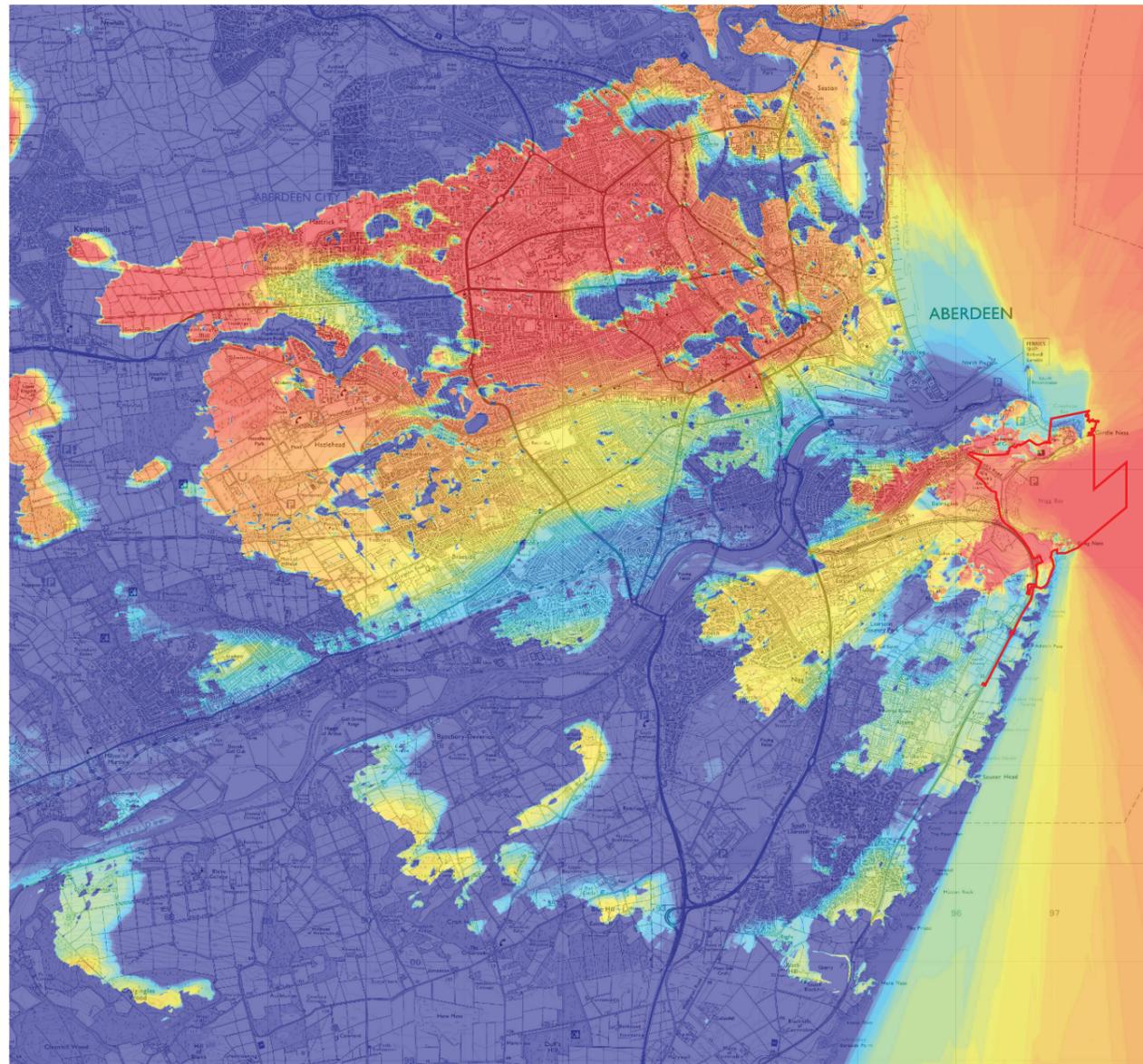
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100m 500m



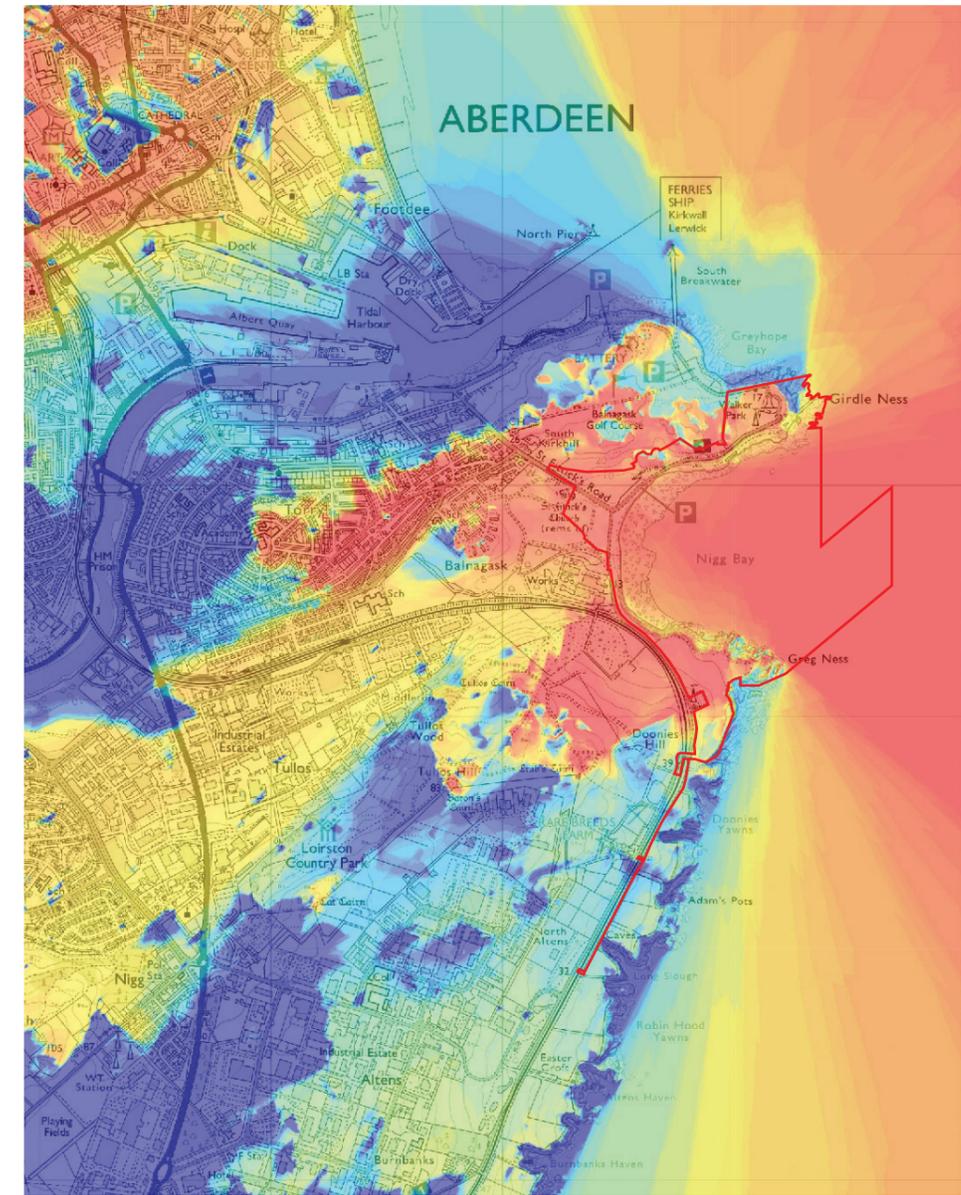
Development Boundary

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1f: Zone of Theoretical Visibility: Development up to 20.0m
Figure Ref	WIB14221-100-GR-SLVIA-01f
Date	August 2015
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100m 500m

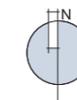
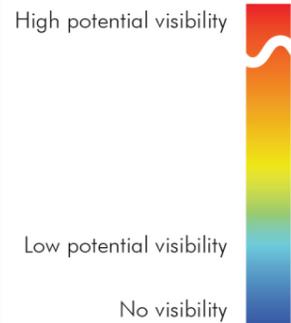


Zone of Theoretical Visibility: Development up to 25.0 m in height - wider context



Zone of Theoretical Visibility: Development up to 25.0 m in height - local context

Key for relative visibility



Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 1g: Zone of Theoretical Visibility: Development up to 25.0m
Figure Ref	WIB14221-100-GR-SLVIA-01g
Date	August 2015
File Location	\\nt-lncs\weed\projects\lead14221\100\graphics\slvia\issued figures

Figure 17.2: Site Characteristics and Viewpoints

Figure 2a: Designations and Features

Figure 2b: Access

Figure 2c: Landscape and Coastal Character Areas

Figure 2d: Representative Viewpoints and Photomontage Locations



- EIA Boundary
- Harbour Revision Order (HRO) Boundary
- Special Area of Conservation - River Dee
- Sites of Special Scientific Interest - Nigg Bay
- Ancient & Long - established Woodland
- Local Nature Reserve
- Local Nature Conservation Sites (LNCS)
- Greenspace Network

Heritage Features:

- 1 Torry Battery
- 2 Girdleness Lighthouse
- 3 Foghorn
- 4 St. Fittick's Church
- 5 Baron's Cairn
- 6 Crab's Cairn
- 7 Tullos Cairn
- 8 Cat Cairn

Other Landscape Features:

- 9 Inner South Breakwater
- 10 Rockte House
- 11 Breakwater and Goliath
- 12 Anti tank Cubes WW2
- 13 Girdleness Battery
- 14 Sewege Valve House
- 15 Walker Park
- 16 Fishing Station
- 17 Salt Pans
- 18 Rifle Range
- 19 Kelp Works
- 20 St. Fittick's Well



[Project Details](#)

WIB14221-100: Aberdeen Harbour Expansion Project

[Figure Title](#)

Figure 2a: Designations and Features

[Figure Ref](#)

WIB14221-100-GR-SLVIA-02a

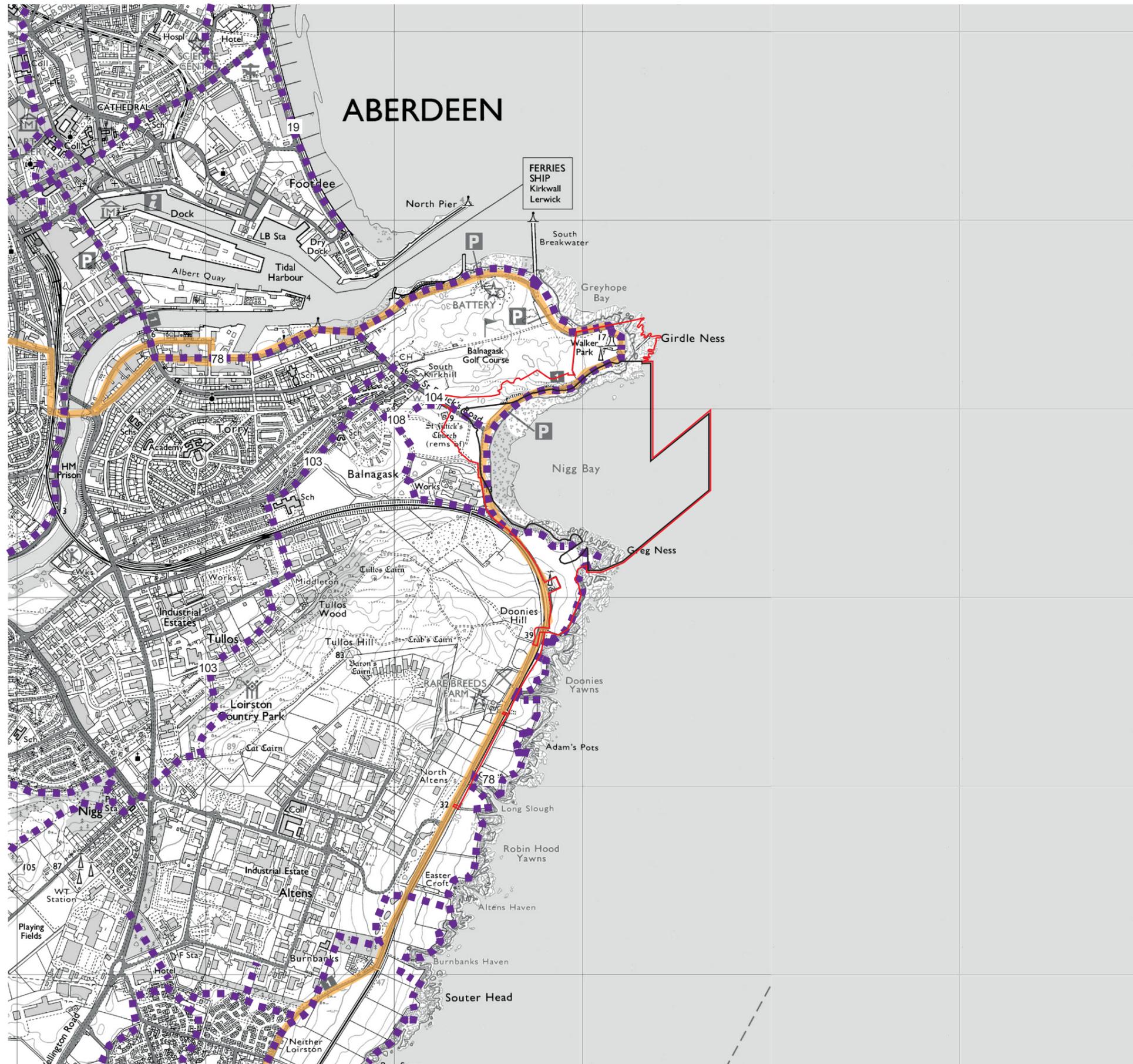
[Date](#)

October 2015

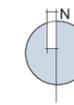
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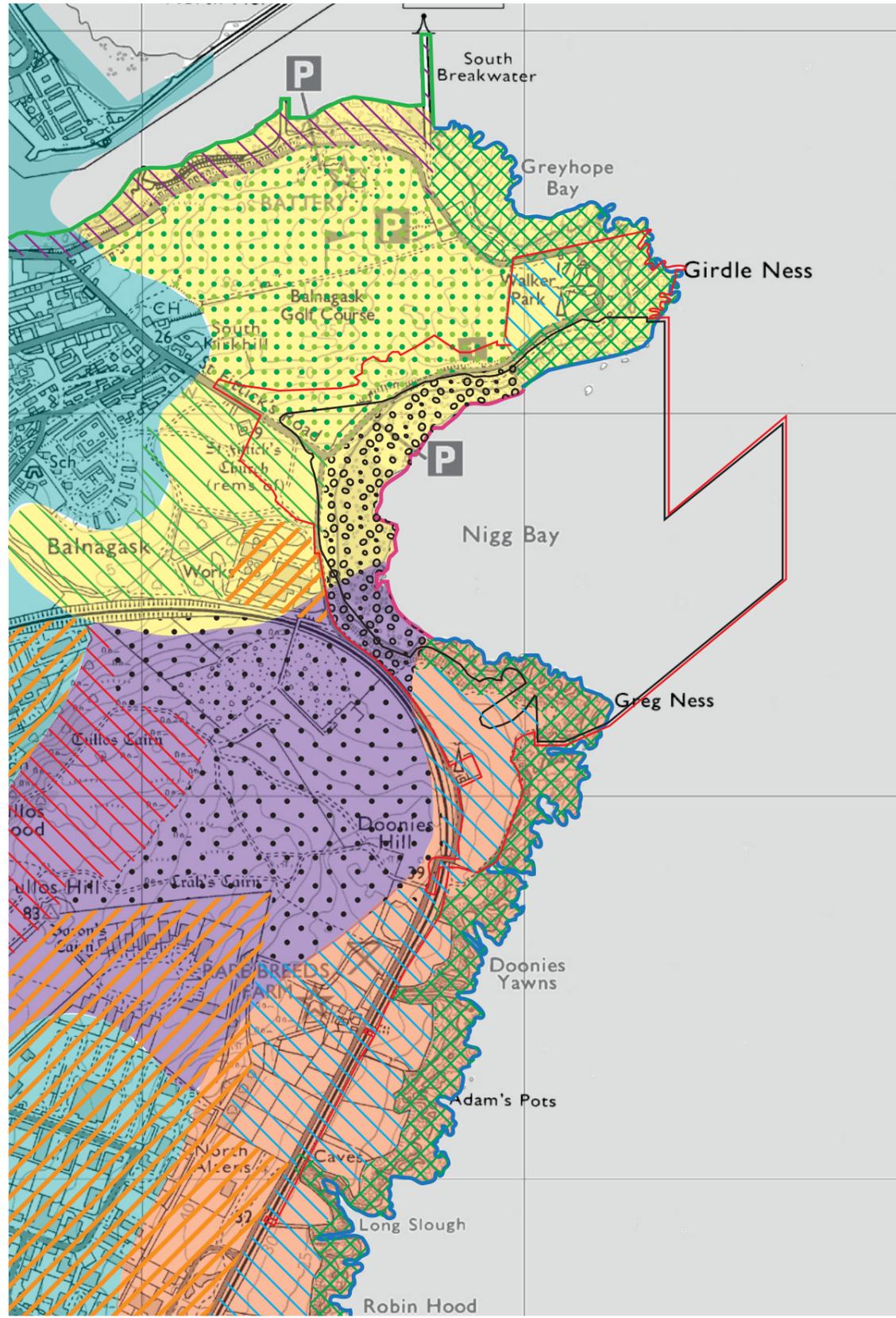


-  EIA Boundary
-  Harbour Revision Order (HRO) Boundary
-  Core Paths with numbers
-  National Cycle Route



Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 2b: Access
Figure Ref	WIB14221-100-GR-SLVIA-02b
Date	October 2015
File Location	\\nt-1ncs\weed\projects\eed14221\100\graphics\lvia\issued figures





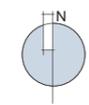
- EIA Boundary
- Harbour Revision Order (HRO) Boundary
- Urban area of Aberdeen City

No. 80: Landscape Character Assessment of Aberdeen

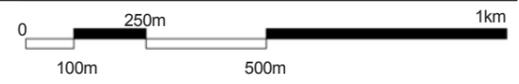
- Area 23: Girdle Ness/Nigg Bay
- Area 24: Kincorth and Tullos Hills
- Area 25: Doonies to Cove Coast

- Local Coastal Character Area
- LCCA1: Headland and Rocky Shore
 - LCCA 2: Shingle Beach
 - LCCA 3: Harbour Entrance

- Local Landscape Character Areas
- LLCA A: Golf Course
 - LLCA B: Managed Grass and Woodland
 - LLCA C: Industrial Units/ Works
 - LLCA D: Rough Hill Pasture
 - LLCA E: Reclaimed Grassland
 - LLCA F: Grazed Pasture

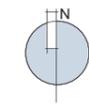
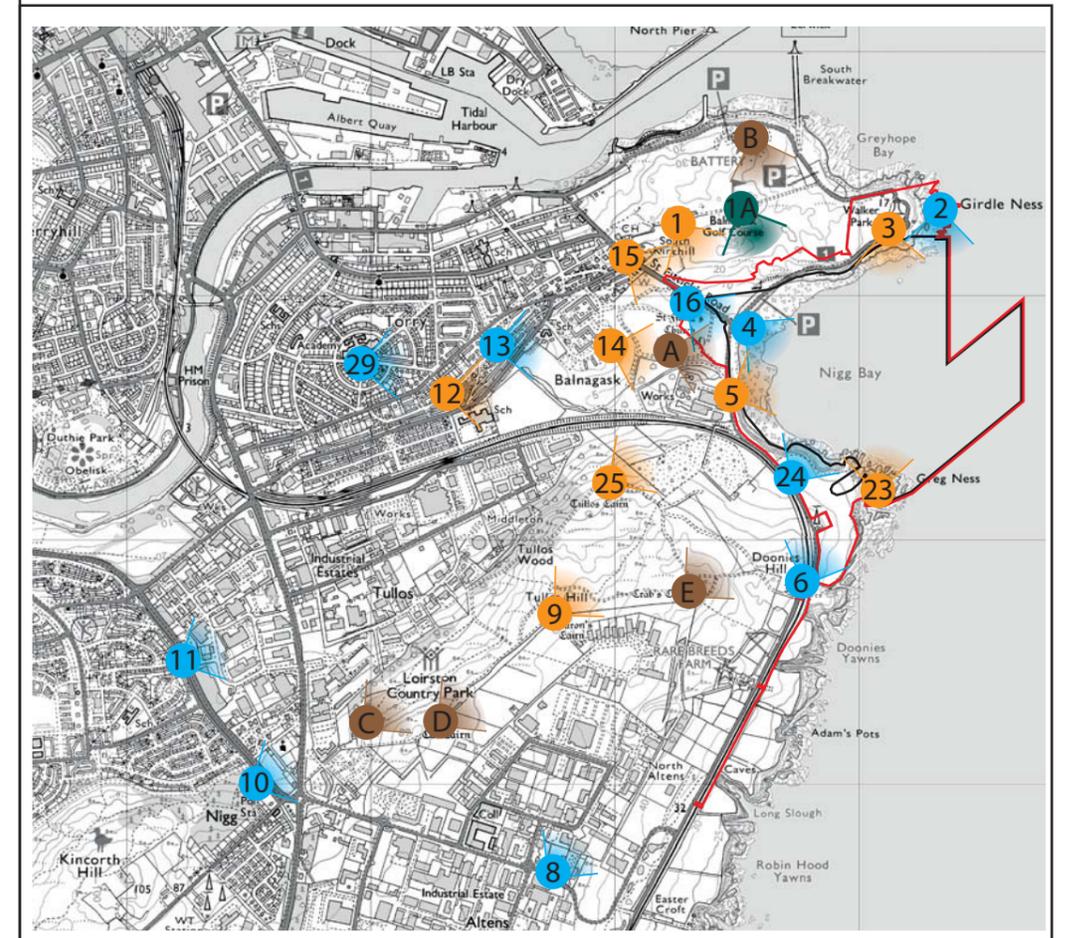


Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 2c: Landscape and Coastal Character Areas
Figure Ref	WIB14221-100-GR-SLVIA-02c
Date	October 2015
File Location	\\nt-lncs\weed\projects\leed14221\100\graphics\lvial\issued figures





-  Representative viewpoint location & photomontage
-  Heritage photomontage
-  1A Illustrative view (not assessed)
-  EIA Boundary
-  Harbour Revision Order (HRO) Boundary
-  Representative viewpoint location



Project Details

Figure Title

Figure Ref

Date

File Location

WIB14221-100: Aberdeen Harbour Expansion Project

Figure 2d: Representative Viewpoints & Photomontage locations

WIB14221-100-GR-SLVA-02d

August 2015

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Figure 17.3: Photo Viewpoints

Figure 3a: Photo viewpoint 01 and Illustrative view 01A

Figure 3b: Photo viewpoints 02 and 03

Figure 3c: Photo viewpoints 04 and 05

Figure 3d: Photo viewpoints 06 and 07

Figure 3e: Photo viewpoints 08 and 09

Figure 3f: Photo viewpoints 10 and 11

Figure 3g: Photo viewpoints 12 and 13

Figure 3h: Photo viewpoints 14 and 15

Figure 3i: Photo viewpoints 16 and 17

Figure 3j: Photo viewpoints 18 and 19

Figure 3k: Photo viewpoints 20 and 21

Figure 3l: Photo viewpoints 22 and 23

Figure 3m: Photo viewpoints 24 and 25

Figure 3n: Photo viewpoints 26 and 27

Figure 3o: Photo viewpoints 28 and 29



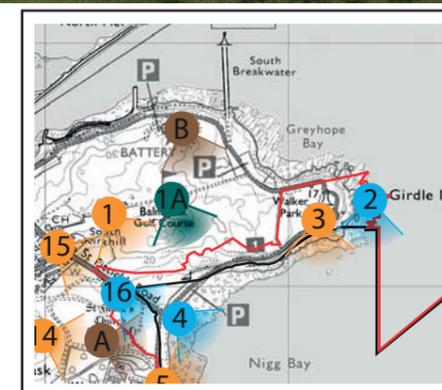
Photo viewpoint 01: Balnagask Golf Course

Photomontage significance.

This illustrative viewpoint location was chosen to demonstrate the particular effects of the development proposal on the setting of the Balnagask Golf Course, and experience of the receptors using this leisure facility.



Illustrative view 01A: Taken to illustrate the general character of the views from the golf course, where views are predominantly out to sea, rather than down into Nigg Bay.



Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3a: Photo viewpoint 01 & Illustrative view 01A
Figure Ref	WIB14221-100-GR-SLVIA-03a
Date	August 2015
File Location	\\nt-incs\weed\projects\leed14221\100\graphics\lvia\working images

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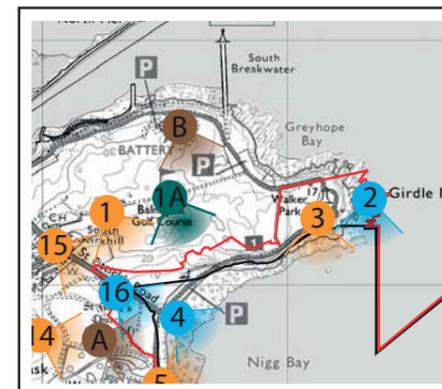
Photo viewpoint 02: View from footpath along the Torry Coastal & North Sea trail adjacent to the Torry Foghorn, looking southwest.



Photo viewpoint 03: View from Greyhope Road in front of Seabreeze Cottage, looking southwest.

Photomontage significance.

This specific viewpoint was chosen to illustrate the prominent/ unobstructed views from Greyhope Road once vehicle receptors turn the corner in the road adjacent to Walker Point Lighthouse. The location also includes views of the receptors location at Seabreeze cottage.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3b: Photo viewpoints 02 & 03
Figure Ref	WIB14221-100-GR-SLVIA-03b
Date	August 2015
File Location	\\nt-Incs\weed\projects\eed14221\100\graphics\lvial\working images

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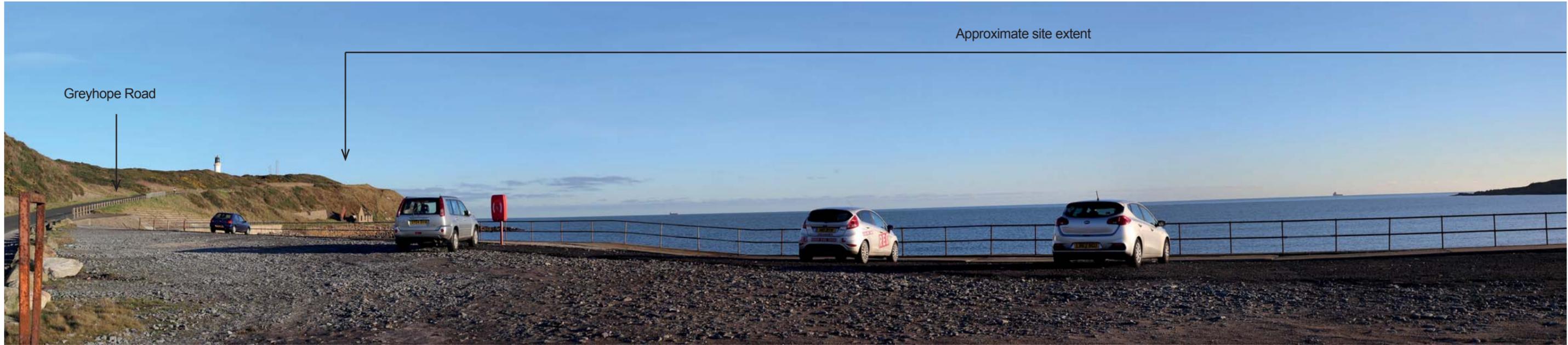


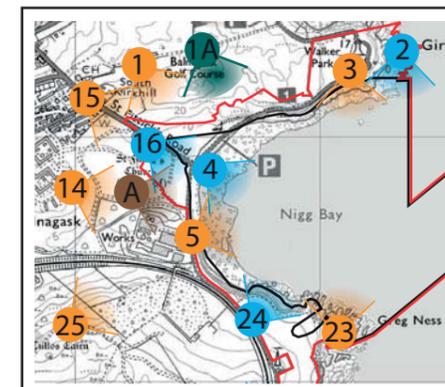
Photo viewpoint 04: View from car park opposite Nigg Bay off Coast Road, looking east.



Photo viewpoint 05: View from Coast Road at entrance to treatment works, looking northeast.

Photomontage significance.

This representative viewpoint was selected due to its proximity to the proposed harbour. It is a view that is experienced by motorists, cyclists and walkers as they traverse the bay.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3c: Photo viewpoints 04 & 05
Figure Ref	WIB14221-100-GR-SLVIA-03c
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images
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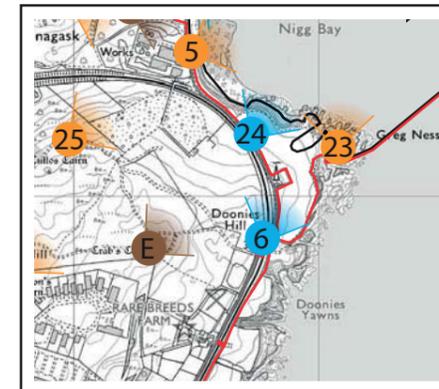
Photo viewpoint 06: View from picnic area/ car park off Coast road adjacent to rare breeds farm, looking north.



Photo viewpoint 07: View from coast footpath northeast of Cove Bay settlement, looking north.



Location Plan



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3d: Photo viewpoints 06 & 07
Figure Ref	WIB14221-100-GR-SLVIA-03d
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images



Photo viewpoint 08: View from Hareness Road, Altens Industrial Estate at the eastern edge, looking northeast.

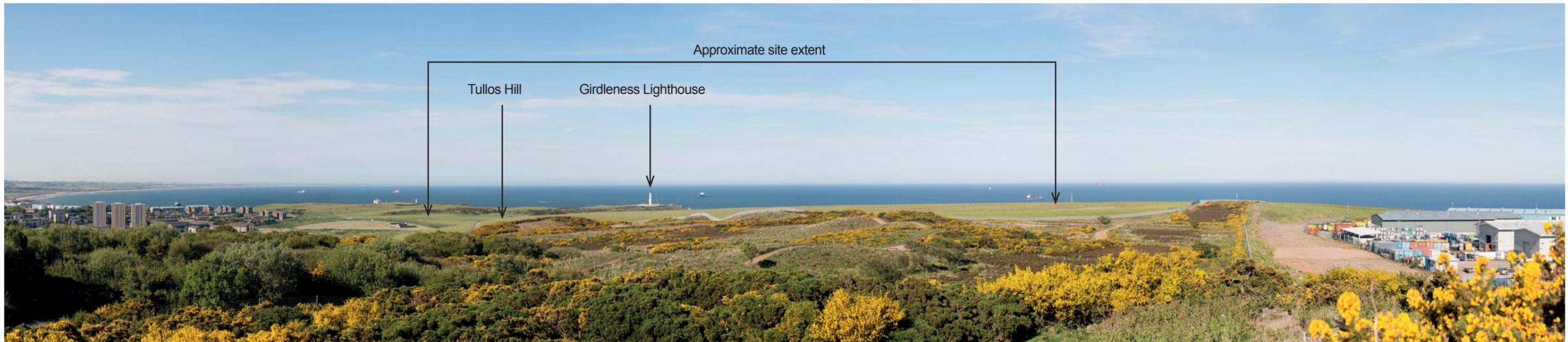
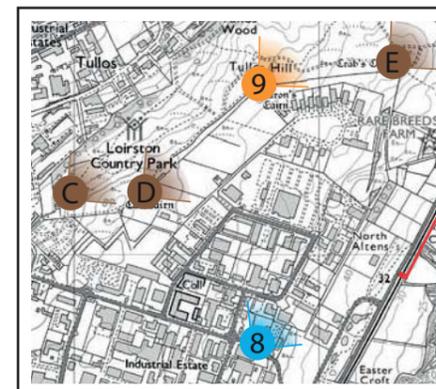


Photo viewpoint 09: View from Tullos Hill viewpoint, looking east.

Photomontage significance.

The specific viewpoint at Tullos Hill was chosen because of the historic/ cultural association of Baron's Cairn, being one of the most noticeable Bronze Age burial cairn and a prominent landmark/ viewpoint. The advantage point provides 360° views of the surrounding area and those into Nigg Bay.



Location Plan

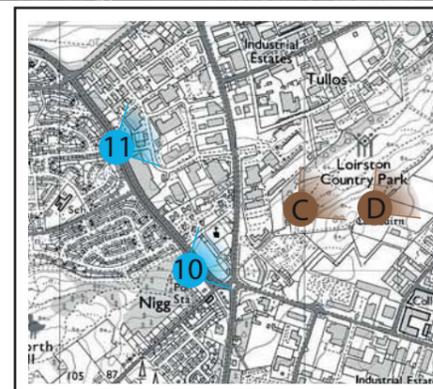
Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3e: Photo viewpoints 08 & 09
Figure Ref	WIB14221-100-GR-SLVIA-03e
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images
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Photo viewpoint 10: View from junction of Abbotswell Crescent with Redmoss Road, looking northeast.



Photo viewpoint 11: View from Abbotswell Crescent, near property number 102, looking northeast.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3f: Photo viewpoints 10 & 11
Figure Ref	WIB14221-100-GR-SLVIA-03f
Date	August 2015
File Location	\\nt-tncl\weed\projects\eed14221\1100\graphics\lvial\working images



Photo viewpoint 12: View from Rockall Place near property number 5, looking east.

Photomontage significance.

The representative viewpoint from Rockall Place, was chosen for its location which illustrates the oblique nature of the views of residential receptors in the southwest area of Torry. An area of Nigg Bay is visible with sea beyond.

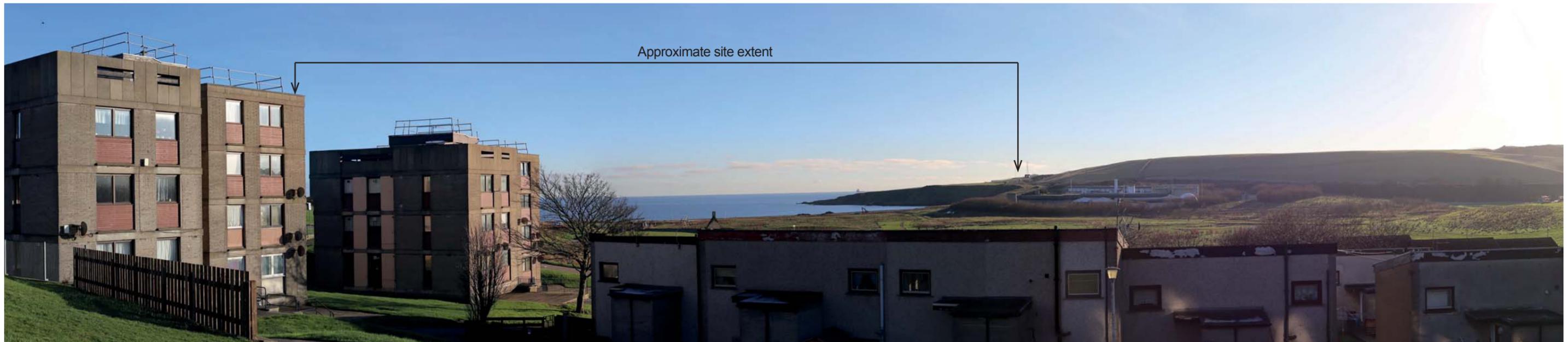
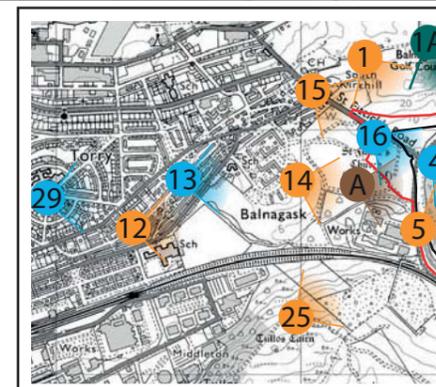


Photo viewpoint 13: View from Balnagask Road at the northern edge of the settlement of Torry, looking southwest.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3g: Photo viewpoints 12 & 13
Figure Ref	WIB14221-100-GR-SLVIA-03g
Date	August 2015
File Location	\\nt-ncs\weed\projects\eed14221\100\graphics\lvia\working images
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Photo viewpoint 14: View from parking area adjacent to properties located within parking court of Balnagask Circle, looking east.

Photomontage significance.

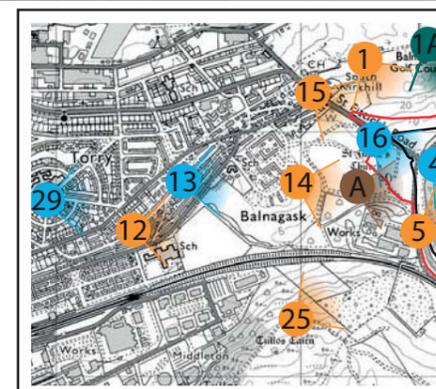
The representative viewpoint from the car park at Balnagask Circle was selected to represent the experience of residential receptors in Balnagask and to the east of Tory who have direct or oblique views eastwards to Nigg Bay. The open nature of the landscape and parkland area provide uninterrupted views towards the proposal site.



Photo viewpoint 15: View from Saint Fittick's Road at the southern edge of the Nigg Bay Golf Club, looking east.

Photomontage significance.

This representative viewpoint was selected to represent the variety of receptor activities to the north of Balnagask. The location within a lay-by just off Saint Fittick's Road illustrates the perceived view of vehicle receptors travelling towards the coast road. It also highlights the open nature of the landscape and views for the leisure receptors at Balnagask Golf Course, as well as the northern edge of the residential receptors of the area of Tory.



Location Plan

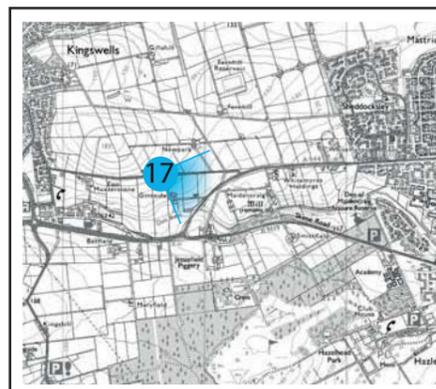
Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3h Photo viewpoints 14 & 15
Figure Ref	WIB14221-100-GR-SLVIA-03h
Date	August 2015
File Location	\\nt-1ncs\weed\projects\eed14221\100\graphics\lvial\working images
	www.watermangroup.com



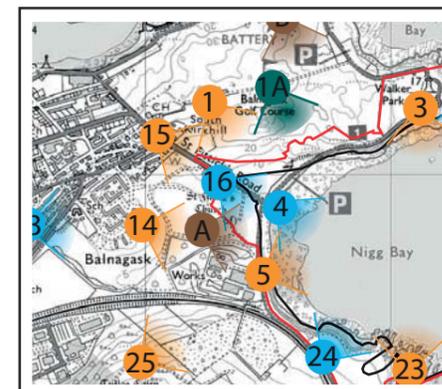
Photo viewpoint 16: View from path adjacent to Saint Fittick's Church, looking east.



Photo viewpoint 17: View from Private road off Fairly Road at the eastern edge of the settlement of Kingswells, looking east.



Location Plan



Location Plan

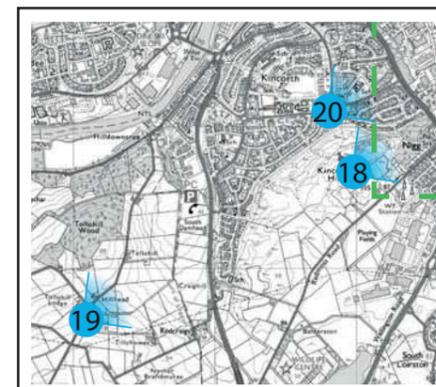
Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3i: Photo viewpoints 16 & 17
Figure Ref	WIB14221-100-GR-SLVIA-03i
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\1100\graphics\lvial\working images
	www.watermangroup.com



Photo viewpoint 18: View from public footpath within Kincorth Hill Nature Reserve, looking northeast.



Photo viewpoint 19: View from country lane near to Tollochill wood, looking northeast.



Location Plan

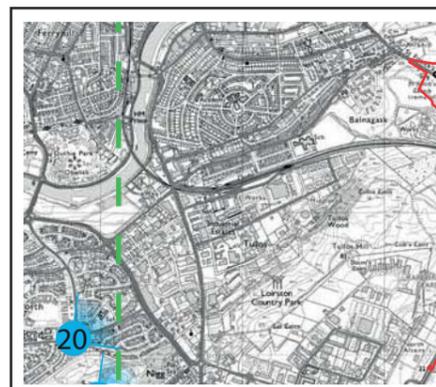
Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3j: Photo viewpoints 18 & 19
Figure Ref	WIB14221-100-GR-SLVIA-03j
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images
	www.watermangroup.com



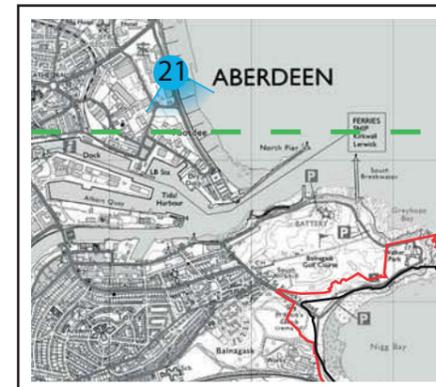
Photo viewpoint 20: View from Arbroath Way, at the bottom of Kincorth Land tower block on the edge of property line, looking northeast.



Photo viewpoint 21: View from public footpath adjacent to Esplanade and Beach Ballroom, looking south.



Location Plan



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3k: Photo viewpoints 20 & 21
Figure Ref	WIB14221-100-GR-SLVIA-03k
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\1100\graphics\lvial\working images
	www.watermangroup.com



Photo viewpoint 22: View from datum survey point off Coastal footpath on Greg Ness headland, looking north.

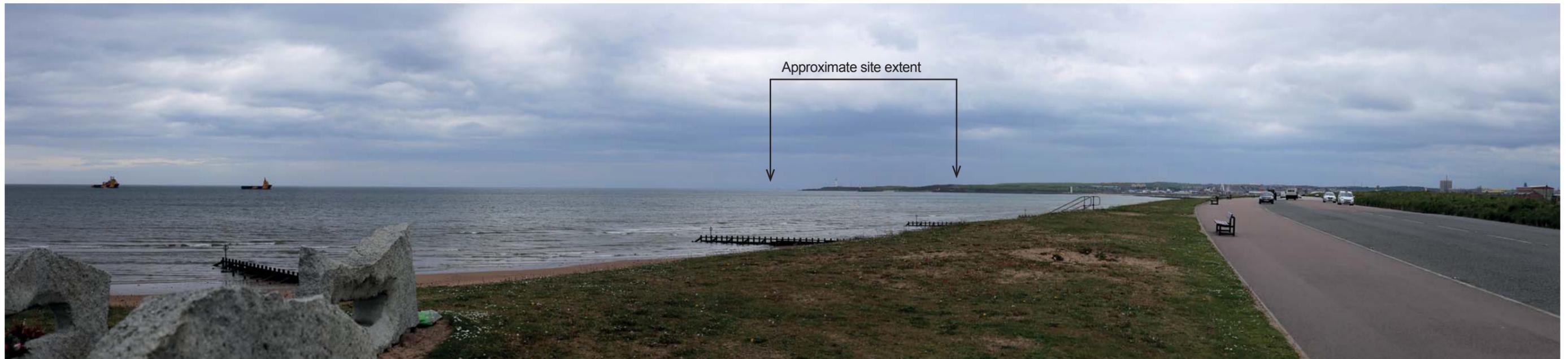


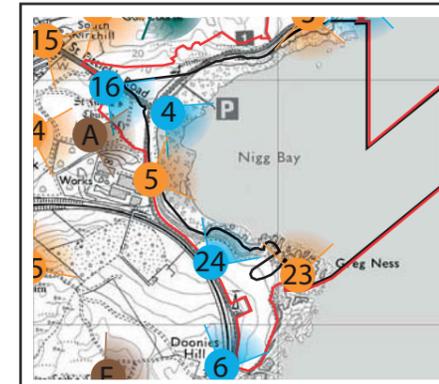
Photo viewpoint 23: View from the Esplanade off public footpath close to 'Windows on the Sea' memorial near to Donmouth Nature Reserve at mouth of River Don, looking southwest. Nigg Bay is not seen being situated behind the headland.

Photomontage significance.

This illustrative viewpoint location was selected to demonstrate the particular effect which the proposed development shall have on those using the coastal footpath, and the perceived view from this location.



Location Plan



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 31: Photo viewpoints 22 & 23
Figure Ref	EED14221-100-GR-SLVIA-03I
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\l\l\working images
	www.watermangroup.com



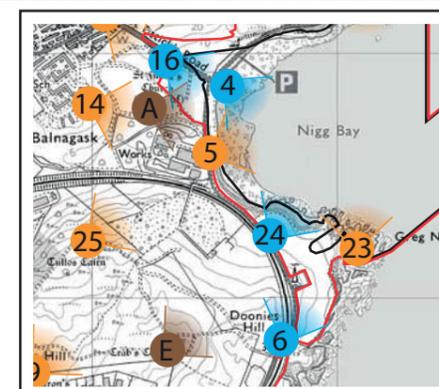
Photo viewpoint 24: View from the end of footpath off Coastal Path, adjacent to Coast Road with railway line behind, looking north-east



Viewpoint 25: Tullos Cairn, Tullos Hill

Photomontage significance.

The specific viewpoint at Tullos Hill was chosen because of the historic/ cultural association of Baron's Cairn, being one of the most noticeable Bronze Age burial cairn and a prominent landmark/ viewpoint. The advantage point provides 360° views of the surrounding area and those into Nigg Bay.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3m: Photo viewpoints 24 & 25
Figure Ref	WIB14221-100-GR-LVIA-03m
Date	August 2015
File Location	\\nt-incs\weed\projects\leed14221\100\graphics\lvial\working images
	www.watermangroup.com



Viewpoint 26: View from sea, looking south-west towards the site

Photomontage significance.

This view is part of two other viewpoint locations to provide an overview of the area of visibility from the sea, and also the effect of the development mass on the character of the coastline. The objective of the viewpoint shown at 1.0km from the central point of the bay shoreline, is to provide a representative view from any vessels pleasure or commercial traveling along the coastline towards the existing harbour.

Provides a view towards the bay in a southwest direction, to capture the direction of view of vessels traveling from the north towards the dock area of the original harbour.

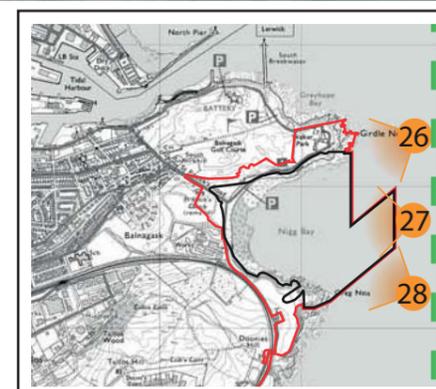


Viewpoint 27: View from sea, looking west towards the site

Photomontage significance.

This view is part of two other viewpoint locations to provide an overview of the area of visibility from the sea, and also the effect of the development mass on the character of the coastline. The objective of the viewpoint shown at 1.0km from the central point of the bay shoreline, is to provide a representative view from any vessels pleasure or commercial traveling along the coastline towards the existing harbour.

Directly towards the bay, to illustrate the setting of the proposed development within the context of the existing harbour when viewed from the sea.



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3n: Photo viewpoints 26 & 27
Figure Ref	WIB14221-100-GR-SLVIA-03n
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\1100\graphics\lvia\working images



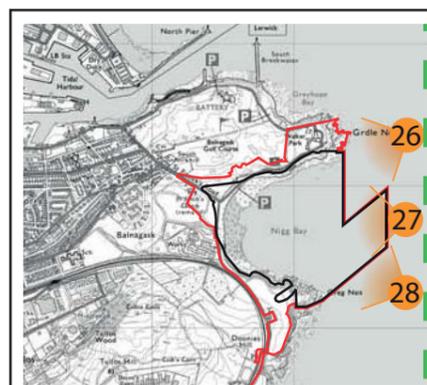
Viewpoint 28: View from sea, looking north-west towards the Site.

Photomontage significance.

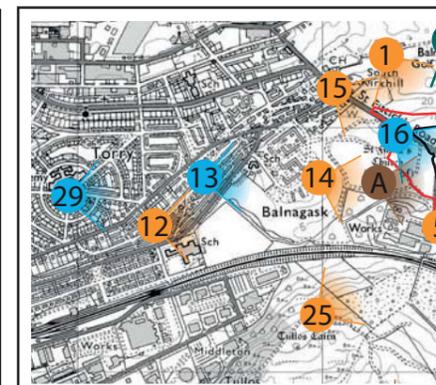
This view is part of two other viewpoint locations to provide an overview of the area of visibility from the sea, and also the effect of the development mass on the character of the coastline. The objective of the viewpoint shown at 1.0km from the central point of the bay shoreline, is to provide a representative view from any vessels pleasure or commercial traveling along the coastline towards the existing harbour. In a northwest direction, to capture the view of the development proposal within the context of the coastline, and provide a wider perspective of view for vessels tracking along the shoreline.



Photo viewpoint 29: View from Tullos Circle opposite Torry Academy looking east towards the site



Location Plan



Location Plan

Project Details	WIB14221-100: Aberdeen Harbour Expansion Project
Figure Title	Figure 3o: Photo viewpoints 28 & 29
Figure Ref	WIB14221-100-GR-SLVIA-03o
Date	August 2015
File Location	\\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images
	www.watermangroup.com

Figure 17.4: Photomontage Viewpoints

Figure 4a: Photomontage Viewpoint 01

Figure 4b: Photomontage Viewpoint 03

Figure 4c: Photomontage Viewpoint 05

Figure 4d: Photomontage Viewpoint 09

Figure 4e: Photomontage Viewpoint 12

Figure 4f: Photomontage Viewpoint 14

Figure 4g: Photomontage Viewpoint 15

Figure 4h: Photomontage Viewpoint 23

Figure 4i: Photomontage Viewpoint 25

Figure 4j: Photomontage Viewpoint 26

Figure 4k: Photomontage Viewpoint 27

Figure 4l: Photomontage Viewpoint 28

Photoviewpoint 1 - Existing View



Photoviewpoint 1 - Proposed Wireframe View



Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4a: Photomontage Viewpoint 01

Figure Ref | WIB14221-100-GR-SLVIA-04a

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	396190.8 805292.7	Horizontal Field of View	90°
Ground Height (AOD)	35.7m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 11:39

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/01b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 3 - Existing View



Photoviewpoint 3 - Proposed Block Model View

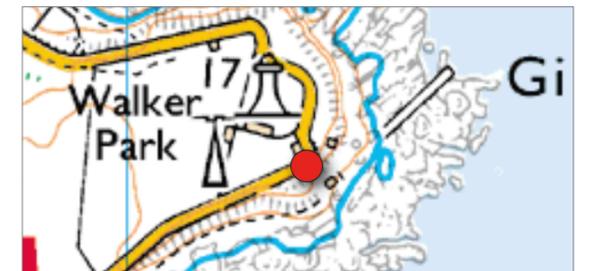


Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4b: Photomontage Viewpoint 03

Figure Ref | WIB14221-100-GR-SLVIA-04b-RevA

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images



Viewpoint Information			
OS Grid Reference	397203.6 805279.9	Horizontal Field of View	90°
Ground Height (AOD)	16.7m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 11:54

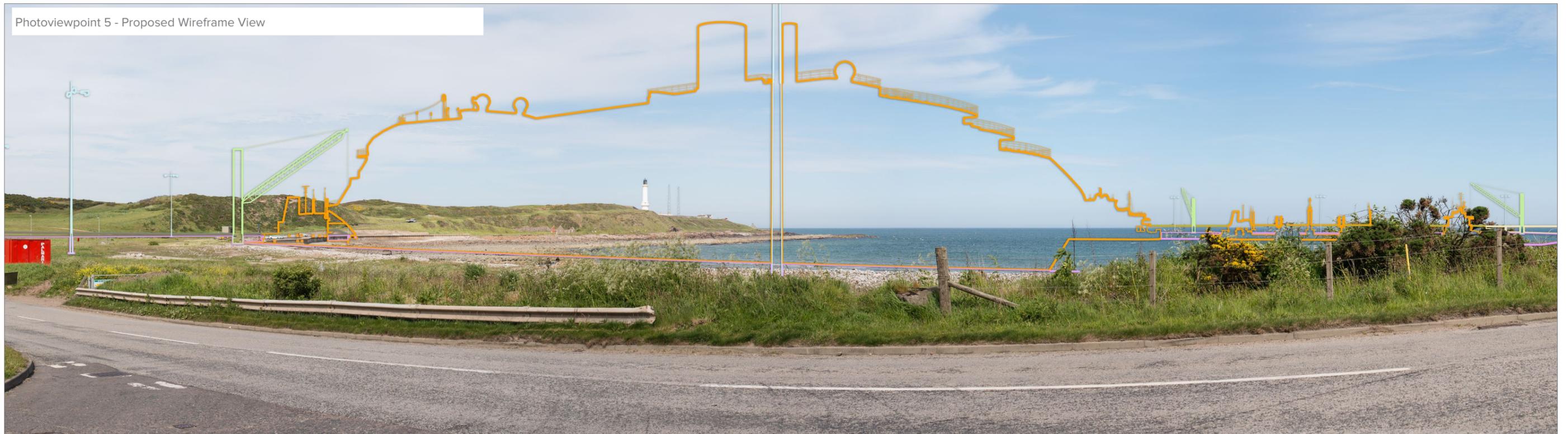
Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 23 October 2015
 Drawing Number: EED14221/01b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 5 - Existing View



Photoviewpoint 5 - Proposed Wireframe View



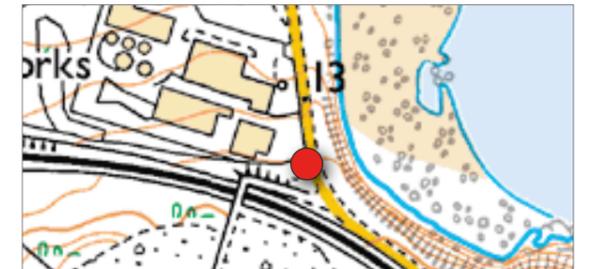
Project Details WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title Figure 4c: Photomontage Viewpoint 05

Figure Ref WIB14221-100-GR-SLVIA-04c

File Location \\nt-inc\weed\projects\eed14221\100\graphics\lvia\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	396462.8 804603.2	Horizontal Field of View	90°
Ground Height (AOD)	7.6m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 14:06

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/03b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 9 - Existing View



Photoviewpoint 9 - Proposed Wireframe View



Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4d: Photomontage Viewpoint 09

Figure Ref | WIB14221-100-GR-LVIA-04d

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	3957676 803693.4	Horizontal Field of View	90°
Ground Height (AOD)	81.8m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 16:49

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/04b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 12 - Existing View



Photoviewpoint 12 - Proposed Wireframe View



Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4e: Photomontage Viewpoint 12

Figure Ref | WIB14221-100-GR-SLVIA-04e

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images

- Key**
- Extent of proposals occluded by existing features
 - Tanks, Monopiles and Sector Light
 - Quays (north, east & west) and South Pier
 - New Roads
 - North Breakwater
 - Mobile Cranes
 - South Breakwater
 - Lighting Columns
 - Vessels



Viewpoint Information		Horizontal Field of View	
OS Grid Reference	3953376 804566.9	Horizontal Field of View	90°
Ground Height (AOD)	30.1m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 14:43

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/05b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 14 - Existing View



Photoviewpoint 14 - Proposed Wireframe View



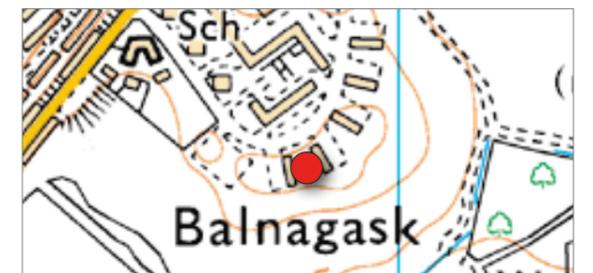
Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4f: Photomontage Viewpoint 14

Figure Ref | WIB14221-100-GR-SLVIA-04f

File Location | \\nt-incs\weedl\projects\eed14221\100\graphics\lvia\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	395934.7 804744.2	Horizontal Field of View	90°
Ground Height (AOD)	14.5m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 14:36

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/06b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 15 - Existing View



Photoviewpoint 15 - Proposed Block Model View



Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4g: Photomontage Viewpoint 15

Figure Ref | WIB14221-100-GR-SLVIA-04g-RevA

File Location | \\nt-incs\weedl\projects\eed14221\100\graphics\lvia\working images



Viewpoint Information			
OS Grid Reference	396129.2 805121.7	Horizontal Field of View	90°
Ground Height (AOD)	21.4m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 13:49

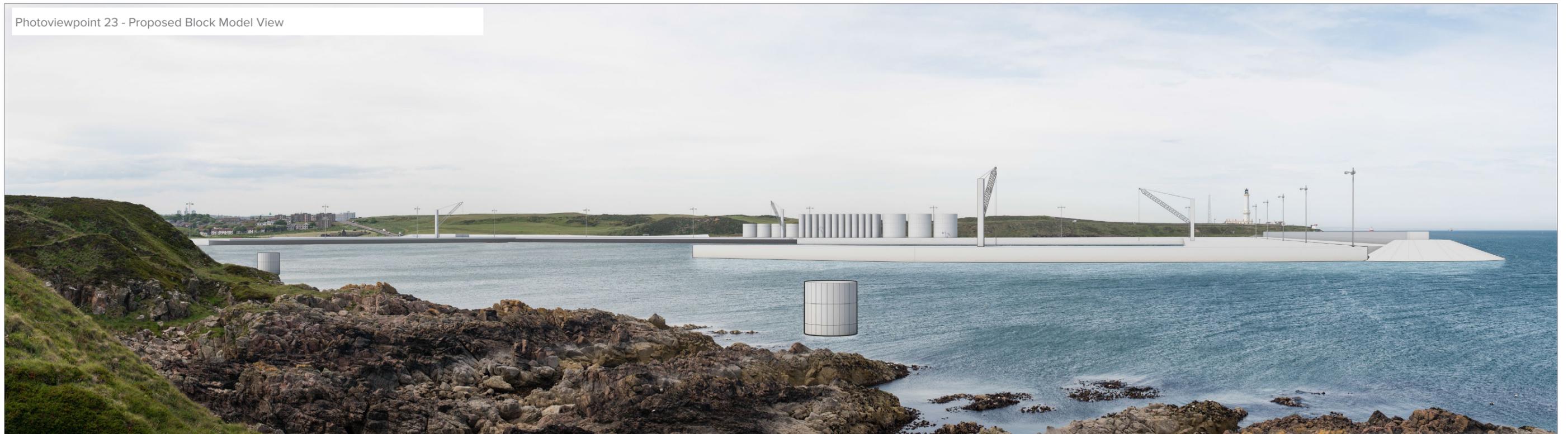
Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 23 October 2015
 Drawing Number: EED14221/02b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 23 - Existing View



Photoviewpoint 23 - Proposed Block Model View

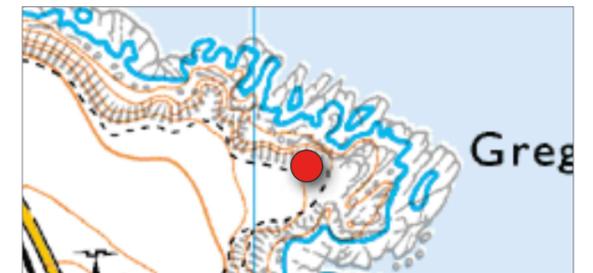


Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4h: Photomontage Viewpoint 23

Figure Ref | WIB14221-100-GR-SLVIA-04h-RevA

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvial\working images



Viewpoint Information			
OS Grid Reference	397087.4 804243.0	Horizontal Field of View	90°
Ground Height (AOD)	11.35m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 14:18

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 23 October 2015
 Drawing Number: EED14221/03b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 25 - Existing View



Photoviewpoint 25 - Proposed Wireframe View



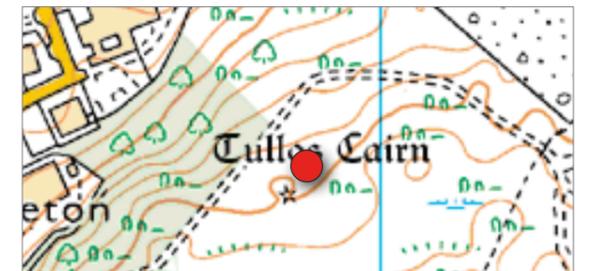
Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4i: Photomontage Viewpoint 25

Figure Ref | WIB14221-100-GR-SLVIA-04i

File Location | \\nt-1ncs\weedl\projects\eed14221\100\graphics\via\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	395925.0 804147.2	Horizontal Field of View	90°
Ground Height (AOD)	46.4m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 15:42

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/09b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 26 - Existing View



Photoviewpoint 26 - Proposed Wireframe View



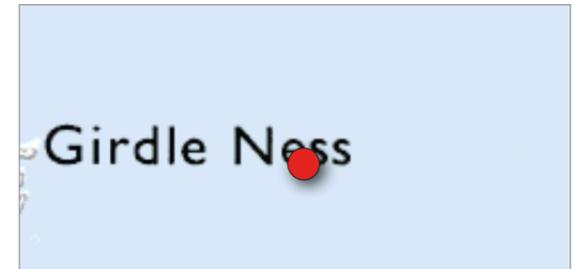
Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4j: Photomontage Viewpoint 26

Figure Ref | WIB14221-100-GR-SLVIA-04j

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	397938.0 805286.0	Horizontal Field of View	90°
Ground Height (AOD)	~4m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 12:44

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/10b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 27 - Existing View



Photoviewpoint 27 - Proposed Block Model View



Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4k: Photomontage Viewpoint 27

Figure Ref | WIB14221-100-GR-SLVIA-04k-RevA

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\lvia\working images



Viewpoint Information			
OS Grid Reference	397813.0 804767.0	Horizontal Field of View	90°
Ground Height (AOD)	~4m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 12:54

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 23 October 2015
 Drawing Number: EED14221/04b
 Drawn by: MP
 Checked by: AP

Photoviewpoint 28 - Existing View



Photoviewpoint 28 - Proposed Wireframe View



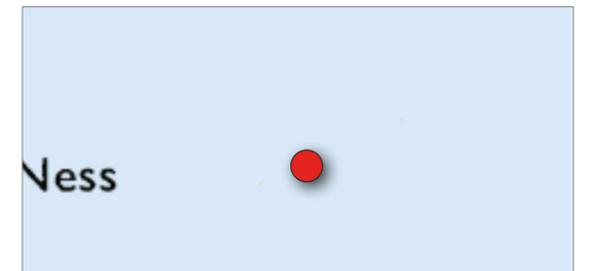
Project Details | WIB14221-100: Aberdeen Harbour Expansion Project

Figure Title | Figure 4I: Photomontage Viewpoint 28

Figure Ref | WIB14221-100-GR-SLVIA-04I

File Location | \\nt-incs\weed\projects\eed14221\100\graphics\l\ial\working images

- Key**
- Extent of proposals occluded by existing features
 - Quays (north, east & west) and South Pier
 - North Breakwater
 - South Breakwater
 - Tanks, Monopiles and Sector Light
 - New Roads
 - Mobile Cranes
 - Lighting Columns
 - Vessels



Viewpoint Information			
OS Grid Reference	397945.0 804283.0	Horizontal Field of View	90°
Ground Height (AOD)	~4m	Camera / Lens	Nikon D800 / Nikon 50mm f/1.4
Viewer Height	1.65m	Date / Time	11/06/2015 - 13:03

Note: This is a composite image made up of 50mm photographs joined together horizontally (by means of cylindrical projection) to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image should be viewed at a distance of approximately 250mm when printed at A3.

Date: 22 July 2015
 Drawing Number: EED14221/12b
 Drawn by: MP
 Checked by: AP

APPENDIX: METHODOLOGY

Overview

The process of generating photomontages for the Proposed Aberdeen Harbour was carried out by Troopers Hill Limited (THL) on behalf of Waterman Infrastructure & Environment Ltd.

THL use a methodology that is compliant with relevant sections of: The Landscape Institute/IEMA Guidelines for Landscape and Visual Impact Assessment (3rd edition 2013); and The Landscape Institute Advice Note 01/11 Photography and Photomontage in Landscape and Visual Impact Assessment.

THL visited the site on the 11th June 2015, to obtain viewpoint photography. The location and bearing of the camera was recorded using a GPS device relative to OSGB36 Grid.

A model was generated and referenced to the same grid. An existing land form and prominent existing features visible in the photographs were also modelled from OS height and mapping data.

With a known camera position and orientation, photographic and modelled existing land form and visible features, the development model was accurately aligned to the photography.

Photography

For each agreed photoviewpoint location, a high resolution photograph was taken with a 35mm (full frame) digital SLR camera. The location at which the photograph was taken was recorded by GPS. The camera was levelled horizontally and laterally by means of a tripod mounted levelling base and two camera mounted spirit levels. The lens nodal point was aligned to the rotational axis of the tripod to eliminate parallax distortion in the panorama.

Lens Selection

In order to capture the full extent of the proposed harbour and an appropriate amount of context, panoramic views were photographed using a 'standard' 50mm (individually giving a 39.6° horizontal and 27° vertical field of view) in landscape orientation. An overlap of approximately 50% was achieved by an indexed rotation of 20°.

Equipment Used for Photography

Nikon D800 digital SLR camera (35mm)
Nikon 50mm f1.8 lens
Remote (cabled) shutter release
Tripod indexed pan head
Levelling base with bubble level
Digital spirit level

Post Processing

Each photoviewpoint photograph was processed from a RAW data file in 16bit colour space using Adobe Camera Raw (v7.3).

Standard (digital) photographic post production techniques (curves and sharpening) were used to create a corrected final 8bit tif file to be used as the basis for each photomontage.

Panoramic views were created by reprojecting the individual shots to a cylindrical projection and stitching with an automated alignment tool in Adobe Photoshop CC.

The precise field of view (FOV) of the resulting panorama was calculated.

OS Feature Extraction

A wide area of existing land form was modelled using OS (Terrain 5) 5m grid height data. Relevant contextual features visible on the photography and visible on OS mapping were modelled for use as features to align the proposed harbour model to the existing photography.

The Proposed Harbour

THL created a 3D model of the proposed harbour from plans supplied by the project architect.

The model was checked for accuracy and subsequently aligned to the OSGB36 co-ordinate system.

The Matching and Alignment Process

The modelled existing feature data, topographical model and camera location data was imported into a 3D model environment (relative to the OSGB36 co-ordinate system).

At each photoviewpoint location a virtual camera was set up in the 3D model environment using OS coordinates. The scene was aligned by matching contextual features to the photograph. To do this, for each photoviewpoint, two renders* were made from the 3D model from the same virtual camera, at the same FOV as the panoramic photograph: one render showed only the development (in the chosen method of presentation); the other showed only the extracted OS feature data and topography.

Using a photo editing package, the photography, feature data data render and proposed harbour render were aligned.

With the rendered proposals aligned to the photography, lines were drawn illustrating the extents of certain features of the proposed harbour. This process was performed on all views.

** Rendering is the process of generating an image from a model (or models in what collectively could be called the 3D environment), by means of computer programs - in this case Chaos Group V-Ray 3.0 plug-in for Autodesk 3Ds Max 2015.*