

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

Environmental Impact Assessment Report Development at Waterford Airport

Volume 2 – Chapter 9 – Landscape and Visual

Prepared for: Waterford City & County Council in Partnership with Waterford Regional Airport PLC





Date: July 2020

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9. LANDSCAPE AND VISUAL

9.1 Introduction

The Landscape and Visual Assessment (LVA) has been prepared in respect of a planning application for the Waterford Airport expansion in the townlands of Lisselan, Killowen, Ballygarran, Monamintra and Keiloge, Co. Waterford. The objective of the LVA is to appraise the existing landscape character of the site and its wider setting in order to assess the likely landscape and visual impacts arising from the proposed development. Photomontages are included in Appendix 9-1 of Volume 3 of this EIAR.

The Landscape of Waterford is recognised in the County Development Plan as a valuable resource in that it sustains agriculture and fishing, forestry, mineral extraction and tourism and is the location of homes and communities, while providing the routes and corridors for vital infrastructure.

The County Development also notes in Chapter 8 that:

"Over time landscapes will change in response to society's evolving needs and uses".

9.1.1 Description of the Proposed Development

Waterford Airport and Business Park is located approximately 9km to the south east of the of Waterford City and 5km north east of Tramore.

The proposed development in includes the extension of the existing runway by 491m to the north and 363m to the south. It is also proposed to widen the runway by 7.5m on each side, widen the taxiway by 8m, provide additional navigation lighting and provide additional parking on the land-side of the terminal. The development is located in the townlands of Lisselan, Killowen, Ballygarran, Monamintra and Keiloge, Co. Waterford. The project aims to provide the additional space needed to land larger planes at the airport and resume domestic and international commercial flights, as well as maintain current uses of the airport.

The proposed project will consist of the following:

- 491m of new runway extending north from the existing.
- 363m of new runway extending south from the existing.
- Widening of the entire length of the runway by 15m to extend the runway width to 45m.
- Widening of taxiway by 8m to provide a width of 23m.
- Extension to car parking area to provide up to 205 no. additional spaces.
- Set down area for public transport within the demarcated area within the existing road layout at the airport terminal.
- Re-alignment of airport security fencing.
- New navigation lighting, aligned to runway, to be provided within airport lands and on adjoining lands, including associated ducting.
- Underground Holding Tank (cold weather storage).
- Alterations to drainage system.
- Extension of the existing terminal building of ca. 1,170 sqm.
- Demolition of 2 no. houses adjacent to the north runway.
- Upgrade of existing wastewater treatment plant.

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The extension to the existing terminal building of approximately 1,170 sqm, will accommodate new security, baggage handling and passenger facilities and will remain the same height as the exiting. This is planned for later submission to the planning authority but is assessed in this EIAR as part of the overall project.

9.1.2 Assessment Methodology

For the purposes of the assessment, the definition of 'landscape' as presented in the European Landscape Convention (2000) as:

"An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"

Ireland ratified the European Landscape Convention in 2002, and must adopt national measures to promote landscape planning, protection and management.

The LVA methodology can be summaries as undertaking the following tasks:

- A desktop study to establish an appropriate study area, relevant landscape and visual designations in the County Development Plan, as well as other sensitive visual receptors. This stage culminates in the selection of a set of potential viewpoints from which to study the effects of the proposal and defining the baseline landscape setting;
- Undertaking of a site visit to confirm and refine the set of viewpoints and to identify key components of the proposed development;
- Assessment of the County Development Plan Landscape Character Assessment to determine its capacity to accommodate the proposed development.
- Assessment of the significance of the visual impact of the proposal as a function of visual receptor sensitivity weighed against the magnitude of the visual impact.
- Consideration of mitigation and site design including layout and enhancement measures.
- Consideration of residual impacts.

9.2 Landscape Character, Values and Sensitivity of the Existing Environment

Chapter 8 of the Waterford County Development Plan 2011-2017 (as extended) relates to *Environment and Heritage*. The Draft Government Guidelines for Landscape Assessment (2000) recommended a particular approach to ensure the preservation of the character of Waterford's landscapes. While it is an objective of the Council (Policy ENV1) to undertake a Landscape Character Assessment, one for the County has not yet been prepared.

9.2.1 <u>Landscape Planning Context</u>

A number of direct policies and objectives have been adopted under the Waterford County Development Plan 2011-2017 and can be considered in terms of their relevance and implications regarding proposed development within the functional administrative area of Waterford City and County Council. The main objectives are set out in Chapter 8 *Environment and Heritage* as follows:

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Objective/Policy	Description
Objective ENV 1	To prepare a Landscape Character Assessment of County Waterford in accordance with National guidance on landscape from the Department of Environment, Heritage and Local Government.
Policy ENV 2	To support provisions of the National Landscape Strategy and provide for the sustainable management of all of County Waterford's landscapes including archaeological landscapes, coastal, upland, rural and peri-urban landscapes.
Policy ENV 3	To develop the Comeragh Area into a National amenity and to promote the heritage and recreational features of the area for all users while conserving its natural habitats, protected species, flora, fauna, archaeology and landscape, and as a sustainable area for the local community.

Policy context for the proposed development is contained in the Waterford Regional Airport & Business Park Masterplan that comprise the Waterford County Development Plan 2011 - 2017 (Appendix 6). The existing airport facility is located in an area zoned as 'Airport Area' and an area zoned as 'Airfield Reserve Area' has been allowed for the future extension of the runway facilities. The Airport Business Park is located on Light Industrial zoned lands to the immediate south of Waterford Airport.

9.2.2 <u>Landscape Sensitivity</u>

A Scenic Landscape Evaluation (Appendix A9) of the County has been undertaken to establish a method, which provides the basis for arriving at landscape designations. The objective of the evaluation was to map the areas of the County, according to their capacity to absorb development without changing the distinctiveness and character of the landscape.

The Scenic Landscape Evaluation provides an evaluation of landscape sensitivity based on the capacity of the environment to absorb new development under the following classifications:

- 1.-**Degraded**: Areas characterised by breakdown of natural processes or pollution (e.g. cut over bogs, old mineral waste areas). Areas included in this category are characterised by the breakdown of natural processes or pollution. Once extraction or dumping has been completed, new development in these areas is desirable as a means to improve the existing character.
- 2.-**Robust**: Areas of existing development and infrastructure. New development reinforces existing desirable land use patterns. These areas include towns and built up areas, suburban and other developed areas. They can support new development as it is less likely to be conspicuous in the context of existing development in the landscape.
- 3.-**Normal**: A common character type with a potential to absorb a wide range of new developments. These areas include the main areas of farming and rural residences, which tend to be confined to low lying or gently undulating areas where conditions are relatively fertile and therefore suitable to support tall vegetation which could screen development.

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- 4.-Sensitive: Distinctive character with some capacity to absorb a limited range of appropriate new developments while sustaining its existing character. This classification includes areas which are open and exposed with sparse or low growing vegetation cover which is insufficient to provide screening. The areas are sensitive due to their natural character and their longevity in the landscape; any loss to their structure (such as tree felling or clearance) would have a visual impact over a wide area.
- 5.-Vulnerable: Very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area. Areas included in this category were defined by mapping the shores of the main water bodies lakes, large rivers, coasts, estuaries, promontories and headlands.

These designations, or evaluations of capacity were made by the Council based on the following factors:

- Topography development in elevated areas will usually be visible over a wide area; development in enclosed areas will not.
- Vegetation areas which support (or which have the potential to support) trees, tall hedges and woody
 vegetation can screen new development from view. Areas which cannot easily sustain such vegetation
 will be unlikely to screen new development
- Development New development is less likely to be conspicuous in the context of the existing development in the landscape.

The evaluation notes that

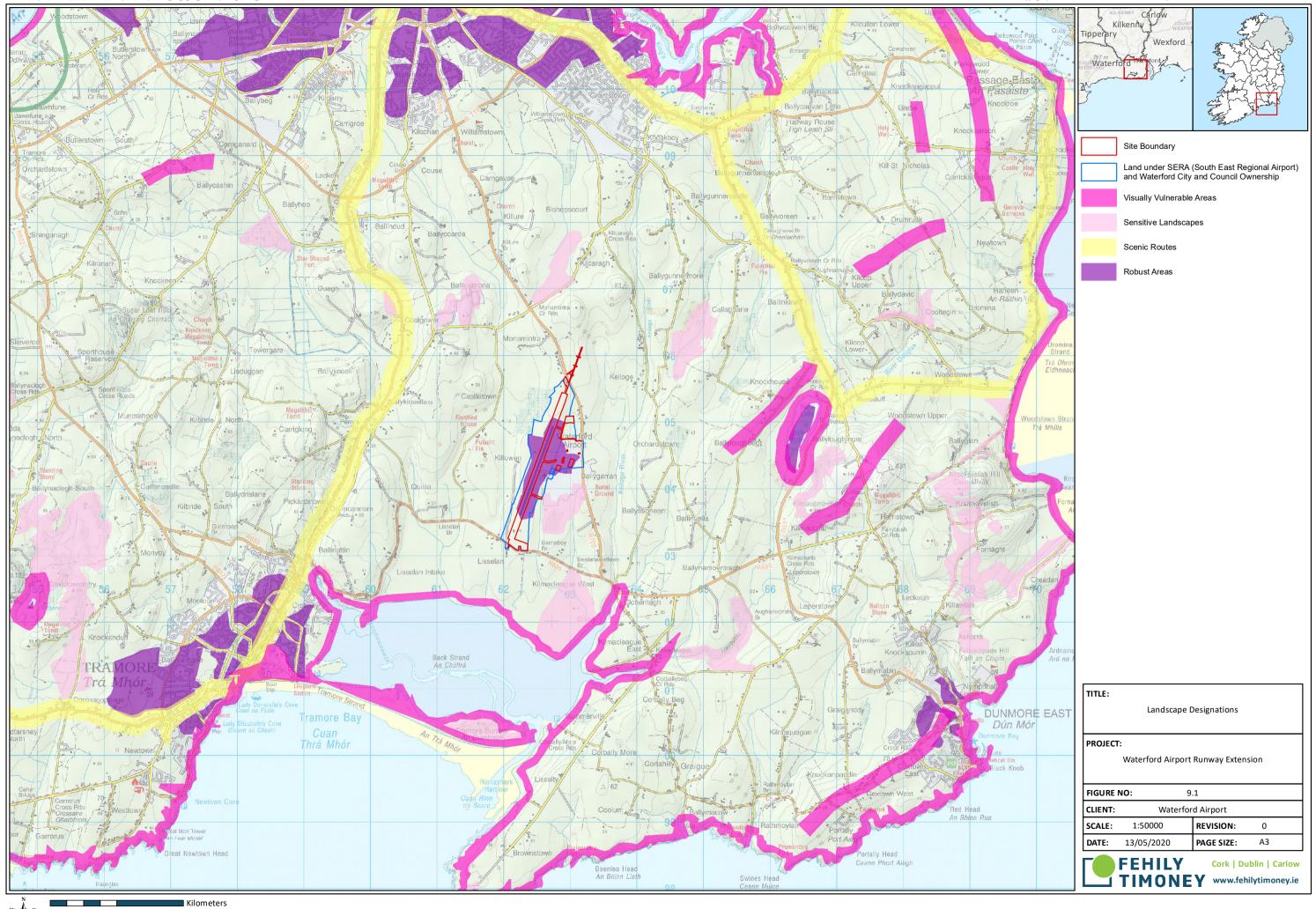
"Areas where enclosing topography, screening vegetation and/or existing development are present, should have a high potential to absorb new development. Areas of elevated topography, with low growing or sparse vegetation, with little existing development should have a low potential to absorb new development."

Figure 9.1 below shows this Scenic Landscape Evaluation mapped objective for the county and identified the site as being in a 'Robust' area.

'Robust' areas include areas in this category which were determined by combining the following land use categories from the CORINE Land Cover Database: Continuous urban fabric, Discontinuous urban fabric, Industrial or commercial units, Sports and leisure facilities and Airports. The vicinity of the airport is 'Normal Landscape' and there are some pockets of Sensitive Landscapes and areas which are considered as Visually Vulnerable in the CDP.

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Due to the presence of the existing airport, the subject site is located in an area identified as 'Robust Landscape' in the Scenic Landscape Evaluation. The Policy with regard to these areas states that:

"These are areas of concentrated existing development and infrastructure. Appropriate new development in these areas can reinforce the existing desirable land use patterns. Regard will have to be had to site development standards namely density, building lines, height of structures and design standards. The overall aim is to ensure that the inherent character of the town and village centres is maintained".

9.2.3 <u>Scenic Views, Routes and other relevant views</u>

Waterford City and County Council set out many 'Scenic Routes' across the County. Scenic routes indicate public roads from which views and prospects of areas of natural beauty and interest can be enjoyed. The nearest scenic route to the proposed development site, Scenic Route 13 is located approximately 2.5km northwest of the site which originates at the R676 South from Clonmel to Lemybrien.

3.8km to the northeast of the site is Scenic Route 15 along the R684. The route comprises the areas south east from Waterford City on the R683 to Mount Druid. The route travels south along the R684 to Belle Lake and east on a third class road via Woodstown to Waterford Harbour and continues north to Passage East along the Harbour.

The Scenic landscape evaluation identifies a Sensitive Landscape directly southeast of the proposed development. The surrounding area has a rural character and contains some pockets of Sensitive Landscapes and areas which are considered as Visually Vulnerable. These are, for instance, Tramore Dunes and Back Strand, designated as SAC, SPA and pNHA and located approximately 1.2km to the south of the Airport.

9.3 Visual Baseline

9.3.1 Visual environment

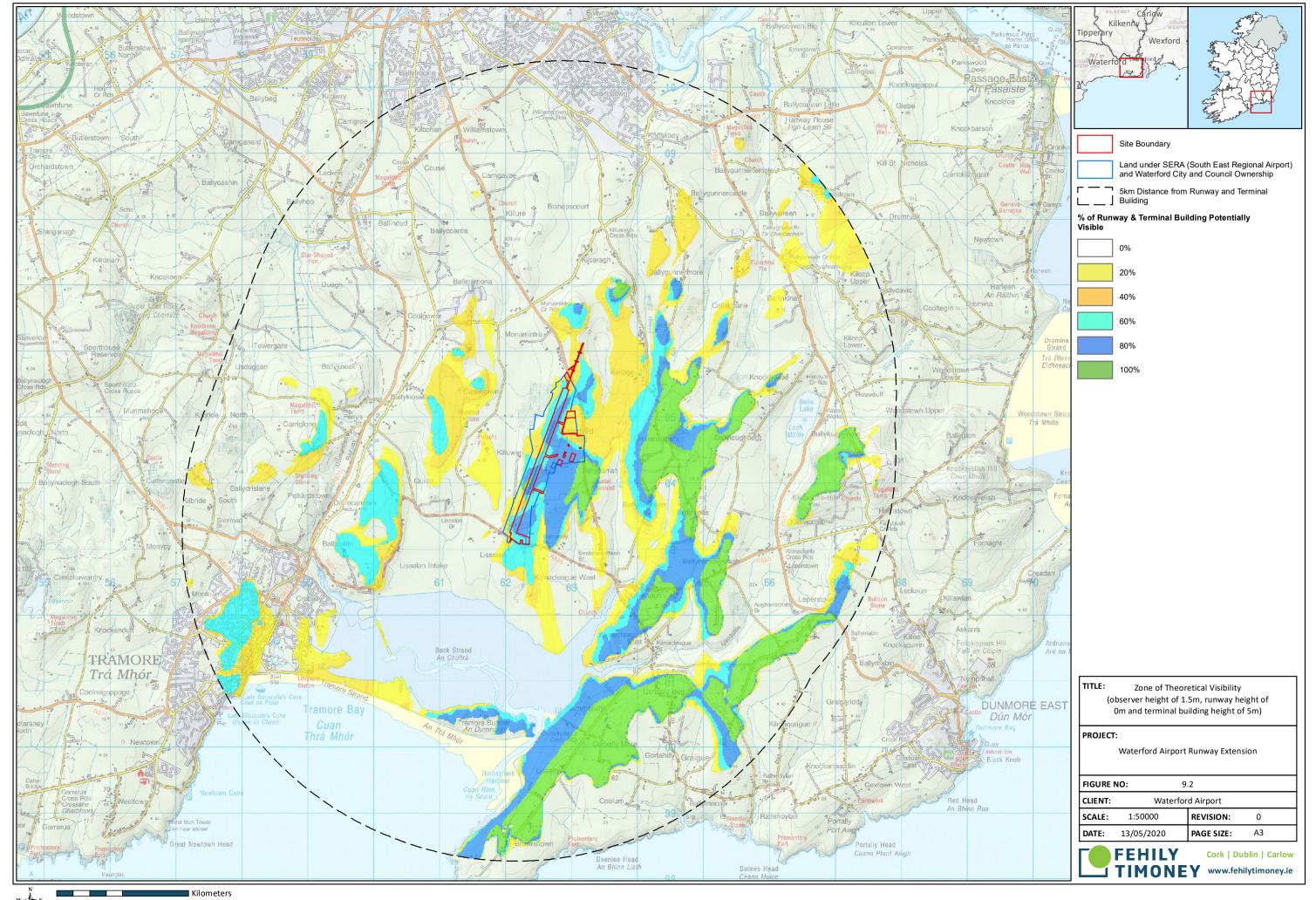
The existing visual environment comprises a vast extension of agricultural fields, mature hedgerows and treeline cover, one-off houses and a large business park adjacent to the Airport. The existing Airport elements, which have been present in the landscape for 30 years, include the terminal building, control tower, internal roads, runway and lighting and signage. Aircraft activity is also visible in the environment.

There are no amenity, recreation, visitor or tourism areas or features close enough to the site to have any impact on their setting. Tramore Dunes and Back Strand, designated as a SAC, SPA and pNHA is located approximately 1.2km to the south of the Airport.

9.3.2 Zone of Theoretical Visibility (ZTV)

Only those parts of the receiving environment that potentially afford views of the proposed development are of concern to this part of the assessment. A computer-generated Zone of Theoretical Visibility (ZTV) map has been prepared to illustrate where the development is potentially visible from. The ZTV map is based solely on terrain data (bare ground visibility). Given the complex vegetation patterns within the landscape, the main value of this form of ZTV mapping is to determine those parts of the landscape from which the proposed development will definitely not be visible, due to terrain screening. See Figure 9.2.

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The following key points are illustrated by the 'bare ground' ZTV map:

The most important point to make in respect of this 'bare ground' ZTV is that it is theoretical. The proposed extension of the existing terminal will rise 6.6m above the underlying terrain. It will be however, partially screened by surrounding vegetation and existing buildings of the Business Park resulting in a much lesser degree of actual visibility.

9.3.3 Views and Routes

Viewshed Reference Points (VRPs) are locations used to study the visual impacts of the proposal in detail. It is not warranted to include each and every location that provides a view of this development as this would result in an unwieldy report and make it extremely difficult to draw out the key impacts arising from the project. Instead, the selected viewpoints are intended to reflect a range of different receptor types, distances and angles. The visual impact of the proposed development is assessed using the following categories of receptor type as listed below:

- Key views (from features of national or international importance);
- Designated Scenic Routes and Views;
- Local Community views;
- Centres of Population;
- Major Routes; and
- Amenity and heritage features;

VRPs might be relevant to more than one category making them more significant for inclusion in the assessment. The receptors that are intended to be represented by a particular VRP are listed at the beginning of each viewpoint appraisal.

Following a review of the ZTV through an on-site survey, the Viewshed Reference Points selected in this instance are set out in table 9.1 below.

Table 9.1: Outline Description of Selected Viewshed Reference Points (VRPs)

VRP No.	Location	Direction of view
VP1	View from local road L8053 towards the southwest	SW
VP2	View from airport road R708 towards the southwest	SW
VP3	View from local road L4068 towards the northwest	NW
VP4	View from regional road R685 towards the east	E

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9.4 Impact Assessment

The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics.

9.4.1 Landscape Value and character

The existing landscape where the proposed site is located is characterised by a patchwork of agricultural fields and one-off houses. The subject site is located within the Airport area identified as 'Robust' in the Waterford CDP 2011-2017. This area is considered to have the potential to support new development as it is less likely to be conspicuous in the context of existing development in the landscape.

It is also considered in the Scenic Landscape Evaluation (Appendix A9) of the County that new development reinforces existing desirable land use patterns in this area.

9.4.2 Magnitude of Landscape Effects

The existing runway and airport is already a major element in the area, that is characterised by agricultural fields and one-off houses. The extension of the airport runway and terminal will introduce further modification to an already modified landscape but will not be substantial and will not alter the existing landscape.

9.4.3 <u>Visual Impact</u>

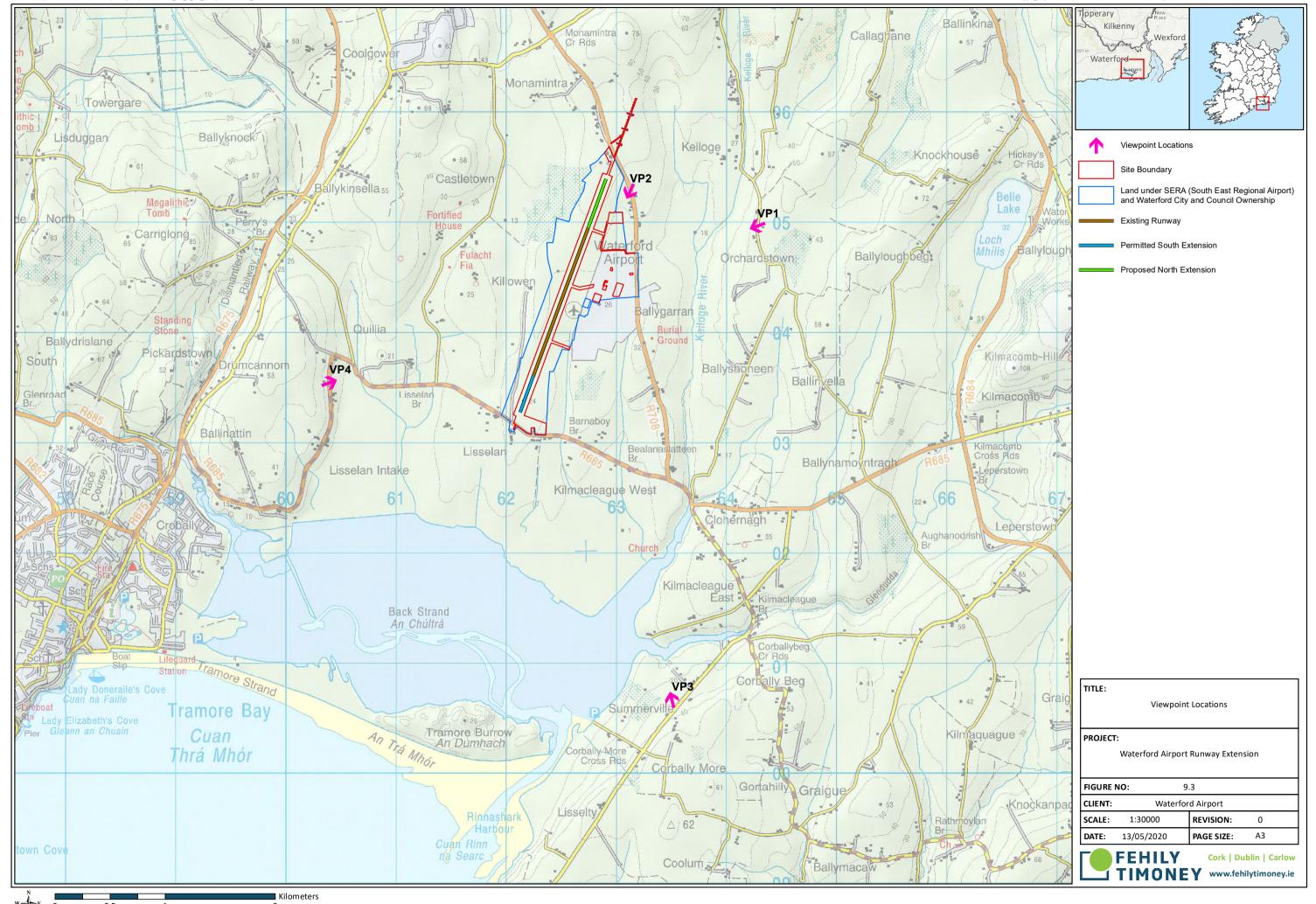
As with the landscape impact, the visual impact of the proposed development will be assessed against its sensitivity. This aspect of the assessment considered the effects on the visual change that the runway extension would bring to the outlook and views of the viewing audience. The viewing audience will be either:

- a) resident population: those residents who will have views from their dwellings or back garden.
- b) transient population: road receptors or people using the public spaces in proximity.

The proposed aircraft activity will consist of larger planes landing/taking off at the airport as well as maintaining existing aircraft activity. Navigation lighting for the runway will be extended north and south beyond the runway extension areas.

The location of the viewpoints are identified in Figure 9.3 below.

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9.4.4 Sensitivity of Visual Receptors

Section 3.7.3 of the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' determine that impact should be categorised into the following categories:

Imperceptible: An effect capable of measurement but without significant consequences.

Not Significant: An effect which causes noticeable changes in the character of the environment but without significant consequences.

Slight Effects: An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.

Moderate Effects: An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.

Significant Effects: An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.

Very Significant Effects: An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.

Profound Effects: An effect which obliterates sensitive characteristics.

9.4.5 Estimation of Visual Impacts at VRPs

A3 landscape Photomontages are included as Appendix 9-1 and appraised below.

Viewsh	ed Reference P	Direction of View			
1	View from lo	al road L8053 towards the southwest SW			
Location	า	ITM (664219 605014) at 1.2km from Site Boundary			
Level of Impact	el of Visual act Imperceptible				
Description		Viewpoint 1 is taken from a gate of a field at a slightly higher elevated point from a local road to the east of the development. It is an open and clear view of the rural character of the landscape in the area. It is representative of the visual environment of the residents and road receptors along L8053.			
		In this view the control tower is visible, but the terminal buildings and runway are not visible as they are screened by either the topography, existing vegetation or the existing buildings from the Business Park. There is visual evidence of Tramore settlement behind these elements in the background of the view.			
		The proposed extension of the runway is indicated in red colour in the Proposed View and the proposed extension of the terminal building is indicated in pink colour. The proposed runway extension (and additional lightning) will not be visible from this view and the terminal building screened by the existing features in the landscape. The rest of the proposed elements are not considered to create visible impact as they will not rise above the ground level.			

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Viewshed Reference P	Direction of View	
	It is likely that the proposed navigation lights located at the note be visible at night from this viewpoint during operational hou aid in screening this element of the development. The presert as dwellings, the airport facility & Airport Business Park will when viewed at night across the countryside.	urs, however, vegetation will nee of existing buildings such
	It is predicted that the visual intrusion of proposed develop be Imperceptible.	ment from this location will

Viewsh	Viewshed Reference Point			Direction of View
2	View from air	port road R708	towards the southwest	SW
Location		ITM (663061 605329) at 200m from Site Boundary		
Level of Visual Impact Imperceptible				
Description		This view was shot from an entrance at the regional road R708, at just at 200m from the proposed runway extension. It illustrates a closer view towards the site with visibility of an agricultural field and its hedgerows/trees at the foreground of the picture and the existing elements of the airport (mainly control tower) and the buildings from the Business Park at the back of the view. The terminal building is hidden behind the control tower. Although this location is at only 500m from the existing runway, there is no visibility of it.		
		The proposed extension of the terminal building will be capable of detection by the eye, but not noticeable. The proposed runway extension (and additional lightning) will not be visible from this view. The character of the environment will remain unchanged as the area is already fully built. The predicted visual intrusion of the proposed extension will therefore be Imperceptible.		

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Views	hed Reference F	Direction of View				
3	View from ai	rport road R708 t	owards the southwest	NW		
Location		ITM (663443 600719) at 2.7km from Site Boundary				
Level of Visual Impact		Imperceptible				
Description		Viewpoint 3 is from a long distant point at a regional road near a coastal area towards the south of the development. It was selected to consider the visually sensitive areas near the coastline and the residential receptors towards the south in that area of the bay. The selected point illustrates the view from an elevated area (42m ASL) towards the airport. The rural character and slightly undulating topography is evident from this view. The control tower and Business park can be identified in the distance. The terminal building is hidden behind the control tower. There is no visibility of the existing runway.				
		The proposed extension of the terminal building is not expected to be visible from this view, as it will be obscured by the existing Business Park buildings. Additionally, no visibility of the extension of the runway (and additional lightning) is predicted.				
		The proposed navigation lighting may be faintly seen from this viewpoint at night during operational hours. However, the presence of existing buildings such as dwellings, the airport facility & Airport Business Park will aid in absorbing the lights when viewed at night from this viewpoint.				
		The level of visual impact from this location is considered Imperceptible.				

Viewsh	ed Reference P	Direction of View			
4	View from re	E			
Location		ITM (660332 603596) at 1.6km from Site Boundary			
Level of Visual Impact		Imperceptible			
Description		This viewpoint is taken from a distant from the regional road R685 towards the proposed development. Again, the rural character of the landscape is evident here. We note that the control tower can be identified far in the distance, but the rest of the elements and buildings from the Business Park are screened by existing vegetation. The existing runway cannot be distinguished.			
Descript	lion	It is unlikely that the presence of the proposed development could be detected by the eye from this viewpoint. The proposed runway extension will not be distinguishable from this view. The proposed development will not be noticeable, and the visual sensitivity of the surrounding environment will remain unchanged. The predicted visual intrusion of the proposed development will therefore be Imperceptible .			

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9.4.6 Cumulative impact

Cumulative impact assessment on landscape and visual is concerned with additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments (associated or separate to it), present or are likely to occur in the foreseeable future (planning applications).

The existing runway and airport buildings are not a natural element in landscape terms, but they are a key feature in the area. The Airport Business Park is located to the immediate south of Waterford Airport on Light Industrial zoned lands (as per Waterford Regional Airport & Business Park Masterplan in Appendix 6 of the CDP 2011 - 2017). These elements observed in conjunction to the proposed will not create a significant change in the landscape and visual of the environment. It should be noted, however, that these developments have been strategically zoned by Waterford City & County Council in their Waterford Regional Airport & Business Park Masterplan as a way to increase connectivity and assists in attracting tourists to the Region.

It is concluded that there is no likely significant visual impact from the proposed development in combination with existing or proposed projects in the area.

9.5 Mitigation and Restoration Measures

Due to the low impact on the landscape and visual environment, mitigation measures for landscape and visual effects of the proposed development will not be required. However, retention of existing hedgerow boundaries around the site will aid visual screening, especially for closer views. The form, design and material used in the construction of the upgraded terminal building will be consistent with existing building with the intention of maintaining the existing visual character of the airport.

9.6 Residual Impacts

The proposed development will have an imperceptible physical impact on the receiving environment and will not significantly alter the landscape character of the area.

9.7 Conclusion

The landscape and visual assessment considered the landscape and visual effects of the runway and terminal extension on the existing environment.

In terms of landscape impacts the proposed development is considered to have only a minor physical impact without significantly altering the landscape character of the area. These new elements in the Airport are considered to introduce further modification into an already modified and manmade area. The subject site is located in an area identified as 'Robust' within the extent of the 'Airport Area' and 'Airfield Reserve Area' which has been allowed for the future extension of the runway facilities. The proposed site largely lies within zoned lands considered to have the potential to support new development.

Based on the assessment provided here from the selected viewpoints, the visual impact of the proposed development is described as Imperceptible. This is principally facilitated by the existing elements from human intervention already in the area (Airport and Business Park) and extent of mature hedgerows and treeline cover.

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Retention of existing hedgerows boundaries around the site will help preventing a sense of disregard and aids visual screening, especially for closer views. The form, design and material used in the construction will tend to minimise adverse impacts on the closer views of the development.

9.8 References

- Guidelines on the information to be contained in Environmental Impact Statements, EPA, 2002.
- Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports EPA, 2017.
- Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities, Department of Environment and Local Government, 2000.
- Advice notes on current practice (in the preparation of EISs), EPA, 2002.
- Draft Advice Notes for preparing Environmental Impact Statements, EPA, 2015.
- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, The Landscape Institute, 2013.
- Advice Note 01/11 Photography & Photomontage in Landscape and Visual Impact Assessment, The Landscape Institute, 2011.

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