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CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

Environmental Impact Assessment Report
Development at Waterford Airport

Volume 2 – Chapter 1 - Introduction

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

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

Waterford Airport
Serving the Southeast for 30 years

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1. INTRODUCTION

This Environmental Impact Assessment Report (EIAR) has been prepared by Fehily Timoney & Company (FT) under the instruction of Waterford City & County Council, in partnership with Waterford Regional Airport PLC who intend to apply to An Bord Pleanála for planning permission under Section 175 of the Planning and Development Act 2000 (as amended), to construct a proposed runway extension, taxiway extension, additional navigation lights, additional car parking and associated works, at Waterford Airport, Killowen, Co. Waterford.

Waterford Airport is located in Killowen, County Waterford, in the townlands of Lisselan, Killowen, Ballygarran, Monamintra and Keiloge, approximately 8km south of Waterford City Centre and approximately 5km north east of Tramore. The Airport is accessed from the R708 regional road which connects the facility to Waterford City.

The EIAR has been prepared in accordance with the contents of Directive 2014/52/EU and 2011/92/EU of the European Parliament and the Planning and Development Regulations 2001 (as amended).

1.1 Applicant

The applicant for the proposed development is Waterford City & County Council (WCCC). The expansion of the airport is led by Waterford City & County Council, in accordance with Part 8 of the Planning and development Regulations 2001 (as amended) WCCC are the planning authority responsible for the planning and sustainable development of the county.

WCCC are working in partnership with Waterford Regional Airport PLC, which was established in 1981 and has operated Waterford Airport since its initial flights of the early 1980s. Currently the airport does not operate commercial flights however, Waterford Regional Airport PLC continue to facilitate the Irish Coast Guard search and rescue, corporate flights, provide facilities for patrol and training for the Irish Air Corp and Garda Airborne Support Unit and a general aviation and commercial pilot training organisations.

Waterford Airport PLC play an important role in the development of the South-Eastern Region. Advancing the operations of the airport will bring economic benefit to the region through foreign investment and tourism and improve access to Waterford City, the economic driver of the region.

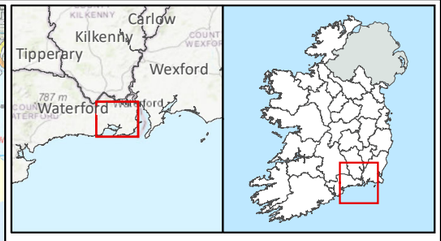
1.2 Outline of the Proposed Project

The proposed project consists of approximately 491m of new runway extending north from the existing and 363m of new runway extending south of the existing bringing the total length of the runway to 2,287m. The proposed project also consists of widening of the entire length of runway from 30m to 45m in width, widening of the taxiway by 8m, extension to the car parking area to provide 205 new spaces, re-alignment of security fencing, new navigation lighting, underground holding tank for cold weather storage, demolition of 2 no. houses to the north of the runway and alterations to site drainage.

The proposed development will consist of the following operational changes; alteration of take-off and landing positions, take-off and landing of jet planes such as the Boeing 737/800 and Airbus 320, and capacity for up to 345,000 passengers per annum by year five of operations.

The project also consists of the proposed extension to the terminal building, set down area for public transport and upgrade to the installed wastewater treatment unit (WWTP). These elements of the project do not form part of the subject planning consent procedure but are considered as part of the overall project for the purposes of complying with the EIA Directive. It is anticipated these elements of the project will form separate consent procedures at a later date.

Path: R:\Map Production\2020\P20-004\Workspace\EIAR\P20-004_GIS_Fig1-1_SiteLocation_A3.mxd



Site Boundary

Land under SERA (South East Regional Airport) and Waterford City and Council Ownership

TITLE: Site Location			
PROJECT: Waterford Airport Runway Extension			
FIGURE NO:	1.1		
CLIENT:	Waterford Airport		
SCALE:	1:50000	**REVISION:**	0
DATE:	13/05/2020	**PAGE SIZE:**	A3

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1.3 The Need for the Project

The overall rationale for the runway extension and ancillary development at Waterford Airport is to improve transport integration and connectivity both nationally and on a European scale in order to increase the competitiveness of the South-Eastern Region to attract foreign investment and tourism.

For the airport to compete in the current air transport marketplace, a move into the medium sized jet market is required. For this to take place the airport needs to embark on a runway development that is sufficient to meet the operational needs of modern medium sized jets. Support for the runway extension is evident at a number of policy levels. It is seen as a potential economic driver for the region. The importance of balance in regional growth is set out in European and national policy which is discussed in the following section and detailed further in Chapter 3.

1.3.1 European Policy

The European Commission White Paper: Roadmap to a Single European Transport Area (2011) sets out the importance for an improved, competitive transport system within Europe. The paper notes that better modal choices will result in greater integration of the modal networks encompassing airports, maritime ports, railway, metro and bus stations which should be linked to create a multi-modal network of connections for passengers. The paper states that airport capacity needs to be optimised and, where necessary, increased to face growing demand for travel. This will produce benefits to poorly connected areas of Europe in creating a more competitive region.

The Guidelines on State aid to airports and airlines: Official Journal of the European Union (2014/C 99/03) recognises the vital role air transport plays in linking people and regions and enhancing the competitiveness of the European Union. The guidelines highlight that the profitability of commercial airports is depended on the level of throughput, with airports with fewer than 1 million passengers per annum typically struggling to cover their operational cost, resulting in the need for state subsidies. It is therefore in the public interest to improve the self-sustainability of small regional airports with the target of boosting regional competitiveness.

1.3.2 National Policy

The National Aviation Policy for Ireland (2015) sets out goals to enhance Ireland's aviation industry to support job creation, economic growth and development and improve connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers. The policy document sets out the need for policy goals to support the economic sustainability of airports and the needs of the regions served by them. The policy states that regional airports should be given the opportunity to grow to a viable, self-sustaining position due to the contribution they make to their region and local economy.

Ireland's Regional Airports Program identifies the opportunity in relation to connectivity being a significant factor underpinning Ireland's economic recovery and sustainable development into the future.

The National Planning Framework (2018) identifies airports and maritime ports to provide high-quality international connectivity as a key strategic investment priority for the nation. The Waterford Region is identified as a strategic geographic location due to its proximity to EU trading borders and the position of its regional airport and maritime port. The National Planning Framework identifies the importance Ireland's airports and maritime ports will play following the exit of United Kingdom from the European Union. Connections between Ireland and the EU may become significantly more important; therefore, faster transit times may be key in maintaining and boosting Irelands competitiveness.

Ireland's National Development Plan (2018) outlines the Regional Airports Program under major national infrastructure projects for delivering high quality international connectivity, crucial for overall international competitiveness. The National Development Plan identifies the investment in airports and ports as key initiatives in strengthening rural economies and communities. The plan states that significant investment in ports and airports will provide for the safeguarding and enhancing of Irish interconnectivity, trade performance and foreign direct investment.

1.3.3 Regional and Local Policy

The Regional Spatial and Economic Strategy (RSES) for the Southern Region sets out a strategic investment priority for the development of Airports to optimise the region's international connectivity. The RSES states that all airports have a mandate to promote the development of their region. In relation to the Waterford Metropolitan Area and the wider region, the RSES states that the return of passenger services to Waterford Airport is key to the development of the Metropolitan Area and the major urban centres of the South East.

The RSES recognises the importance of airports as an island nation with an open economy. Furthermore, the economic uncertainty due to Brexit means that the region's gateways to the world will be key to safeguarding economic resilience and ability to adapt to change.

The RSES supports greater connectivity to ports and airports to improve visitor access to reinforce tourism in the region. **Objective RPO 150 (c)** sets out support for continued exchequer assistance for regional airports under the Regional Airports Programme, supporting the role of Waterford Airport and developing its potential as a key tourism and business gateway for the region. Furthermore, key enablers/priorities have been identified to transform Waterford into a regional city of scale, including investment in infrastructure to realise the potential of Waterford Airport to boost international connectivity for the entire region.

It is an objective of the RSES to sustainably maintain, support and enhance the Region's International Connectivity Transport Network including the Trans European Transport Network (TEN-T) which seeks the development of a Europewide network of railway lines, roads, inland waterways, maritime shipping routes, ports, airports and railroad terminals.

Objective RPO 148 of the RSES states that in line with EU Guidelines on State Aid, the strategy seeks investment to sustainably deliver actions under National Aviation Policy for Ireland that strengthen and develop the economic role of the national airports of Cork and Shannon and the regional airports of Kerry and Waterford.

The RSES sets out a Metropolitan Area Strategic Plan (MASP) for Waterford which identifies investment in the proposed runway extension at Waterford Airport as key infrastructure in enhancing connectivity supporting business and tourism (section 8.3 of the Waterford MASP). Waterford MASP Objective 16 states that it is an objective to support the further development of Waterford Airport and, in particular, the development of:

- an extension of the existing runway to accommodate larger aircraft;
- measures to encourage additional operators offering services from this location;
- the expansion and development of aviation-related industries at the airport.

Therefore, it is considered that the extension of the existing runway and facilities for additional operators offering services from this location will support the provisions of the RSES by strengthening high quality connections to and from the region and aid in fulfilling the airport's economic and commercial development potential.

The Waterford County Development Plan 2011-2017, as extended, identifies the airport as a key gateway to the south-east region. The development plan sets out in **Objective (INF 4)** to assist the future expansion of services and routes at the Airport, supporting the lengthening and widening of the runway, subject to compliance with proper planning and sustainable development.

It is therefore considered that the need for the development is supported by national, regional and local policy. See chapter 3 of this EIAR for further details on policy context.

1.4 Planning Application and EIAR Process

Given the extent of works proposed an EIAR is required pursuant to both Class 7, Part 1, Schedule 5 of the Planning & Development Regulations 2001 (as amended)1 and Class 10(d), Part 2, Schedule 5 of the Planning & Development Regulations 2001 (as amended). Pursuant to Directive 2011/92/EU and the more recent Directive 2014/52/EU and in accordance with The Planning and Development Regulations 2001 (as amended), it is advised that the document prepared should constitute an Environmental Impact Assessment Report (EIAR) and comply fully with the Directives and Regulations as listed.

A screening for Appropriate Assessment was conducted. This assessment examines the likely effects of a project either alone or in combination with other projects upon Natura 2000 sites and considers whether it can be objectively concluded that these effects will not be significant. A stage two appropriate assessment was conducted where the impact of the project was considered on the integrity of nearby Natura 2000 sites. A Natura Impact Statement accompanies this application.

1.4.1 EIAR Methodology and Structure

The Environmental Impact Assessment Report (EIAR) is a report of the effects, if any, which a proposed development, if carried out, would have on the environment. The EIAR provides the competent authorities and the public with a comprehensive understanding of the project, the existing environment, the likely significant effects of the project and the mitigation measures proposed.

Article 3 of the 2014 EIA Directive states that an *"environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:*

(a) population and human health;

(b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;

(c) land, soil, water, air and climate;

(d) material assets, cultural heritage and the landscape;

(e) the interaction between the factors referred to in points (a) to (d)"

[1] subject to Waterford Airport being defined as an Airport covered by the Civil Aviation Organization

1.4.2 EIAR Methodology

The EIAR has been prepared in accordance with Directive 2011/92/EU as amended by Directive 2014/52/EU (the EIA Directive). Schedule 6 of the Planning and Development Regulations 2001 (as amended) and Article 5 of the EIA Directive set out the information to be contained in an EIAR.

In addition, in the preparation of this EIAR a scoping of possible impacts of the proposed development was carried out to identify impacts thought to be potentially significant, not significant or uncertain. Consultation with the relevant private and public agencies ensured that the most significant impacts and the areas of key concern were addressed. Details of the consultation carried out to date for the proposed development are outlined in Chapter 4 EIA Scoping, Consultation and Key Issues of this EIAR.

Schedule 6 of the Planning and Development Regulations 2001 (as amended) describes the information to be contained in EIAR:

1.

a) A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development;
b) A description of the likely significant effects on the environment of the proposed development;
c) A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development;
d) A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment.

2. Additional information, relevant to the specific characteristics of the development or type of development concerned and to the environmental features likely to be affected, on the following matters, by way of explanation or amplification of the information referred to in paragraph 1:

a) A description of the proposed development, including in particular –
    i. A description of the location of the proposed development;
    ii. A description of the physical characteristics of the whole proposed development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;
    iii. A description of the main characteristics of the operational phase of the proposed development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; and;
    iv. An estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during construction and operation phases.
b) A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects;
c) A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge;

d) A description of the factors specified in paragraph (b)(i) (I) to (V) of the definition of 'environmental impact assessment' in section 171A of the Act likely to be significantly affected by the proposed development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydro-morphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape;

e) (i) a description of the likely significant effects on the environment of the proposed development resulting from, among other things-

(I) the construction and existence of the proposed development, including, where relevant, demolition works,
(II) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources,
(III) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste,
(IV) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters),
(V) the cumulation of effects with other existing or approved developments, or both, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources,
(VI) the impact of the proposed development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the proposed development to climate change, and
(VII) the technologies and the substances used, and;

(ii) the description of the likely significant effects of the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment' in section 171A of the Act should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the proposed development, taking into account the environmental protection objectives established at European Union level or by a Member State of the European Union which are relevant to the proposed development;

f) A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved;

g) A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of an analysis after completion of the development), explaining the extent to which significant adverse effects on the environment are avoided, prevented, reduced or offset during both the construction and operational phases of the development;

h) A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as the Seveso III Directive or the Nuclear Safety Directive or relevant assessments carried out pursuant to national legislation may be used for this purpose, provided that the requirements of the Environmental Impact Assessment Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for, and proposed response to, emergencies arising from such events.

The assessment of environmental impacts has been conducted having regard to the guidance set out in the following:

- *Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (EC, 2017)*
- *Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, Draft, 2017)*
- *Advice Notes for Preparing Environmental Impact Statements (EPA, Draft 2015)*
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (DoHPLG, 2018)*
- *European Commission Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment, EU 2013*
- *Planning and Development Act 2000 (as amended)*

Firstly, the planning context, the background to the project and the proposed development is described. This sets the reader in context as to the practical and dynamic process undertaken, in order to arrive at the layout and design of the proposed development that will cause least impact on the environment.

Subsequent chapters deal with specific environmental topics for example, traffic & transportation, air quality & climate change, hydrology & water quality, noise, etc. These assessments involve specialist studies and evaluations. The methodology applied during these specific environmental assessments is a systematic analysis of the proposed development in relation to the existing environment. The broad methodology framework for these assessments is outlined below and is designed to be clear, concise and allow the reader to logically follow the assessment process through each environmental topic. In some instances, more specific topic related methodologies are outlined in the relevant chapters of the EIAR.

The broad methodology framework used in all chapters includes:

- Introduction
- Methodology
- Existing Environment
- Potential Impacts
- Mitigation Measures
- Residual Impacts

Introduction
This section generally introduces the environmental topic to be assessed and the areas to be examined in the assessment.

Methodology
Specific topic related methodologies are outlined in this section. This will include the methodology used in describing the existing environment and undertaking the impact assessment. It is important that the methodology is documented so that the reader understands how the assessment was undertaken. This can also be used as a reference if future studies are required.

Existing Environment

An accurate description of the existing environment is necessary to predict the likely significant impacts of a proposed development. Existing baseline environmental monitoring data can also be used as a valuable reference for the assessment of actual impacts from a development once it is in operation.

To describe the existing environment, desktop reviews of existing data sources were undertaken for each specialist area. This literature review relied on published reference reports and datasets to ensure the objectivity of the assessment.

Desktop studies may also be supplemented by specialised field walkovers or studies in order to confirm the accuracy of the desktop study or to gather more baseline environmental information for incorporation into the EIAR.

The existing environment is evaluated to highlight the character of the existing environment that is distinctive and what the significance of this is. The significance of a specific environment can be derived from legislation, national policies, local plans and policies, guidelines or professional judgements. The sensitivity of the environment is also described.

Potential Impacts

In this section, individual specialists predict how the receiving environment will interact with the proposed development. The full extent of the proposed development's potential effects and emissions before the proposed mitigation measures are introduced is outlined here. Potential impacts from the construction, operational and decommissioning phases of the proposed development are outlined. Interactions and cumulative impacts with other environmental topics are also included in this evaluation.

The evaluation of the significance of the impact is also undertaken. Where possible, pre-existing standardised criteria for the significance of impacts will be used.

Such criteria can include Irish legislation, international standards, European Commission and Environmental Protection Agency (EPA) guidelines or good practice guidelines. Where appropriate criteria do not exist the assessment methodology section states the criteria used to evaluate the significance.

Mitigation Measures

If significant impacts are anticipated mitigation measures are devised to minimise impacts on the environment. Mitigation measures by avoidance, by reduction and by remedy can be outlined.

Residual Impacts

The assessment identifies the likely impact that will occur after the proposed mitigation measures have been put in place. These impacts are described in detail and assessment of their significance undertaken.

1.4.3 EIAR Structure

The EIAR has been prepared using the "grouped format structure" as outlined in EPA guidance documents (EPA, 2002; EPA, 2003). The format of this EIAR is designed to ensure that standard methods are used to describe all sections of the EIAR.

Using this structure there is a separate chapter for each topic, e.g. air quality and climate, biodiversity / ecology, hydrology. The description of the existing environment, the proposed development and the potential impacts, mitigation measures and residual impacts are grouped in the chapter. The grouped format makes it easy to investigate topics of interest and facilitates cross-reference to specialist studies.

Given the scale of the proposed Waterford Airport runway extension and consciousness of the need to ensure that the EIAR is readily accessible to the general public, as well as the statutory authorities, the EIAR team has structured the EIAR as described below.

The EIAR will have a number of chapters, including:

- Introduction
- Description of the Proposed Development
- Policy
- EIA Scoping, Consultation
- Population and Human Health
- Land, Soils & Geology (including hydrogeology)
- Hydrology and Water Quality
- Traffic and Transport
- Landscape & Visual
- Air Quality and Climate
- Noise and Vibration
- Biodiversity / Flora & Fauna
- Cultural Heritage
- Site Selection & Alternatives
- Interactions of the Foregoing

The structure proposed for the EIAR is as follows:

Volume 1 – Non-Technical Summary (NTS) (including figures)

Volume 2 – Main EIAR

Volume 3 - Appendices

It should also be noted, for the sake of completeness, that a separate Natura Impact Statement (NIS) has also been submitted with the application.

1.4.4 Cumulative Impact

The potential cumulative impact of the Project has been assessed in line with Annex IV of the EIA Directive which provides that the EIAR must contain a description of the likely significant effects of the project on the environment resulting from the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.

The assessment of projects in combination with other projects has four principal aims:

1. To establish the range and nature of existing projects within the cumulative impact study area of the Project.
2. To summarise the relevant projects which have a potential to create cumulative impacts.
3. To establish anticipated cumulative impact findings from expert opinions within each relevant field. Detailed cumulative impact appraisals are included in each relevant section of the EIAR.
4. To identify the projects that hold the potential for in combination effects and screen out projects that will neither directly or indirectly contribute to in combination impacts.

Assessment material for this cumulative impact appraisal was compiled on relevant developments within the vicinity of Waterford Airport. The material was gathered through a search of Waterford City and County Council's Online Planning Register, reviews of relevant EIAR documents, planning application details and planning drawings, which served to identify past and future projects, their activities and their environmental impacts.

The in-combination assessment of projects considered the following:

- Keiloge Solar Farm
- Killbarry Residential Development
- Waterford Airport Business Park

The relevance of the above projects is considered on a case by case basis in each chapter as necessary depending on the interaction and likelihood of in combination impacts.

1.5 Contributors to the EIAR

Fehily Timoney and Company (FT) is a consultancy based in Cork, specialising in civil and environmental engineering, and environmental science. FT is well established as a leading consultancy in a broad range of development in Ireland. The company has established a professional team of multi-disciplinary specialists. This team has the support of many in-house engineers, scientists and planners.

FT was instructed by the applicant to undertake the environmental assessment and prepare the EIAR for the proposed development, as well as preparing a Natura Impact Statement to accompany this EIAR for submission to the Planning Authority.

Specialist and competent contributors involved in the preparation of the EIAR are outlined in Table 1.1 below. Curricula Vitae of contributors are presented in Appendix 1.1.

Table 1-1: Contributors to the EIAR

EIS Topic	Company	Name and Qualifications
Chapter 1 – Introduction	FT	Eamon Hutton, BSc, MSc, MIPI
Chapter 2 – Description of the Development	FT	Dr. Elaine Bennett, BSc PhD Eamon Hutton, BSc, MSc, MIPI David Moore, BA, MA, MBA, MSc, MIPI
Chapter 3 – Policy	FT	Eamon Hutton, BSc, MSc, MIPI
Chapter 4 – EIA Scoping, Consultation and Key Issues	FT	Eamon Hutton, BSc, MSc, MIPI
Chapter 5 – Population & Human Health / Human Environment	FT	Dr. Elaine Bennett, BSc PhD Eamon Hutton, BSc, MSc, MIPI
Chapter 6 – Soils, Land (including geology and hydrogeology)	FT	James Dunn, BSc, MSc David Moore, BA, MA, MBA, MSc, MIPI
Chapter 7 – Hydrology and Water Quality	FT	James Redmond, BA BAI, Ceng, MIEI, PMP Kristian Divjak MSc, B.Eng
Chapter 8 - Traffic and Transport	FT	James Redmond, BA BAI, Ceng, MIEI, PMP David Moore, BA, MA, MBA, MSc, MIPI
Chapter 9 - Landscape & Visual	FT	Silvia Garcia, MSc, EWEA; David Moore, BA, MA, MBA, MSc, MIPI
Chapter 10 – Air Quality and Climate	AWN Consulting	Dr. Avril Challoner, BEng, PhD
Chapter 11 – Noise and Vibration	FT	John Mahon PhD BA BAI, MIEI, MIOA
Chapter 12 – Biodiversity / Flora & fauna	FT, Independent	Jon Kearney, BSc Applied Ecology; MSc Ecology Karen Banks, BSc, CIEEM
Chapter 13 Archaeology, Architectural and Cultural Heritage	John Cronin & Associates	John Cronin, BA, MRUP, MUBC Tony Cummins BA, MA
Chapter 14 – Site Selection & Alternatives	FT	Dr. Elaine Bennett BSc PhD Eamon Hutton, BSc, MSc, MIPI
Chapter 15 – Interactions of the Foregoing	FT	Dr. Elaine Bennett BSc PhD Eamon Hutton, BSc, MSc, MIPI

1.6 Difficulties Encountered

No significant difficulties were encountered during the Environmental Impact Assessment process of the Waterford Airport runway extension project.

1.7 Viewing and Purchasing of the EIAR

Copies of this EIAR including the Non-Technical Summary (NTS) may be inspected free of charge or purchased by any member of the public during normal office hours at the following location:

- Waterford City and County Council, 1st floor, Menapia Building, The Mall, Waterford
- An Bord Pleanála Offices, 64 Marlborough St, Rotunda, Dublin 1

1.8 References

European Commission (2017), Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report. Available at: https://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf

EPA (2017), Guidelines on the Information to be contained in Environmental Impact Assessment Reports. Available from: https://www.epa.ie/pubs/advice/ea/EPA%20EIAR%20Guidelines.pdf

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