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EIAR Chapter 1 Introduction

Suir Island Infrastructure Links



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Table of Contents

Document Control Sheet	2
Table of Contents.....	3
List of Figures	4
List of Tables	4
1 Introduction	5
1.1 Introduction.....	5
1.2 Existing Site Background	6
1.3 Brief Description of the Proposed Development.....	7
1.4 Definition of EIA and EIAR	9
1.5 Legislative Context.....	10
1.5.1 Mandatory EIAR: Roads Act 1993, as amended.....	11
1.6 EIAR Scoping	12
1.6.1 Population and Human Health.....	13
1.6.2 Biodiversity, Species and Habitats	14
1.6.3 Land, Soils, Geology and Hydrogeology.....	14
1.6.4 Hydrology	15
1.6.5 Air Quality.....	16
1.6.6 Climate	17
1.6.7 Noise and Vibration.....	17
1.6.8 Material Assets: Built Services	18
1.6.9 Material Assets: Traffic and Transportation.....	19
1.6.10 Material Assets: Resource and Waste Management.....	20
1.6.11 Archaeological and Cultural Heritage	20
1.6.12 The Landscape	21
1.6.13 Consultations with Statutory Bodies	22
1.7 Screening of Appropriate Assessment.....	24
1.8 Structure and Content of the EIAR	24
1.8.1 General Structure.....	24
1.8.2 Description of Effects	26
1.9 EIAR Team	29
1.9.1 EIAR Project Management.....	29
1.9.2 EIAR Environmental Specialists	29
1.10 Availability of EIAR Documents	31

1.11	Methodology	31
1.12	Statement of Difficulties Encountered.....	32
1.13	Cumulative Impacts	32
1.14	Non-Technical Summary.....	34
1.15	References	35

List of Figures

Figure 1-1: Clonmel and Suir Island Zoning (Clonmel & Environs Development Plan 2013)	6
Figure 1-2: Proposal for Site 1.....	7
Figure 1-3: Proposed works area of the Suir Island Infrastructure Links proposed development.....	9

List of Tables

Table 1-1: Summary of Legislative Requirements for EIA Screening.....	11
Table 1-2: Summary of consultations with Statutory Authorities	22
Table 1-3: Structure of this EIAR.....	24
Table 1-4: Description of Effects Terminology (from Table 3.4 EPA, 2022)	27
Table 1-5: EIAR Team.....	29
Table 1-6: Summary of off-site and secondary projects	32

1 Introduction

1.1 Introduction

Clifton Scannell Emerson Associates Consulting Engineers have been commissioned by Tipperary County Council, to prepare an Environmental Impact Assessment Report (EIAR) for a proposed development in and around Suir Island located in Clonmel, County Tipperary. The proposed site lies within part of the European site, Lower-River Suir Special Area of Conservation (SAC), Site Code 002137.

The EIAR has been prepared having regard to the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (published in August 2018 by the Department of Housing, Local Government and Heritage) and the Guidelines on the information to be contained in Environmental Impact Assessment Reports published by the Environmental Protection Agency (EPA) in 2022. The EIAR also has regard to the guidelines on Environmental Impact Assessment issued by the European Commission in 2017.

This EIAR is presented in three volumes; Volume A consists of the standalone Non-Technical Summary; Volume B contains the main text and Volume C comprises of the associated development drawings. Volume B comprises of pertinent background information and describes the proposed development (Chapters 1-3), Environmental Effects and Proposed Mitigation Measures (Chapters 4-16). A Natura Impact Statement (NIS) has been prepared by Doherty Environmental Consultants Ltd which is a standalone document to the abovementioned EIAR volumes.

Volume A: Non – Technical Summary

Volume B: Main Text

- Chapter 1: Introduction
- Chapter 2: Project Description and Planning Policy Context
- Chapter 3: Alternatives Considered
- Chapter 4: Population and Human Health
- Chapter 5: Biodiversity, Species and Habitat
- Chapter 6: Land, Soils, Geology and Hydrogeology
- Chapter 7: Hydrology
- Chapter 8: Air Quality
- Chapter 9: Climate
- Chapter 10: Noise and Vibration
- Chapter 11: Material Assets: Built Services
- Chapter 12: Material Assets: Traffic & Transportation
- Chapter 13: Material Assets: Resources & Waste Management
- Chapter 14: Archaeological and Cultural Heritage
- Chapter 15: The Landscape
- Chapter 16: Identification of Significant Impacts / Interactions
- Chapter 17: Schedule of Mitigation Measures and Monitoring

Volume C: Drawings

Supplementary reports covering engineering and environmental management procedures are appended to the above EIAR Chapters in Volume B. For more detail on the above, refer to the comprehensive EIAR Table of Contents document, Ref no. RPT-20_071- 076.

1.2 Existing Site Background

Clonmel is a large town with a population of circa seventeen thousand people, situated on the River Suir at the foot of the Comeragh Mountains. The topography of Suir Island is low lying, consisting of four islands: Little Island, Suir Island, Willow Island and Stretches Island. It has been an important crossing point since medieval times, linking the Anglo-Norman walled town of Clonmel to County Waterford on the southern side of the river.

The island is surrounded by the River Suir on all sides and is accessible from the town centre via Old Bridge Road located to the west of the island. The island, from its mid-section to eastern end is largely undeveloped and overgrown. The proposed development will encompass areas zoned as “Town Centre” located on The Quays and Suir Island car park and areas zoned for Amenity located to the east of the Suir Island car park and including a small section of Denis Burke Park as shown on Figure 1-1. The northern bank of the island is fully bordered by the River Suir and Clonmel town. To the south of the site, the area consists mainly of residential areas and agricultural lands as well as Raheen College. Clonmel has experienced significant flooding in the past. Flood risk is addressed in the Environmental Impact Assessment Report (EIAR) Chapters, along with the Flood Risk Assessment Stage 1 and 2 Report and Hydraulic Modelling Report completed as part of the planning application.

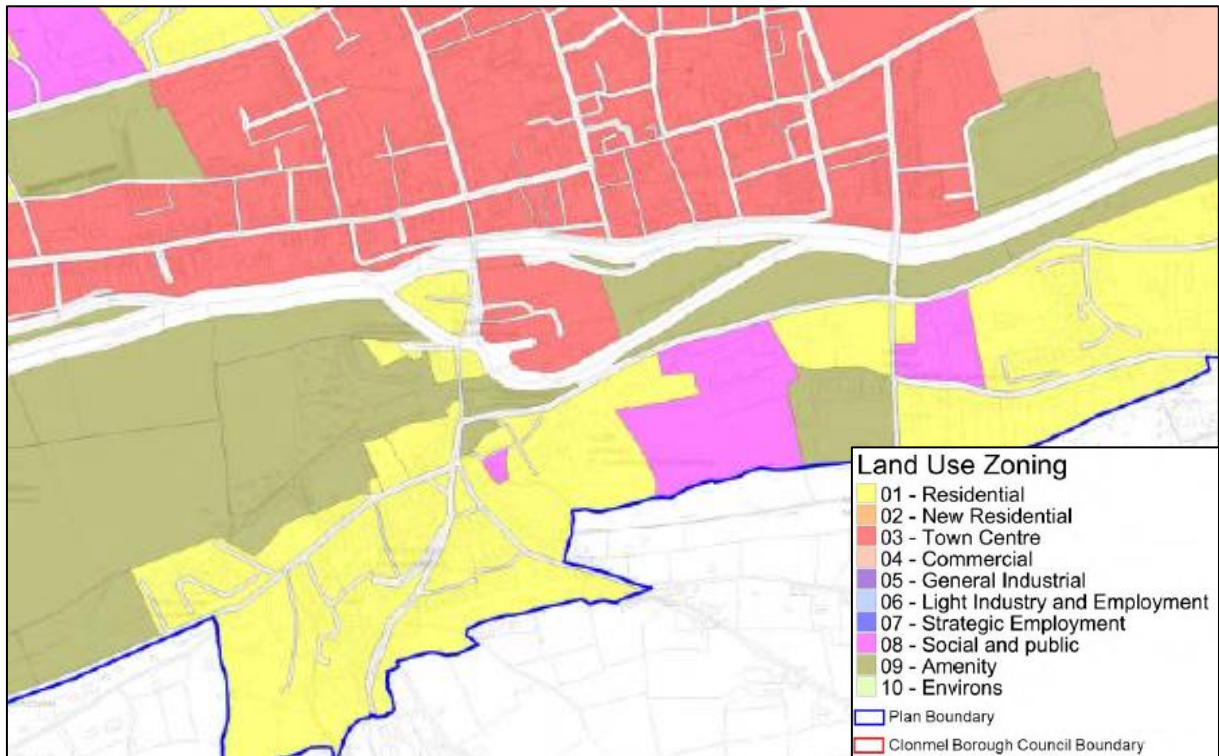


Figure 1-1: Clonmel and Suir Island Zoning (Clonmel & Environs Development Plan 2013)

The location was first identified during the compilation of the Clonmel & Environs Development Plan completed in 2013, which lists the proposed development as “Opportunity Site No. 1: Suir Island and former Clonmel Arms located at Sarsfield Street” as shown on Figure 1-2 below. The combined redevelopment of the Clonmel Arms site and Suir Island offers an opportunity to improve the amenity and commercial function of the town centre.

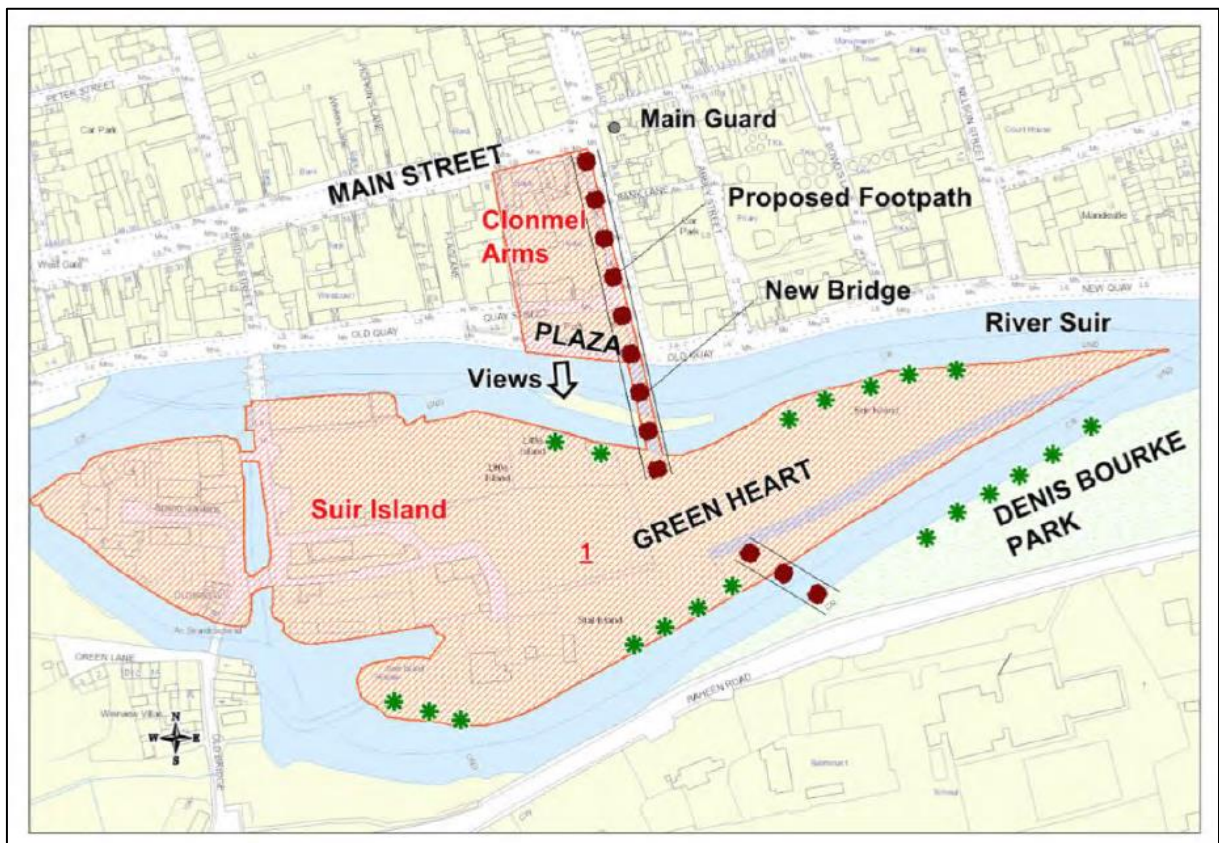


Figure 1-2: Proposal for Site 1

The proposed development is located within part of the European site, Lower River Suir Special Area of Conservation (SAC), Site Code 002137 and Zone of Archaeological Potential as designated by the National Inventory of Architectural Heritage (NIAH), with a number of other sites of cultural and architectural heritage significance in the surrounding area. The above and the impacts of the proposed development are addressed in the relevant Environmental Impact Assessment Report (EIAR) Chapters completed as part of the statutory application to the competent authority, An Bord Pleanála.

1.3 Brief Description of the Proposed Development

The proposed Suir Island Infrastructure Links is located in the centre of Clonmel, with the development encompassing areas located on The Quay/Quay St./Sarsfield St. Junction, Suir Island and Raheen Road as shown on Figure 1-3. Refer to the proposed development drawings included in Volume C of the EIAR.

A full description of the proposed development is provided in Chapter 2 Project Description and Planning Policy Context of this EIAR document. Figure 1-3 that shows the red line boundary of the proposed development. In summary, the development proposals consist of:

- Two pedestrian bridges, the first bridge linking the proposed North Plaza on The Quay/Quay St./Sarsfield St. Junction to Suir Island, and the second bridge connecting Suir Island to Raheen Road.
- Provision of a new public open space called the North Plaza which will be aligned with Sarsfield Street. The steps and ramp will be visible from O'Connell Street creating a new landmark in the town of Clonmel and will encourage pedestrian movement towards the River Suir.

- Provision of a pedestrian path or promenade along the existing berm embankment across Suir Island linking the two pedestrian bridges, to facilitate access between Denis Burke Park on Raheen Road and the proposed North Plaza on The Quay.
- Construction of a pedestrian/bicycle ramp from the link promenade onto Suir Island Carpark. The ramp is fully integrated into the landscape by using the existing slope of the berm.
- Construction of three sets of steps connecting the link promenade to Suir Island carpark and the eastern end of Suir Island.
- Provision of a mini public space within Suir Island Carpark at the entrance to the proposed Suir Island Gardens.
- Provision of a south arrival point for the second bridge connecting Suir Island to the Raheen Road. The south arrival point will consist of one access ramp to the east and one set of steps to the west, integrated with the bridge landing level and running parallel to the footpath.
- Construction of a new foul pumping station to be located within Suir Island car park which will facilitate future Irish Water connections. Wastewater will be pumped 0.1km approx. via rising main along the proposed bridge linking Suir Island to the proposed North Plaza where it will connect into the existing public network along The Quay.

The proposed public realm improvements are intended to create a safe public space for all, while improving connectivity for pedestrians and cyclists. The proposed development will encourage cycling and walking among all age groups as they travel between home, school, sports clubs, etc. as well as providing an attractive commuter and leisure route. This proposed development also provides improved and safer accessibility connecting the town centre to existing car parking infrastructure located on Suir Island.

The existing access linkage from the northern bank of the River Suir (town centre) and Raheen Road to Suir Island is available via Old Bridge Road located to the west of Suir Island. The existing footpaths widths vary between 1-metre to 1.8-metres wide and contains numerous hazards for pedestrians and cyclists such as vehicular ingress/egress entrances, private dwelling entrances, public lighting poles, insufficient sight distances and “blind” corners adjacent to buildings and boundary walls.

The objectives of the proposed development include:

- Improve/revitalise the public realm of the Clonmel town centre and to develop Suir Island and The Quays into the “Green Heart” of Clonmel as highlighted in the Clonmel & Environs Development Plan compiled in 2013;
- Provide a safe and high-quality connection route for pedestrians and cyclists from the Town Centre located on the northern bank of the River Suir to Suir Island and to the Raheen Road/Denis Burke Park located on the southern bank of river;
- Unlock the amenity potential of Suir Island by providing a high-quality and safe access route for users from Denis Burke Park to Suir Island and the northern town centre;
- Encourage people to make the modal shift to sustainable transportation modes such as walking and cycling;
- Encourage people to be active;
- Encourage tourism in and around Suir Island;
- Improve the connection between the Suir Blueway connecting Clonmel to Carrick-on-Suir located along the northern bank of the river and the Green Lane Blueway between Suir Island and Convent Road (R665) located on the southern bank of the river by providing a safer crossing location over restricted protected bridge structures;

The objectives align with numerous national, regional and local planning policies which has been outlined in Chapter 2 of EIAR.

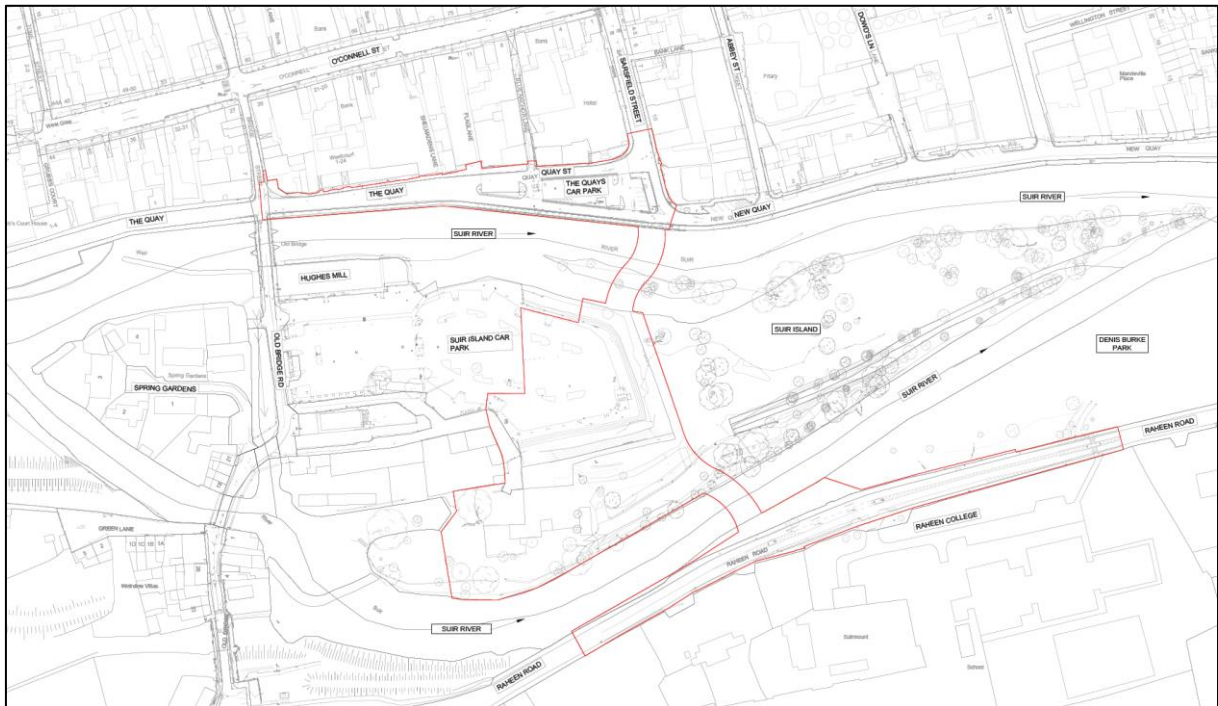


Figure 1-3: Proposed works area of the Suir Island Infrastructure Links proposed development

1.4 Definition of EIA and EIAR

Environmental Impact Assessment (EIA) is defined in Directive 2011/92/EU (as amended by Directive 2014/52/EU) as follows:

“Environmental Impact Assessment means a process consisting of:

- i. the preparation of an environmental impact assessment report by the developer, as referred to in Article 5(1) and (2);
- ii. the carrying out of consultations as referred to in Article 6 and, where relevant, Article 7;
- iii. the examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7;
- iv. the reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination; and
- v. the integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a.”

A definition of an Environmental Impact Assessment Report (EIAR) is given in Section 171A(1) of the Planning and Development (Amendment) Act 2010 SI Number 30 of 2010:

“environmental impact assessment ’ means an assessment carried out by a planning authority or the Board, as the case may be, in accordance with this Part and regulations made thereunder, that shall identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the Environmental Impact Assessment Directive, the direct and indirect effects of a proposed development on the following:

- a) human beings, flora and fauna,
- b) soil, water, air, climate and the landscape,

- c) *material assets and the cultural heritage, and*
- d) *the interaction between the factors mentioned in paragraphs (a), (b) and (c).“*

In summary, EIA is a process for anticipating the effects on the environment caused by development. An EIAR is the document produced as a result of that process and provides information which the competent/ consent authorities use in deciding whether or not to grant consent. The preparation of an EIAR document requires site-specific considerations and the preparation of baseline assessment against which the likely impacts of a proposed development can be assessed by way of a concise, standardised and systematic methodology.

1.5 Legislative Context

Certain public and private projects that are likely to have significant effects on the environment are subject to EIA requirements derived from EIA Directive 85/337/EC (as amended by Council Directive 97/11/EC, Directive 2003/4/EC, Directive 2009/31/EC, Directive 2011/92/EU and recently Directive 2014/52/EU, which amends EIA law in a number of respects by amending Directive 2011/92/EU) which are designed to ensure that projects likely to have significant effects on the environment are subject to assessment of environmental effects prior to development consent being given.

Article 5(1) of the EIA Directive as amended by Directive 2014/52/EU provides where an EIA is required, the developer shall prepare and submit an environmental impact assessment report (EIAR) previously referred to an Environmental Impact Statement ('EIS'). The information to be provided by the developer shall include at least:

- “ 1. *Description of the project, including in particular:*
- (a) *a description of the location of the project;*
 - (b) *a description of the physical characteristics of the whole project, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;*
 - (c) *a description of the main characteristics of the operational phase of the project (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;*
 - (d) *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 the construction and operation phases.*
2. *A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.*
 3. *A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.*
 4. *A description of the factors specified in Article 3(1) likely to be significantly affected by the project: 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 hydromorphological 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.*
 5. *A description of the likely significant effects of the project on the environment resulting from, inter alia:*

- (a) *the construction and existence of the project, including, where relevant, demolition works;*
 - (b) *the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;*
 - (c) *the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;*
 - (d) *the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);*
 - (e) *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;*
 - (f) *the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;*
 - (g) *the technologies and the substances used.*
6. *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.*
 7. *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 a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.*
 8. *A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council (*) or Council Directive 2009/71/Euratom (**) or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this 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 such emergencies.*
 9. *A non-technical summary of the information provided under points 1 to 8.*
 10. *A reference list detailing the sources used for the descriptions and assessments included in the report. “*

1.5.1 Mandatory EIAR: Roads Act 1993, as amended

Table 1-1 provides an overview of the legislative requirements that were used to determine whether the proposed Suir Island Infrastructure Links development will require an EIA.

Table 1-1: Summary of Legislative Requirements for EIA Screening

Mandatory	Regulatory Reference	Assessment
(1) Construction of a motorway.	S. 50(1)(a) of the Roads Act, 1993, as substituted by S.	The development does not entail or propose the construction of a motorway.

		9(1)(d)(i) of the Roads Act, 2007.	
	(2) Construction of a busway.	S. 50(1)(a) of the Roads Act, 1993, as substituted by S. 9(1)(d)(i) of the Roads Act, 2007.	The development does not entail or propose the construction of a busway.
	(3) Construction of a service area.	S. 50(1)(a) of the Roads Act, 1993, as substituted by S. 9(1)(d)(i) of the Roads Act, 2007.	The development does not entail or propose the construction of a service area.
(4) Any prescribed type of proposed road development consisting of the construction of a proposed public road or the improvement of an existing public road, namely:	The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area;	Article 8 of the Roads Regulations, 1994 (Road development prescribed for the purposes of S. 50(1)(a) of the Roads Act, 1993).	The development does not entail or propose the construction of road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes.
	The construction of a new bridge or tunnel which would be 100 metres or more in length.	Article 8 of the Roads Regulations, 1994 (Road development prescribed for the purposes of S. 50(1)(a) of the Roads Act, 1993).	The development proposes to deliver two pedestrian bridges which in combination would exceed 100-metres in length.

As shown in the table above, the Proposed Development exceeds the threshold as set out in Article 8 of the Road Regulations 1994, as amended, in that it includes the construction of two bridges, which in combination will be 135.1-metres in length and thus, a Mandatory EIA is required.

1.6 EIAR Scoping

The procedure of 'scoping', which follows screening, entails determining the scope and content of the environmental information that should be included in the EIAR. Scoping necessitates considering the nature and likely extent of any possible environmental effects that could result from a proposed development.

The following key stages will form the basis of the assessment process:

- Establishing a baseline of the existing environment on and around the proposed development;
- Assessment of the environmental impacts and establishing their significance (primarily the assessment of residual impacts once mitigation has been adopted); and
- Formulation of mitigation measures to ameliorate the potential impacts of the proposed development that cannot be avoided practically through design.

The design of the proposed development is a systematic and iterative process in which the collation and assessment of environmental data and predicted impacts are essentially linked to the development of the design. Chapter 3 Alternatives Considered included in Volume B of this EIAR, summarises the processes that led to the development of the proposal.

The proceeding headings summarises the outcomes of the scoping exercise undertaken for the proposed development EIA.

1.6.1 Population and Human Health

The consideration of Human health has been considered as required by Directive 2014/52/EU. This chapter focused on identifying the environmental topics that have the potential to effect human health and the assessment of those impacts elsewhere within the EIAR. These environmental topics include the likes of noise and vibration, air quality and traffic and how these aspects potentially impact on the population and human health.

Potential Construction Phase Impacts

The main construction phase impacts are associated with the potential nuisance and disturbance caused by construction activities. These include increases in noise and dust from the construction site and construction traffic on the roads surrounding the proposed development, resulting in potential disruption to local people or groups. Such impacts may also result in impact to human health in the vicinity of the proposed development. There may also be beneficial impacts to the local economy during construction with some increases in local economic activity, with construction staff using local businesses for items such as food and fuel.

Potential Operation Phase Impacts

The proposed development once operational, could potentially have a positive impact on local tourism and amenities. With the location of the proposed development within lands zoned as amenity and opportunity the proposed development has the potential to have an impact on the local landscape amenity. Traffic related air emissions during the operational phase have the potential to impact air quality which can affect human health.

EIAR Scope

The assessment comprised of a desk-based analysis of publicly available data, a site visit and review of relevant policies and plans. The following aspects has been considered, and information detailed, as relevant to the proposed development:

- Population and human health;
- Businesses and residential users;
- Amenity and Natural Resources;
- Human health arising from Air Quality and Climate;
- Human health arising from Noise and Vibration;
- Human health from Traffic and Transportation; and
- Health and Safety.

1.6.2 Biodiversity, Species and Habitats

Potential Construction Phase Impacts

The potential impacts for the construction phase of the proposed development, in the absence of mitigation include:

- Loss of habitat due to the footprint of the proposed development and its construction;
- Potential disturbance of protected species in close proximity to the proposed development;
- Potential impacts on special areas of conservation with various qualifying interests; and
- The potential spread of invasive species.

Potential Operation Phase Impacts

Potential adverse effects for the operational phase of the proposed development, in the absence of mitigation include:

- Lighting impacts – disturbance to nocturnal species, including badgers, bats, and birds;
- Permanent loss of habitat within the footprint of the proposed development.

EIAR Scope

Field walkover and field surveys have been undertaken alongside a desk study of available ecological information and relevant plans and policies.

The impact assessment process involved:

- Identifying any potential habitats or notable species of ecological value;
- Identifying invasive species and the prevention of further spread;
- Assessing potential direct, indirect and cumulative ecological impacts as a result of the construction and operation of the proposed development;
- Identifying and characterising potential significant impacts;
- Incorporating measures to avoid and mitigate (reduce) significant impacts where required; and
- Assessing the significance of any residual impacts after mitigation.

1.6.3 Land, Soils, Geology and Hydrogeology

Potential Construction Phase Impacts

Potential impacts associated with the construction phase of the proposed development include:

- Loss of soil cover, soil erosion and compaction;
- Removal and storage of spoil / overburden;
- Risk of encountering contaminated ground in unknown locations;
- Risk of contamination of existing soils and groundwater by the construction activities such as accidental spills;

Potential Operation Phase Impacts

Potential impacts associated with the operational phase of the proposed development include:

- Changes in local surface run-off patterns resulting in local changes to recharge into the soils and bedrock over the operational life of the proposed development;
- Potential for the permanent loss of localised soils; and
- Potential contamination of soils and groundwater through accidental spillages of fuels or chemicals during operational and/or maintenance works.

EIAR Scope

A field walkover was undertaken alongside a desk study of available information and relevant policies and plans. The assessment covers potential impacts on soils, geology and hydrogeology and describes the existing conditions and the likely potential impacts associated with the construction and operation of the proposed development. The impact assessment process involved:

- Identifying and characterising the significance of potential impacts;
- Incorporating measures to avoid and mitigate significant impacts where required; and
- Assessing the significance of any residual impacts after mitigation.

The assessment carried out included the following elements:

- Identification of issues relevant to the proposed development;
- Review of current soil, bedrock and groundwater conditions in the vicinity of the proposed development;
- Review any potential sensitive receptors relevant to the proposed development, such as homes and businesses which may use and abstract groundwater in the vicinity;
- Review potentially available site investigation data for works undertaken in the area of the proposed development;
- Assessment of potential impacts of construction and operational activities on soils, geology and hydrogeology;
- Incorporating measures to avoid and mitigate (reduce) significant impacts where required; and
- Assessing the significance of any residual impacts after mitigation.

1.6.4 Hydrology

Potential Construction Phase Impacts

During the construction phase there is the potential for impact on the hydrological environment such as pollution of surface water features through surface water run-off and also increasing flood risk either upstream or downstream of the proposed development. Sources of pollution include sediment and on-site spillages, which if uncontrolled may flow into local surface water drainage and outfall into the local watercourses.

Potential Operation Phase Impacts

During the operational phase there is the potential for pollution of surface water features through surface water run-off. Sources of pollution associated with the proposed development would be from potential spills, such as fuel / oil from vehicles on site or spillages from chemical drums. If such substances were allowed to flow into surface water drainage, there is the potential for them to reach nearby surface water bodies. Another potential impact could be flooding risk resulting from increased hardstanding introduced by the construction works or restricting the available flow area during the works by installing temporary works.

EIAR Scope

A field walkover has been undertaken alongside a desk study of available information and relevant policies and plans. The assessment describes the existing water environment and any potential significant impacts associated with the construction and operation of the proposed development on these aspects. Additionally, bathymetric and topographical surveys have been obtained which was required to model the pre- and post-development flooding scenarios to confirm that the proposed development would not increase flood risk either upstream or downstream of the proposed development.

The impact assessment process involved:

- A review of drainage plans for surface and waste water at the proposed development and for the proposed development;
- Review of the receiving drainage system and existing surface water quality of the receiving environment;
- Inspection of data that may be available relating to surface water quality, such as from the EPA or Local Authority;
- Review of the relevant River Basin Management Plans and Flood Risk Management Plans;
- Review of existing hydrological characteristics of the River Suir and flow measuring gauges located upstream and downstream of the proposed development;
- Conduct a Stage I and II Flood Risk Assessment from a desktop-level;
- Apply for consent to construct the bridges over the River Suir under Section 50 of the Arterial Drainage Act, 1945 & EU Regulations SI 122 of 2010;
- Identifying and characterising the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) significant impacts (where they occur); and
- Assessing the significance of any residual impacts after mitigation.

1.6.5 Air Quality

Potential Construction Phase Impacts

During the construction phase there is potential for an impact on air quality from the following sources:

- Potential for construction dust emissions and nuisance dust from activities such as excavation, soil movement, soil storage and backfilling. Dust tends to be deposited within 500m of the generation site, and therefore sensitive receptors which fall within this distance of construction activities would be more at risk; and
- Emissions from Heavy Goods Vehicles (HGVs) and on-site construction plant and equipment which may give rise to emissions including; particulates (PM10 and PM2.5), benzene, nitrogen oxides (NOx) and carbon monoxide (CO).

In order to minimise dust emissions during construction, mitigation measures will be included in the EIAR and be implemented during the construction phase of the proposed development. The appointed contractor will be required to comply with these measures.

Potential Operation Phase Impacts

There is the potential for a number of emissions to the atmosphere during the operational phase of the development. In particular, the traffic-related air emissions may generate quantities of air pollutants such as NO₂, PM₁₀ and PM_{2.5}.

EIAR Scope

The air quality assessment carried out on the proposed development included the following elements:

- Identification of air quality issues relevant to the components of the proposed development;
- Assess odour potential from construction works;
- Review of background ambient air quality in the vicinity of the proposed development (relevant air quality baseline data will be obtained from the EPA and publicly available information);
- Assessment of potential construction related air quality impacts;
- Assessment of potential impacts of plant and equipment processes on air quality;
- Assessment of potential impacts of traffic on ambient air quality;
- Identifying the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) significant impacts (where they occur); and

- Assessing the significance of any residual impacts after mitigation.

The assessment identified potential sensitive receptors relevant to the proposed development. Sensitive receptors include locations where people spend significant periods of time, such as domestic properties. Sensitive receptors within the vicinity of the proposed development included:

- Residential dwellings;
- Industrial or commercial uses sensitive to dust;
- Recreational areas and sports grounds;
- Schools and other educational establishments;
- Buildings of religious sensitivity;
- Designated ecological area of conservation;
- Hospitals and nursing homes; and
- Offices or Shops.

1.6.6 Climate

Potential Construction Phase Impacts

There is the potential for a number of greenhouse gas emissions to the atmosphere during the construction of the development. Construction vehicles, generators etc., may give rise to CO₂ and N₂O emissions. The use of construction materials and resources would impact on climate.

Potential Operation Phase Impacts

There is the potential for a number of greenhouse gas emissions to atmosphere during the operational phase of the development as a result of increased or decreased traffic emissions.

EIAR Scope

A field walkover was undertaken alongside a desk study of available information and relevant policies and plans. The assessment describes the existing water environment and any potential significant impacts associated with the construction and operation of the proposed development on these aspects.

The impact assessment process involved the following but not limited to:

- Greenhouse Gas Emissions (GHG) Assessment
- Climate Change Risk (CCR) Assessment
- TII Road Emissions Model (REM)
- TII Carbon Assessment Tool

1.6.7 Noise and Vibration

Potential Construction Phase Impacts

The potential construction phase noise and vibration impacts will be associated with the operation of machinery on the site. In addition, there will be some percussive noise generated as a result from piling activities to construct the bridge foundations. The actual noise level produced by construction work will vary depending on a number of factors including the type of plant in use, plant location, duration of operation, hours of operation and intervening topography.

Potential Operation Phase Impacts

It is anticipated that operational phase noise and vibration impacts would be minimal and would be associated with an expansion to the operation as opposed to new noise sources.

EIAR Scope

The assessment covers potential impacts from noise and vibration and describes the existing conditions and the likely potential impacts associated with the construction and operation of the proposed development.

The impact assessment process will involve:

- Identifying the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) significant impacts (where they occur); and
- Assessing the significance of any residual impacts after mitigation.

The noise and vibration assessment carried out on the proposed development included the following elements:

- Identification of noise and vibration issues relevant to the proposed development;
- Review of background noise in the vicinity of the proposed development. A field walkover and noise survey will be undertaken alongside a desk study any relevant baseline information;
- Assessment of potential noise and vibration impacts resulting from construction activities;
- Assessment of potential impacts of operational phase plant processes on noise and vibration in and around the applicable parts of the proposed development;
- Assessment of potential impacts of traffic on noise levels in and around the proposed development.

1.6.8 Material Assets: Built Services

The EPA Guidelines (2022) state that material assets are taken to mean “*built services and infrastructure, roads and traffic and waste management*”. The EPA Advice Notes for Preparing Environmental Impact Statements (2015) also gives examples of material assets including assimilative capacity of air and water; ownership and access; and tourism and recreational infrastructure.

This chapter assesses ownership and access, built services and infrastructure, which have not already been addressed elsewhere in this EIA Report. The subsequent sections address built services and infrastructure. The potential impacts on built services and infrastructure, if any, are assessed in terms of the following:

- Land Use, Property, and Access;
- Power, Electrical, and Gas Supply;
- Surface Water Infrastructure;
- Foul Drainage Infrastructure;
- Water Supply Infrastructure; and
- Flood Protection Infrastructure.

Potential Construction Phase Impacts

During the construction phase, there will be a potential impact on built services where the contractor will require connections for electricity, telecommunications, water and foul connections for the contractor’s compound. The proposed works located within the River Suir floodplain will require localised sheet piling and temporary access routes which may impact on flood water levels and subsequently the operation of the Clonmel Flood Defence Scheme infrastructure. The installation of hoarding around the works areas will impact on the land-use and pedestrian access to businesses and shops located in the town centre.

Potential Operation Phase Impacts

During the operational phase of the proposed development, a permanent connection to the existing foul drainage infrastructure will be required. The proposed development will interface with the Clonmel Flood Defence scheme which could potentially impact on the installation of the demountable barrier systems located along The Quays and restrict maintenance access for TCC and OPW staff on Suir Island containing the flood defence berm, which will be utilised for the link promenade between the northern and southern bridges. Following the construction of the bridge foundations in the river floodplain, the characteristics of the river hydraulics could potentially be altered which may undermine the operation of the critical flood infrastructure.

EIAR Scope

The impact assessment process involved:

- A desktop review of Irish Water Utility Plans, ESB Networks Utility Plans, Gas Networks Ireland Service Plans, Eir E-Maps and Virgin Media Maps;
- Consultations with Tipperary County Council;
- Consultations with the Office of Public Works;
- Submission of a Pre-Connection Enquiry Application to Irish Water (Ref: CDS21008413);
- Review of ESB Utility Plans;
- Review of eir Telecommunication Maps;
- Review of Virgin Media Telecommunication Maps;
- Review of topographical and bathymetric surveys;
- Review of aerial photography; and
- Site Inspections / Walkover.

1.6.9 Material Assets: Traffic and Transportation

Potential Construction Phase Impacts

Potential impacts during the construction phase include:

- An increase in noise and potentially dust generated from construction related traffic may cause some level of disruption;
- An increase in road traffic levels due to construction related activities supplying and accessing the site using the existing road network.

Potential Operation Phase Impacts

Potential impacts during the operational phase include:

- Increased traffic levels due to traffic accessing/egressing the proposed development; and
- Increased congestion and restrict parking availability with the removal of parking bays located in the Quays;

EIAR Scope

The assessment addresses potential impacts on traffic and transport and describes the existing conditions and the likely potential impacts associated with the construction and operation of the proposed development. The impact assessment process will involve:

- Evaluating the proposed development in relation to all road users including general traffic, HGV's, cyclists and pedestrians;
- Reviewing the future road and public transport proposals in the area surrounding the proposed development;

-
- Parking and loading availability at the proposed development during the construction and operational phases;
 - Identifying and characterising the significance of any potential impacts;
 - Incorporating measures to avoid and mitigate (reduce) any significant impacts (where they occur); and
 - Assessing the significance of any residual impacts after mitigation.

A Traffic and Transport Assessment (TTA) has been undertaken as per the TII Traffic and Transport Assessment guidelines (PE-PDV-02045 - 2014).

1.6.10 Material Assets: Resource and Waste Management

Potential Construction Phase Impacts

Potential impacts during the construction phase include:

- Production of additional waste material, arising from excavation works;
- Excavation of possible contaminated lands, which would require disposal off site at a suitably licensed facility/location;
- Surplus materials and waste may occur where material supply exceeds material demand.

Potential Operation Phase Impacts

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

EIAR Scope

The assessment covers the potential impacts of waste generation, describe the existing conditions and the likely potential impacts associated with the construction and operation of the proposed development. The impact assessment process involved:

- Review of current and future waste plans and/or requirements relevant to the proposed development i.e. national and regional waste management policies and objectives;
- Describing the waste streams arising from the construction and operational phase of the proposed development;
- Review of excavated materials expected to be generated during the construction phase;
- Identifying and characterising the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) any significant impacts (where they occur); and
- Assessing the significance of any residual impacts after mitigation.

1.6.11 Archaeological and Cultural Heritage

Potential Construction Phase Impacts

The proposed development is located within the Zone of Archaeological Potential (ZAP) of Clonmel, this is an area that has an increased potential to reveal subsurface archaeological sites or soils dating back to the foundation of the town in the Medieval period. There is, however, the potential that previously unknown archaeological deposits, features, or sites may be present below ground within the proposed

development area. Ground-breaking works for the proposed development will impact on any archaeological features that may be present.

The ZAP has a high sensitivity value, and the magnitude of impact on potentially truncated subsurface archaeological soils or features in the urban landscape is medium-low, particularly given the works associated with the flood relief scheme and the main drainage project in the town.

The north plaza is in the area of an existing trapezoidal car park, just south of the line of the medieval town wall and north of the river. Large 19th-century structures are depicted on the first edition Ordnance Survey Map in this area. During the archaeological monitoring of site investigation works, the foundation remains associated with these structures were identified.

The proposed compound area is located in the existing car park on Suir Island. Monitoring and subsequent excavation of former mills has been carried out in this location previously. The extent of the monitoring and excavation works is unknown so there remains a low potential that milling activity might be identified in this area should undisturbed pockets survive.

Potential Operation Phase Impacts

The Clonmel Main Drainage Project of the early 1990s and the River Suir Flood Relief Scheme (2009-2011) substantially changed Suir Island bridges, the Suir riverbanks, and the quays. The two major civil engineering projects altered the river's character by introducing visually dominant flood relief walls and earthworks on the riverbanks north and south of the island and by large earthworks on the Island itself.

The interaction of amenity, heritage, and public well-being is vital for sustainable development. Suir Island presents a huge opportunity for the town as a central amenity. The proposal is an innovative opportunity to positively impact the town's heritage to access. The plaza and pedestrian link will provide people with a sense of place and connection to their historic environment. It will complement the existing water sports amenity in the river and the park to the south of the river in Denis Burke Park.

There will be a will be a positive impact on the cultural heritage environment and interaction between public spaces in the town, improving amenity. There will be no operational impacts on archaeological heritage.

EIAR Scope

The assessment covers potential for impacts on archaeology, architectural and cultural heritage, and describes the existing conditions and any likely potential impacts associated with the construction and operation of the proposed development (where relevant). The impact assessment process involved:

- Undertaking a search of the Record of Monuments and Places (RMPs), Site and Monuments Record (SMR), and National Inventory of Architectural Heritage (NIAH);
- Review of aerial photographic and cartographic sources available online;
- Review of the Excavation Bulletin;
- Review previous archaeological expeditions and data;
- Identifying and characterising the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) these any significant impacts (where they occur); and
- Assessing the significance of any residual impacts after mitigation.

1.6.12 The Landscape

Potential Construction Phase Impacts

Potential construction phase impacts relevant to the Landscape and Visual Assessment include;

- Visual impacts from the movement of traffic and machinery to and from the proposed development and associated ancillary construction requirements i.e. water drainage, power and lighting etc to and from the proposed development;
- Landscape and visual impacts arising from the movement of construction materials, compounds and construction machinery;

Potential Operation Phase Impacts

Potential operational phase impacts relevant to the Landscape and Visual Assessment included:

- Landscape and visual impacts arising from the presence of new permanent structures at the proposed development.

EIAR Scope

The assessment included a field walkover undertaken alongside a desk study of available information and relevant policies and plans. The impact assessment process involved:

- Describing the existing environment (both landscape and visual) taking into account the landscape character assessment;
- Identifying potential landscape and visual issues relevant to the proposed development;
- Assigning landscape and visual receptor sensitivity;
- Identifying the significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) significant impacts (where they occur);
- Assessing the significance of any residual landscape effects and visual effects after mitigation.

1.6.13 Consultations with Statutory Bodies

As part of the scoping exercises highlighted above, the following consultations were held with Statutory Bodies/Authorities in relation to the proposed development and EIAR. The outcomes of consultations are summarised in Table 1-2.

Table 1-2: Summary of consultations with Statutory Authorities

Body/Authority	Topic and Date	Outcomes
Office Of Public Works (OPW)	Flood Risk Assessments (October 2020, October 2022)	<p>The first consultation meeting was held in October 2020, where the proposed scheme was highlighted to the OPW. The outcomes of the consultation were:</p> <ul style="list-style-type: none"> • Hydraulic modelling of the pre- and post-development scenarios were to be undertaken; • The northern bridge will be so designed to span over the flood defences. • The developer would have to demonstrate that the proposed development will not impact on the operation of the Clonmel Flood Defence Scheme. • The developer would have to submit Application for Consent under Section 50 of the Arterial Drainage Act, 1945 & EU Regulations SI 122 of 2010.

		<p>The second consultation meeting was held in October 2022 to discuss the outcomes of the Hydraulic Modelling and Section 50 Application. The outcomes of the consultation were:</p> <ul style="list-style-type: none"> • The hydraulic modelling and report were accepted by the OPW. • The developer would have to prepare a supplementary report for the Section 50 Application to address various construction and operational phase concerns raised by the OPW.
National Park and Wildlife Services (NPWS)	Site Investigations Permission (January 2022)	NPWS requested Doherty Environmental Consultants to prepare a screening report for the proposed site investigation works which will be undertaken within the Lowe-Suir SAC. Following the submission of the screening report, NPWS confirmed no further action was required.
Inland Fisheries Ireland (IFI)	Construction Timeframes within the Lower-Suir SAC (June 2023)	<p>TCC consulted with IFI on the proposed construction methodology, temporary works and pier construction requirements. The outcomes of the consultations with IFI were:</p> <ul style="list-style-type: none"> • All works located near the riverbanks and associated temporary works must be carried out during the months of July, August and September. • Where the temporary works culvert is proposed for Pier 1, the area is to sandbagged first and IFI shall carry out electrofishing; • The temporary works culvert should be set within the ephemeral channel bed to a depth of 300mm-500mm and covered with insitu riverbed material.
Office of Public Works (OPW)	Request for EIAR Scoping Inputs (19 June 2023)	Still awaiting for formal response from Statutory Authority.
National Park and Wildlife Services (NPWS)	Request for EIAR Scoping Inputs (19 June 2023)	Still awaiting for formal response from Statutory Authority.
Environmental Protection Agency (EPA)	Request for EIAR Scoping Inputs (20 June 2023)	Still awaiting for formal response from Statutory Authority.

1.7 Screening of Appropriate Assessment

A Screening Report for Appropriate Assessment was prepared to enable the competent authority to comply with Article 6(3) of Council Directive 92/43/EEC (The Habitats Directive) which has been prepared by Doherty Environmental Consultants Ltd (DEC Ltd.) and is appended to Volume B Chapter 5 Biodiversity, Species and Habitats of this EIAR document.

The Screening Statement for Appropriate Assessment stated that:

“The proposed project has been screened for its potential to result in likely significant effects to surrounding European Sites. One European Site, the Lower River Suir Special Area of Conservation (SAC) has been identified as occurring within the zone of influence of the project. The reason for identifying this SAC within the zone of influence of the project was due to the location of elements of the project within the SAC and the potential risk posed by the project to the freshwater qualifying habitats and qualifying species of this SAC.

For the reasons outlined above it is the considered view of the authors of this Screening Report for Appropriate Assessment that the potential for likely significant effects to European Sites cannot be ruled out at the Screening stage and that an Appropriate Assessment of the project is required. Based on this conclusion a Natura Impact Statement will be prepared to inform An Bord Pleanála during its Appropriate Assessment of the project and its potential to adversely impact the integrity of the Lower River Suir SAC, alone or in-combination with other plans or projects.”

Based on findings of the above report compiled by Doherty Environmental Consultants Ltd (DEC Ltd.), a Natura Impact Statement is also submitted with the application to the competent authority, An Bord Pleanála.

The Natura Impact Statement is a standalone or separate document to the Environmental Impact Assessment Report and is not appended to any EIAR Chapters or reports prepared for the purposes of Article 6[3] of the Habitats Directive.

1.8 Structure and Content of the EIAR

1.8.1 General Structure

For clarity and to allow for ease of presentation and consistency when considering the various elements of the proposed development, a systematic structure is used for the main body of this EIAR. The structure of the EIAR document is set out in Table 1-3 below.

Table 1-3: Structure of this EIAR

Chapter	Title	Content
1	Introduction	Sets out the purpose, methodology and scope of the document.
2	Project Description and Planning Policy Context	Sets out the description of the site, design and scale of development, considers all relevant phases from construction through to existence and operation together and highlights how the proposed development aligns with planning policies at national, regional and local planning policy documents and key policies which support the proposed development.

3	Alternatives Considered	Highlights alternatives considered with a description and evaluation of the reasonable alternatives studied by the developer including alternative locations, designs and processes considered, and a justification for the option chosen taking into account the effects of the project on the environment.
4	Population and Human Health	Describes the demographic and socio-economic profile of the receiving environment and potential impact of the proposed development on population, i.e. human beings, and human health.
5	Biodiversity, Species and Habitats	Describes the existing ecology on site and in the surrounding catchment and assesses the potential impact of the proposed development and mitigation measures incorporated into the design of the proposed development.
6	Land, Soils, Geology and Hydrogeology	Provides an overview of the baseline position, the potential impact of the proposed development on the site's soil and geology and impacts in relation to land take and recommends mitigation measures.
7	Hydrology	Provides an overview of the baseline position, the potential impact of the proposed development on water quality and quantity and recommends mitigation measures.
8	Air Quality	Provides an overview of the baseline air quality and climatic environment, the potential impact of the proposed development, the vulnerability of the project and recommends mitigation measures.
9	Climate	Provides an overview of the baseline climatic environment, the potential impact of the proposed development, the vulnerability of the project to climate change, and recommends mitigation measures.
10	Noise and Vibration	Provides an overview of the baseline noise environment, the potential impact of the proposed development and recommends mitigation measures.
11	Material Assets: Built Services	Describes the existing services and infrastructural service requirements of the proposed development and the likely impact of the proposed development on material assets.
12	Material Assets: Traffic & Transportation	Describes the existing traffic and transportation infrastructure and the likely impact of the proposed development on material assets.
13	Material Assets: Resources & Waste Management	Describes the resources and waste management requirements of the

		proposed development and the likely impact of the proposed development on material assets.
14	Archaeology and Cultural Heritage	Provides an assessment of the site and considers the potential impact of the proposed development on the local archaeology, architectural and cultural heritage; and recommends mitigation measures.
15	The Landscape	Provides an overview of the baseline position, the potential impact of the proposed development on the landscape appearance and character and visual environment and recommends mitigation measures.
16	Identification of Significant Impacts / Interactions	Describes the potential interactions and interrelationships between the various environmental factors.
17	Schedule of Mitigation Measures and Monitoring	Summarises the mitigation measures and monitoring of each EIAR chapter.

This systematic approach described above employs standard descriptive methods, replicable assessment techniques and standardised impact descriptions to provide an appropriate evaluation of each environmental topic under consideration.

The EIAR also includes a non-technical summary, which is a condensed and easily comprehensible version of the EIAR document. The non-technical summary is laid out in a similar format to the main EIAR document and comprises a description of the proposed development followed by the existing environment, impacts and mitigation measures presented in the grouped format.

1.8.2 Description of Effects

As stated in the 'Guidelines on the Information to be contained in Environmental Impact Assessment Report (EPA, 2022), an assessment of the likely impacts of a proposed development is a statutory requirement of the EIA process. The statutory criteria for the presentation of the characteristics of potential impacts requires that potential significant impacts be described with reference to the extent, magnitude, complexity, probability, duration, frequency, reversibility and trans frontier nature (if applicable) of the impact.

The terminology in this EIAR will follow those provided in the Description of Effects contained in the following guidance documents produced by the Environmental Protection Agency (EPA):

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2022).

This EIAR also has taken cognisance of the publication 'Environmental Impact Assessment of Projects - Guidance on the preparation of the Environmental Impact Assessment Report' (European Union, 2017).

Table 1-4 as follows presents the Description of Effects as published in the EPA Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA 2022). Standard definitions are provided in this table, which permit the evaluation and classification of the quality, significance, extents, probability, duration and type of impacts associated with a proposed development on the receiving environment. The use of pre-existing standardised terms for the classification of impacts ensures that the EIA employs a systematic approach, which can be replicated across all disciplines covered in the EIAR, as advised in 'Guidelines on the Information to be contained in Environmental

Impact Assessment Reports' (EPA, 2022). The consistent application of terminology throughout the EIAR facilitates the assessment of the proposed development on the receiving environment.

Table 1-4: Description of Effects Terminology (from Table 3.4 EPA, 2022)

Impact Characteristic	Term	Description
Quality	Positive	A change which improves the quality of the environment
	Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative	A change which reduces the quality of the environment
Significance	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	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends
	Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
	Profound	An effect which obliterates sensitive characteristics
Extent & Context	Extent	Describe the size of the area, number of sites and the proportion of a population affected by an effect
	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions
Probability	Likely	Effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented
	Unlikely	Effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented

Impact Characteristic	Term	Description
Probability	Momentary	Effects lasting from seconds to minutes
	Brief	Effects lasting less than a day
	Temporary	Effects lasting less than a year
	Short-term	Effects lasting one to seven years
	Medium-term	Effects lasting seven to fifteen years
	Long-term	Effects lasting fifteen to sixty years
	Permanent	Effect lasting over sixty years
	Reversible	Effects that can be undone, for example through remediation or restoration
	Frequency	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Type	Indirect	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway
	Cumulative	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
	'Do Nothing'	The environment as it would be in the future should the subject project not be carried out
	Worst Case'	The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable	When the full consequences of a change in the environment cannot be described
	Irreversible	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost
	Residual	Degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic	Where the resultant effect is of greater significance than the sum of its constituents

Each impact is described in terms of its quality, extent, duration, significance and type, where possible. A 'Do-Nothing' impact is also predicted in respect of each environmental theme in the EIAR. Residual impacts are also presented following any impact for which mitigation measures are prescribed. The remaining impact types are presented as required or applicable throughout the EIAR.

1.9 EIAR Team

1.9.1 EIAR Project Management

This EIA was project managed, co-ordinated and produced by Clifton Scannell Emerson Associates Consulting Engineers. Clifton Scannell Emerson Associates' role was to coordinate the EIA process and to liaise between the design team and various environmental specialist consultants.

1.9.2 EIAR Environmental Specialists

Environmental specialist consultants were also commissioned for the various technical chapters of the EIAR which are mandatorily required as per the EIA Directive and Regulations.

Each environmental specialist was commissioned having regard to: their previous experience in EIA; their knowledge of relevant environmental legislation relevant to their topic; their familiarity with the relevant standards and criteria for evaluation relevant to their topic; their ability to interpret the specialised documentation of the construction sector and to understand and anticipate how their topic will be affected during construction and operation phases of development; their ability to arrive at practicable and reliable measure to mitigate or avoid adverse environmental impacts; and their ability to clearly and comprehensively present their findings.

Each environmental specialist was required to characterise the receiving baseline environment, evaluate its significance and sensitivity, predict how the receiving environment will interact with the proposed development and to work with the EIA project design team to devise measures to mitigate any adverse environmental impacts identified.

The relevant specialist consultants who contributed to the EIAR and an outline of their experience and qualifications are set out in Table 1-5 below.

Table 1-5: EIAR Team

Chapter	Author	Company & Consultant	Qualification	No. of Years' Experience
Non – Technical Summary	Teri Hayes	AWN Consulting	Director and Senior Environmental Consultant MSc. Hydrogeology, BSc in Geology, Professional Geologist (PGeo), IAH, IGI, EurGeol	20
1. Introduction	Laura Peare	CSEA	Senior Engineer BEng(Hons), Tech Dip Eng, CEng MIEI	19
2. Planning Policy Context	Laura Peare	CSEA	Senior Engineer BEng(Hons), Tech Dip Eng, CEng MIEI	19
3. Description of Project and Alternatives	Laura Peare	CSEA	Senior Engineer BEng(Hons), Tech Dip Eng, CEng MIEI	19

4. Population & Human Health	Catherine Keogan	AWN Consulting	Senior Environmental Consultant B.Sc.(Analytical Science) Post Grad Dip (RETS)	30+
5. Biodiversity / Species and Habitats	Pat Doherty	Doherty Environmental	Director, Ecologist MSc, MCIEEM	18
6. Land, Soils, Geology & Hydrogeology	Colm Driver	AWN Consulting	Senior Environmental Scientist (Hydrogeologist) BSc in Geology, MSc in Hydrogeology & Water Management, Professional Geologist (PGeo)	6
7. Hydrology	Colm Driver	AWN Consulting	Senior Environmental Scientist (Hydrogeologist) BSc in Geology, MSc in Hydrogeology & Water Management, Professional Geologist (PGeo)	6
8. Air Quality	Niamh Nolan	AWN Consulting	Air Quality Consultant BSocSc AMIAQM AMIEEnvSc	2
9. Climate	Ciara Nolan	AWN Consulting	Senior Air Quality Consultant BSc (Hons), MSc (Hons) MIAQM, MIEEnvSci	6
10. Noise & Vibration	Leo Williams	AWN Consulting	Noise & Vibration Consultant BA BAI MAI Mechanical & Manufacturing Engineering Diploma in Acoustics and Noise Control	6
11. Material Assets: Built Services	Henk Botha	CSEA	Design Engineer BTech (Water Eng), NDIP Civil Eng	7
12. Material Assets: Traffic & Transportation	Carol Diaz Rosario	CSEA	Transport Engineer MSc. Transport Planning & Modelling, BEng	3

13. Material Assets: Resources & Waste Management	Teri Hayes	AWN Consulting	Director and Senior Environmental Consultant MSc. Hydrogeology, BSc in Geology, Professional Geologist (PGeo), IAH, IGI, EurGeol	20
14. Archaeology & Cultural Heritage	Siobhan Deery	Courtney Deery Heritage Consultancy	Director and Senior Cultural Heritage Consultant BA, MA, H-Dip (Ed.), Dip Planning & Env. Law, MIAI, Licence Eligible Archaeologist	25
15. The Landscape	Milia Tsoussis	DHB Architects	Senior Landscape Consultant Msc.LA	38
16. Identification of Significant Impacts/ Interactions	Teri Hayes	AWN Consulting	Director and Senior Environmental Consultant MSc. Hydrogeology, BSc in Geology, Professional Geologist (PGeo), IAH, IGI, EurGeol	20
17. Schedule of Mitigation Measures and Monitoring	Catherine Keogan	AWN Consulting	Senior Environmental Consultant B.Sc.(Analytical Science) Post Grad Dip (RETS)	30+

1.10 Availability of EIAR Documents

Copies of the full EIAR is available for purchase at the offices of An Bord Pleanála and Tipperary County Council (the Planning Authority) at a fee not exceeding the reasonable cost of reproducing the document.

1.11 Methodology

This EIAR has been prepared with reference to a standardised methodology which is universally accepted and acknowledged. Recognised and experienced environmental specialists have been used throughout the EIA process to ensure the EIAR produced is robust, impartial and objective.

It should be noted that, as highlighted above, an important part of the EIA process is preventative action which causes the project design team to devise measures to avoid, reduce or remedy significant adverse impacts in advance of applying for consent. As a result, where no likely significant impacts have been identified where they might reasonably be anticipated to occur, the design and layout of the proposed development has generally been amended to minimise the potential of any likely significant adverse impacts.

1.12 Statement of Difficulties Encountered

No exceptional difficulties were experienced in compiling the necessary information for the proposed development. Where any specific difficulties were encountered these are outlined in the relevant chapter of the EIAR.

1.13 Cumulative Impacts

The following off-site and secondary projects have been identified as summarised in Table 1-6.

Table 1-6: Summary of off-site and secondary projects

Project Planning Ref. & Brief Description	Overview
P82201 - Suir Island Gardens	<p>Develop Suir Island (Willow Island) Gardens as a public amenity. Within the red line site boundary, there is a development proposal adjacent to the Suir Island Infrastructure Links proposed development. The Suir Island Gardens proposed development is being submitted through the Part 8 planning application process. The nature and extent of the proposed development works at Suir Island Gardens will comprise of the provision of open lawns; landscape planting to include the provision of 40 new native trees along with herb and shrub planting; seating and picnic areas; provision of both hard and soft pathways; new entrance gate and associated cladding on adjoining walls; formal and informal children's play areas throughout the site; securing of Suir Island House (a Protected Structure) with decorative grills at ground floor level; external feature lighting fitted to walls of Suir Island House (a Protected Structure); ancillary site development works that shall include site drainage for the hard landscaped areas, provision of water supply for the play area and wash down purposes, provision of electrical supply for the external feature lighting, and removal and reconstruction of a short section of boundary wall and all associated site works.</p>
Clonmel Urban/Public Realm Design	<p>The overarching objectives of the Clonmel Urban Design Project are to;</p> <p>Transform Clonmel Town Centre making it more attractive to its population and citizens for the next 50 years; Provide a new 21st century canvas upon which retail and other urban uses appropriate to modern town centre requirements can be enabled to flourish, develop and progress; Create a new town centre environment which is attractive to residents and businesses whilst enhancing the visitors experience, confirming Clonmel's reputation as a destination town; Retain as many shoppers and recreational users as possible, and maximise this to the greatest possible extent; Create new opportunities for businesses – including new night life opportunities, new event spaces, new eating and socialising spaces, a café culture, new pop-up market spaces etc; Enhance the surrounding environment to showcase the town's rich historical heritage</p> <p>These objectives will be achieved by:</p>

	<p>Providing a bespoke, modern public realm design which compliments and respects the existing historical heritage and strengths of Clonmel Town; Creating additional public realm space, achieved by increasing footpath widths, creating new multi-functional public realm space at key locations, which aim to make the public realm safer and more inclusive for all users (modifying surfaces for the visually impaired and disabled users); Making the public realm area more appropriate to the needs of users (smart technology); Making it easier to circulate around the town with good access to parking and facilities within easy reach; Improving identified linkages between the town centre with tourist and heritage sites within Clonmel, such as the Museum, West Gate, the proposed Suir Island Amenity Park, the River Suir, and Dowd's Lane (location for proposed future Bulmer's Visitor Centre).</p>
201521 – retention of works to an existing dwelling	<p>retention of the revised elevations of the existing dwelling, the minor modifications to the footprint, single-storey rear extension and front porch to same, domestic garage and all associated site development works</p>
20597 – construction of fencing and gates	<p>construction of a 2.4m high powder-coated mesh fence and gates to enclose the existing ballcourt</p>
18600733 – installation of roof-top solar panels	<p>installation of approximately 438m² (74kW) of solar PV panels on the hotel's roof</p>
19600729 – redevelopments works to an existing service station and oil depot	<p>(1) Redevelopment of their existing lands to provide: (a) new crossover arrangement at eastern end of site to provide access for service station and access/egress for oil depot; (b) dedicated HGV parking, fuelling and marshalling area including relocation of oil tanker offloading point and HGV hi-speed fuel pump; (c) car/LCV parking areas for service station; (d) relocation of drive-thru automatic brush wash with associated screens; (e) demolition of existing canopy, pump islands and underground tanks; (f) provision of 4 no. fuel pump islands with canopy over and link-back to forecourt building and new underground fuel storage tanks; (g) construction of extension to existing forecourt building to provide a store (54.48 sq.m) and deli/cafe prep area (17.76 sq.m); (h) revised internal layout including change of use from office, stores and welfare facilities to provide new deli/cafe seating area, office, stores and welfare facilities; (i) sale of specially prepared hot and cold food for consumption both on and off the premises from the deli-cafe area of forecourt building; (j) provision of revised fenestration and elevational changes to existing forecourt building; (k) ancillary signage for development, both illuminated and non-illuminated; (l) all associated site works including bin compound; (m) revised road markings at east & west crossovers on Waterford Road and (2) Permission for Retention of extensions and alterations (area 31.31 sq.m) to forecourt building previously approved under Plan File No. 02/759</p>

19601295 – retention of a constructed mixed user building	retention of certain changes to an as constructed mixed user building granted under planning application reference number PA892, the items to be retained are as follows: (i) a stair core linking all apartments (ii) an existing third storey apartment and (iii) some window and door arrangements and all associated site works
19600102 development at a site known as the former Clonmel Meat Factory	The development comprised the demolition and clearance of all existing buildings and structures on site and levelling of the site together with all associated site development works. A perimeter wall will be maintained on all sides of the site, including along Abbey Road (R884) and Convent Road (R665). The purpose of the proposed works is to clear and secure the site following on from a fire.

1.14 Non-Technical Summary

The 2018 EIA Guidelines prepared by the DHPLG state that the Non-Technical Summary “*should be concise and comprehensive and should be written in language easily understood by a lay member of the public not having a background in environmental matters or an in-depth knowledge of the proposed project.*”

A Non-Technical Summary of the EIAR has been prepared which summarises the key environmental impacts and is provided as a separately bound document.

1.15 References

Clonmel – Flights of Discovery. A report for Tipperary County Council completed by Mirador Media and Crane Bag Consulting, Final version April 2017

Clonmel & Environs Development Plan, Tipperary County Council, 2013

Directive 2014/52/EU of the European Parliament And Of The Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

Environmental Protection Agency (EPA), Guidelines on the Information to be contained in Environmental Impact Assessment Reports, 2022;

Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (published in August 2018 by the Department of Housing, Local Government and Heritage)

Suir Island Master Plan, Tipperary County Council, 2019

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