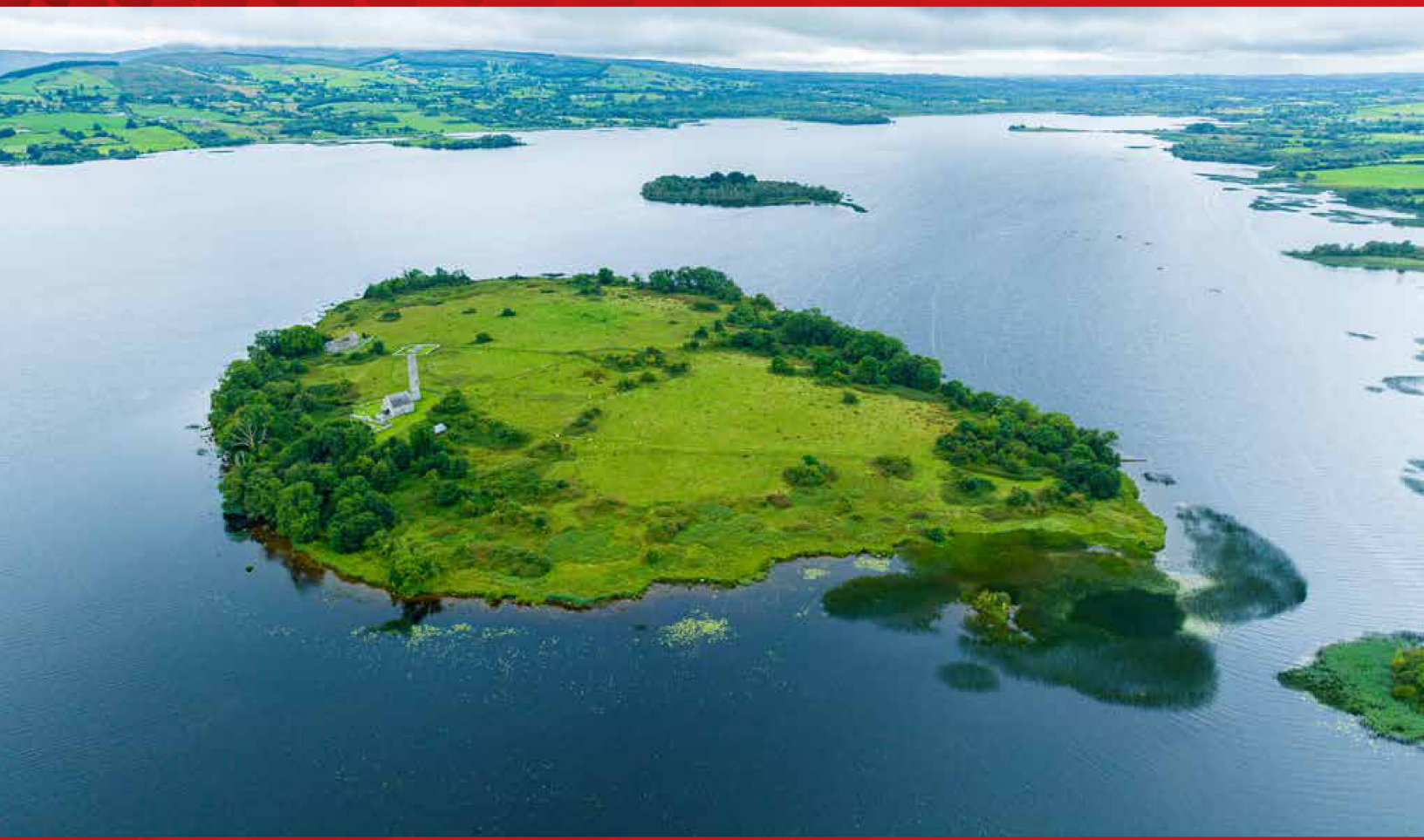
Clare County Council

# Proposed Inis Cealtra Visitor Experience
# Co. Clare

## VOLUME I
## NON-TECHNICAL SUMMARY



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# Document Control Sheet

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# 1 Introduction

Article 5(1)(e) of the EIA Directive requires the project proponent to include a Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) and it is transposed into Irish law under article 94(c) of the Planning and Development Regulations 2001, as amended. The term 'non-technical' indicates that this summary should not include technical terms, detailed data and scientific discussion, that detail is presented in Volume II, the EIAR.

This Non-Technical Summary provides a concise, but comprehensive description of the Project, its existing environment, the effects of the project on the environment, the proposed mitigation measures, and the proposed monitoring arrangements, where relevant. The NTS highlights any significant uncertainties about the project. It explains the development consent process for the Project and the role of the EIA in that process.

It is important to highlight that the assessments that form part of the EIAR were undertaken as an iterative process rather than a one-off, post-design environmental appraisal. Findings from the individual assessments have been fed into the design process, resulting in a project which achieves a 'best fit' within the environment.

The summary of the proposed development is set out in Section 2. of this NTS and a detailed description of the project is provided in Chapter 2.

In summary the EIAR was prepared with regard to the Inis Cealtra Visitor Experience which is to be developed on Inis Cealtra (Holy Island) in Lough Derg and on the mainland, in two principal locations within Mountshannon Village, County Clare. The development briefly comprises the installation of a floating jetty and staff and public welfare pods on the island and a new car park, new Visitor Centre and reconfiguration of the existing Mountshannon Harbour Car Park.

# 2 Development Description

A detailed description of the proposed development is contained within Chapter 2 of this EIAR. The statutory notice should also be referenced. Following is a summary description of the development.

The Inis Cealtra Visitor Experience is to be developed on Inis Cealtra (Holy Island) and on the mainland, in two principal locations within Mountshannon Village. The project is comprised of different elements as set out below.

## 2.1 Inis Cealtra Island

- Demolition of an existing concrete shelter adjacent to the existing pier at the north-west of the island.
- Installation of a new L-shaped floating access jetty and walkway at the north-west of the island, consisting of a floating breakwater jetty, a stone and concrete causeway connected by a steel access ramp and a canoe launch jetty with access ramp.
- A series of new mown grass pedestrian paths to allow for enhanced access to the main monuments and natural landscape on the island.

- Provision of three staff and public welfare facility 'pods' including weather shelter, WCs and a rest room for island staff.

## 2.2 Mainland – Mountshannon

- Construction of a new public car park in Mountshannon Village, on the north side of Main Street, incorporating 169 total car parking spaces, together with coach parking and bicycle parking facilities.
- A Visitor Centre in the southern part of the 'Old Rectory Site'. It is a part-one-storey, part-two-storey semi-circular building incorporating a series of spaces for interpretation, exhibition and education associated with the Inis Cealtra Visitor Experience, together with a café and ancillary supporting spaces. Public realm works in front of the main façade, paved in natural stone, will continue the curved geometry of the building, creating a comfortable space for visitors to meet, relax and take in views of Lough Derg and Inis Cealtra.
- Reconfiguration of the existing Mountshannon Harbour car park, providing for 49 total car parking spaces and public realm enhancements.

# 3 Alternatives Considered

The Planning and Development Regulations, 2001, as amended, require;

> *"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".*

Reasonable alternatives may include project design proposals, location, size and scale, which are relevant to the proposed development and its specific characteristics.

The Environmental Protection Agency (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports states:

> *"The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with 'an indication of the main reasons for selecting the chosen option'. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or 'mini-EIA') of each alternative is not required."*

The Guidelines also state that the range of alternatives considered may include the 'do-nothing' alternative.

Accordingly, this chapter of the EIAR provides an outline of the main alternatives examined during the design phase. It sets out the main reasons for choosing the development as proposed, taking into account and providing a comparison on the environmental effects. The assessment of alternatives is considered under the following headings;

i. 'Do Nothing' Alternative
ii. Alternative Locations
iii. Alternative Uses
iv. Alternative Layouts & Design
v. Alternative Processes

## 3.1 'Do Nothing' Alternative

The 'Do-nothing' alternative is a general description of the evolution of the key environmental factors of the site and environs if the proposed project did not proceed. Each Chapter of this EIAR includes a description of the 'Do Nothing' alternative and should be referenced in conjunction with this Chapter.

Under the 'Do Nothing' scenario, the permitted Interpretive Centre at the 'Old Rectory' site would proceed (permitted under Part 8 Ref. 238001), due for completion in early 2025. However, due to its more modest scale and in the absence of enhanced visitor facilities on the island and mainland, opportunities to grow visitor numbers (and revenue) would remain limited.

Implementing the 'Do Nothing' scenario would undermine the objective of conservation management on Inis Cealtra, which is a key driver of the project aimed at conserving the island as a significant historical, ecclesiastical, archaeological and cultural site.

Under this alternative scenario, the impacts of the proposed development would not arise; the operational and construction phases would not generate additional traffic movements on the mainland and the lake, there would be no additional noise impact on local residents and fauna, and excavation of topsoil and subsoil on the mainland during construction of the new Village Car Park and the Visitor Centre would not take place.

## 3.2 Alternative Uses

The primary determinant of suitable uses is established by the site's zoning under the operative development plan for the area. The proposed development, Inis Cealtra Visitor Experience, is situated across multiple sites, located at Inis Cealtra and in Mountshannon Village.

Inis Cealtra is located outside the settlement boundary and is not zoned in the Clare County Development Plan (CCDP) 2023-2029. Notwithstanding, the island is designated for tourism development, identified as a major opportunity to grow the tourism industry and encourage visitors to East Clare. The plan promotes Inis Cealtra as a tourism destination and supports the sustainable expansion of tourist facilities on the island. In the absence of zoning on the island and having regard to CDP9.27 and the settlement plan for Mountshannon, there are no potential alternative land use scenarios for Inis Cealtra that are not related to the provision of tourist facilities and implementation of the Inis Cealtra VMSTDP.

The proposed development sites in Mountshannon Village are zoned under the CCDP 2023-2029. In each case, the land use zoning designates the subject lands for the use which is currently proposed. Having regard to the land use zoning objectives applicable to the proposed Village Car Park and Visitor Centre, there are limited alternative use scenarios available. It is contended that a different approach

to land uses on this site would not be considered a viable alternative and would not be consistent with the planning policy context pertaining to the lands.

## 3.3 Alternative Locations

As the proposed development evolved, a number of alternative scenarios in relation to the location of the proposed visitor centre, mooring point at Inis Cealtra, and the village car park were considered.

During preparation of the plan, a number of different alternative scenarios were considered, including in relation to the visitor centre location. The alternatives were assessed against the Strategic Environmental Objectives (SEOs) developed for the Strategic Environmental Assessment (SEA). Four potential alternative location, Knockaphort, Scariff, Tuamgraney and Mountshannon on the mainland were assessed against selected overarching objectives in relation to increasing numbers of visitors to the town, minimising wastewater and traffic impacts and reducing impacts on the natural environment. Mountshannon emerged early on as the preferred location for the visitor centre due to the environmental sensitivities of the island.

A site selection process in Mountshannon was then carried out, involving 12 sites in public, community and private ownership. The sites were screened for strategic, environmental and appropriate assessment criteria. Ultimately, it was not viable to proceed with the preferred site(s) which were located in Aistear Park. However, the subject site was Due to the condition of the pier at the existing landing point, it was decided early on that an upgraded or new pier would need to be constructed at a location that allows both safe passage to and safe landing and embarkation on/from the island.

Due to the condition of the pier at the existing landing point on the Island, it was decided early on that an upgraded or new pier would need to be constructed at a location that allows both safe passage to and safe landing and embarkation on/from the island.

During preparation of the application, several alternative locations were considered. Initially, it was intended to construct a new structure on the northern shore of the island as the preferred location due to its safer meteorological conditions and viable depth (subject to further studies). Baseline environmental surveys including habitat and species surveys, as well as underwater archaeological surveys, were progressed to inform the developing design.

The currently proposed location to the north-west of the island represents the most favourable location considered for the landing point. Selection of the preferred jetty location followed a rigorous assessment process based upon comprehensive baseline surveys, taking into account the island's environmental sensitivities. The proposed location avoids/reduces potential impacts to ecologically important habitats and species, and underwater archaeology, representing the option with least potential for adverse impacts on the environment. Potential constraints arising from weather, water levels and lakebed depth at this location have been mitigated by the new jetty design, ensuring that the objective to construct a new landing facility that allows both a safe passage to and safe landing and embarkation on/from the island will be achieved.

## 3.4 Alternative Layout and Design

Over the course of the project, the development strategy in respect of the proposed pods on the island evolved in response to environmental sensitivities and stakeholder engagement.

### 3.4.1 Island Pods

The final positions selected for the proposed shelter and staff pods is an area occupied by the existing concrete shelter in the north-west of the island. Construction of this concrete structure ('known as the Fisherman's Hut), with attendant fencing and cattle crush, has resulted in a considerable degree of disturbance in this area.

With the reduced number of pods proposed and overall decrease in size (combined sq.m), the selected design will significantly lessen their effective footprint. Compared with the previously considered alternative layouts and design, the current proposal ensures that potential impacts to the island's archaeology and ecology are avoided/reduced.

### 3.4.2 Island Path Layout

New facilities inclusive of paths for visitor circulation were identified as necessary in the Inis Cealtra VMSTDP. The plan identifies the requirement for a pathway to and around the monuments to ensure controlled access, as well as looped pathways around the island to facilitate access and visitor flow. The route selection process was informed by the aim of ensuring the visitor experience is safe and of a high standard, while simultaneously providing for protection of the island's heritage and areas of ecological sensitivity. The proposed network of paths on the island has also been selected to avoid more ecologically sensitive habitats and will be located in Improved Agricultural Grassland (GA1) and Amenity Grassland (GA2) habitat. Furthermore, an Accessibility Audit of the proposal was carried out acknowledges the unique challenges presented by the island's natural terrain. The measures recommend that access be reviewed regularly, and the 'Inis Cealtra Visitor Experience will work towards providing enhanced accessibility on the island for visitors with limited mobility on an ongoing basis, within the natural limitations of the island and its terrain'.

### 3.4.3 Island Path Type

The proposed path type was selected following consideration of an alternative scenario involving a combination of types including timber boardwalks, gravel paths and mown grass paths. Following consultation with stakeholders and revisions to the proposed island layout it was decided to utilise a combination of path types, favouring mown grass as the main path type. All island paths are proposed as 2m wide grass mown paths, with an additional 1m mown strip on either side to allow visitor footfall to be distributed over a wider area at path locations that are expected to be more intensively used.

In limited areas where heavy footfall is expected such as Path 1 that will lead visitors from the landing point direct to the Round Tower, a layer of crushed aggregate is proposed with topsoil spread on top to allow for grass to develop. This will allow for sufficient air and moisture to allow grass to develop even with heavier footfall and only expose the aggregate in extreme situations rather than eroded topsoil.

A similar approach will be used at the highest intensity key points - at the mooring point, at St Caimin's church and round tower, at St Bridgid's church and St Mary's church. These areas have been excavated in the past and therefore it is not anticipated that any subsurface archaeology would be disturbed.

The pods will have new timber walkways to provide for level access into them. As timber walkways have greater potential to disturb subsurface archaeology, their use will be confined to the proposed pod locations in the north-west.

## 3.5 Alternative Processes

From an early stage of the design development, careful consideration was given to alternative options including alternative processes for the toilet facilities on Inis Cealtra. Being an island, there are no foul drainage or water services available.

Although some consideration was given initially to the option of not providing toilet facilities on the island, this approach was determined to present a separate set of challenges. The option of proceeding with no WCs would potentially detract from the experience of some visitors due to the discomfort that would arise in the absence of facilities. This option would also increase the likelihood that people would use bushes or shrubs for toilets, not considered sustainable in light of the proposed increase to visitor numbers the project will generate, potentially giving rise to nuisance and nutrient run off to Lough Derg.

Having decided it was preferable to provide toilet facilities on the island, consideration was given to a range of alternative processes including an onsite wastewater treatment plant, a reed bed system, a pumping station, Dry Toilets and micro Anaerobic Digesters.

Cognisant of the island's sensitivities, environmental sensitivities and viability, the selected option of a dry toilet system combined with the decision to provide toilet facilities for limited use for staff and emergencies, was determined to be the most advantageous in terms of potential environmental impacts.

# 4 Assessment of Environmental Impacts

## 4.1 Population and Human Health

### 4.1.1 Existing Environment

The proposed development site comprises lands measuring approximately 20.3 hectares located at Inis Cealtra (Holy Island) in Lough Derg, and at two locations in Mountshannon Village, in the Townland of Mountshannon. The two sites in Mountshannon Village include: (1) lands within the curtilage of the 'Old Rectory' (a Protected Structure, RPS No. 464) and extending south to encompass a section of Harbour Road (L-4034) and Mountshannon Harbour car park, and (2) lands to the north of Aistear Park on the north side of Main Street (R352).

Inis Cealtra, also known as Holy Island, is an island off the western shore of Lough Derg. Located approximately 300 m from the mainland and about 2km south-east of Mountshannon village, it is only

accessible via boat. The island is uninhabited and was once a monastic settlement. On its eastern shore is an important group of ecclesiastic monuments comprising churches and ecclesiastic buildings.

Inis Cealtra is located outside the settlement boundary and is not zoned in the CCDP 2023-2029. However, the development plan promotes Inis Cealtra as a tourism destination and supports the sustainable expansion of tourist facilities on the island through a range of policies.

In the settlement of Mountshannon, the constituent parts of the proposed development including the visitor centre, car park and harbour works are permitted in principle within the Clare County Development Plan land use zoning matrix. The Inis Cealtra Visitor Experience is consistent with the relevant land use objectives and policies in the development plan which encourage sustainable tourism development and management of Inis Cealtra together with the associated supporting facilities on the mainland.

The study area for this chapter was determined with reference to the sphere of influence identified in Volume 2: Strategic Environmental Assessment (SEA) Environmental Report of the Inis Cealtra Visitor Management and Sustainable Tourism Development Plan. Therefor, four Electoral Divisions (EDs) within the study area were considered, including Mountshannon, Inishcaltra South/Inishcaltra North, Scarriff and Drummaan.

According to Census 2022, the population of Mountshannon ED is 463 persons and the total population of the study area is 2,913. As demonstrated by the census data in Table 4.2, during the period 2006 to 2022, the percentage increase in population within the study area (14.5%) was slightly below that of the County (15.3%), and did not keep pace with national population growth (21.4%) over the period. However, during the intercensal period 2016-2022, population increase in the study area (11.1%) exceeded that recorded in the County (7.7%) and the State (8.1%).

The age profile of the population within the study area is an important parameter as it provides a good insight into the potential labour force, amenities and other facilities and future housing demand. When compared with the data for the County, the Study Area population is evidently older. The proportion of younger persons within the Study Area is consistently lower than the County for all age cohorts from 0-4 to 35-39 years (inclusive), at which point the Study Area has a higher proportion in the older age categories in every cohort from 45+ years.

The majority of the population within the study area is within the working age cohort (15-64 years), being 62.5% of the total population. The proportion of persons at work and studying in the Study Area is marginally-slightly below County and State figures, corresponding with the older age profile of the Study Area population. This, in turn, is reflected in the higher percentage of retired persons in the Study Area. The largest proportion of persons at work are employed in 'Professional services' in the Study Area (22.5%), followed by 'Commerce and trade' (16.2%) and 'Manufacturing industries' (14.3%).

The available CSO data provides labour force statistics and sectoral breakdowns. However, County and ED -specific insights into tourism employment are not available. Research undertaken for the County Clare Tourism Strategy published in 2020, indicates that within the County, the tourist industry generated €244 million in 2018 and supported approximately 6,600 tourism jobs.

Demographic and socioeconomic data from Census 2022 enables a snapshot of the relative affluence or disadvantage within the Study Area. When the Study Area is compared with the County (see Figure below), the results show the Deprivation Index is marginally above average for both catchments.

### 4.1.2 Impact Assessment

#### 4.1.2.1 Do Nothing Scenario

Under the "Do Nothing" scenario, visitor numbers are expected to continue rising in line with pre-pandemic trends. However, necessary upgrades to visitor facilities and infrastructure, such as the island jetty, welfare pods, parking, and public realm improvements, would not occur. This would negatively affect the quality of the visitor experience and strain existing services, potentially impacting residential amenities and creating safety issues due to inadequate parking during peak times.

The Interpretive Centre, set to open in early 2025, would attract visitors but reach capacity by Year 15 without additional development, limiting future tourism growth and associated economic benefits. Tourists visiting Inis Cealtra could experience diminished satisfaction due to inadequate facilities, which may harm the local economy.

In the medium term, Clare Tourism is likely to pursue alternative tourism-related projects aligned with regional development goals, focusing on sustainable tourism, community support, employment diversification, and improved visitor management at sensitive sites.

#### 4.1.2.2 Demolition and Construction Phase

The potential impacts of the proposal during the demolition and construction phase of the development are outlined below.

##### 4.1.2.2.1 Land Use

On the island, there will be no change to land use as a result of the construction and operational stages of the proposed development. The impact associated with the upgrade during the Construction Phase shall be **minor**, **neutral**, **local**, and **short-term**.

It is not anticipated that there will be an impact on settlement patterns as a result of the construction phase of the proposal. It is anticipated that the projected construction staff (40 personnel during Phase 1 and 50 personnel in Phase 2), will not generate a temporary increase in population locally and thus settlement patterns during this period, as employees will travel to the site from their existing place of residence. The likely impact on settlement patterns is thus **neutral**.

##### 4.1.2.2.2 Population

It is estimated that Phase 1 construction works will take approximately 12 months to complete, and there will be 40 people employed during the peak of construction activity. In Phase 2, the duration of construction work is estimated to be 18 months, with 50 people employed during peak construction.

It is not anticipated that this will generate a temporary increase in population locally during this period as employees will travel to the site from their existing place of residence. No significant impact on population is identified as a result of construction and the likely impact on the population is thus **neutral**.

#### 4.1.2.2.3 Employment & Economy

A key characteristic of the proposed development in terms of its potential economic impact relates to its capital value. The construction phase will provide a boost for the local construction sector in terms of employment generation and capital spend on materials and construction labour costs. It is expected that during peak activities (40-50 people will be working directly on construction), there will be a capital spend on materials and construction labour costs. The construction phase will also generate additional spending in the local economy (such as local shops/cafes) as a consequence of the presence of construction staff.

The construction staff will comprise managerial, technical, skilled and unskilled workers. As far as practicable local labour will be employed.

In addition to direct employment on-site, there will be off-site employment and economic activity associated with the supply of construction materials and the provision of services such as professional firms supplying financial, architectural, engineering, legal and other professional services to the project.

The overall predicted impacts associated with the construction phase on the working population and local economy are **likely** and will have a **positive, short-term, moderate** effect.

#### 4.1.2.2.4 Residential & Visitor Amenity

Inis Cealtra is uninhabited and therefore, in the absence of mitigation, the anticipated likely effects on the amenities of residents and visitors will mainly be confined to disruptions in Mountshannon Village as a result of increased construction traffic movements on the local road network, noise, dust and visual impacts arising from plant and construction activities (e.g. cranes, hoarding etc) necessary to complete the development.

The construction phases will result in some loss of amenities, disruption and inconvenience to the local community, particularly the residential receptors in Mountshannon closest to the new village car park site on Main Street and the Old Rectory site at Harbour Road.

During construction, visitor access to the island will be restricted, however, burials will be allowed to take place and will be managed by the Clare County Council Burials Unit.

The level of disturbance and impacts are predicted to be commensurate with the normal disturbance associated with the construction industry, where a site is efficiently and properly managed having regard to neighbouring activities.

In the absence of mitigation, the anticipated impact on residential amenity would be **local** and of **temporary to short-term** duration with a **moderate** significance.

#### 4.1.2.2.5 Human Health & Safety

During the demolition and construction phase, risks to health and safety will arise from construction activities, including the operation of plant and machinery. A construction-related accident could pose a potential health and safety risk to construction workers or visitors to the individual sites (island and mainland). Construction safety will therefore be closely controlled by the Contractor and include implementation of construction safety arrangements. Access protocols will be implemented to

prevent unauthorised access so that the sites cannot be freely accessed by members of the public for the duration of the works.

Potential effects on human health arising during the construction phase of the project relate generally to quality of life including air quality, climate, noise, water and hydrology, waste, potential disruption of services and the risk of major accidents/disasters.

On this basis, the risk of health and safety-related accidents is **unlikely** during the demolition and construction phases of the proposed development, and no significant impacts on population and human health are identified. With best-practice health and safety procedures in place, construction activities will have a **negligible**, **neutral**, **short-term** impact on health and safety.

Measures to address such human health considerations will be mitigated through the implementation of a Contractor's Construction and Environmental Management Plan (CEMP) and will be subject to Regulations and the relevant Health and Safety codes.

This EIAR also deals with the potential effects on human health during the construction phase, including the more specific topics of air, traffic, water, and noise.

#### 4.1.2.3 Operational Phase

The potential impacts of the proposal during the operational phase of the development are outlined below.

##### 4.1.2.3.1 Land Use

On the island, there will be no change to land use as a result of the construction and operational stages of the proposed development.

In Mountshannon, the proposed development will deliver a new Visitor Centre of high-quality architectural design, in tandem with a comprehensive landscape strategy and public realm improvements. The new Visitor centre will include a range of uses and facilities providing for interpretation, exhibition and education, flexible café/event space and a research centre for the white-tailed sea eagle project.

There will be a change of land use at the new car park site on Main Street which is currently greenfield. However, this area of land is not in use as an amenity by the local community. When operational, the new car park will improve traffic flows and remove visual clutter in the village caused by cars parking in the carriageway.

The proposed development will contribute to the consolidation and growth of established tourist and commercial uses such as shops, cafes/restaurants and holiday accommodation in Mountshannon and the wider area, consistent with the NPF policy objectives which support appropriately designed development in rural towns that will contribute to their regeneration and renewal.

It is anticipated that the proposed development will result in a **likely significant positive impact** with a **permanent** duration.

#### 4.1.2.3.2 Population

The study area is a predominantly rural area, with a large number of employment opportunities centred around agriculture and agriculture-related activities, with occasional manufacturing and tourism jobs. Due to this lack of diversity in the employment base, it is likely that younger generations will continue to migrate towards urban areas. According to CSO data, the migration of younger generations to urban areas is on the increase, and this may be evidenced locally by the lower age profile of the Study Area population compared with the County. However, more people are choosing to move to rural locations for a number of reasons, particularly post-pandemic, as remote working arrangements have become more prevalent. It is therefore considered that natural population levels in the Study Area will remain stable in the future.

The proposed development is expected to generate 19 new jobs in peak periods. It is not anticipated that this will generate any marked increase in population locally, as it is envisaged that employees will likely travel to the site from their existing place of residence. The likely impact on the population is thus neutral. The proposed development will provide a positive long-term impact on the demographic trend in the study area.

#### 4.1.2.3.3 Employment & Economy

The proposed development will support sustainable economic growth in the Study Area, in line with the Southern Regional Assembly Regional Spatial and Economic Strategy (RSES), which recognises the benefits of the tourism sector to the region and promotes sustainable tourism developments (RPO 53 refers).

The proposed development will provide for up to 19 new jobs directly connected with operation of the Inis Cealtra Visitor Experience, increasing the available employment opportunities for the local and regional population.

The proposed development will increase tourist and visitor activity in Mountshannon and on the island, contributing to greater demand for tourism services (e.g. sightseeing and recreational opportunities) and businesses such as shops, cafes/restaurants and holiday accommodation, thereby supporting additional employment opportunities in the Study Area.

The overall effect on employment locally is **slight - moderately positive** and **permanent**.

#### 4.1.2.3.4 Residential & Visitor Amenity

Local residents and members of the community may experience some impacts to amenity as a result of increased visitor numbers to Mountshannon and the island. However, the visitor projections contained in the Visitor Management Plan show that the increase will be incremental, distributed over two distinct phases spanning 2028 (Phase 1, Year 1) through to 2046 (Phase 2, Year 5).

Access to Inis Cealtra will be controlled to ensure effective management of the island's archaeological and built heritage, and sensitive ecological receptors. In the absence of mitigation, this may adversely impact members of the local community who currently enjoy unrestricted access to the island.

Local residents and visitors will benefit from the enhanced infrastructure and facilities that are to be delivered by the project, including the upgraded island jetty, welfare pods on the island, new village car park and harbour reconfiguration and public realm improvements.

The proposed development will likely increase knowledge and appreciation of the natural and cultural heritage value of Inis Cealtra, Lough Derg and the surrounding landscape, contributing to resident and visitor wellbeing.

Overall, the anticipated impact on residential and visitor amenity will be **long-term, slight** and **positive** both **locally** and **nationally**.

#### 4.1.2.3.5 Health & safety

Health and Safety activities for commercial operations are guided by national Health and Safety legislation.

For the new Visitor Centre, risk of accidents / unplanned events is addressed through the Building Regulations (Fire Safety) and is therefore addressed through primary mitigation in the design process. Residual risks of fire and road traffic accidents will be managed by emergency services as per their standard procedures. Measures to address such human health considerations will be subject to Regulations and the relevant Health and Safety codes.

### 4.1.2.4 Cumulative Impacts

Potential cumulative impacts may arise from the proposed development when combined with other existing and/or approved projects. In accordance with the European Commission Guidance on the preparation of the Environmental Impact Assessment Report (2017) and EPA Guidelines on the Information to be contained in Environmental Impact Assessment Reports (2022).

The *Inis Cealtra Visitor Management and Sustainable Tourism Development Plan* (2017) provides a framework for the successful delivery of the Inis Cealtra Visitor Experience, aiming to support increased visitor numbers, while safeguarding the island's natural and built heritage. The *Lough Derg Visitor Experience Development Plan 2020-2024* provides a strategy for cross-agency cooperation and coordinated investment in the Lough Derg area to strengthen its position as a destination in the Shannon region through 'Ireland's Hidden Heartlands'. The *County Clare Tourism Strategy 2030* aims to differentiate Clare in the tourism marketplace and raise its profile as a leading tourist destination.

Implementation of these Plans in combination with the proposed Inis Cealtra Visitor Experience will strengthen the tourism offering in the region and increase its attractiveness to visitors in the highly competitive tourism market. The cumulative effect is **likely**, **positive** and **significant** with a **long-term** duration.

There are several developments in the vicinity of the study area comprising residential, recreational and commercial/tourist schemes. These are generally small in scale and not anticipated to give rise to significant cumulative effects.

There is an extant permission for an Interpretive Centre in the Old Rectory, Mountshannon. It is expected to become operational in early 2025 and the cumulative effects of its operation, in tandem with the Inis Cealtra Visitor Experience, have been considered. The visitor number projections for this project, detailed in the Visitor Management Plan, take account of visitor projections associated with the operation of the Interpretive Centre.

Larger developments require a construction management plan to mitigate the effects of the construction phase. Subject to adherence to measures contained in the individual plans, the cumulative effect is **likely**, **short term** and **not significant**.

### 4.1.3 Mitigation

#### 4.1.3.1 Incorporated Design

The provision of welfare facilities on Inis Cealtra, the design and location of which have been carefully considered to avoid/reduce impacts on a range of environmental receptors, will enhance the comfort of visitors and employees (e.g. guides) on the island, contributing to their amenity and well-being.

The proposed development complies with the Building Regulations which provide for the safety and welfare of people in and about buildings. The Inis Cealtra Visitor Experience will be as accessible as possible, recognising the island's inherent limitations.

At the new Visitor Centre, the integration of energy efficient measures will provide for a healthy work environment for employees, less dependence on fossil fuels and associated improved air quality. The inclusion of landscaping elements and a highly accessible layout including segregated pedestrian walkways will create a high quality environment for future employees and visitors, and together with the enhancements of the public realm and overall layout design, will improve the setting of the wider village.

#### 4.1.3.2 Demolition & Construction Phase

The following mitigation measures are recommended:

- **Construction and Environmental Management Plan (CEMP)**: The appointed contractor(s) will update the Outline CEMP submitted with the application prior to the commencement of development.
    - The CEMP will comply with all appropriate legal and best practice guidance for construction sites.
    - The purpose of a CEMP is to provide a mechanism for the implementation of the various mitigation measures which are described in this EIAR and to incorporate relevant conditions attached to a grant of permission. The CEMP requires that these measures will be checked and maintained to ensure adequate environmental protection. The CEMP also requires that records will be kept and reviewed as required to by the project team and that the records will be available on site for review by the planning authority.
    - All construction personnel will be required to understand and implement the requirements of the Contractor's CEMP and shall be required to comply with all legal requirements and best practice guidance for construction sites.
    - All construction phase mitigation and monitoring measures included in the Summary of Mitigation and Monitoring Measures in Chapter 16 of this EIAR will be included in the CEMP and adhered to.
- **Community Liaison Officer**: The contractor will appoint a liaison officer to ensure that any issues from the local community are dealt with promptly and efficiently during construction. These details will be included in the contractor's CEMP.

- **Construction Working Hours:** will generally be limited to the hours 08:00 – 19:00 Monday to Friday and 08:00 – 13:00 on Saturday. If works are required outside of these hours, in exceptional circumstances, the planning authority will be notified in advance.
- Project supervisors for the construction phase (PSCS) will be appointed in accordance with the Health, Safety and Welfare at Work (Construction Regulations) 2013, and a Preliminary Health and Safety Plan will be formulated during the detailed design stage which will address health and safety issues from the design stages, through to the completion of the construction phase.
- A Resource Waste Management Plan (RWMP) will be prepared and implemented by the Contractor, as necessary.

#### 4.1.3.3 Operational Phase

A Visitor Management Plan (VMP) has been prepared and submitted under separate cover. It sets out the envisaged structure and responsibilities for the management of the proposed development during operation.

Clare County Council, via Clare Tourism DAC, will manage and operate the Inis Cealtra Visitor Experience, inclusive of the Visitor Centre, new car park facilities off Main Street, and the welfare facilities on Inis Cealtra. Boat tour operators will be licenced, awarded by tender by Clare County Council on a 3-year basis. The café in the Visitor Centre will be operated by lease.

The measures in the VMP include establishment of the Inis Cealtra Management Group, to have oversight both in terms of the strategic management of the island and the operational management of the island. This group, led by Clare County Council, will include the Office of Public Works (OPW), National monuments Service (NMS), Waterways Ireland (WWI) and Department of Housing, Local Government and Heritage.

The Inis Cealtra Community Forum will be established to represent the local community in the management of the island and visitor experience, including local access provision.

The VMP details a comprehensive suite of measures that will be implemented during operation, to ensure effective site management and visitor access management. Local access protocols will be adopted as follows:

- Members of the local community and members of Lough Derg Anglers will be able to land for free with a permit-style approach. A register of those with a local connection and members of the Anglers will be retained by Clare County Council.
- A discounted permit system will be available to established local tourism businesses for island access, managed by Clare County Council.
- Access will remain to St Mary's and St Caiman's burial grounds and pre-existing plots for burial purposes. Access for visitors will be restricted during burials.

To ensure the ongoing safety of visitors and employees on the island, a risk assessment and safety plan will be developed annually for Inis Cealtra.

### 4.1.4 Residual Impact Assessment

It is anticipated that the proposed development will realise **significant positive** overall economic benefits for the local community and the wider local area.

Strict adherence to the mitigation measures recommended in this EIAR will ensure that there will be no negative residual impacts or effects on Population and Human Health from the construction and operation of the proposed scheme. Indeed, the delivery of this high-quality tourism development will realise a likely **significant positive** effect of **permanent** duration for the local area.

### 4.1.5 Monitoring

Measures to avoid negative impacts on Population and Human Health are largely integrated into the design and layout of the proposed development. Compliance with the design and layout will be a condition of any permitted development.

No specific monitoring is proposed in relation to this section. Monitoring of standard construction mitigation measures as outlined in this EIAR will be undertaken by the appointed contractor.

For the purpose of this assessment, all monitoring measures set out in the Visitor Management Plan are adopted and shall be implemented in full, except as otherwise required by a condition of planning permission.

## 4.2 Landscape and Visual

The assessment of Landscape & Visual Character is contained within Chapter 5 of Volume II.

### 4.2.1 Existing Environment

The study comprises three sites, two of which are in the village of Mountshannon on the shores of Lough Derg, and Inis Cealtra, or Holy Island, which is approximately 1.75km to the southwest of the village. Both are in the tourism area know as the 'Hidden Heartlands', which indicates that the area is somewhat underexplored in terms of tourism. Lough Derg is part of the Shannon river system, and is designated as an Special Protection Area (SPA) for its ecological importance.

Mountshannon has the status of 'Large Village', the core of which is designated as an Architectural Conservation Area described in the CPD as follows:

'…It consists of a single wide street, linked to the harbour, with solid, stone-gabled two storey houses on each side. Many of these date from the late 18th century and still retain their traditional character. The buildings of the 18th and 19th centuries in Mountshannon are constructed of local sandstone, giving the village a cosy, welcoming appearance…' It has a population of 209 (2022 census) but an overconcentration of holiday homes leading to an objective in the CPD (CPD5.4b&c) not to permit the building of new holiday homes in the village, and to support and facilitate the conversion of existing ones to permanent residences.

Inis Cealtra is a drumlin- - or dome shaped island close to the Lough Derg shoreline that is known as a setting for its ecclesiastical heritage, most visibly the round tower and church of St Caimín. It's qualities are summarised succinctly in the Inis Cealtra Visitor Management and Sustainable Tourism Plan (2017):

*'The island is cherished for its spiritual ambience, tranquillity, beauty, ecclesiastical heritage, natural heritage, folklore and cultural traditions as well as its historical links to Brian Boru and the Vikings. It is recognised as significant in the context of Ireland's early medieval churches and, along with Clonmacnoise, Durrow, Glendalough, Monasterboice and Kells, has been included since 2010 on the UNESCO1 World Heritage Tentative List. The island is part of an area of international biodiversity importance as it is situated within a Special Protection Area, as designated under the European Bird Directive.'*

The sites sit within the 'Lough Derg Basin' Area 7 of the County Clare Landscape Character Assessment (2004), and have a backdrop of Slieve Aughty Uplands (Area 5) to the north and Slieve Bernagh Uplands (Area 8) to the south. Across the lough to the south, the landscape that meets the shoreline in County Tipperary is defined the Arra Mountain - Lower Lough Derg Area 13.

The shoreline landscape of undulating farmland with field patterns defined by hedgerows and woodland, and intermittent houses is backed by the rising hills beyond, of the Arra Mountain in Tipperary and Slieve Bernagh in Clare to the south and Slieve Aughty uplands to the north.

Inis Cealtra is the largest of several islands sitting close to the Clare shoreline running distinctively in a north easterly to south westerly alignment, These are Inisparren (connected to the mainland), a cluster of small islands known as the Cribby Islands, Bushy Island, Young's Island, Inis Cealtra (Holy

Island), Red Island and Rabbit Island. The islands are for the most part covered in scrub and woodland, and so Inis Cealtra is distinct in being a large grassland dome of 20 hectares fringed with woodland and scrub, with its distinctive unfinished round tower, and ecclesiastical stone ruins.

The broad main street of Mountshannon is lined with single and two storey buildings, with a mix of commercial and residential uses. The core of the urban structure appears to be at the crossroads at the highest point in the village, defined by a strong building line, terraced houses and stone garden walls. The southern side of the side of the street becomes greener alongside the elegant stone gateway and boundary of the Aistear Park offering glimpses to the boats at Inis Cealtra Sailing Club, , across Lough Derg and towards Inis Cealtra.

The northern side of the main street is punctuated groupings of trees, and by glimpses in to back yards, paddocks and agricultural buildings. The village is busy in the tourist season, and at school commute times, and there appears to be little footfall outside of those times.

A recent upgrade of the street has formalised kerblines and car parking bays along parts of the street. It has used simple macadam and pre cast concrete finishes which give a utilitarian quality to the civic space.

Aistear Park is a multifunctional public open space developed by the community in 2001, and representative of the strong community spirit of the village which has won numerous Tidy Towns awards, including a national award. The park links the main street to the shoreline and the sheltered south facing harbour. It is also utilitarian in character, with access for boats and trailers, it is predominantly a car park and mooring point with views across to Tipperary and Inis Cealtra. Green open space in the area has been developed with pathways, seating and artwork, and places to bathe.

When viewed from Lough Derg, the village of Mountshannon is set within wooded slopes which mitigates much of the visual effects of more recent residential development. In general the pale colours of the painted facades are complemented by warmer tones in ochre sandstone that is found in some of the older buildings and boundaries, such as the Church of Ireland and former RIC Barracks, as well as the newer residential properties. The latter are occasionally painted red, which is possibly a nod to the distinctive and unusual red brick of the former Rectory. The buildings on the main street are a mix of single and two story buildings, usually rendered and painted, although the former hotel appears to have been stripped of its render to reveal sandstone and brick facades.

The sites of the proposed Visitor Centre and car park sit within the Mountshannon settlement boundary and the designated Heritage Landscape of the Clare CDP 2023-2029 as seen in the extract of the mapping of Areas of Special Control in Figure 17. Inis Cealtra and other islands are included in this designation, which is reinforced by the identification of scenic routes along the R352 from Mountshannon heading towards Scarriff and Tuamgraney. The scenic route designation continues in a loop to the soth of Lough Derg, along the R463 to Ogonnelloe. The shorelines around Lough Derg are therefore environmentally, culturally, and visually sensitive. The designation is described as follows in the CDP 2023-2029:

*iii. Heritage Landscapes – areas where natural and cultural heritage are given priority and where development is not precluded but happens more slowly and carefully.*

The mapping of Landscape Designations across the county shows the context of this heritage designation in combination with scenic views being typical of shoreline (as well as upland) areas.

The Infrastructure, Environment and Flood Risk Zones mapping in the Clare CDP 2023-2029 illustrates the mapping of protected structures and trees for preservation in the environs of Mountshannon. The sylvan approaches and setting to Mountshannon are therefore recognised, however it is of note that the islands themselves do not have this designation.

The Mountshannon Town Plan from the Clare CDP 2023-2029 shows a strong direction in the landuse between the main street and the harbour – dominated by the community's initiative Aistear Park – a large green open space that also addresses the main street; and the tourism designation. There is a further open space in the form of a shoreline park that is not shown on the map as it is outside of the settlement boundary, however it compliments the other open spaces and is able to absorb the ancillary amenities of the café and WC. The bottle banks are less well sited, however they do reflect the working quality of the harbour.

It has been identified earlier that the shoreline and routes around Lough Derg have protected scenic routes in the Clare CDP 2023-2029. The designations continue into County Tipperary, along the R494 as V44 'Views west and sections of the Road to the east of the R494', and along smaller shoreline roads, notably V45 'Views along lakeside roads north of Portroe'.

Across these distances, it can be difficult to identify Inis Cealtra among the other islands and indentations of the shoreline. However, the round tower is a distinct landmark that helps distinguish the island.

### 4.2.2 Impact Assessment

#### 4.2.2.1 Do Nothing Scenario

In the event that the proposals do not go ahead, it is likely that Inis Cealtra would continue to be managed in a similar way, including landscape management of sheep grazing and mown paths and areas around the monuments, and unregulated access, and that the tourism pressures relating to visitor management at Mountshannon would continue. The anticipated opening of the interpretive centre in the newly developed Rectory, will be reasonably expected to draw more tourists to the area, and the burial of the renowned author Edna O'Brien on the island in 2024 will also draw visitors to pay their respects. The pressures of managing tourists on the island are likely to increase. The informal and ad-hoc nature of visiting the island has its charm for small visitor numbers, however the regions misses out on the benefits to the local economy that managed tourism can bring, and the risks to the monuments will potentially increase with unregulated tourism.

#### 4.2.2.2 Demolition and Construction Phase

##### 4.2.2.2.1 Landscape

Potential impacts during the construction phase are related to temporary works across each of the individual sites (The visitor centre, car park, and island), site activity, and vehicular movement within and around the subject sites. Vehicular movement may increase in the immediate area, and temporary vertical elements such as cranes, scaffolding, site fencing, gates, plant and machinery etc., will be

required and put in place. The works will be carried out across three sites; the rectory site and harbour area (for the visitor centre), the car park site and on Inis Cealtra. Most of the construction impacts will be temporary, and may include the following:

- Site preparation works and operations (including tree and vegetation, protected structures and national monuments protection measures as appropriate);
- Site excavations and earthworks;
- Site infrastructure and vehicular access;
- Materials storage, spoil heaps etc;
- Construction traffic, dust and other emissions;
- Temporary fencing/hoardings, site lighting and site buildings (including office accommodation);
- Cranes and scaffolding;

Where trees are to be felled these effects will be permanent, however any proposed new planting will offset such impacts, increasingly so as the proposed development matures.

#### 4.2.2.2.2 Visual Impact

The visual impact will be short term in nature, confined to the duration of the construction period.

### 4.2.2.3 Operational Phase

#### 4.2.2.3.1 Landscape

The impacts of the operational phase are best described across the three sites:

**The Village Car Park**

The car park is an insertion into the linear plots to the north of the main street of Mountshannon. As such, the scale of the car park is hidden beyond the proposed entrance area. The entrance area is characterised by a newly defined street edge, maintaining part of the stone boundary wall, reinstating a green area of tree planting and swale to the front, and cycle parking, beyond which accessible car parking bays lead on to coach bays, parking bays and an overspill grass parking area. The impact to the public street is therefore in the streetscape edge, which is similar to other access gateways to the backlands along the main street, and the likely signage and road markings that control the access and egress. The route to the proposed visitor centre is through Aistear Park. The design intention of this route is to activate the main street and public park and encourage footfall across businesses in the town.

**Inis Cealtra**

The proposed scheme for the island is primarily the insertion of 3 'pods' (consisting of a public shelter, wc, and staff welfare) at the northern edge of the island, on pile foundations to allow them to minimise their footprints and be placed amongst existing vegetation. The requirement for an improved jetty or landing stage at this location is likely a more impactful development whose engineering aesthetic and likely associated signage is more difficult to mitigate. The proposed mown grass pathways in general follow the existing path network, and introduce a larger loop around the island that will allow the visitor numbers to be distributed and absorbed. Incidental tree trunks are proposed for resting points, enabling

greater access. The implementation of the Landscape and Conservation Management Plan, which is an appendix to the Landscape Design Statement will improve the management of vegetation and habitats on the island.

**The Rectory and Harbour**

The proposed development will consist of the insertion of a single storey visitor centre along the southern boundary of the rectory site and associated public realm works in the form of footpaths, and a forecourt and upgrade works to the harbour. This will require two sections of the existing stone boundary wall (45m in total) to be removed, and necessitate the removal of some trees (refer to arborist's report). Whilst this in itself, represents a substantial change to the existing landscape of the harbour area and the rectory, it can also be read as an expected, logical and planned proposal in line with the Sustainable Tourism and Visitor Management Plan (2017).

#### 4.2.2.3.2 Visual Impact

**The Rectory and Harbour**

In terms of potential visual impacts, whilst the proposed building type, scale, and style appears uncharacteristic within the broader context of Mountshannon, it references earlier architectural forms, and its finishes are characteristic of the local vernacular use of local stone. The building addresses the harbour, whereas other local ancillary buildings do this obliquely, therefore the proposal is 'mending' the urban fabric. There is a clear change of building scale between what is currently there and what is proposed, however it is set back from the existing boundary wall giving a forecourt that addresses the harbour, and is settled into the topography as demonstrated by the rising ground that is the setting for the former rectory, and the adjacent residential developments which look out over the proposed building. The potential for visual impact, experienced by people visiting, or living in Mountshannon, is therefore reasonably high in the immediate vicinity of the harbour, but diminished when seen in context of the topography and urban structure of the town, and from the lough. The selected viewpoints for the preparation of photomontages takes this into account by taking views from corresponding locations.

**The Car Park**

The visual impact from the public realm will be restricted to the entrance area on the main street. In this regard, there is some precedence in the use of gateways and gaps between buildings to access the gardens, yard and field plots behind the main street.

The design rationale adopted and the architectural and landscape architectural approach to the design of the proposed scheme and the details employed, seek to respond to such issues and to mitigate negative effects on both the broader landscape character and visual amenity of the area.

**Inis Cealtra**

The visual impact will be limited to the northern end of the island when seen from the shoreline at Knockaphort, and when approached by boat. The pods can be understood as a positive intervention

to welcome visitors to the island, facilitating shelter and guidance, whilst the proposed jetty facilitates safe access.

The selected viewpoints for the preparation of photomontages take into account the views to and from each of the sites as appropriate.

#### 4.2.2.4 Cumulative Impact

none

### 4.2.3 Mitigation

#### 4.2.3.1 Incorporated Design

The key mitigation measures incorporated in to the design are as follows:

**Inis Cealtra**

- Sensitive siting of pods, boardwalks and jetty.
- Sensitive use of materials
- Quality of architectural language and materials.
- Implementation of path design and management
- Implementation of local and native provenance planting proposals
- Implementation of landscape and conservation management plan

Car Park

- Sensitive insertion into the ownership plot patterns of the village
- Conservation of boundaries and hedgelines
- Reinstatement of stone boundary wall to main street
- Incorporation of civic quality and nature based sustainable drainage at entrance
- Gradation of materials and minimised use of hard surfaces
- Tree retention and replacement
- New planting and habitats.
- Connectivity with the main street and Aistear park
- Coach parking set back away from the main street
- Sensitive lighting design

Visitor Centre

- Sensitive siting into the urban fabric
- Provision of a forecourt as a civic space
- Sensitive use of materials including stone
- Connectivity between main street, Aistear Park and the harbour
- Rationalisation of all services elements and any other potential visual clutter, its incorporation internally within building envelopes (as far as practically possible) and the inclusion of integrated screening at roof level to conceal plant etc, where this is not possible;
- Provision of viewing areas above the harbour level out to Lough Derg and Inis Cealtra

- The provision, maintenance and management of an associated and sensitively considered soft landscape design for the development, which assists in the integration and screening of the buildings within the existing landscape;
- Retaining existing vegetation where possible and introducing appropriate planting to assist in integrating the building over time.
- Tree planting and management
- New planting and habitats.
- Sensitive lighting design

#### 4.2.3.2 Demolition & Construction Phases

The building site including a site compound with site offices, site security fencing, scaffolding and temporary works will be visible during the construction phase, from a range of viewpoints around the site. Such elements are generally viewed as temporary and unavoidable features of construction in any setting. The perimeter site hoarding will screen from view much of the construction activity and materials at ground level. Other mitigation measures proposed during this delivery stage of the development, revolve primarily around the implementation of appropriate site management procedures during the construction works – such as the control of lighting, storage of materials, placement of site offices and compounds, control of vehicular access, and effective dust and dirt control measures, etc. Such mitigation will be set out in the Construction Management Plan prepared for the scheme. This will be a working document which will be continually reviewed and amended through the construction phase to ensure effective mitigation throughout.

The Construction Management Plan to be prepared by the appointed contractor, and agreed with the Local Authority prior to the commencement of any construction works, will deal with all issues related to the construction, delivery and management of the scheme during the construction stage and will ultimately include details on the following:

- Provision of standard controls around seasonal and diurnal timing of operations
- Provision of hoarding
- Daily and weekly working hours;
- Agreed haul routes for incoming materials;
- Licensed hauliers to be used;
- Disposal sites;
- Travel arrangements for construction personnel;
- Appropriate on-site parking arrangements for construction personnel to prevent overspill parking on the local road network;
- Temporary construction entrances to be provided;
- Wheel wash facilities if required;
- Road cleaning and sweeping measures to be put in place if required;
- Temporary construction signage to be put in place and maintained.

The planning application includes an Outline Construction Management Plan, prepared by MWP Consulting Engineers, which outlines a range of construction phase mitigation measures, many of which are relevant to the reduction of the temporary impacts on the landscape and visual environment during

the construction phase. This Outline Construction Management Plan forms the basis for the required measures to be included in the appointed Contractor's Construction Management Plan. As such it references construction phase mitigation measures which are relevant to the assessment of Landscape and Visual Impact.

#### 4.2.3.3 Operational Phase

- Implementation of appropriate management and maintenance of building forms
- Implementation of the landscape and conservation management and maintenance of each site

### 4.2.4 Residual Impact Assessment

#### 4.2.4.1 Landscape

The potential effects described in Potential Significant Effects above should lead to the residual effects described for each site as follows:

**Inis Cealtra**

- Appropriately managed visitor numbers to the island, leading to a balance between the number of visitors, the protection of the monuments, and habitats.
- Appropriately managed landscape and setting for the monuments.

**Car Park**

- Generation of active streetscape as visitors permeate from the car park to the visitor centre
- Improved setting and screening of the development as vegetation matures.

**Visitor Centre**

- Consolidation of urban structure at the harbour
- Provision of civic space
- Generation of a positive sense of place, arrival and departure
- Improved setting of the development as vegetation matures

The landscape sensitivity of the three sites ranges from **very high** for Inis Cealtra and areas associated with Lough Derg, as well as the lough itself, with a broader range in Mountshannon from  to **low to medium and high**, depending on the specific location.

**Magnitude of Change**

Inis Cealtra

The magnitude of change for Inis Cealtra is considered in the context of the change from the manner in which people visit the island. The intention of the Inis Cealtra Visitor Management and Sustainable Tourism Development Plan 2017 upon which this scheme is based is intended to increase visitor numbers in a balanced manner with the protection of the monuments, habitats and qualities of the island. This means controlling numbers of visitors an the manner in which they arrive – through the arrangements at the proposed visitor centre. It will no longer be appropriate to arrive at the island in

an ad-hoc manner. Some may mourn the loss of the ability to visit the island in an uncontrolled way, but the protection of the qualities of the island must be viewed as positive effect. The magnitude of change therefore in this landscape of very high sensitivity is considered **high to medium**. This leads to a landscape effect that is classified from **profound to high**, and **positive.**

Car Park

The magnitude of change for the proposed car park is such that it provides a discrete facility off the main street delivering activity directly in to the village and to Aistear Park towards the Visitor Centre. The change in the management and numbers of visitors to Mountshannon is considered **medium.** Given the sensitivity of the site itself in an urban context, being low, and the proximity of the main street, a medium sensitivity, the effects are **slight to moderate** and **positive**.

Visitor Centre

The magnitude of change at the visitor centre and harbour is related to the visitor management strategy which is intended to increase the number of visitors and the duration of time per visit that they spend in Mountshannon and across the year. The sensitivity of the harbour and Rectory areas are in general **medium**, notwithstanding some poorer qualities around the harbour. The activation of the public realm and the presence of a carefully considered visitor centre means that the magnitude of change is **high.** The resulting effect is therefore **high /moderate** and **positive**

The activation of public spaces and careful management of visitors within the framework of the three integrated sites should lead to a **high to moderate** and **positive** landscape effect.

#### 4.2.4.2 Visual Impacts

The viewpoints has been selected for which photomontages (verified views) have been prepared - these are included in the submission documents, within a separate A3 report prepared by Digital Dimensions Ltd. They illustrate the visual effect of the proposed development on the selected views taken from the surrounding landscape. The views deal with the three parts to the proposal covering the proposed visitor centre, proposed Inis Cealtra works, and the proposed car park in Mountshannon. Throughout the course of the project, various views were established to ascertain the visual effects, some in winter and some in summer. In some instances, proposals were adjusted as the proposals developed. The views selected are the most representative of the scheme. The assessment of the visual effects of the proposed development from these viewpoints varied due to the range of sites and sensitivities, but in general are **moderate and positive**.

### 4.2.5 Monitoring

The landscape and Conservation Management Plan sets out operations relating to the protection and enhancement of the setting, the monuments and habitats on Inis Cealtra. The maintenance and management specifications for the car park and visitor centre are less sensitive but require ongoing attention to maintain the quality of the envisaged scheme.

The retention of existing trees and other planting, where possible and proposed, coupled with the effective use of new planting to screen and/or integrate the built elements of the proposal into the existing landscape, are important and integral aspects of the proposed scheme design. The success of

the proposed scheme is somewhat dependent on both operations being properly executed. Where trees are to be retained, effective tree protection measures must be established in advance of construction work commencing and an approved system of monitoring the on-going health and vigour of both the retained existing trees and the proposed new planting will be necessary. The timely planting and the maintenance and management required to successfully establish new planting with the projected rates of growth and general performance required, needs an appropriate effective input from professionals with the necessary expertise to ensure it is effectively delivered. The monitoring of the planting performance and suitably appropriate responses to ensure same will be essential to the success of the development as proposed.

The monitoring of the mown grass paths will be key to avoiding erosion and maintaining a firm path surface. The breadth of the mown areas, at different seasons according to their intensity of use, and the extent of the path network that is mown, will help maintain the surface quality.

## 4.3 Material Assets: Traffic & Transport

The assessment of Traffic and Transport is contained within Chapter 6 of Volume II.

The aspects of the proposed development that are relevant to this chapter include the roads and street traffic, and boat traffic, generated by the proposed development construction and operational phases, and their traffic impacts on expected future baselines, including traffic capacities.

### 4.3.1 Existing Environment

The existing traffic and transport network and facilities at Mountshannon include roads, streets, pedestrian facilities, vehicle parking spaces, public transport services; and Harbour piers, pontoons for boat moorings on Lough Derg, with slipway boat access. Access to Mountshannon Harbour is provided by Harbour Road.

Access to Inis Cealtra is provided via Lough Derg at the existing island boat pier facility. A boat slipway and piers are also provided on Lough Derg, southwest of Mountshannon. There are no constructed pedestrian facilities on Inis Cealtra Island.

Access to the Old Rectory site is provided via an existing gated access on Harbour Road, and gated access to the existing site for the proposed off-street car park is provided on Main Street, which is part of the R352 Regional Road.

Baseline vehicle and boat traffic volumes were recorded during the summer tourist and holidays season, when traffic volumes are highest, locally.

The annual number of existing visitors generated by Inis Cealtra was established by Clare County Council's Visitor Management Plan for the proposed Inis Cealtra Visitor Experience. Baseline levels of boat activity on Lough Derg at the nearest Lock, Victoria Lock, was provided by Waterways Ireland.

### 4.3.2 Impact Assessment

#### 4.3.2.1 Do Nothing Scenario

In the event that the proposed development does not proceed, the future traffic and transport environment will continue to evolve in line with relevant policy and permitted developments, including the permitted Old Rectory Interpretive Centre.

#### 4.3.2.2 Demolition and Construction Phases

This planning application is accompanied by a Construction and Environmental Management Plan (CEMP). The CEMP provides a comprehensive description of the construction phase and outlines the commitments and mitigation measures to be implemented during the construction phase of the proposed development. The proposed development includes a preliminary Construction Traffic Management Plan (CTMP).

#### Phase 1

Peak construction delivery and heavy vehicle volumes would generate a peak total of up to 35 daily vehicles, both to and from site, for the Phase 1 construction works, including up to 25 daily delivery

vehicles generated by the Village Car Park works and up to 10 daily delivery vehicles generated by the Island works. The proposed Phase 1 peak construction would increase weekday morning and evening peak hour traffic volumes by up to 19 vehicles.

The R352 Main Street would operate well within its estimated urban road link capacity, with the predicted Phase 1 peak construction, with a highest volume/capacity ratio during of 25%, compared to a highest ratio of 23% without the proposed development Phase 1 peak construction. Existing and proposed junctions would continue to operate well within practical capacity during the proposed Phase 1 peak construction.

During the Phase 1 construction, Inis Cealtra Island will generally remain closed for the duration of the works, except where access is required for a burial and by a farmer for livestock. The proposed Phase 1 construction would generate up to eight round boat trips daily between Mountshannon Harbour and Inis Cealtra Island.

### Phase 2

Peak construction delivery and heavy vehicle volumes would generate a peak total of up to 30 daily vehicles, both to and from site, for the Phase 2 construction works, including up to 20 daily delivery vehicles generated by the Visitor Centre works and up to 10 daily delivery vehicles generated by the Harbour Car Park works.

The proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase, with peak capacity visitors, would increase weekday morning and evening peak hour traffic volumes by up to 36 vehicles on the R352 and up to 34 vehicles on Harbour Road.

The R352 Main Street would operate well within its estimated urban road link capacity, with the predicted proposed development peak Phase 2 construction and the proposed Phase 1 high season operational phase, with peak capacity visitors, during 2041, with a highest volume/capacity ratio during of 29%, compared to a highest ratio of 26% in 2041 without the proposed development.

The proposed Phase 2 peak construction in 2041 would not significantly increase peak hour traffic volumes at existing and proposed junctions, to materially affect the predicted not significant traffic queuing and delays; and the junctions would continue to operate well within practical capacity during the proposed Phase 2 peak construction in 2041.

#### 4.3.2.3 Operational Phases

The proposed development includes a detailed Visitor Management Plan (VMP). The VMP provides a comprehensive description of projected visitor numbers, types, times, travel modes, parking, management and mitigation measures. The VMP also includes details of staff types, numbers and times. Visitor capacity will be limited and visitor access will be on a booked basis only, with pre booking online and a timed visitor entry system to stagger visitor arrivals.

### Phase 1

Total operational staff numbers for Phase 1 will be up nine staff, including up to two additional staff with the permitted Old Rectory development.

The permitted Old Rectory Interpretive Centre is projected to attract up to 15,000 visitors annually, including new visitors and existing Inis Cealtra visitors. The proposed Phase 1 development would increase projected visitors by 5,000 visitors annually in Year 1 and by 25,000 visitors by Year 5. This would equate to an average of 33 additional daily visitors in Year 1 and an average of 162 additional daily visitors by Year 5.

The proposed Phase 1 peak operations high season, with peak capacity daily visitors, would increase peak hour traffic volumes on the R352 Main Street by up to 13 vehicles two-way, with the proposed development peak capacity daily visitors. This would equate to one additional vehicle every 4.6 minutes and would not be significant.

The R352 Main Street would operate well within its estimated urban road link capacity, with the proposed Phase 1 peak operations high season, with peak capacity daily visitors, during 2032, with a highest volume/capacity ratio during of 27%, compared to a highest ratio of 25% in 2032 without the proposed development.

The proposed Phase 1 peak operations high season, with peak capacity daily visitors, would not significantly increase peak hour traffic volumes at existing junctions, with no increase in vehicle turning volumes, which would continue to operate well within practical capacity. The proposed R352 Main Street/Village Car Park access junction would operate well within practical capacity with the proposed Phase 1 peak operations high season and peak capacity daily visitors, including permitted visitors generated by the Old Rectory Interpretive Centre, plus predicted baseline traffic growth, with no significant traffic queues and delays.

The proposed Phase 1 visitors' boat service to/from Inis Cealtra Island from/to Mountshannon Harbour will be seasonal, ranging from two round trip daily boat services during low season to eight round trip daily boat services during high season. The expected high season eight daily round trip sailings is of the same order as the existing summer tourist season.

### Phase 2

Additional staff numbers, for Phase 2, will be up to 13 persons and could generate up to 13 additional daily staff vehicle trips two-way during high season, including up to seven additional staff vehicle trips during the peak traffic hour.

The proposed Phase 2 development would increase projected visitors by 25,000 visitors annually in Year 1 and by 60,000 visitors by Year 5. This would equate to an average of 162 additional daily visitors in Year 1 and an average of 388 additional daily visitors by Year 5.

The proposed Phase 2 peak operations high season would increase peak hour traffic volumes on the R352 Main Street by up to 21 vehicles two-way. This would equate to one additional vehicle every 2.9 minutes and would not be significant.

The R352 Main Street would operate well within its estimated urban road link capacity, with the proposed Phase 2 peak operations high season, with peak capacity daily visitors, during 2046, with a highest volume/capacity ratio during of 29%, compared to a highest ratio of 26% without the proposed development.

The proposed Phase 2 peak operations high season would not significantly increase peak hour traffic volumes at existing junctions, with no increase in vehicle turning volumes, which would continue to operate well within practical capacity. The proposed Village Car Park access junction would continue to operate well within practical capacity with the proposed Phase 2 peak operations high season and peak capacity daily visitors, including permitted visitors generated by the Old Rectory Interpretive Centre, plus predicted baseline traffic growth, with no significant traffic queues and delays.

The proposed Phase 2 visitors' boat service to/from Inis Cealtra Island from/to Mountshannon Harbour will be seasonal, ranging from six round trip daily boat services during low season to 14 round trip daily boat services during high season. The expected high season 14 daily round trip boat sailings would be six additional to the existing summer tourist season.

#### 4.3.2.4 Cumulative Impact

The predicted development high season traffic volumes include predicted future background traffic growth, which includes traffic generated by other developments. No significant other developments' traffic generation is envisaged.

The proposed Phase 2 construction will be carried out with the proposed Phase 1 operational phase in place, and the cumulative effects have been considered.

### 4.3.3 Mitigation

#### 4.3.3.1 Incorporated Design

Access and facilities for all users and types is incorporated in the proposed development design.

#### 4.3.3.2 Demolition & Construction Phases

The proposed CTMP and CEMP outline the commitments and mitigation measures to be implemented during the construction phase of the proposed development and are part of the proposal assessed in the Traffic and Transport chapter. No further mitigation measures are warranted.

When the construction contractor is appointed, an updated Construction Traffic Management Plan will be submitted to Clare County Council, for approval, prior to the commencement of construction.

#### 4.3.3.3 Operational Phase

The proposed development includes a detailed Visitor Management Plan (VMP). Visitor capacity will be limited, and visitor access will be on a booked basis only, with pre booking online and a timed visitor entry system to stagger visitor arrivals. The VMP will control visitor traffic generation volumes and times and is part of the proposal. No additional operational mitigation is warranted.

Total operational staff numbers will be up to 20 staff and significantly less than the 75 employees threshold identified by the Clare County Development Plan 2023-2029 for a Mobility Management Plan.

This EIAR Traffic and Transport Chapter is a Traffic and Transport Assessment of the proposed development, in accordance with the TII TTA Guidelines.

### 4.3.4 Monitoring

Traffic and transport monitoring is not required, as the predicted traffic volumes and effects are identified in the chapter.

## 4.4 Material Assets: Built Services & Waste

The assessment of Built Services is contained within Chapter 7 of Volume II.

This chapter of the EIAR examines the physical resources of the environment within the proposed development of a human origin in accordance with 'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)'. The key aspects relating to material assets of human origin include the following:

- Surface Water
- Wastewater
- Water Supply
- Electricity Supply
- Gas Supply
- Telecommunications
- Waste Management

Other material assets which derive from a natural origin are assessed in the remaining chapters of this EIAR. The subject of Roads & Traffic is addressed in a separate chapter: **Chapter 6 Traffic and Transportation.**

### 4.4.1 Existing Environment

#### 4.4.1.1 Surface Water Drainage

The Rectory site does not have access to any surface water drainage system. No surface water infrastructure exists in the proposed Village car parks area and there is a hydraulic regime in the Harbour Car Park. There is currently no surface water drainage infrastructure available on the island.

#### 4.4.1.2 Wastewater Drainage

The visitor centre site is currently served by a wastewater/foul system that was installed as part of the redevelopment of the Old Rectory building which includes a treatment unit. This treatment unit reduces the biological load from the effluent prior to discharging into the public sewer on Harbour Road that is connected to Mountshannon WWTP. The wastewater infrastructure consists of a single 150mm outlet heading westwards towards Harbour Road and is the only foul drainage outlet on the Mountshannon site. There is no pre-existing wastewater infrastructure located in either the proposed Village or Harbour car park areas. There is no wastewater drainage or treatment infrastructure on Inis Cealtra.

#### 4.4.1.3 Water Supply

There is an existing 150mm diameter water pipe to the south of the Visitor Centre site on Harbour Road. Currently there is no water supply to the Village car park or the Harbour car park areas. There is no drinking water supply on Inis Cealtra.

#### 4.4.1.4 Electrical Supply

There is a mix of High, Medium and Low Voltage overground and underground power supplies in the surrounding areas adjacent to the proposed development on the mainland of Mountshannon. There is no existing ESB Networks infrastructure on Inis Cealtra.

#### 4.4.1.5 Gas Supply

There is no existing gas infrastructure in the Mountshannon area or on Inis Cealtra.

#### 4.4.1.6 Telecommunications

The nearest telecommunication mast is located approximately 10km north of the proposed development site and provides communication links with Three Telecom service providers including Vodafone, Eircom and Three. There is an existing Eir network which enters the Rectory site from Mountshannon Court to the north. There is no existing telecommunications infrastructure on Inis Cealtra.

#### 4.4.1.7 Waste

Currently there are no waste disposal facilities available at the Rectory site. There are also no waste disposal facilities available at the Village or Harbour car park areas. It is understood that any waste generated on the island is removed on a daily basis by the individual such as the OPW or individuals when visiting. There are no waste disposal facilities on the island.

### 4.4.2 Impact Assessment

#### 4.4.2.1 Do Nothing Scenario

In a 'Do Nothing' scenario, should the proposed development not take place, there would no additional demand or loading on the existing material assets.

#### 4.4.2.2 Demolition, Construction & Operational Phase

**Surface Water Drainage**

No significant effects are likely on the existing surface water network during the demolition, construction or the operational phase of the proposed development.

**Wastewater Drainage/ Water Supply**

There are no significant effects to the wastewater/water supply infrastructure used to supply Mountshannon WWTP/WTP, likely during the demolition & construction phase.

The wastewater/water connection has been deemed feasible, as per the confirmation of feasibility from Uisce Éireann, subject to upgrading the network, therefore there are no significant effects likely to the wastewater/water network during the operational phase.

**Electricity/Gas and Telecommunications**

There are no significant impacts are likely from the electricity/gas network and proposed telecoms for the demolition, construction or operation phase.

**Waste**

No significant effects are likely on the local environment during the proposed development for the demolition, operational or the construction phase.

#### 4.4.2.3 Cumulative Impact

Having considered the implementation of good construction practice and design for the proposed development and other development in the surrounding area, no cumulative effects are anticipated.

### 4.4.3 Mitigation

#### 4.4.3.1 Incorporated Design

The design seeks to mitigate potential negative effects by:

-The Village and Harbour Car Park are designed with SuDS features to attenuate and treat surface water reducing the amount of suspended solids and potential drain blockages.

- The installation of suitable protection (e.g., silt curtain) around the site boundaries to control and treat any run-off during the works.

#### 4.4.3.2 Demolition & Construction Phases

**Surface Water Drainage**

The appointed contractor will be obliged to consult the CEMP, which includes a Surface Water Management Plan (SWMP) EMP-1 for implementation of mitigation measures to prevent impacts damage to existing infrastructure and over ground infrastructure and watercourses.

Prior to excavation the Contractor will ensure that adequate silt management methods are implemented and that silt controls are in place as recommended in CEMP and SWMP.

All silt controls will be checked on a regular basis in accordance with a monitoring schedule outlined in the CEMP and SWMP.

**Wastewater Drainage/ Water Supply**

All mitigation measures outlined in the CEMP should be implemented during installation of water supply and wastewater infrastructure.

Any temporary water supply for the temporary site compound will be agreed with Uisce Éireann. To enable leak detection, a water meter will be installed for the temporary water supply. The water meter will monitor consumption of water and will be used to help confirm potential leaks.

Effluent generated on site from the contractors sanitary facilities will be discharged to a holding tank and removed off site to a licensed removal contractor. Temporary discharge utilising the existing, or permitted sewerage network will be in agreement with Uisce Éireann.

**Electricity**

The Appointed Contractor will be obliged to put measures in place to ensure that there are no interruptions to existing services and all services and utilities are maintained unless this has been agreed in advance with ESB Networks.

All works in the vicinity of ESB Networks infrastructure will be carried out in ongoing consultation with ESB networks and will be in compliance with any requirements or guidelines they may have including procedures to ensure safe working practices are implemented when working near live overhead/underground electrical lines.

**Telecommunications**

All works in the vicinity of the telecommunications providers' infrastructure will be carried out in ongoing consultation with the relevant provider and will be in compliance with any requirements or guidelines that are included in the CEMP.

**Waste**

All measures included in EMP 4 -Construction Waste Management of the CEMP, which is included in this EIAR, should be adhered to in order to ensure effective waste management and minimisation, reuse, recycling, and disposal of waste material generated during the construction phase of the proposed development.

Prior to commencement of the construction phase, the contractor (s) will be required to refine/update the CEMP to detail specific measures to minimise waste generation and provide details of the proposed waste contractors and destinations for each waste stream.

#### 4.4.3.3 Operational Phase

**Surface Water Drainage**

Appropriate maintenance regimes will be put in place to monitor/maintain surface water drainage. This will include periodic cleaning out of gully pots & drainage channel sumps and cleaning out of pipes if/when blockages occur.

**Wastewater Drainage/ Water Supply**

Once the proposed development is complete, the water supply network and wastewater network will be vested to Uisce Éireann who will have responsibility for operation and maintenance of the water supply.

**Electricity**

It is not envisaged that any other reductive measures will be necessary upon completion of the development.

**Telecommunications**

The design and construction of the required telecoms services infrastructure in accordance with the relevant guidelines and codes of practice is likely to mitigate any potential impacts during the operational phase of the development, with the exception of any routine maintenance of the site services.

**Waste**

The appointed contractor will ensure that a Waste Management Plan (WMP) is updated and implemented. This will be a live document that will be kept under review and if appropriate, based on new services locally or introduction of new waste legislation, the WMP will be updated.

### 4.4.4 Residual Impact Assessment

Provided all mitigation measures are implemented in full, no significant residual impacts are expected in the demolition, construction or operational phase.

### 4.4.5 Monitoring

A preliminary monitoring schedule has been prepared as part of the CEMP and will be finalised pending the appointment of the contractor.

## 4.5 Land & Soils

The assessment of Land & Soils is contained within Chapter 8 of Volume II.

### 4.5.1 Existing Environment

The existing land cover on the site varies from a harbour, an island, pasture lands and a townland. The area surrounding the remainder of the project site is a mosaic of greenfield sites, single dwellings, multi-residential developments, and commercial developments which make up the village of Mountshannon.

Inis Cealtra and the Mountshannon area is underlain by bedrock geology of Lower Carboniferous Limestone, which is overlain by quaternary sediments of Till (glacial deposits) derived from Devonian sandstones in Mountshannon, and Till derived from Limestones on Inis Cealtra Island (Figure 1).

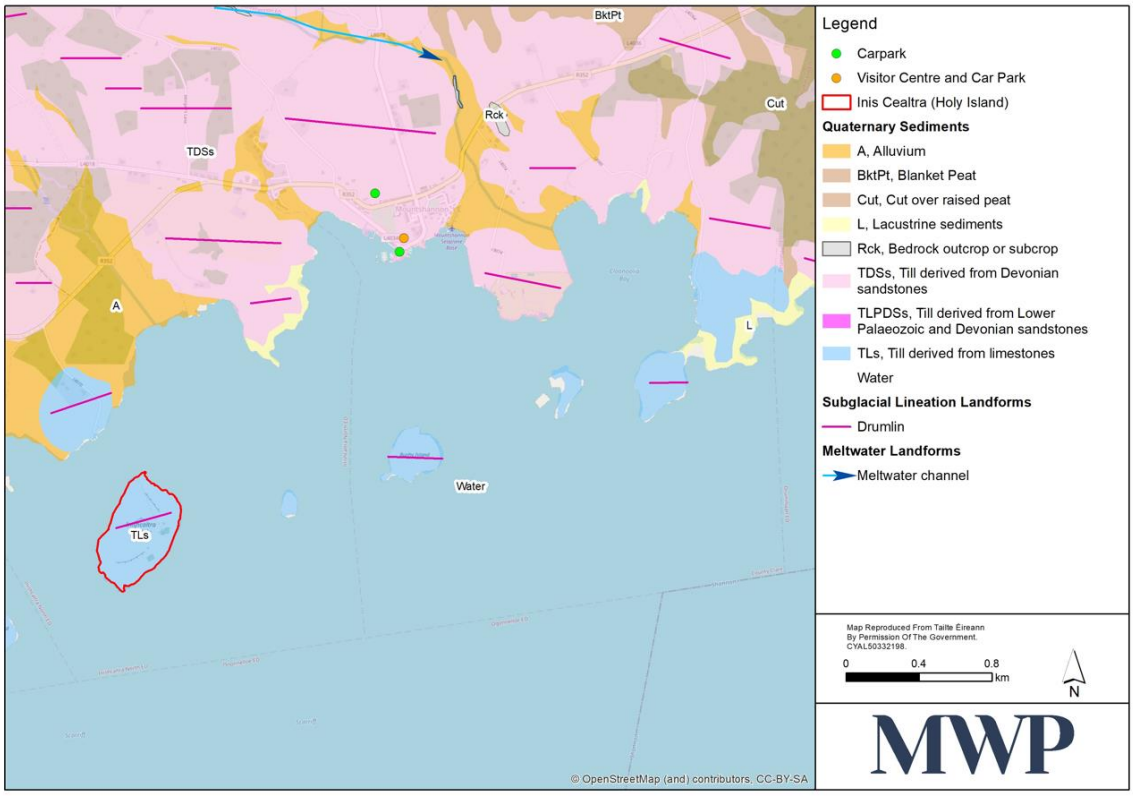


**Figure 1 Quaternary Sediments and Geomorphology of the proposed development site and surrounding area. (Source: GSI)**

### 4.5.2 Impact Assessment

#### 4.5.2.1 Do Nothing Scenario

Under the do-nothing scenario, the land and soils environment at the harbour and Inis Cealtra Island would remain unchanged.

The garden at the old rectory site could potentially be developed for alternative land uses subject to planning and the land proposed for the village car park could be subject to future developments or agricultural changes.

#### 4.5.2.2 Demolition Phase

During the demolition phase the removal of the shelter on Inis Cealtra Island and the transportation method to remove the shelter from the island will disturb the soil which may lead to soil erosion, compaction or slippage. Removal of the vegetation in the village car park will both disturb the soil around the roots and expose the soil to heavy machinery. The mound/wall (245m in approximate length) present within the centre of the site will be removed by construction plant. This is considered as a significant impact on the land and soils environment.

Any accidental spills associated with the use of construction plant on the village car park to clear the site would results in the release of hydrocarbons to the soils beneath which would have a moderate effect on the land and soils.

#### 4.5.2.3 Construction Phase

During the construction phase on Inis Cealtra Island and in Mountshannon the land take is small and the loss of this land take is not significant. There will be an additional temporary land take of pasture land during the construction phase for the temporary construction compound that is required on Inis Cealtra Island. This area will be reinstated once the construction works has been completed.

Excavation of soils and subsoil will be required for the construction works in the village car park, visitor centre and harbour car park. This removal of soil will have a negative impact on the soil and geological environment however it is not considered to be significant. Excavated material would be removed from the site with a minor amount may be kept on site in a temporary storage area for later use in landscaping.

Aggregates and concrete will be used during construction. Materials required will mainly consist of higher-grade materials not available to be won on site, e.g. stone material for roads and foundations, and concrete for the construction of the hardstanding areas.

Earthworks and stockpiling will increase the likelihood of conditions which could lead to soil erosion, compaction or slippage and construction traffic and materials will result in increased risk of spills and contamination of soils from oil, lubricants, cement and concrete. Geological resources in the form of aggregates for roads and foundations and concrete for the construction of hand standing will be required.

#### 4.5.2.4 Operational Phase

Soil compaction may occur on Inis Cealtra Island due to an increased number of visitors which is considered as a slight impact.

During the operational phase of the proposed development, there is still a risk that contamination from on-site oils, fuels from vehicles and brown water, can affect the land and soils environment. Should a spill occur, this will be considered as a short term significant effect.

#### 4.5.2.5 Cumulative Impact

Having considered the implementation of good construction practice and design for the proposed development and other development in the surrounding area, no cumulative effects are anticipated.

### 4.5.3 Mitigation

#### 4.5.3.1 Incorporated Design

The design of the paths and the pods on Inis Cealtra Island were designed with principles of minimal intervention to archaeological and natural heritage which also results in minimum intervention with land and soils.

The village car park is designed with SuDs feature to attenuate and treat surface water reducing the associated impact on soils.

#### 4.5.3.2 Demolition & Construction Phases

The mitigation and control measures are outlined in the CEMP. The appointed contractor will be responsible for developing the CEMP and implementing the control measures set out in the CEMP. The CEMP is a live document and will be reviewed in advance of Phase 2 (visitor centre and Mountshannon harbour car park) commencement.

#### 4.5.3.3 Operational Phase

During the operational phase of Inis Cealtra Island a 6-week mowing regime is proposed in the summer for additional strips either side of the path, to allow visitors to spread over a wider width of the path limiting compaction of soils. The pods have been designed to be dismantled and removed if required, with little trace left on the landscape. The new village car park is designed with SuDS features to attenuate and treat surface water reducing the associated impact on soils to negligible.

During the operational phase of the visitor centre and Mountshannon harbour car park the proposed drainage network will incorporate sumps within manholes for silt removal and a bypass petrol interceptor prior to discharge preventing soil contamination. The proposed development includes a detailed Visitor Management Plan (VMP). No additional operational mitigation is warranted.

#### 4.5.3.4 Residual Impact Assessment

Provided all mitigation measures are implemented in full, no significant residual impacts are expected in the demolition, construction and operational phase.

#### 4.5.3.5 Monitoring

A preliminary monitoring schedule has been prepared as part of the CEMP and will be finalised pending the appointment of the contractor.

## 4.6 Water & Hydrology

The assessment of Water & Hydrology is contained within Chapter 9 of Volume II.

### 4.6.1 Existing Environment

The proposed development is located adjacent to and within Lough Derg. Lough Derg is part of the Lower Shannon catchment which covers an area of 1,820km$^2$. There are no surface water bodies located within the proposed development footprint of the visitors centre, village car park or harbour car park reconfiguration. Lough Derg waterbody forms part of a network of protected areas called the Natura 2000. A Natura Impact Statement accompanies the proposed development application in order to fully assess the project's potential for a significant impact on the Lough Derg (Shannon) SPA.

### 4.6.2 Impact Assessment

#### 4.6.2.1 Do Nothing

If the proposed development for which this document has been prepared does not go ahead, it is assumed that the current landuse will remain unchanged. There will be no alteration of the existing hydrological and geohydrological regime on the mainland or the island.

#### 4.6.2.2 Construction Phase

During Phase 1, the risk of potential impacts on water quality at Inis Cealtra from demolition of the existing shelter, construction of the pods, jetty and pedestrian paths could be as a consequence of vehicle wash down to surface waters, discharge of construction materials, uncontrolled sediment erosion, works within water, increased boat traffic and refuelling facilities. The construction methodology is outlined in the Construction Environmental Management Plan (CEMP). Prior to construction, enabling works will be carried out including install of bunding and run-off controls where required, set up contractor welfare facilities including portaloos and identification of temporary stockpiles and storage areas. The works on the island will be completed in periods of dry weather so potential for ground disturbance and sediment run-off is minimised. The construction of the village car park will adhere to the same methodology. Site drainage will consist of installation of suitable protection (e.g. silt curtain) around the site to control and treat any run-off during the works.

During Phase 2, construction of the visitor centre and reconfiguration of the harbour park have the potential to impact on water quality due to proximity to Lough Derg. Impacts could arise from vehicle wash down to surface waters, discharge of construction materials, uncontrolled sediment erosion and refuelling facilities. The construction methodology is outlined in the Construction Environmental Management Plan (CEMP). Prior to construction, enabling works will be carried out including install of bunding and run-off controls where required, set up contractor welfare facilities including portaloos and identification of temporary stockpiles and storage areas. Site drainage will consist of installation of suitable protection (e.g. silt curtain) around the site to control and treat any run-off during the works.

Given the scale of the works, the location and materials to be used, the potential for impact on water will not be significant, neutral, localised and short-term without mitigation.

#### 4.6.2.3 Operational Phase

During the operational phase 1 of the development, there will be no increase in total boat traffic generated by Mountshannon Harbour and on Lough Derg. The island will have a pod with a dry toilet system whereby the waste will be stored in a holding container and collected by a suitably licensed contractor and disposed of in an appropriate manner (Uisce Éireann facility). There will be no impact on hydrology and hydrogeology from the Inis Cealtra works as the jetty upgrade will not result in any operational impacts on water quality. The new car park drainage will be connected to the combined sewer and the overflow stormwater will infiltrate to ground. There will be no additional impact on water quality or flooding from the development.

During the operational phase 2 of the development, there will be some additional foul water generated within the visitor centre which will be treated on-site and then treated further at Mountshannon WWTP. A confirmation of feasibility has been issued by Uisce Éireann.

The use of sustainable drainage systems (SuDS) features will mitigate any potential impacts related to changes in surface water run-off rates and volumes whilst also maintaining the quality of water. There will, therefore, be an imperceptible impact as a result of the proposed development during the operational phase.

#### 4.6.2.4 Cumulative Impact

Having considered the implementation of good construction practice and design for the proposed development and other development in the surrounding area, no cumulative effects are anticipated.

### 4.6.3 Mitigation

#### 4.6.3.1 Incorporated Design

The proposed drainage design has incorporated several widely used Sustainable Drainage Systems (SUDS) mechanisms to alleviate any potential detrimental effects of stormwater drainage.

#### 4.6.3.2 Demolition & Construction Phases

The mitigation and control measures are outlined in the CEMP. The appointed contractor will be responsible for developing the CEMP and implementing the control measures set out in the CEMP. The CEMP is a live document and will be reviewed in advance of Phase 2 (visitor centre and Mountshannon harbour car park) commencement. The mitigation measures should include appointment of a suitably qualified environmental manager.

#### 4.6.3.3 Operational Phase

The visitor management plan and maintenance of the drainage system at the car park and visitor centre will mitigate potential impacts on water quality during the operational phases of the development.

### 4.6.4 Residual Impact Assessment

All phases of construction including demolition shall be undertaken in accordance with the measures outlined in the CEMP. The NIS determined that there will be no adverse effects on any qualifying

interests of protected Natura 2000 sites hydrologically linked and downstream of the proposed site with the proposed mitigation measures. Therefore, there will be no significant adverse effects on the hydrological or hydrogeological regime pertaining to the development site.

### 4.6.5 Monitoring

A preliminary monitoring schedule has been prepared as part of the CEMP and will be finalised pending the appointment of the contractor.

## 4.7 Biodiversity

The assessment of Biodiversity is contained within Chapter 10 of Volume II.

### 4.7.1 Existing Environment

Inis Cealtra is a small island located towards the southwest of Lough Derg. It is located approximately 300m from Mountshannon. The island is renowned for its ecclesiastical heritage and the remaining areas of this built heritage are located towards the east of the island. Inis Cealtra is a low-lying island with its highest point towards the centre of the island rising to approximately 50m OD Malin. The island is approximately ca. 20 ha (50 acre) in size. The bedrock geology of the island is Dinantian lower impure limestone while the subsoils consist of limestone till. The superficial soils consist of basic brown earths. A spring occurs adjacent to St Mary's Church in the east of the island. The Proposed Development site is largely encompassed within the Lough Derg (Shannon) SPA. The existing environment on Inis Cealtra includes grassland, marsh, scrub, oak-ash-hazel woodland, stonewalls and other stonework, buildings and artificial surfaces and a calcareous spring. The surrounding environment in the Lough Derg includes Limestone-marl lakes and Reed and Large Sedge Swamp.

Mountshannon, situated on the shoreline of Lough Derg, is a small, scenic village known for its connection to the lake and its surrounding habitats. The area features rolling hills, agricultural lands, and freshwater ecosystems that are important for biodiversity. The village and its environs are home to species such as otters, herons, and various aquatic plants, which thrive in the nutrient-rich waters and sheltered conditions of the lake. Mountshannon also acts as a key access point to Inis Cealtra and the wider natural and cultural landscape of Lough Derg. The existing environment on Mountshannon includes grassland, treeline, hedgerow, stonewall some spoil sand bare ground and mixed broadleaved/conifer woodland.

### 4.7.2 Impact Assessment

#### 4.7.2.1 Do Nothing

The proposed lands encompassed within the mainland are not subject to any form of formal nature designation and are under private ownership; however, the harbour and Island is largely surrounded by the Lough Derg SPA. Should the 'do nothing scenario' be considered for the proposed main street carpark, visitors centre, harbour, Inis Cealtra Island and the Lough Derg Lake it is to be assumed that the character of the landscape and its landuse will remain much as it is at present. The existing habitats on the site will remain unaltered; however, this is dependent on the continuation of the current habitat management regime. It is also anticipated that the structures on-site will continue to fall into dereliction (concrete shelter adjacent to the existing pier).

#### 4.7.2.2 Demolition & Construction Phase

The demolition phase includes the proposed demolition of the concrete shelter on Inis Cealtra and the demolition of structures on the mainland. This phase has the potential to cause habitat alteration to the surrounding habitats. The construction phase includes a range of elements which have the potential to cause habitat loss and/or habitat alteration and disturbance. The habitat loss anticipated for the mainland carpark includes the loss of Improved agricultural grassland, Hedgerow, Treeline and Stonewalls and other stone works. The habitat loss at the visitors centre includes Amenity grassland, Scattered trees and parkland and Mixed broadleaved/conifer woodland. While there will be no

reduction in area of 'Buildings and artificial surfaces and Spoil and bare ground. At the harbour there will be no reduction in area of 'Buildings and artificial surfaces within the site however some elements of this habitat (comprising parts of the building and existing hard standing areas) will be removed so there will be a degree of loss. The proposed development on Inis Cealtra will require the direct loss of the following locally important habitat which overlaps with the SPA: Improved Agricultural Grassland and Dry Meadows and Grassy Verge Grassland for the pods and footpaths, Wet Grassland (GS4), Marsh and Scrub will require a habitat loss of for footpaths. Lastly the Oak-ash-hazel woodland habitat will also encounter potential habitat alteration whereby the proposed pods will be placed and no reduction in area of the Stonewall and other stonework is anticipated.

The fauna likely affected by the construction phase include hedgehog, badger, pygmy shrew, Irish hare, Irish stoat, otter, pine marten, red deer, fallow deer, red squirrel, bats, birds, terrestrial macro-invertebrates and reptiles. These faunae are affected by both habitat loss/alteration and disturbance/displacement by noise/ human activity.

#### 4.7.2.3 Operational Phase

During the operational phase of the Proposed Development, significant effects on habitats are not anticipated. There will be a substantial increase in human activity at the site as a result of the Proposed Development and the enhanced visitor facilities which will be available to both visitors and the general public. This increased human presence can be expected to encompass the existing members of the local community and members of Lough Derg Anglers which often utilize the island. Increased human presence in the general area has the potential to result in indirect alteration of habitat and disturbance of associated flora through increased trampling and/or erosion effects. This impact will be of greater significance in those areas where more sensitive and/or botanically diverse habitats occur on the outer edge of the island or areas of 'Scrub (WS1)' which occur along the interface between the woodland habitats on the islands edge and the higher drier areas of improved grassland near the centre of the island. Increased human presence in the area also has the potential to result in indirect alteration of habitat via potential for increased litter within and around the Site. It is noted that these areas are publicly accessible and already form part of the local recreational amenity resource.

#### 4.7.2.4 Cumulative Impact

As well as singular effects, the potential for cumulative effects also needs to be considered. A cumulative impact arises from incremental changes caused by other past, present, or reasonably foreseeable activities interacting synergistically with the impacts generated by the Proposed Development in a manner that has the potential to cause effects on the receiving environment.

### 4.7.3 Mitigation

Lough Derg (Shannon) SPA encompasses sensitive ecosystems and habitats that support a variety of plant and animal species. Mitigation measures help safeguard these habitats from disturbance and degradation. By minimizing potential impacts the help of preservation of the rich biodiversity of the SPA, including rare and protected species that rely on these habitats for survival. The below mitigation measure should be considered during the various phases of the project.

#### 4.7.3.1 Incorporated Design

Consultation between the design team (Project Manager, Project Engineers, Project Architects and Project Ecologists) and the Applicant was conducted on an ongoing basis during the design phase in order to formulate a project design which would avoid, prevent and/or minimise any significant adverse ecological impacts, in so much as was practicably possible. A number of potential options were considered with regard to location of the proposed island jetty. Due to the presence of marsh habitat at some potential locations, identified to comprise EU Annex I Marsh (GM1) habitat during baseline ecological surveys, the final proposed location selected for the new floating access jetty was at the location of the existing concrete landing point in the northwest of the island.

#### 4.7.3.2 Demolition & Construction Phases

Mitigation by management covers both the mitigation for demolition and the construction phase. Demolition work generally poses a risk of spread/introduction of invasive species to Site (through soil disturbance, vegetation disturbance and general construction activity). Machinery, tools/equipment, workers clothing/footwear can all potentially be contaminated with Invasive Alien Plants (IAPs) infested soil, viable seed or other IAPs material and therefore poses a risk of introduction of IAPs to the Site. This phase included the mitigation for the protection of habitats during demolition. During the construction phase the mitigation measures included the use of the construction and environmental management plan (CEMP), the importance of the appointment of a project ecologist/ecological clerk of works (ECOW), the general protection of water quality, management of construction waste, storage of materials, bio-security, management of alien invasive plant species, the general protection of habitats and fauna, birds, bats, otter and badgers.

#### 4.7.3.3 Operational Phase

The mitigation during the operational phase targets specific areas that are anticipated to be impacted during the functioning of the development. these mitigation measures include the protection of bats (lighting plan), biodiversity signage and the protection of water quality during operation and the visitor toilets

### 4.7.4 Residual Impact Assessment

Residual impacts are impacts that remain once mitigation has been implemented or impacts that cannot be mitigated. A summary of impacts for the demolition phase includes the mitigation for all habitats that are affected by demolition during the construction phase post mitigation such as Oak-ash-hazel woodland, Improved agricultural grassland and Scrub.

A summary of impacts for the construction phase includes the mitigation for all habitats and fauna that are affected during the construction phase post mitigation for habitat loss, habitat alteration/disturbance, disturbance/displacement and disturbance/displacement by noise/human presence/water quality.

A summary if impacts for the operational phase effects post mitigation and includes habitat alteration/disturbance, disturbance/displacement and disturbance/displacement by noise/human presence/water quality/lighting and the management of wastewater.

### 4.7.5 Monitoring

Invasive species will continue to be monitored, and where required, managed throughout the operational phase, in accordance with the construction-stage IAPS management plan, until they are eradicated from site.

### 4.7.6 Enhancement

This section outlines the proposed biodiversity enhancement measures in relation to the Site. The enhancement measures include bird boxes, bat boxes, Pollinator-friendly Management of the Site, Biodiversity Signage and the Eradication of mink from Inis Cealtra.

## 4.8 Noise & Vibration

The assessment of Noise & Vibration is contained within Chapter 11 of Volume II. The chapter evaluates the potential noise and vibration effects on sensitive receptors from the proposed development at Inis Cealtra Island and Mountshannon Village. The assessment examines impacts during demolition, construction, and operational phases and proposes mitigation measures to minimise any adverse effects.

### 4.8.1 Existing Environment

The proposed development works involves varying phases of works and operations at primarily at two locations, Inis Cealtra Island and Mountshannon Village/Harbour.

Residential noise-sensitive locations (NSLs) are main affected receptors in the vicinity of Mountshannon Village and Harbour. Residential receptors, known as NSLs for purposes of assessment are sufficient distance from Inis Cealtra Island works such that significant impacts from Island works are not predicted. Therefore no baseline survey was required at Inis Cealtra Island.

A baseline environmental noise survey was conducted in the vicinity of the mainland proposed development to quantify the existing noise environment at the nearest NSLs that may be affected by the proposed development. The noise measurement locations (NML) were chosen to represent the nearest noise sensitive receptors (NSLs) to the proposed development boundary, refer to Figure 2 and Figure 3.

Given the scale of works, there were no predicted significant impacts to ecological receptors however, these have also been assessed throughout the chapter.

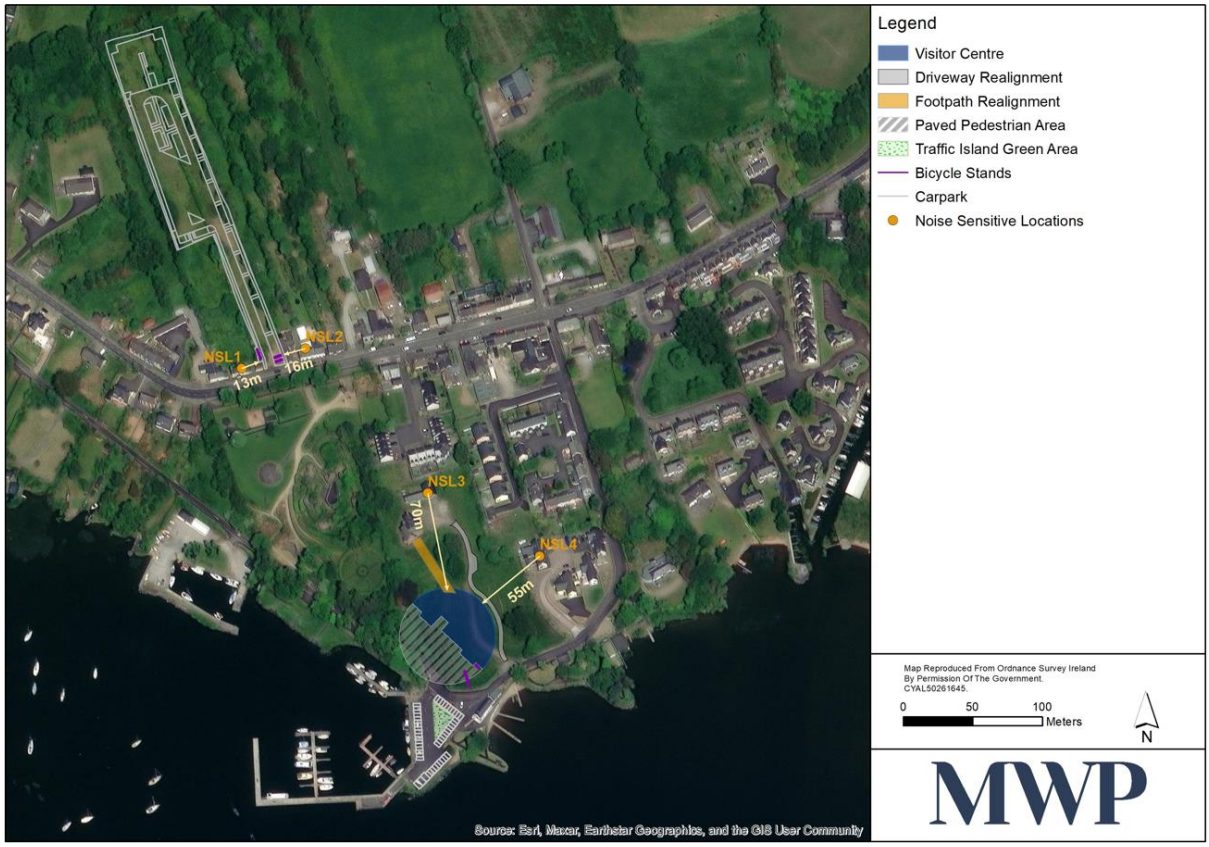


**Figure 2 Noise Sensitive Locations (NSLs)**


**Figure 3 Noise Monitoring Locations (NMLs) and Noise Sensitive Receptors (NSRs)**

Baseline noise surveys conducted at NMLs shown in Figure 3 revealed that existing noise levels are influenced mainly by road traffic, natural sounds of Lough Derg, boat activity and harbour activities as well human activity in the area.

Traffic Noise was the main contribution of noise at NML1 in Mountshannon Village. Traffic noise was present at all other monitoring locations but to a lesser extent.

### 4.8.2 Impact Assessment

#### 4.8.2.1 Do Nothing Scenario

In the absence of the development, existing noise and vibration levels in the area will remain unchanged.

#### 4.8.2.2 Demolition and Construction Phase

Noise Impacts from small-scale demolition activities, such as removing a concrete shelter on Inis Cealtra and removal of walls at the Village Car Park and in front of the proposed Visitor Centre will be minimal and temporary. No significant noise effects are predicted as a result of demolition works associated with the proposed development.

The use of hand tools and small-scale equipment during demolition minimises vibration impacts. There will be no significant vibration impacts anticipated during the demolition phase.

Construction activities, including site clearance, piling works at Inis Cealtra Island, and building works, may temporarily increase noise levels.

The highest potential noise levels at Inis Cealtra Island are expected from piling operations required for the floating jetty and welfare facility pods on Inis Cealtra. Piling is to take place outside of bird breeding season to minimise effects. Piling activities at Inis Cealtra Island may generate noise and vibration, but these are not expected to affect NSLs due to distance from works.

The construction of the Mountshannon Village car park and Visitor Centre will require the removal of a small number of selected trees and vegetation. Noise from tree-felling equipment, such as chainsaws and harvesters, may reach slight to moderate levels at nearby residential receptors, particularly those closest to the Mountshannon Village car park. However, these activities will be temporary and mitigated with hoarding and best practices.

Increased construction traffic on local roads is not expected to significantly raise noise levels due to the relatively small increase in vehicle numbers. Boat traffic associated with construction on Inis Cealtra is also unlikely to significantly impact the acoustic environment of Lough Derg.

Construction-related vibrations at Mountshannon Village Car Park Visitor Centre and Harbour such as those from excavators, will not be significant at nearby NSLs.

#### 4.8.2.3 Operational Phase

The primary sources of operational noise associated with the proposed development include increased traffic to the Visitor Centre, car parks and boat traffic to Inis Cealtra Island.

Noise from increased road traffic is not predicted to be significant based on traffic increases on existing levels.

The proposed increase in boat traffic to Inis Cealtra during peak operational periods is modest and aligns with current levels during the summer season. This activity will not result in a perceptible increase in noise levels for local residents or wildlife.

There will be mechanical plant associated with the Visitor Centre however the location and procurement of mechanical plant will be such that there will be no increase on existing levels of noise at NSLs and ecological receptors therefore there are no significant effects from this aspect of the operational phase.

No significant sources of vibration are associated with the operational phase.

#### 4.8.2.4 Cumulative Impact

No significant cumulative effects from noise and vibration are anticipated when combined with other local developments.

### 4.8.3 Mitigation

#### 4.8.3.1 Incorporated Design

As part of the detailed design of the development, plant items with appropriate noise ratings and, where necessary, appropriately selected remedial measures (e.g. enclosures, silencers etc.) will be specified in order that the adopted plant noise criteria is achieved at the NSLs, including those within the development itself.

In terms of traffic, car cark upgrades as part of design will assist to reduce noise from increased traffic.

#### 4.8.3.2 Demolition & Construction Phases

No significant effects are predicted at NSLs or ecological receptors from demolition phase works however best practice measures as outlined for construction noise mitigation, will be applied during demolition works.

During the construction phase, best practices, such as regular maintenance of machinery and limiting working hours will mitigate effects of noise.

Piling works on Inis Cealtra Island will be carried out, outside of breeding and nesting seasons to minimise ecological impacts.

Temporary hoarding and careful sequencing of works will reduce noise impacts on nearby residents and ecological receptors. Felling activities will be scheduled to avoid sensitive breeding or nesting periods for birds, typically from April to July.

As many mature trees as possible to maintain natural noise buffers.

Vibration from construction and demolition activities will be limited to values outlined in **Section 11.5.3.2** of **Chapter 11** to prevent significant effects.

#### 4.8.3.3 Operational Phase

Mechanical plant associated with the visitor centre will be procured and located such that noise does not increase on existing baseline levels at NSLs.

Speed limits and traffic management in car parks will be implemented to minimise noise.

### 4.8.4 Residual Impacts

With the proposed mitigation measures, noise and vibration impacts during the construction and demolition phases will be imperceptible to slight, temporary and localised.

Noise impacts associated with the operational phase will be imperceptible, long-term and localised, with no significant vibration effects.

### 4.8.5 Monitoring

Noise monitoring will be conducted during construction to ensure compliance with noise limits. No operational phase monitoring is required.

### 4.8.6 Conclusion

With the implementation of mitigation measures, the proposed development will not result in significant noise or vibration impacts during any phase of the project. Temporary effects during construction and demolition will be carefully managed to protect residents and wildlife, while operational noise levels will remain imperceptible to nearby receptors. The overall impact of the project on the noise and vibration environment is expected to be minimal and manageable.

## 4.9 Air Quality & Climate

The assessment of Air Quality & Climate is contained within Chapter 12 of Volume II. The chapter evaluates the potential air quality and climate impacts on sensitive receptors from the proposed development at Inis Cealtra and Mountshannon throughout the different phases of the project. The assessment examines impacts during demolition, construction and operational phases of the project and proposes mitigation measures to minimise any adverse effects.

### 4.9.1 Existing Environment

The proposed development is classified by the EPA as Zone D: Rural Ireland. The EPA publishes annual air quality monitoring report which characterises air quality for specific areas and full zones. While general air quality in Ireland is good and compliant with current air quality limits outlined in the Ambient Air Quality Standards Regulations 2022, the proposed more stringent limits due to come into effect by 2030, will be challenging. Particulate matter in our towns and villages, are at their highest during winter because of human activity, with increased burning of solid fuel. EPA validated air monitoring data from 2023, shows that $PM_{10}$, $PM_{2.5}$ and $NO_2$ are within the current limits and the revised limits due to be enacted.

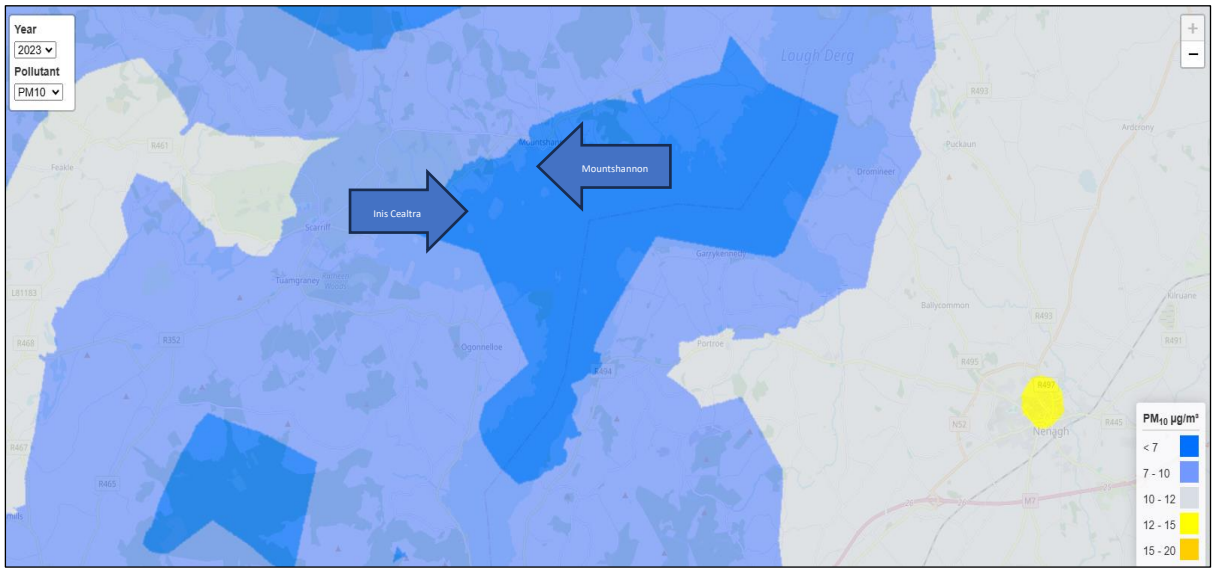


**Figure 4 EPA 2023 Annual $PM_{10}$ emissions review**

Ireland has a temperate, oceanic climate, resulting in mild winters and cool summers. The mean temperature of Mountshannon is recorded as 9.8°C according to statistical data. Annually, approximately 1143 mm of precipitation descends.

Mountshannon is a seasonally busy village and is a popular destination for Shannon cruisers. Attractions include a tour of Holy Island, fly fishing, angling, walking trails and bird watching. The proposed development is located within and adjacent to Lough Derg (Shannon) SPA 004058 and is 11.7km north of Lower River Shannon SAC 002165.

As well as ecological receptors, there are a number of other sensitive receptors, including residential and commercial within close proximity to the proposed village car park (Phase 1) and the Visitor Centre and Harbour Car Park Reconfiguration (Phase 2).

### 4.9.2 Impact Assessment

#### 4.9.2.1 Do Nothing Scenario

If the proposed development for which this document has been prepared does not go ahead, it is assumed that the current landuse will remain unchanged. There will be no alteration of the existing air quality on the mainland or the island.

#### 4.9.2.2 Demolition Phase

Phase 1 demolition will include the demolition of an existing shelter on Inis Cealtra and the removal of a wall/mound at the location of the village car park. The demolition on the island will be carried out using hand tools with limited potential for mobilisation of dust. The demolition at the village car park will consist of materials with low potential for dust release and the volume would be considered small.

Phase 2 demolition will involve the removal of the stone wall at the location of the proposed visitor centre. The volume of material would be classed as small with low potential for dust release.

The effect on air quality from the demolition phases on sensitive receptors would be considered negative, not significant, local and temporary.

#### 4.9.2.3 Construction Phases

Phase 1 construction consists of the installation of pods, a new floating jetty and pedestrian paths at Inis Cealtra. The nature of the materials used for construction of the various elements on the island such as steel and timber which will not impact air quality. The village car park will involve the excavation of topsoil and sub surface material. Layers of imported material including asphalt and grasscrete will be used to form the car park space. There is a medium risk of air quality impacts during the construction phase without mitigation.

Phase 2 construction consists of the construction of the visitor centra and reconfiguration of the car park. Earthwork volumes to be removed will result in c. 20 truck movements for removal of material. The reconfiguration of the harbour car park will require the area to be resurfaced. There is a low risk of air quality impacts during the construction phase without mitigation.

#### 4.9.2.4 Operational Phase

Air quality during Phase 1 operation could be impacted by:

- Road traffic from increased visitor numbers;
- Boat traffic from increased visitor numbers.

There will be no increase in total boat traffic generated by Mountshannon Harbour and on Lough Derg with the proposed Phase 1 development in operation. Road traffic was assessed against TII criteria for potential for impact on air quality. None of the TII criteria were met therefore the requirement for a

detailed assessment was scoped out. Additionally, Ireland's commitment to halve transport related carbon emissions by 2030 compared to 2018 and the shift in transport to fleet electrification would indicate that the relative air quality impacts of increased road traffic would be less significant by the peak Phase 1 operating period of 2032.

Air quality during Phase 2 operation could be impacted by:

- Road traffic from increased visitor numbers;
- Boat traffic from increased visitor numbers;
- Emissions from increased power consumption.

Phase 2 boat traffic will increase by six additional boat trips during operation. Road traffic was assessed against TII criteria for potential for impact on air quality from Phase 2. None of the TII criteria were met therefore the requirement for a detailed assessment was scoped out. Additionally, Ireland's commitment to halve transport related carbon emissions by 2030 compared to 2018 and the shift in transport to fleet electrification would indicate that the relative air quality impacts of increased road traffic would be less significant by the peak Phase 2 operating period of 2046. The increase in power demand from operation of the visitor centre will be supplied by electricity. The commitment to 80% renewables by 2030 and net zero by 2050 would indicate that the electricity supply will be sourced from renewables and the increased demand would therefore not have a significant impact on air quality or climate.

#### 4.9.2.5 Cumulative Impact

Having considered the implementation of good construction practice and design for the proposed development and other development in the surrounding area, no cumulative effects are anticipated.

### 4.9.3 Mitigation

#### 4.9.3.1 Demolition & Construction Phases

The main contractor will be responsible for the coordination, implementation and ongoing monitoring of the dust mitigation measures. These measures will be incorporated into the Construction Environmental Management Plan (CEMP) prepared for the site. These measures will include:

- Maintaining clean road surfaces;
- Dust suppression during dry or windy conditions;
- Use of wheel wash facility where appropriate;
- Speed restrictions on site;
- Covering or dust suppression of stockpiles if required;
- Ensure regular maintenance of plant and equipment;
- Adherence to the Traffic Management Plan.

More detail of the proposed measures is included in the CEMP.

#### 4.9.3.2 Operational Phase

Operational phase impacts are mitigated by the Visitor Management Plan.

#### 4.9.3.3 Residual Impact Assessment

##### 4.9.3.3.1 Phase 1

All phases of construction including demolition shall be undertaken in accordance with the measures outlined in the CEMP. No significant residual impacts on air quality or climate are predicted as a result of the construction of Phase 1 of the proposed scheme.

##### 4.9.3.3.2 Phase 2

All phases of construction including demolition shall be undertaken in accordance with the measures outlined in the CEMP. No significant residual impacts on air quality or climate are predicted as a result of the construction of Phase 2 of the proposed scheme.

### 4.9.4 Monitoring

A preliminary monitoring schedule has been prepared as part of the CEMP and will be finalised pending the appointment of the contractor.

## 4.10 Cultural Heritage – Built Heritage

The assessment of Cultural Heritage – Built Heritage is contained within Chapter 13 of Volume II. The assessment has considered the potential effects of the development on the Built Heritage.

### 4.10.1 Existing Environment

The assessment includes a detailed baseline study of the various components of the Built Heritage of Inis Cealtra, an early medieval monastic island foundation. The main components of the Built Heritage are described. They include five churches with surviving Romanesque to 17th century architectural features, a probable tomb-shrine, and substantial remains of a round tower. The Built Heritage also includes a large assemblage of early medieval and medieval carved stone.

The assessment also includes the more recent built elements which are the jetty, of probably 19th century, and the fisherman's hut, built in the 1960s.

On the mainland, the assessment refers to the late historic field boundary, relict from the layout of Mountshannon as a milling town.

### 4.10.2 Impact Assessment

There are many buildings of high cultural significance on the island site. These will not be directly affected by the proposed development, which is sited on the north- west side of the island. This location was selected being down slope, and out of view of the main group of monuments, in an area which has limited potential for archaeological remains.

#### 4.10.2.1 Do Nothing Scenario

In the event of the development not proceeding, there will be no immediate effect on the Built Heritage. It is however considered that the site which will benefit from the provision of visitor facilities, in the form of welfare huts, improved paths to limit damage in the form of wear and tear to archaeological embankments, staff to assist with guiding visitors and maintaining the landscape. Increased visitor numbers to this important ecclesiastic site could benefit the site in terms of potential remedial work to the monuments where necessary and an increased focus, both in terms of academic research and local heritage, on the importance of this remarkable site.

#### 4.10.2.2 Demolition Phase

This entails demolition of the fisherman's hut close to the existing jetty on the north-west side of Inis Cealtra. It is intended that this phase follows the construction of the new jetty in this location. There will be limited impact on the Built Heritage in this phase.

Sections of the existing historic embankment on the car park site in Mountshannon will be removed.

#### 4.10.2.3 Construction Phase

The construction of the new jetty will have minimal effect on the built environment. The construction of the three pods close to the jetty will have no impact on the built environment.

#### 4.10.2.4 Operational Phase

The Operational Phase of the new development will have no direct impact on the Built Heritage. The impact of increased visitor numbers has been mitigated by way of the Visitor plan, to cap numbers at 400 on a daily basis, and 100 visitors to the island at any one time. There will be staff to guide and monitor the visitors. A Landscape and Conservation Management Plan mitigates the effects of wear and tear on the earthen archaeological features.

#### 4.10.2.5 Cumulative Impact

No cumulative impact is predicted on the Built Heritage.

### 4.10.3 Mitigation

Mitigation measures in respect of the Built Heritage are outlined for the stages below. The measures follow the recommended guidelines for development in areas of high historic and archaeological significance. The measures will bring the Built Heritage of Inis Cealtra in line with many similar sites of outstanding heritage significance.

#### 4.10.3.1 Incorporated Design

The design of the new jetty and the pods on the island have taken account of the archaeological and heritage significance of the site. The jetty will be located in an area which is currently the main landing site, while the monastic landing stage appears to have been on the north-east side of the island. The Phases of construction of the jetty to be undertaken to the design of Waterways Ireland are detailed in the Construction and Environmental Management Plan and summarised in Chapter 13 and 14. A detailed impact of the design is given in Appendix 14.7, while Appendices 14.3,4, and 5 give the results and outline mitigation for the underwater archaeological resource.

The pods will have minimal ground fastening, on a small number of screw piles. The pods will be constructed off-site and assembled on the island.

#### 4.10.3.2 Demolition & Construction Phases

The construction phase will be monitored by a suitably qualified archaeologist. Areas of the lakebed which require excavation, including the location of the piles for the jetty, may be excavated in advance by underwater archaeologists. Each location for the screw piles will be monitored in advance by the onsite archaeologist.

The compound at the jetty for the construction crew, estimated numbers 20-25, will restrict casual access to the remainder of the island for the construction phase.

Removal of topsoil for the car park at Mountshannon will be monitored by a suitably qualified archaeologist. The historic field bank will be recorded in full prior to removal of sections of the monument for construction of the car park.

#### 4.10.3.3 Operational Phase

The island will have staff to monitor and guide the expected increased visitors. Mown paths will be clearly laid out and any wear and tear monitored by staff, with action as outlined in the Landscape

and Conservation Management Plan. An Accessibility Audit has been prepared as part of the application.

Visitor numbers are to be restricted to less than 400 per day, with a preference for on-line booking to spread the expected visitors more evenly through the day. This will enable visitors to appreciate the natural beauty and peace of Inis Cealtra and access the monuments with less crowds which often result from large coaches bringing visitors to similar sites.

### 4.10.4 Residual Impact Assessment

No residual impact is predicted.

### 4.10.5 Monitoring

Ongoing monitoring of visitor impact in tandem with any necessary updating of the Landscape and Conservation Management Plan is a part of this application. Remedial measures will be implemented if wear and tear on paths is excessive. A parallel path 1m in width can be mown either side of the established path to spread the load from pedestrian traffic.

## 4.11 Cultural Heritage – Archaeological Heritage

The assessment of Cultural Heritage – Archaeology is contained within Chapter 14 of Volume II. The Chapter outlines the archaeological finds from the excavations of 1970-80, in concert with the suite of archaeological surveys which were commissioned by Clare County Council to inform this assessment. These appendices include the following:

Appendix 14.1 Geophysical Survey Preliminary Report 21R0095

Appendix 14.2. Inis Cealtra Co Clare Lidar and Geophysical Report

Appendix 14.3 Inis Cealtra Co Clare Underwater Archaeological Impact Assessment

Appendix 14.4 Inis Cealtra Archaeo-geophysical Survey

Appendix 14.5 Underwater Archaeological Impact Assessment

Appendix 14.6 Old Rectory Mountshannon, Archaeological Impact Assessment

Appendix 14.7 Excavation of Archaeological Test pits at Inis Cealtra

### 4.11.1 Existing Environment

The assessment includes a detailed baseline study of the various components of the Archaeological Heritage of Inis Cealtra, an early medieval monastic island foundation. The main components of the Archaeological Heritage are described. Built Heritage which includes five churches with surviving Romanesque to 17$^{th}$ century architectural features, a probable tomb-shrine, and substantial remains of a round tower, and a large assemblage of early medieval and medieval carved stone, is discussed in Chapter 13. Chapter 14 discusses the archaeology of the island informed by the excavations of the 1970s-1980, dating of the main phases of the excavated features, evidence from the finds and burials, and the new body of evidence from the geophysical survey. Discussion of the main finds of the underwater surveys is found in the relevant appendices and summarised briefly in Chapter 14 in terms of impact.

On the mainland, the assessment refers to the late historic field boundary, relict from the layout of Mountshannon as a milling town.

### 4.11.2 Impact Assessment

Archaeological features will not be directly affected by the proposed development, which is sited on the north- west side of the island. This location was selected being down slope, and out of view of the main group of monuments, in an area which has limited potential for archaeological remains. A short programme of test excavation under Ministerial Consent was undertaken at the proposed locations of the new pods. A dive survey, preceded by an underwater geophysical survey, was undertaken at the location of the proposed jetty extension at the north-west side of the island.

#### 4.11.2.1 Do Nothing Scenario

In the event of the development not proceeding, there will be no immediate effect on the Archaeological Heritage. It is however considered that the site which will benefit from the provision of visitor facilities, in the form of welfare huts, improved paths to limit damage in the form of wear

and tear to archaeological embankments, staff to assist with guiding visitors and maintaining the landscape. Increased visitor numbers to this important ecclesiastic site could benefit the site in terms of potential remedial work to the monuments where necessary and an increased focus, both in terms of academic research and local heritage, on the importance of this remarkable site.

#### 4.11.2.2 Demolition Phase

This entails demolition of the fisherman's hut close to the existing jetty on the north-west side of Inis Cealtra. It is intended that this phase follows the construction of the new jetty in this location. There will be limited impact on the Archaeological Heritage in this phase.

Sections of the existing historic embankment on the car park site in Mountshannon will be removed.

Proposed mitigation is for archaeological monitoring and/or advance excavation, if required, by suitably qualified archaeologists as part of the demolition phase.

#### 4.11.2.3 Construction Phase

The construction of the new jetty will have minimal effect on the Archaeological Heritage. The construction of the three pods close to the jetty will have no impact on the Archaeological Heritage.

Proposed mitigation is for archaeological monitoring and/or advance excavation, if required, by suitably qualified archaeologists as part of the demolition phase.

#### 4.11.2.4 Operational Phase

The Operational Phase of the new development will have no direct impact on the Archaeological Heritage. The impact of increased visitor numbers has been mitigated by way of the Visitor Management Plan, to cap numbers at 400 on a daily basis, and 100 visitors to the island at any one time. There will be staff to guide and monitor the visitors. A Landscape and Conservation Management Plan mitigates the effects of wear and tear on the earthen archaeological features.

#### 4.11.2.5 Cumulative Impact

No cumulative impact is predicted on the Archaeological Heritage.

### 4.11.3 Mitigation

Mitigation measures in respect of the Archaeological Heritage are outlined for the stages below. The measures follow the recommended guidelines for development in areas of high historic and archaeological significance. The measures will bring the Archaeological Heritage of Inis Cealtra in line with many similar sites of outstanding heritage significance.

#### 4.11.3.1 Incorporated Design

The design of the new jetty and the pods on the island have taken account of the archaeological and heritage significance of the site. The jetty will be located in an area which is currently the main landing site, while the monastic landing stage appears to have been on the north-east side of the island. The Phases of construction of the jetty to be undertaken to the design of Waterways Ireland are detailed in the Construction and Environmental Management Plan, and summarised in Chapter 13 and 14. A

detailed impact of the design is given in Appendix 14.7, while Appendices 14.3,4, and 5 give the results and outline mitigation for the underwater archaeological resource.

The pods will have minimal ground fastening, on a small number of screw piles. The pods will be constructed off-site and assembled on the island.

#### 4.11.3.2 Demolition & Construction Phases

The construction phase will be monitored by a suitably qualified archaeologist. Areas of the lakebed which require excavation, including the location of the piles for the jetty, may be excavated in advance by underwater archaeologists. Each location for the screw piles will be monitored in advance by the on-site archaeologist.

The compound at the jetty for the construction crew, estimated numbers 20-25, will restrict casual access to the remainder of the island for the construction phase.

Removal of topsoil for the car park at Mountshannon will be monitored by a suitably qualified archaeologist. The historic field bank will be recorded in full prior to removal of sections of the monument for construction of the car park.

#### 4.11.3.3 Operational Phase

The island will have staff to monitor and guide the expected increased visitors. Mown paths will be clearly laid out and any wear and tear monitored by staff, with action as outlined in the Landscape and Conservation Management Plan. An Accessibility Audit has been prepared as part of the application.

Visitor numbers are to be restricted to less than 400 per day, with a preference for on-line booking to spread the expected visitors more evenly through the day. This will enable visitors to appreciate the natural beauty and peace of Inis Cealtra, and access the monuments with less crowds which often result from large coaches bringing visitors to similar sites.

### 4.11.4 Residual Impact Assessment

No residual impact is predicted.

### 4.11.5 Monitoring

Ongoing monitoring of visitor impact in tandem with any necessary updating of the Landscape and Conservation Management Plan is a part of this application. Remedial measures will be implemented if wear and tear on paths is excessive. A parallel path 1m in width can be mown either side of the established path to spread the load from pedestrian traffic.

# 5 Interactions of the Foregoing

Likely significant interactions are set out in Chapter 15 of the EIAR. In practice many impacts have slight or subtle interactions with other disciplines. During the preparation of this EIAR each of the specialist consultants engaged with each other with respect to the likely interactions between effects predicted as a result of the proposed development. Mitigation measures to alleviate identified likely significant effects address identified interactions. This approach meets with the requirements of Part X of the Planning and Development Act 2000, as amended, and Part 10, and schedules 5, 6 and 7 of the Planning and Development Regulations 2001, as amended.

# 6 Summary of Mitigation Measures

A key objective of the Environmental Impact Assessment process is to identify likely significant environmental impacts at the pre-consent stage and where necessary to propose measures to mitigate or ameliorate such impacts. This chapter of the EIAR summarises the proposed mitigation measures set out in Chapters 4 to 14.

All the mitigation measures proposed within the individual specialists' assessments will be incorporated into the Construction and Environmental Management Plan (CEMP) prior to works commencing on-site.

## 6.1 Incorporated Design Mitigation Measures

The measures outlined in Table 1 have been incorporated into the design of the proposed development for the Demolition & Construction and Operational Stage, as appropriate.

**Table 1 Summary of Incorporated Design Phase Mitigation**

| Aspect | Mitigation |
|---|---|
| Population & Human Health | ▪ The provision of welfare facilities on Inis Cealtra will enhance the comfort of visitors and employees (e.g. guides) on the island, contributing to their amenity and well-being.<br>▪ The proposed development complies with the Building Regulations which provide for the safety and welfare of people in and about buildings.<br>▪ The design incorporates the principles of universal design and the requirements of Part M of the Building Regulations so that the development will be readily accessible to all, regardless of age, ability or disability.<br>▪ The integration of energy efficient measures into the design will provide for a healthy work environment for employees, less dependence on fossil fuels and associated improved air quality<br>▪ The proposed design provides for a highly accessible layout across the scheme including segregated pedestrian walkways will create a high quality environment, together with the enhancements of the public realm and overall layout design will improve the setting of the wider village. |
| Landscape & Visual | The key mitigation measures incorporated in to the design are as follows:<br><u>Inis Cealtra</u><br>▪ Sensitive siting of pods, boardwalks and jetty.<br>▪ Sensitive use of materials<br>▪ Quality of architectural language and materials.<br>▪ Implementation of path design and management<br>▪ Implementation of local and native provenance planting proposals<br>▪ Implementation of landscape and conservation management plan<br><u>Car Park</u><br>▪ Sensitive insertion into the ownership plot patterns of the village<br>▪ Conservation of boundaries and hedgelines<br>▪ Reinstatement of stone boundary wall to main street<br>▪ Incorporation of civic quality and nature based sustainable drainage at entrance<br>▪ Gradation of materials and minimised use of hard surfaces |

| Aspect | Mitigation |
|---|---|
| | ▪ Tree retention and replacement<br>▪ New planting and habitats.<br>▪ Connectivity with the main street and Aistear park<br>▪ Coach parking set back away from the main street<br>▪ Sensitive lighting design<br><u>Visitor Centre</u><br>▪ Sensitive insertion into the ownership plot patterns of the village<br>▪ Conservation of boundaries and hedgelines<br>▪ Reinstatement of stone boundary wall to main street<br>▪ Incorporation of civic quality and nature based sustainable drainage at entrance<br>▪ Gradation of materials and minimised use of hard surfaces<br>▪ Tree retention and replacement<br>▪ New planting and habitats.<br>▪ Connectivity with the main street and Aistear park<br>▪ Coach parking set back away from the main street<br>▪ Sensitive lighting design |
| Material Assets:<br>Traffic & Transport | ▪ No incorporated design phase mitigation measures are proposed. |
| Material Assets:<br>Built Services & Waste | ▪ The Village and Harbour Car Park are designed with SuDS features to attenuate and treat surface water, reducing the amount of suspended solids and potential drain blockages.<br>▪ The installation of suitable protection (e.g., silt curtain) around the site boundaries to control and treat any run-off during the works. |
| Land & Soils | ▪ The design of the paths is in line with the principles of minimal intervention to archaeological and natural heritage, which also results in minimum intervention with the land and soils. The paths are all proposed as mown paths to existing ground level with several path options proposed to spread the footfall reducing soil compaction and erosion. These may be phased in different seasons as the intensity of use is observed.<br>▪ The design of the three new staff and public welfare facility 'pods' were designed to be lightweight, freestanding, timber pavilions, raised on timber legs so that their contact with the ground will be minimal, reducing the impact to land and soils.<br>▪ The Village Car Park is designed with SuDS features to attenuate and treat surface water reducing the associated impact on soils |
| Water & Hydrology | ▪ Management of surface water during the operational phases of the development has been considered in detail at the project design stage and has been designed to replicate, insofar as is practicable, the same run-off characteristics for the developed site as existed for pre-development conditions.<br>▪ The proposed drainage design has incorporated several widely used Sustainable Drainage Systems (SUDS) mechanisms to alleviate any potential detrimental effects of stormwater drainage.<br>▪ The dry toilet system used on Inis Cealtra is designed to overcome the logistical challenges of removing solids and liquids.<br>▪ The designated maintenance contractor will ensure that the waste is delivered to the appropriate Uisce Éireann treatment facility. |

| Aspect | Mitigation |
|---|---|
| Biodiversity | ▪ Consultation between the design team and the Applicant was conducted on an ongoing basis during the design phase in order to formulate a project design which would avoid, prevent and/or minimise any significant adverse ecological impacts, in so much as was practicably possible.<br>▪ Site design was carried out with cognisance to more sensitive ecological features to minimise the impact of the Proposed Development on Biodiversity and minimise the footprint of the Proposed Development on more ecologically sensitive habitats.<br>▪ The option for the location of the island jetty has been selected due to the presence of marsh habitat at some potential locations, identified to comprise EU Annex I Marsh (GM1) habitat during baseline ecological surveys, to avoid/reduce ecological impacts on habitats and species.<br>▪ The route selected for the proposed seeded/mown gravel paths on the island has been selected to avoid more ecologically sensitive habitats and will be located in Improved Agricultural Grassland (GA1) and Amenity Grassland (GA2) habitat.<br>▪ New staff and public welfare facility 'pods' are lightweight, freestanding, timber pavilions, raised on timber legs so that their contact with the ground will be minimal, reducing the risk of disturbing sensitive archaeology on the island. |
| Noise & Vibration | ▪ As part of the detailed design of the development, plant items with appropriate noise ratings and, where necessary, appropriately selected remedial measures (e.g. enclosures, silencers etc.) will be specified in order that the adopted plant noise criteria is achieved at the facades of sensitive properties, including those within the development itself.<br>▪ In terms of traffic, car park upgrades as part of design will assist to reduce noise from increased traffic. |
| Air Quality & Climate | ▪ No incorporated design phase mitigation measures are proposed. |
| Cultural Heritage: Built Heritage | ▪ Monitoring of the Built Heritage will be undertaken on an ongoing basis.<br>▪ Maintenance of the architectural heritage will be undertaken by the State Body charged with upkeep of the National Monuments.<br>▪ At present there are no guides or wardens on the island and, as such, the presence of staff to monitor, advise and guide visitors is considered to be a positive element of the proposed development. |
| Cultural Heritage: Archaeological Heritage | ▪ The current development proposal has been heavily influenced by the aim of protecting archaeological features (known and unknown).<br>▪ In particular, the island layout (jetty, path and pod locations) evolved to avoid impacts to existing archaeology.<br>▪ Likewise, the method of construction selected, responds directly to the island's archaeology, to ensure minimal intervention.<br>▪ Mitigation through design has been an inherent feature of the design process, so that adverse impacts are avoided or reduced. |

## 6.2 Mitigation Measures

The recommended mitigation measures for the Demolition & Construction and Operational Stages are summarised in Tables 2 and 3 below.

**Table 2 Summary of Demolition & Construction Phase Mitigation**

| Aspect | Mitigation |
|---|---|
| Population & Human Health | ▪ The appointed contractor(s) will update the CEMP submitted with the application after development consent is received, incorporating the environmental mitigation and monitoring measures included in this EIAR and relevant measures attached to a grant of permission.<br>o The CEMP will comply with all appropriate legal and best practice guidance for construction sites.<br>o The purpose of a CEMP is to provide a mechanism for the implementation of the various mitigation measures which are described in this EIAR and to incorporate relevant conditions attached to a grant of permission. The CEMP requires that these measures will be checked, maintained to ensure adequate environmental protection. The CEMP also requires that records will be kept and reviewed as required to by the project team and that the records will be available on site for review by the planning authority.<br>o All construction personnel will be required to understand and implement the requirements of the Contractor's CEMP and shall be required to comply with all legal requirements and best practice guidance for construction sites.<br>o All mitigation and monitoring measures included in the Summary of Mitigation and Monitoring Measures in Chapter 16 of this EIAR will be included in the CEMP and adhered to.<br>▪ The contractor will appoint a liaison officer to ensure that any issues from the local community are dealt with promptly and efficiently during construction. These details will be included in the contractor's CEMP.<br>▪ Construction Working Hours will generally be limited to the hours 08:00 – 19:00 Monday to Friday and 08:00 – 13:00 on Saturday. If works are required outside of these hours, in exceptional circumstances, the planning authority will be notified in advance.<br>▪ Project supervisors for the construction phase (PSCS) will be appointed in accordance with the Health, Safety and Welfare at Work (Construction Regulations) 2013, and a Preliminary Health and Safety Plan will be formulated during the detailed design stage which will address health and safety issues from the design stages, through to the completion of the construction phase.<br>▪ A Resource Waste Management Plan (RWMP) will be prepared and implemented by the Contractor, as necessary. |
| Landscape & Visual | <u>Demolition Phase:</u><br>▪ Provision of standard controls around seasonal and diurnal timing of operations<br>▪ Provision of hoarding<br><u>Construction Phase:</u><br>▪ The building site including a site compound with site offices, site security fencing, scaffolding and temporary works will be visible during the construction phase, from a range of viewpoints around the site. Such elements are generally |

| Aspect | Mitigation |
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| | viewed as temporary and unavoidable features of construction in any setting. The perimeter site hoarding will screen from view much of the construction activity and materials at ground level.<br>▪ Other mitigation measures proposed during this delivery stage of the development, revolve primarily around the implementation of appropriate site management procedures during the construction works – such as the control of lighting, storage of materials, placement of site offices and compounds, control of vehicular access, and effective dust and dirt control measures, etc. Such mitigation will be set out in the Construction Management Plan prepared for the scheme.<br>▪ The Construction Management Plan to be prepared by the appointed contractor, and agreed with the Local Authority prior to the commencement of any construction works, will deal with all issues related to the construction, delivery and management of the scheme during the construction stage and will ultimately include details on the following:<br>o Daily and weekly working hours;<br>o Agreed haul routes for incoming materials;<br>o Licensed hauliers to be used;<br>o Disposal sites;<br>o Travel arrangements for construction personnel;<br>o Appropriate on-site parking arrangements for construction personnel to prevent overspill parking on the local road network;<br>o Temporary construction entrances to be provided;<br>o Wheel wash facilities if required;<br>o Road cleaning and sweeping measures to be put in place if required;<br>o Temporary construction signage to be put in place and maintained.<br>▪ The planning application includes an Outline Construction Management Plan, prepared by MWP Consulting Engineers, which outlines a range of construction phase mitigation measures, many of which are relevant to the reduction of the temporary impacts on the landscape and visual environment during the construction phase. |
| Material Assets:<br>Traffic & Transport | ▪ The proposed Construction Traffic Management Plan (CTMP) and Construction and Environmental Management Plan (CEMP), which form part of the proposal, outline the commitments and mitigation measures to be implemented during the construction phase of the proposed development.<br>▪ When the construction contractor is appointed, an updated CTMP will be submitted to Clare County Council, for approval, prior to the commencement of construction.<br>▪ Traffic and transport monitoring is not required, as the predicted traffic volumes and effects are identified in Chapter 5 Material Assets: Traffic & Transport of this EIAR. |
| Material Assets:<br>Built Services & Waste | ▪ The appointed contractor will be obliged to consult the Construction and Environmental Management Plan (CEMP), which includes a Surface Water Management Plan (SWMP) EMP-1 for implementation of mitigation measures to prevent impacts damage to existing infrastructure and over ground infrastructure and watercourses. |

| Aspect | Mitigation |
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| | ▪ Prior to excavation the Contractor will ensure that adequate silt management methods are implemented and that silt controls are in place as recommended in CEMP and SWMP.<br>▪ All silt controls will be checked on a regular basis in accordance with a monitoring schedule outlined in the CEMP and SWMP.<br>▪ The Appointed Contractor will be obliged to put measures in place to ensure that there are no interruptions to existing services and all services and utilities are maintained unless this has been agreed in advance with ESB Networks.<br>▪ The construction compound will include an enclosed wastewater management system (holding tank). This will be emptied on a regular basis as required by a licensed contractor for treatment and disposal.<br>▪ All works in the vicinity of the telecommunications providers infrastructure will be carried out in ongoing consultation with the relevant provider and will be in compliance with any requirements or guidelines that are included in the CEMP.<br>▪ Effective waste management and minimisation, reuse, recycling and disposal of waste material generated during the construction phase of the proposed development |
| Land & Soils | ▪ A site-specific Construction & Environmental Management Plan (CEMP) will be developed and implemented during the construction phase. Implementation of the measures outlined in this plan will ensure that the potential impacts of the proposed development do not occur during the construction phase.<br>▪ Install any bunding and/or run-off controls where required such as installation of suitable protection (e.g., silt curtain) around the site boundaries to control and treat any run-off during the works<br>▪ Weather conditions and typical seasonal weather variations will be taken account of when planning stripping of topsoil and excavations.<br>▪ All oils, fuels, paints and other chemicals will be stored in a bunded containment area.<br>▪ The construction compound will include an enclosed wastewater management system (holding tank). This will be emptied on a regular basis as required by a licensed contractor for treatment and disposal. |
| Water & Hydrology | ▪ A site-specific Construction & Environmental Management Plan (CEMP) will be developed and implemented during the construction phase. Implementation of the measures outlined in this plan will ensure that the potential impacts of the proposed development do not occur during the construction phase.<br>▪ Install any bunding and/or run-off controls where required such as installation of suitable protection (e.g., silt curtain) around the site boundaries to control and treat any run-off during the works<br>▪ Weather conditions and typical seasonal weather variations will be taken account of when planning stripping of topsoil and excavations.<br>▪ All oils, fuels, paints and other chemicals will be stored in a secure bunded hardstand area. Refuelling and servicing of construction machinery will take place in a designated hardstand area which is also remote from any surface water inlets (where not possible to carry out such activities off site).<br>▪ Concrete batching will take place off site and wash down and wash out of concrete trucks will take place in the secure compound.<br>▪ The construction compound will include adequate staff welfare facilities including foul drainage and potable water supply. Foul drainage discharge from |

| Aspect | Mitigation |
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| | the construction compound will be tankered off site to a licensed facility until a connection to the public foul drainage network has been established. |
| Biodiversity | Demolition Phase:<br>▪ Management of Alien Invasive Plant Species (IAPS): To reduce the risk of the introduction or spread of IAPS within the area, management and control measures will be implemented on-site during the demolition phase in accordance with best practice guidance.<br>▪ Protection of Habitats: Measures will be implemented throughout the demolition phase to prevent disturbance of sensitive sites such as Lough Derg (Shannon) SPA and immediately adjacent ecologically sensitive woodland habitats.<br>Construction Phase:<br>▪ CEMP: A preliminary Construction Environmental Management Plan (CEMP) has been prepared to accompany the planning application, and a detailed CEMP will be developed by the appointed contractor and submitted to the Planning Authority for agreement and approval prior to construction works commencing.<br>▪ Project Ecologist/ECoW: A suitably qualified and experienced Project Ecologist/Ecological Clerk of Works (ECoW) will be employed during the construction phase of the project, who will be awarded a level of authority and will be allowed to stop construction activity if there is potential for adverse environmental effects other than those predicted and mitigated for in the EIAR.<br>▪ Temporary Site Compound/Parking: Parking will only take place within designated parking areas on the mainland. The site compound including designated parking areas will be located at least 50 m from any watercourse/waterbody.<br>▪ Construction Runoff and Sediment Control: Best practice mitigation measures will be implemented to limit construction runoff and control the contamination of clean water with sediment.<br>▪ Pilling in Stream: Measures such as a continuous silt curtain will be implemented during pilling in stream works to contain any silty water generated during the works and minimise ecological impacts.<br>▪ Management of Fuel/Oil/Etc.: Measures will be implemented throughout the construction stage to prevent contamination of the soil from oil and/or petrol leakages.<br>▪ Management of Concrete on the Mainland: Measures will be implemented during the concrete pouring phase to prevent contamination from the pouring of concrete during extreme/prolonged rainfall or the washout of plant.<br>▪ Management of Construction Waste: Appropriate management of all non-hazardous and hazardous wastes on-site will be undertaken to minimise potential for environmental impacts.<br>▪ Storage of Materials: The storage of materials, spoil, containers, stockpiles and waste should follow best practice at all times and be restricted to designated areas only.<br>▪ Bio-Security: Measures will be implemented throughout the construction stage to reduce the risk of the introduction or spread of invasive species within the area.<br>▪ Management of Alien Invasive Plant Species (IAPS): To reduce the risk of the introduction or spread of IAPS within the area, management and control |

| Aspect | Mitigation |
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| | measures will be implemented on-site during the construction phase in accordance with best practice guidance.<br>▪ Protection of Habitats: The area of proposed works will be kept to the minimum necessary to minimise disturbance to habitats and flora. Vegetation removal within the Site will be minimised and restricted to those areas of vegetation which have been identified for removal. During site reinstatement, any bare areas of ground at the Site will be planted.<br>▪ Protection of Fauna: Chapter 10 Biodiversity of this EIAR specifies a number of measures to protect fauna, including (inter alia):<br>▪ Prohibiting the clearance of vegetation during the period March 1st to 31st August, inclusive, in accordance with Section 40 of the Wildlife Acts.<br>▪ Undertaking pre-construction bird, bat, otter and badger surveys of the Site prior to the commencement of any works.<br>▪ The use of appropriate lighting to minimise impacts on local bat populations. |
| Noise & Vibration | Noise:<br>Demolition Phase:<br>▪ No significant effects are predicted at noise sensitive locations (NSLs).<br>▪ Nonetheless, best practice measures for construction noise mitigation should also be applied during demolition works, as outlined below under Construction Phase.<br>Construction Phase:<br>▪ The contractor will ensure that all best practice noise control methods will be used, as necessary, to ensure impacts to nearby residential noise sensitive locations are not significant, in accordance with BS 5228 Part 1, as outlined in Chapter 11 Noise & Vibration of this EIAR.<br>▪ Screening though use of temporary hoarding will be employed as an additional measure to all other forms of noise control where required.<br>▪ Normal working times will be limited to 07:00 to 1900hrs Monday to Friday and 08:00 to 13:00hrs Saturday, with no work on Sundays and bank holidays. Works will not be undertaken outside these working hours without the written permission of Clare County Council<br>▪ Temporary hoarding and sequencing of works will reduce noise impacts on nearby residents and ecological receptors from tree felling. Felling activities will be scheduled to avoid sensitive breeding or nesting periods for birds, typically from April to July, and as many mature trees will be retained as possible to maintain a natural noise buffer.<br>▪ During piling, noise reduction can be achieved by enclosing the driving system of piling plant in an acoustic shroud, and by fitting an exhaust silencer system or acoustic canopy to diesel engines.<br>▪ Piling works are recommended to be conducted in early autumn or late spring to avoid the main breeding and wintering periods for bird activity.<br>▪ Continuous live noise surveys will be undertaken for the duration of the construction phase to ensure that construction site activities comply with noise limit criteria and do not cause excessive nuisance at NSLs.<br>Vibration:<br>▪ Vibration from demolition and construction activities will be limited to the values set out in Chapter 11 Noise & Vibration of this EIAR. |

| Aspect | Mitigation |
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| Air Quality & Climate | ▪ A Construction Traffic Management Plan (CTMP) will be implemented as part of the overall Construction and Environmental Management Plan (CEMP). Measures in the CTMP will include:<br>▪ Limiting vehicle speeds on the construction site;<br>▪ All vehicles exiting the site will make use of wheel wash facilities prior to entering onto public roads, to ensure mud and other wastes are not tracked onto public roads. Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary.<br>▪ Topsoil and other dusty material being moved onsite will be transported in covered trucks, where the likelihood of emitting dust is high, and during dry weather conditions the area of removal will be sprayed with water from a mobile tanker on a regular basis to control dust emissions;<br>▪ Exhaust emissions from vehicles operating within the site, including trucks, excavators, diesel generators or other plant equipment, will be minimised through regular servicing; and<br>▪ Public roads outside the Proposed Scheme will be regularly inspected for soiling associated with traffic movements/construction activities<br>▪ A Construction Dust Management Plan (CDMP) will be implemented. Measures in the CDMP will include:<br>▪ During very dry periods, spraying surfaces with water will control dust emissions from heavily trafficked locations;<br>▪ During periods of very high winds (gales), construction activities likely to generate significant dust emissions should be postponed until the gale has subsided.<br>▪ Site hoarding will be installed minimising the likelihood of dust impacts off-site. |
| Cultural Heritage: Built Heritage | <u>Demolition Phase:</u><br>▪ Some archaeological mitigation is considered necessary in demolition of the fisherman's hut on the island. Removal of the concrete plinth on which the hut is constructed should be monitored by a suitably qualified archaeologist.<br><u>Construction Phase:</u><br>▪ Construction of the new sections of the jetty should be monitored by a suitably qualified archaeologist.<br>▪ Prior to locating the exact position of the test bores and subsequent piles for the jetty, these sections of the lakebed should be subject to an underwater excavation.<br>▪ It is not anticipated that any artefacts or structures of archaeological significance will be located, but it is advisable that this take place in advance of piling.<br>▪ Similarly, the areas of lakebed which have to be excavated or dredged as part of the breakwater construction should be subject to underwater excavation/ screening as part of the construction programme.<br>▪ Archaeological monitoring of scrub removal in advance of the screw piling for the pods should be undertaken, with the location of each pile screened as part of the construction. |

| Aspect | Mitigation |
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| Cultural Heritage:<br>Archaeological Heritage | Demolition Phase:<br>▪ Some archaeological mitigation is considered necessary in demolition of the fisherman's hut on the island. Removal of the concrete plinth on which the hut is constructed should be monitored by a suitably qualified archaeologist.<br>▪ Demolition works to remove sections of the central embankment on the surface car park site on Main Street should be monitored by a suitably qualified archaeologist.<br>Construction Phase:<br>▪ Construction of the new sections of the jetty should be monitored by a suitably qualified archaeologist.<br>▪ Prior to locating the exact position of the test bores and subsequent piles for the jetty, these sections of the lakebed should be subject to an underwater excavation.<br>▪ It is not anticipated that any artefacts or structures of archaeological significance will be located, but it is advisable that this take place in advance of piling.<br>▪ Should any unexpected features of archaeological significance be encountered in the course of monitoring or advance excavation as required, measures will be put in place via condition.<br>▪ These conditions would, in all likelihood, state that works in the immediate vicinity should cease until consultation and agreement on detailed mitigation with National Monuments staff is reached.<br>▪ Similarly, the areas of lakebed which have to be excavated or dredged as part of the breakwater construction should be subject to underwater excavation/ screening under Ministerial Consent as part of the construction programme.<br>▪ Archaeological monitoring of scrub removal and excavation of each location by a suitably qualified archaeologist in advance of the screw piling for the pods should be undertaken, with the location of each pile screened as part of the construction.<br>▪ Archaeological monitoring of topsoil clearance to subsoil in the surface car park at Main Street should be undertaken. |

**Table 3 Summary of Operational Phase Mitigation**

| Aspect | Mitigation |
|---|---|
| Population & Human Health | ▪ A Visitor Management Plan (VMP) has been prepared and submitted under separate cover. It sets out the envisaged structure and responsibilities for the management of the proposed development during operation.<br>▪ Clare County Council, via Clare Tourism DAC, will manage and operate the Inis Cealtra Visitor Experience, inclusive of the Visitor Centre, new car park facilities off Main Street, and the welfare facilities on Inis Cealtra. Boat tour operators will be licenced, awarded by tender by Clare County Council on a 3-year basis. The café in the Visitor Centre will be operated by lease.<br>▪ The measures in the VMP include establishment of the Inis Cealtra Management Group, to have oversight both in terms of the strategic management of the island and the operational management of the island. This group, led by Clare County Council, will include the Office of Public Works (OPW), National monuments Service (NMS), Waterways Ireland (WWI) and Department of Housing, Local Government and Heritage.<br>▪ The Inis Cealtra Community Forum will be established to represent the local community in the management of the island and visitor experience, including local access provision.<br>▪ The VMP details a comprehensive suite of measures that will be implemented during operation, to ensure effective site management and visitor access management. Local access protocols will be adopted as follows:<br>o Members of the local community and members of Lough Derg Anglers will be able to land for free with a permit-style approach. A register of those with a local connection and members of the Anglers will be retained by Clare County Council.<br>o A discounted permit system will be available to established local tourism businesses for island access, managed by Clare County Council.<br>o Access will remain to St Mary's and St Caiman's burial grounds and pre-existing plots for burial purposes. Access for visitors will be restricted during burials.<br>▪ To ensure the ongoing safety of visitors and employees on the island, a risk assessment and safety plan will be developed annually for Inis Cealtra.<br>▪ For the purpose of this assessment, all measures set out in the Visitor Management Plan are adopted and shall be implemented in full, except as otherwise required by a condition of planning permission. |
| Landscape & Visual | ▪ Implementation of appropriate management and maintenance of building forms<br>▪ Implementation of the landscape and conservation management and maintenance of each site_ |
| Material Assets:<br>Traffic & Transport | ▪ The proposed development includes a detailed Visitor Management Plan (VMP). Visitor capacity will be limited, and visitor access will be on a booked basis only, with pre booking online and a timed visitor entry system to stagger visitor arrivals. The VMP will control visitor traffic generation volumes and times and is part of the proposal.<br>▪ Total operational staff numbers for Phase 1 will be up nine staff, including up to two additional staff with the permitted Old Rectory development. Total |

| Aspect | Mitigation |
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| | operational staff numbers for Phase 2 will be up 20 staff, including up to 13 additional staff with the permitted Old Rectory development.<br>▪ Total operational staff numbers will be significantly less than the 75 employees threshold identified by the Clare County Development Plan 2023-2029 for a Mobility Management Plan.<br>▪ Traffic and transport monitoring is not required, as the predicted traffic volumes and effects are identified in Chapter 5 Material Assets: Traffic & Transport of this EIAR. |
| Material Assets:<br>Built Services & Waste | ▪ A contractor will be appointed to manage the maintenance of the foul system and waste removal from the site.<br>▪ Water supply and wastewater services will be managed by Uisce Éireann and any issues reported as soon as feasible.<br>▪ Periodic monitoring and maintenance of proposed drainage network which includes periodic cleaning out of gully pots & drainage channel sumps and cleaning out of pipes if/when blockages occur.<br>▪ The appointed contractor will ensure that the Waste Management Plan (WMP) contained within the Construction and Environmental Management Plan (CEMP) is updated and implemented. |
| Land & Soils | ▪ Where and when heavy footfall expected, potential mitigation measures to be used include the widening of mown paths, the addition of crushed aggregate mixed with topsoil, and the rotation of paths used.<br>▪ A contractor will be appointed to manage the maintenance of the foul system and waste removal from the island.<br>▪ Periodic monitoring and maintenance of proposed drainage network which includes Class 1 Bypass Petrol Interceptors. |
| Water & Hydrology | ▪ No operational phase mitigation measures are proposed. |
| Biodiversity | <u>Protection of Bats/Lighting Plan</u><br>▪ Potential impacts to bats and other fauna have been taken into consideration at design stage with regard to the operational phase Lighting Plan which is proposed for the development.<br>▪ Specific measures to avoid unnecessary external artificial lighting and minimise the incidence of light spill from the Proposed Development onto adjacent areas once operational have been incorporated into the proposed Lighting Plan to reduce potential impacts.<br>▪ Chapter 10 Biodiversity of this EIAR sets out guidelines, taken from the Bat Conservation Trust 2023 'Guidance Note 08/23', which have been incorporated into the proposed Lighting Plan for the development.<br><u>Biodiversity Signage</u><br>▪ Signage is to be erected at various locations to include along the Island and mainland Visitors Centre to highlight the presence of more sensitive habitats which occur along the island paths.<br>▪ Signage will also be erected in relation to fauna, including species of conservation interest which could or are likely to occur in the vicinity of the development.<br>▪ This signage will encourage visitors to the area to be cognisant of the sensitive nature of these habitats and will educate visitors as to the sensitivity of bird species to disturbance. |

| Aspect | Mitigation |
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| | ▪ Signage will direct visitors to the area to keep dogs on leads and follow 'Leave No Trace' principles.<br><u>Protection of Water Quality during Operation</u><br>▪ For the SuDS strategy to work as designed it is important that the entire drainage system is well maintained. It will be the responsibility of the site management team to ensure the drainage system is maintained. The recommended programme of maintenance for the proposed storm water network and foul water network will be adhered to.<br>▪ The toilet composting system is be monitored on a daily basis to ensure that the tank is emptied at the intervals necessary to ensure that the system functions correctly.<br>▪ There is to be no disposal of wastes on the island. Wastes are to be removed and stored in fully-sealed plastic containers for removal from the island by boat. These waste containers are to be secured adequately during transport to reduce risk of accidental spillage. Wastes are to be disposed of appropriately at a suitably-licensed facility on the mainland.<br>▪ It is recommended that signage be erected at the location of the toilets to inform members of the public of the presence of breeding birds in the general area and requesting that people do not linger or gather unnecessarily at the location to reduce any potential disturbance to breeding birds. |
| Noise & Vibration | <u>Noise</u><br>▪ To mitigate noise from the Mountshannon Village Car Park and Harbour Car Park, speed limits will be implemented to reduce tire and engine noise.<br><u>Vibration</u><br>▪ No operational phase mitigation measures are proposed. |
| Air Quality & Climate | ▪ Operational phase impacts are mitigated by the Visitor Management Plan (VMP), which forms part of the proposal. |
| Cultural Heritage: Built Heritage | ▪ No operational phase mitigation measures are proposed.<br>▪ Monitoring of Built Heritage will be undertaken on an ongoing basis with maintenance of the architectural heritage by the State Body charged with upkeep of the National Monuments.<br>▪ The archaeological heritage will be monitored as outlined in the Conservation and Landscape Management Plan (C&LMP).<br>▪ While responsibility for the upkeep of the National Monuments rests with the Office of Public Works, staff on the island will be provided by Clare County Council, who will run the Visitor Facility.<br>▪ At present, there are no guides or wardens on the island; as such, the presence of staff to monitor, advise and guide visitors is considered to be a positive element of the proposed development. |
| Cultural Heritage: Archaeological Heritage | ▪ Operational phase mitigation measures will take place as part of the implementation of the Landscape and Conservation Management Plan (L&CMP) and the Visitor Management Plan (VMP).<br>▪ Monitoring of archaeological heritage will be undertaken on an ongoing basis, as outlined in the L&CMP and VMP. |