



INIS CEALTRA

Volume 3
Natura Impact Report



COMHAIRLE CONTAE AN CHLÁIR
CLARE COUNTY COUNCIL

Prepared for Clare County Council
by **Solearth Architecture**

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1. INTRODUCTION

This Natura Impact Report (NIR) of the Inis Cealtra Visitor Management and Sustainable Tourism Development Plan (to be referred to as “the Plan”) has been undertaken for Clare County Council in order to assist them in completing an Appropriate Assessment, under Article 6 of the EU Habitats Directive, of the draft Plan.

Appropriate Assessment is required under the EU Habitats Directive and has been undertaken in accordance with Section 177U of the Planning and Development Act, 2000, (as amended by the Act of 2010, and by SI 473 of 2011), guidance produced by the National Parks and Wildlife Service, DOEHLG (2009), and documents produced by the EU ‘Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the ‘Habitats’ Directive 92/43/EEC produced by the European Commission in November 2001.

This NIR details the results of an Appropriate Assessment and has been prepared in order to comply with the Birds and Habitats Regulations 2011 (SI No. 477 of 2011, as amended).

1.1 HABITATS DIRECTIVE ASSESSMENT

The Habitats Directive Assessment is an assessment of the potential effects of a land use plan or project on one or more Natura 2000 (N2K) Sites. It is noted that a Habitats Directive Assessment is commonly referred to as an “Appropriate Assessment” (Dodd *et al*, 2007). However “Appropriate Assessment” forms only one stage of the NIR process (all stages making up the assessment process are outlined in detail below). The EU Habitats Directive provides the legislative framework for the protection of habitats and species throughout Europe through the establishment of a network of designated conservation areas known as the N2K network. The N2K network includes sites designated as Special Areas of Conservation (cSACs), under the EU Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive. cSACs are designated in areas that support habitats listed on Annex I and/or species listed on Annex II of the Habitats Directive. SPAs are designated in areas that support: 1% or more of the all-Ireland population of bird species listed on Annex I of the EU Birds Directive; 1% or more of the population of a migratory species; and more than 20,000 waterfowl.

Articles 6(1) & (2) of the Habitats Directive set out provisions for the conservation management of European Sites. Articles 6(3) and 6(4) of this Directive set out a series of procedural steps to test whether or not a plan or project is likely to affect an N2K site. Article 6(3) also establishes the requirement for a NIR:

“any plan or project not directly connected with or necessary to the management of the (Natura 2000) site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the

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implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public”.

Therefore, the objective of this NIR is to conclude whether or not land use measures outlined in Tourism Strategy will adversely affect the integrity of European Sites. Such a conclusion will be arrived at by assessing the implications of this strategy for each European Site’s “qualifying interests” (i.e. those Annex I habitats and Annex II species of SACs and Special Conservation Interests (SCIs) of SPAs) and associated conservation objectives.

The NIR is underpinned by the precautionary principle. Therefore, if the risk of adverse impacts to the conservation objectives of a European Site cannot be ruled out it is assumed that an adverse impact may exist. Where such uncertainties are identified during the assessment, measures will be proposed to avoid or mitigate the risk of adverse impacts occurring.

The NIR was undertaken with reference to the following guidance documents on Habitats Directive Assessments:

- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2009). DEHLG.
- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats directive 92/43/EEC. European commission (2000). (To be referred to as MN 2000).
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats directive 92/43/EEC. European Commission (2001).
- Guidance on Article 6(4) of the Habitats Directive 92/43/EEC – Clarification of the Concepts of: Alternative Solutions, Imperative reasons of Overriding Public Interest, Compensatory Measures, Overall coherence, Opinion of the Commission. European Commission (2007).

Appropriate Assessment of Plans. Scott Wilson, Levett-Therivel sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (2006).

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2. STAGE 1 SCREENING

2.1 METHOD

The function of the Screening exercise is to identify whether or not the proposal will have a likely significant effect on European Sites. In this context “likely” refers to the presence of doubt with regard to the absence of significant effects (ECJ case C-127/02) and “significant” means not trivial or inconsequential but an effect that has the potential to undermine the site’s conservation objectives (English Nature, 1999; ECJ case C-127/02 &). In other words any effect that compromises the integrity of a site and interferes with achieving the conservation objectives for the site would constitute a significant effect.

The nature of the likely interactions between the project and the integrity of European Sites will depend upon the sensitivity of these sites and their reasons for designation to potential impacts arising from the project; the current conservation status of the features for which European Sites have been designated; and any likely changes to key environmental indicators (e.g. habitat structure; vegetation community) that underpin the conservation status of European Sites, in combination with other plans and projects.

This Screening exercise has been undertaken with reference to respective National and European guidance documents: *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities* (DEHLG 2010) and *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats directive 92/43/EEC* and recent European and National case law (ECJ C-258/11 & High Court case ref 2014-320-JR). The following guidance documents were also of relevance during this Screening Assessment:

- A guide for competent authorities. Environment and Heritage Service, Sept 2002. *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (2010). DEHLG.
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats Directive 92/42/EED*. European Commission (2001).
- *Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats directive 92/43/EEC*. European commission (2000). (To be referred to as MN 2000).
- *Guidance on Article 6(4) of the Habitats Directive 92/43/EEC – Clarification of the Concepts of: Alternative Solutions, Imperative reasons of Overriding Public Interest, Compensatory Measures, Overall coherence, Opinion of the Commission*. European Commission (2007).

The EC (2001) guidelines outline the stages involved in undertaking a Screening exercise of a project that has the potential to have likely significant effects on European Sites. The methodology adopted

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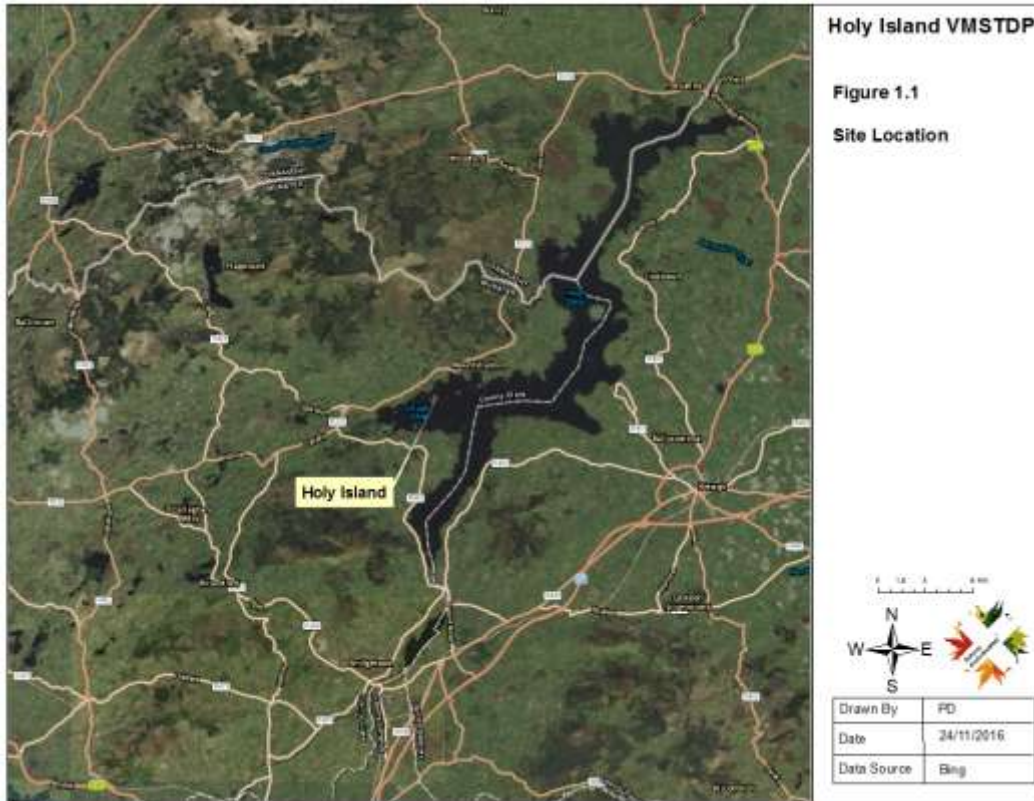
for this Screening exercise is informed by these guidelines and was undertaken in the following stages:

1. Describe the project and determine whether it is necessary for the conservation management of European Sites;
2. Identify European Sites that could be influenced by the project;
3. Where European Sites are identified as occurring within the sphere of influence of the project identify potential effects arising from the project and screen the potential for such effects to negatively affect European Sites identified under Point 2 above; and
4. Identify other plans or projects that, in combination with the project, have the potential to affect European Sites.

3. PLAN DESCRIPTION

3.1 BACKGROUND & CONTEXT

Inis Cealtra, located in Lough Derg, County Clare is now entirely in public ownership; Clare County Council purchased c.41 acres of the island from a private landowner in 2015 and approximately c.2 acres of the island including the monuments are owned by the Office of Public Works (OPW). The need for a flagship visitor attraction in Lough Derg has long been recognised, and the Council considers that developing the potential of this unique heritage site represents an excellent opportunity of achieving this. Recognition of the sensitivities of this site, in terms of natural, built and cultural heritage are of paramount importance and Clare County Council is cognisant of the need to progress this project in a considered and sustainable manner. The preparation of a Visitor Management and Sustainable Tourism Development Plan for the Island has been commissioned by Clare County Council with the intention of achieving this overall objective. Figure 1.1 below shows the location of Inis Cealtra on Lough Derg.



3.2 PURPOSE OF THE PLAN

Inis Cealtra lies approximately 300 metres off Knockaphort on the north-west shore of Lough Derg between the towns of Mountshannon and Scarrif in County Clare. The island is approximately 18 Hectares (44 acres) in area. It contains a major medieval complex, which due to its relatively inaccessible island location, is in a good state of preservation. There is no population resident on the island.

The Plan sets out key objectives and a future vision for the management of the island to ensure the long-term conservation, preservation and presentation of this historical and significant cultural site to international standards. Having a Plan such as this in place communicates to stakeholders and visitors alike the site's unique qualities and aims to conserve and safeguard the inherited cultural and historical assets while improving visitor access. The Plan has developed Limits of Acceptable Change (LAC) that provide the guiding principles for subsequent proposals relating to the island.

The various research streams that have been undertaken over the course of the project to date, have also resulted in a number of recommendations which will be included in the final Plan; these include considerations regarding wastewater treatment capacity, measures to avoid adverse effects on species using the island, sensitive habitats as well as the very significant archaeological and cultural heritage resources.

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3.3 PLAN PROPOSALS

The Plan sets out the vision for future sustainable management of Inis Cealtra as a tourism destination. The ‘**plan area**’ covers the island of Inis Cealtra and the shoreline, the village of Mountshannon and the access route across Lough Derg to and from Mountshannon Harbour to Inis Cealtra.

The Plan is structured under specific chapter headings with Chapters One and Two providing an overview of the purpose of the Plan and a description of Inis Cealtra’s heritage significance.

Using the cultural and natural heritage of the island as a basis to define the parameters of the Plan, Chapter Three sets out the overall strategy and the proposals for Inis Cealtra and the Mountshannon visitor centre.

Chapter Four provides detail on visitor data analysis, core target markets, market potential and a marketing & communications strategy.

Chapter Five describes how the Plan is to be realised and provides an Action Plan for its implementation.

Throughout the Plan a series of Objectives have been identified that will drive the implementation of the Plans vision and the necessary facilities required to ensure the successful implementation of the Plan. These Objectives, 28 in total along the with Plans Action Plan are the principal elements of the Plan that will have implications for land use and cultural and natural heritage receptors.

Therefore this NIR focuses on assessing the potential for land use proposals set out in the Plan to result in likely significant effects to European Sites. The specific land use proposals and/or elements of the Plan, that will have land use implications at Inis Cealtra and the wider surrounding area are outlined in the following sub-section.

The Objectives and the Action Plan set out in the Main Plan document are outlined in Section 6 of this NIR.

3.3.1 Visitor Centre (Mountshannon)

It is proposed that the visitor centre will be located to the southern end of the community park at Mountshannon, with access from the main street, through the park (and past the Aistear) (see Figure 3.1 for recommended location). The current landuse zoning in the Clare County Development Plan 2017 - 2023 for the lakefront area, Harbour HAR1, is either open space or existing residential so development would be required to conform to these landuse zonings under the existing CDP 2017-2023..

The proposed Visitor Centre will include:

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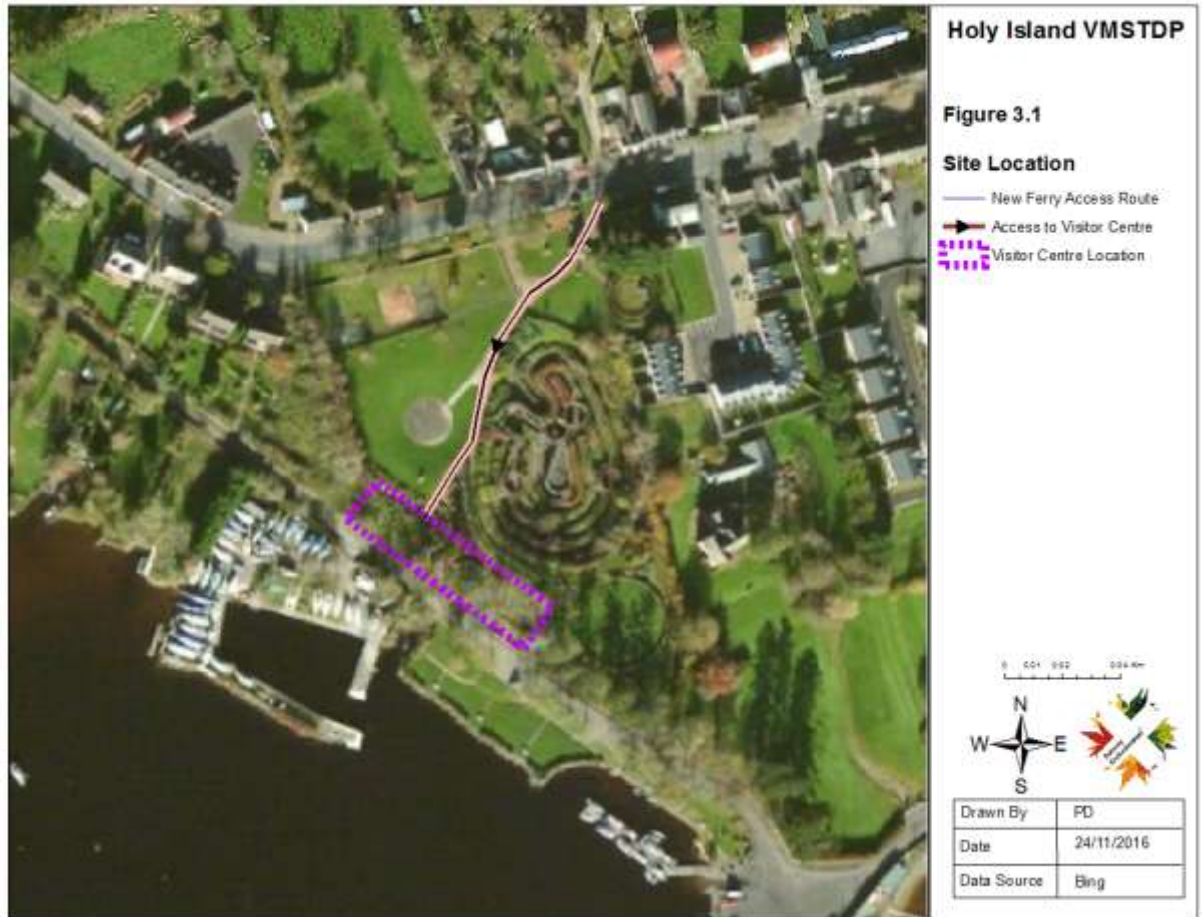
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- an audio visual auditorium with a large window view to the island. The auditorium will provide spaces for interpretation and exhibitions of the island;
- meeting rooms to facilitate tours, school groups, education community events etc.;
- a café that will cater for 55+ to facilitate coach groups but designed so that future expansion could be possible should demand require. The café should have a view of the island;
- retail outlet;
- toilets designed to cater for two coaches arriving simultaneously
- spiritual/contemplative spaces
- Pilgrim traveller facilities to provide for pilgrim path groups who arrive after a long hike and may need changing and warming facilities
- Connection to ferry landing and embarkation point; and

Parking: It is envisaged that the front entrance of the visitor centre is the main street of the village with access via the community-park. Visitors who arrive by car could seek parking on the main street in the off season and would be directed to cluster parking (at points behind the main street or at suitable and available, sites at the village edge) yet to be defined. Coaches (a significant segment of the envisaged visitors) would drop off at this location other than for those with disabilities and then withdraw to the peripheral parking areas and return when beeped or called.

- Disabled drivers or visitors (and deliveries) would approach the visitor centre using the lower road where designated disabled parking would be provided. Changes to traffic signage and road marking in the village streets should support this strategy. Ticketing should also support it (cheaper tickets for those arriving in coach, car pools, parking at designated parking area and walking down. A park and ride shuttle system (and possibly a free bicycle system) should be explored to support this strategy in busy seasons.



A preferred visitor centre location will be situated to the southern end of the community park at Mountshannon, with access from the main street, through the park (and past the Aistear) (see Figure 3.1 for recommended location). The current landuse zoning in the Clare County Development Plan 2017 - 2023 for the lakefront area, Harbour HAR1, is either open space or existing residential so development would be required to conform to these landuse zonings under the existing CDP 2017-2023.

The preferred Visitor Centre will include:

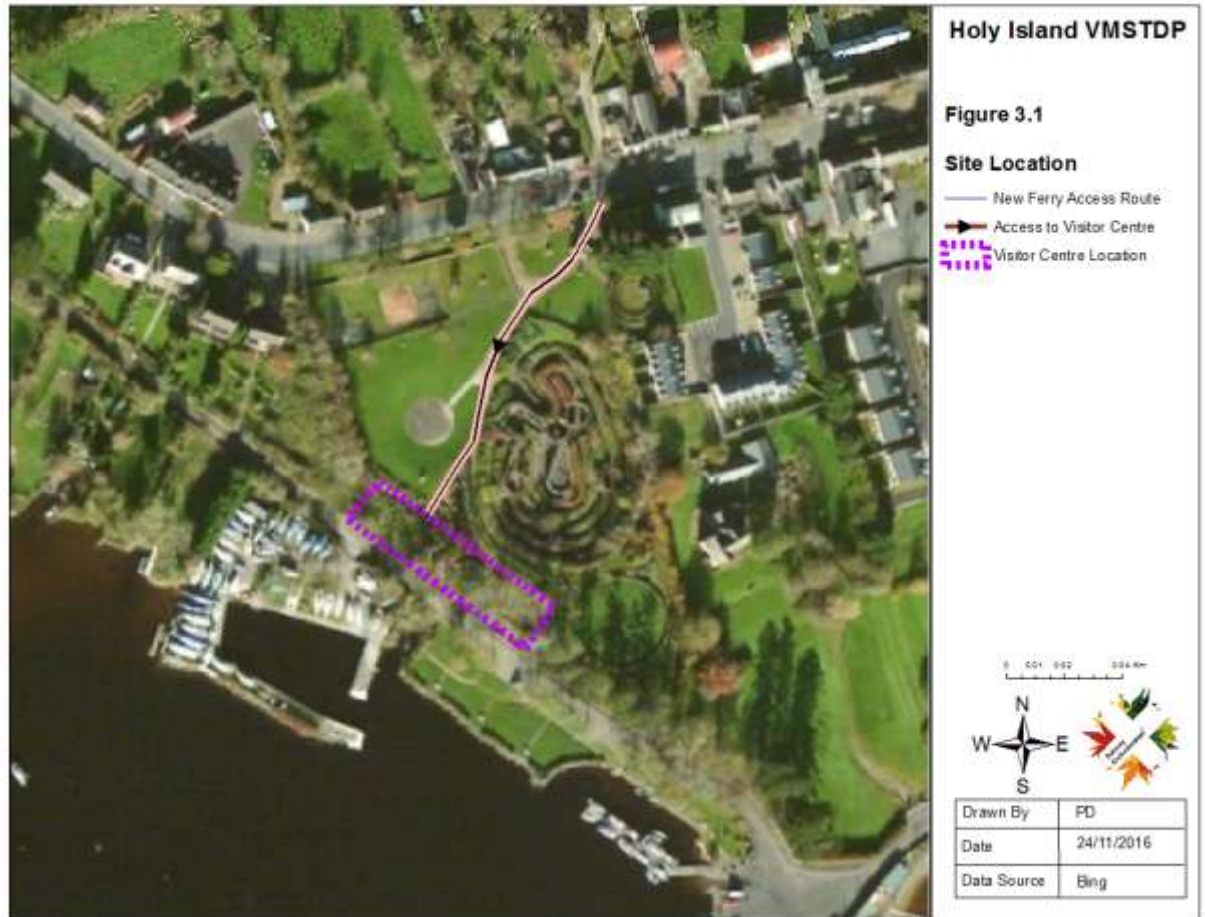
- an audio visual auditorium with a large window view to the island. The auditorium will provide spaces for interpretation and exhibitions of the island;
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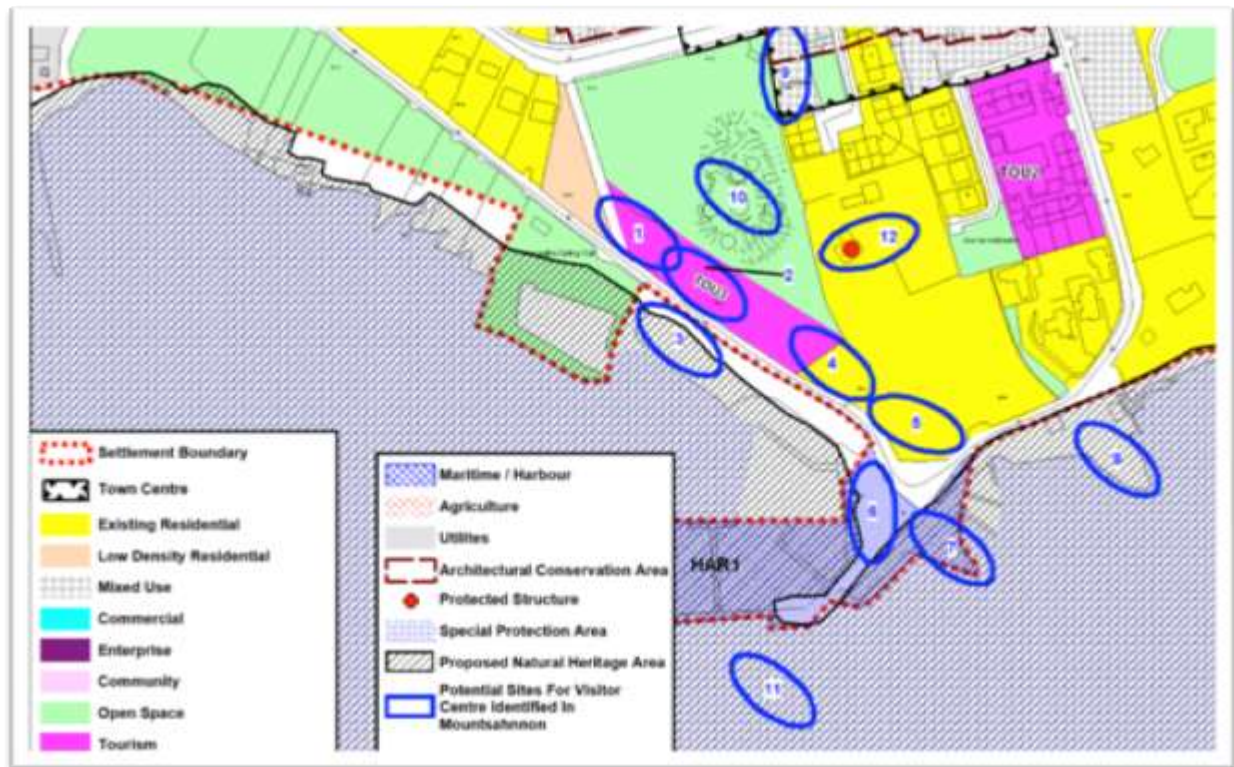
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- a café that will cater for 55+ to facilitate coach groups but designed so that future expansion could be possible should demand require. The café should have a view of the island;
- retail outlet;
- toilets designed to cater for two coaches arriving simultaneously
- spiritual/contemplative spaces
- Pilgrim traveller facilities to provide for pilgrim path groups who arrive after a long hike and may need changing and warming facilities
- Connection to ferry landing and embarkation point; and
- Parking: It is envisaged that the front entrance of the visitor centre is the main street of the village with access via the community-park. Visitors who arrive by car could seek parking on the main street in the off season and would be directed to cluster parking (at points behind the main street or at suitable and available, sites at the village edge) yet to be defined. Coaches (a significant segment of the envisaged visitors) would drop off at this location other than for those with disabilities and then withdraw to the peripheral parking areas and return when beeped or called.
- Disabled drivers or visitors (and deliveries) would approach the visitor centre using the lower road where designated disabled parking would be provided. Changes to traffic signage and road marking in the village streets should support this strategy. Ticketing should also support it (cheaper tickets for those arriving in coach, car pools, parking at designated parking area and walking down. A park and ride shuttle system (and possibly a free bicycle system) should be explored to support this strategy in busy seasons.



Visitor Centre – Alternative Options

In addition to the preferred visitor centre location (which is denoted as Site No. 2 in Figure 3.1a below) a number of alternative options have also been included in the Plan. These are identified in Figure 3.1a. Sites numbered 1 to 11 were proposed as alternatives in the Plan, while Site No. 12 (the Old Rectory) was included as an alternative option follow the public consultation of the Plan.



A summary of each of the site locations is provided below.

Site 1 is located at the southern boundary of the existing Aistear Park. It can provide for a view to the island, which is a key design consideration for the visitor centre; this option also allows for a direct access to embarkation to the island. This site can accommodate a visitor centre within its footprint.

Site 2 is located adjacent to site one, slightly further to the east and closer to the harbour. Impacts are similar to those outlined for Site 1- i.e.: positive effects on Population and Human Health and Transport. This option also allows for pedestrian movement, utilisation of existing footpaths, access to the harbour and views to the island.

Site no 3 is on the current open space southeast of the sailing club on the lake front. It has the advantage of being on the lakefront but this positive is somewhat offset by any visitor centre here having a slightly inferior view to the island.

Sites no 4 and 5 are both similar to sites 1 and 2 in that they are located in the same area close to the harbour and present similar positive effects for a number of SEOs, namely landscape, material assets (transport) and population and human health.

Site 5 is fully located within existing residential landuse zoning and is outside Flood Zone A or B. This site presents some constraints in terms of potential pedestrian access and overall vehicular

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movement. In this scenario, access is currently not possible via the Aistear, so the concept of facilitating visitors' movement from the main street through the Aistear Park to the visitor centre cannot be realised. This could result in additional requirements for infrastructure to accommodate access to a visitor centre in this location –possibly through a new access lane through the Aistear Park or possibly through existing residential development which is likely to be difficult to achieve. Overall, this site is not likely to facilitate the movement and circulation envisaged for the visitor centre and could give rise to local adverse environmental effects through the provision of increased infrastructure such as new access roads. This could give rise to additional local effects on biodiversity, landscape, material assets and population and human health that would not arise with other options such as Site 1 or Site 2. This option was therefore excluded on these grounds.

Site no 6 envisages replacing the current public parking for the marina/harbour and or building above it. A visitor centre here would enjoy good views to Inis Cealtra but would reduce the parking that is a valuable resource for the boating (and to some extent sea eagle watching) activities. By using this space for a visitor centre, there would be displacement for existing users of the harbour and also considerable inconvenience for those who visit or use the Harbour for purposes other than accessing the visitor centre. Part of this site is also located within Flood Zone A and as recently as 2015 was subject to extensive flooding. The siting of a visitor centre in this location would not be consistent with the sequential approach of the Flood Risk Guidelines 2009. Therefore, this option could give rise to adverse effects on population and human health, material assets in particular transport and flood risk and water quality, and therefore has been excluded from further consideration.

Site 7 is located on a promontory of land that projects into the lake. It is also located within the proposed Natural Heritage Area (site code 000011). This site would be physically very constrained in terms of accommodating a visitor centre, and would require considerable interventions to meet water supply, wastewater treatment. This could give rise to adverse environmental effects on biodiversity, archaeology and landscape in particular. This option would also minimise connections to the main street and the opportunity to enhance the local economy could be minimised. Circulation of traffic and pedestrians may also be more problematic in this scenario. This site is located in Flood Zone A/B and would be subject to site specific Stage 2 and potentially Stage 3 Detailed Flood Risk Assessment. Constructing a visitor centre in this flood zone would not be consistent with the Flood Risk Guidelines (2009). In summary, this option will have the potential to result in adverse effects for a number of environmental parameters, particularly flood risk, biodiversity, water quality and cultural heritage and transport. Therefore this site was excluded for further consideration.

Site 8 is located within the proposed Natural Heritage Area and also within Flood Zone A/B. Similarly to Site no.7, this location would give rise to a number of adverse environmental effects in relation to landscape, population and human health, material assets, including transport and flood risk, cultural heritage and biodiversity. Construction of a centre in this location would not be in compliance with flood risk guidelines and could generate a number of negative effects on landscape by introducing a new visual element that may interfere with views to the island, particularly the round tower; it could

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give rise to effects on underwater archaeology and may also disturb habitats and species. The level of physical intervention to provide a visitor centre at this location would overall give rise to a number of adverse environmental effects and this option is excluded for these reasons.

Site no 9 would be on a parcel of land that straddles main street and the Aistear park. Its advantage is being on the main street so reinforcing associations with Mountshannon's social and business life, and its direct access to Aistear park which could be used as the route to the lakefront. However the constrained size of the site may render it inappropriate for a visitor centre and not assist in meeting the objectives for such a centre. Given the proposed visitor numbers envisaged for the centre over time (47,500 by Year 5) accommodating the requirements of a visitor centre to cater to these numbers within this location is not feasible. The limited or poor view to the island further works against this location. This site is excluded on these grounds.

Site 10 is the current Aistear centre itself. Preliminary assessments viewed this as being too small a footprint (surrounded as it is by the berms and wall of the Aistear maze) to accommodate the scale of building envisaged for the visitor centre. However if one considers a replacement of the current building, possible re structuring of the Aistear maze in part and a design that rises up from the current structure (perhaps to 3 storey), it is possible that an elegant, even iconic solution could emerge. Clearly this would have (at the higher level) good views as well as enjoying the direct connection to both main street and down to the lake front.

This option would require considerable works and alterations –either through demolition of existing buildings and removal /reorganising of the Aistear Maze. Some removal of trees may be required and additional landscaping to reinstate the maze if necessary. This would require considerable works to accommodate the envisaged visitor numbers and proposed contents of the Visitor Centre. These works would include demolition, ground works, new build, services and landscaping. Given the scale of works required to accommodate a new centre here, including demolition of existing buildings, landscaping and construction of a new building, this option is excluded on these Works in the lake itself could result in disturbance to both underwater archaeology, ecological resources and direct impacts to the Lough Derg SPA. In addition, flood risk considerations and material assets including wastewater treatment, access to and from the centre at this location would give rise to a number of potentially significant environmental effects including biodiversity, namely a deterioration in water quality and lake habitats and disturbance to special conservation interest bird species of the SPA, Landscape, Cultural Heritage, and material assets. This option represents a very significant physical intervention in this location. Finally, this site is located within Flood Zone A and the siting of a visitor centre in this location would not be consistent with the sequential approach of the Flood Risk Guidelines 2009. As this option will have the potential to give rise to significant adverse effects it has been excluded from further consideration.

Site no 12 would involve reuse of and likely extension to the existing Rectory building. It would have the advantage of reusing a fine historic building with strong heritage value . However to accommodate a visitor centre in this building would require adaptation and addition of new

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accommodation given the visitor numbers proposed in the plan. The larger site area could facilitate this additional accommodation. Therefore positive effects are identified for Cultural Heritage and Soil and Geology in this scenario. However, the orientation of the Rectory offers a poorer view to the island, and this is one of the key design considerations for the visitor centre. The main environmental constraint associated with Site 12, similarly to Sites 4 and 5 relates to accessibility from the main street and there may also be constraints accessing this location via the Aistear Park as such access may not be as easily facilitated to this location. In turn, this may result in the requirement for additional physical interventions such as additional footpaths through the Aistear or a new footpath between the Aistear and adjacent lands to the west. The issue of promoting circulation from the main street via the Aistear Park is not easily realised at this location. Additional physical interventions to enhance access at this site may result in local adverse effects on population and human health, biodiversity and material assets SEOS. Removal or thinning of trees may also be required under this scenario.

In summary, this option gives rise to positive effects in relation to re-use of an existing historical building (and Cultural Heritage and Soil and Geology SEOs), as well as avoidance of development on flood risk as it is outside Flood Zones A/B. However this is tempered by potential adverse effects in relation to views to the island (a design and landscape consideration) and transport and accessibility around the site.

In light of the description of the above Alternative Visitor Centre site options Sections 6 and 7 of this NIR focus on assessing the potential implication of the preferred options to the Conservation Objectives of the Lough Derg SPA.

3.3.2 Embarkation Facilities – Mountshannon

Embarkation at Mountshannon would be from a modified quay wall at a suitable point in the current harbour area –most likely adjacent to and west of the yacht club. Minimal physical upgrades would be required at Mountshannon as follows: queue control barriers, accessibility installations, safety equipment, pump-out and refuse collection.

3.3.3 Visitor Access to Inis Cealtra

The recommended mode of access to the island is via a new ferry service that will operate between the proposed visitor centre at Mountshannon and Inis Cealtra. The ferry will operate on a tender basis for a 3-year period and a small access price will be charged to visitors using the ferry. In addition to the proposed ferry the Plan also aims to facilitate access, under a permit style approach, to the island by members of the local community, members of the Lough Derg Anglers and five boats from Lakeside Holiday Village at Mountshannon. Other than permit holders the Plan does not support the landing of private boat traffic at the island.

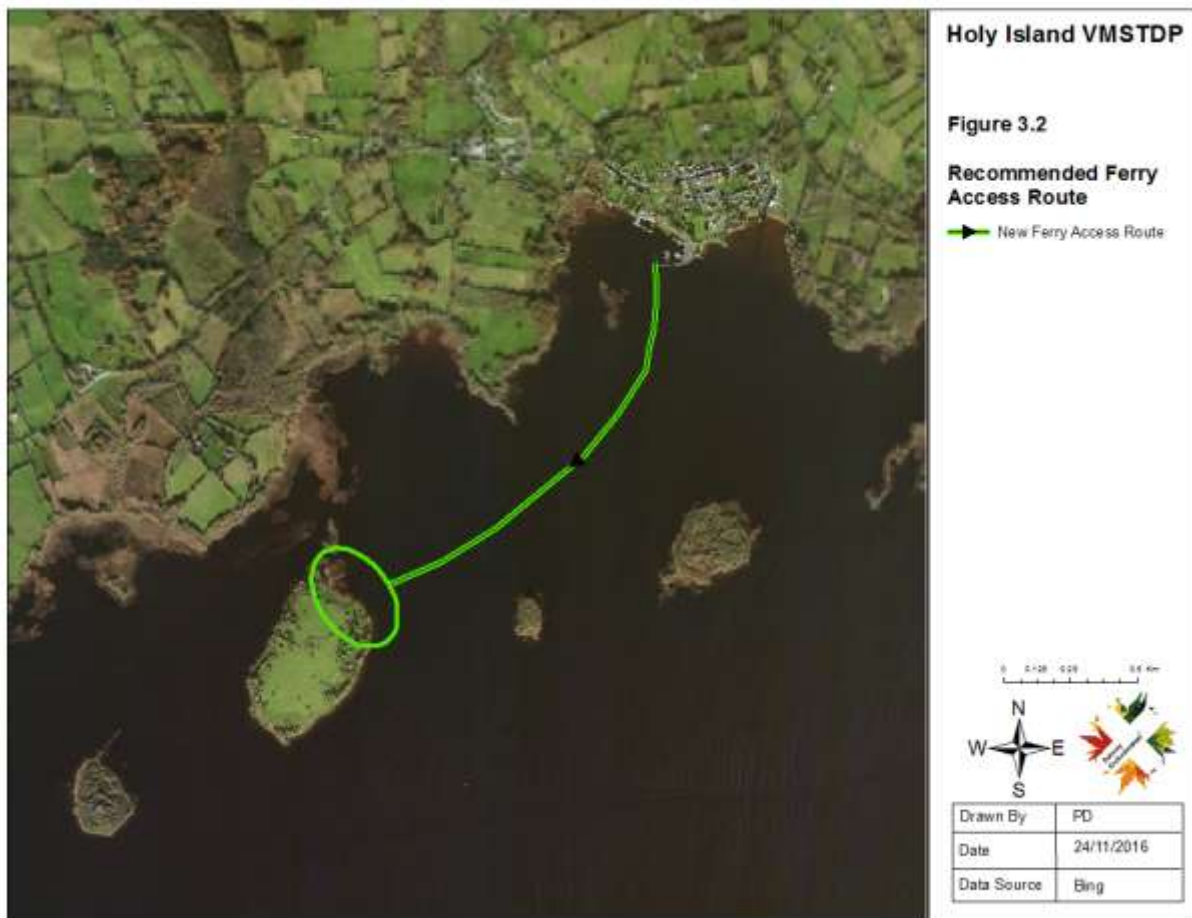
Visiting of the island by kayakers is supported by the Plan, and a recommendation is made for the provision of a “hidden” access point for kayakers, at the northwest pier, with the aim of making the island of interest to kayakers on the Lough Derg Canoe Trail.

The ferry will have a capacity for approximately 50 to 60 passengers. The main characteristics of a typical boat for which the proposed (preferred) access has been designed are as follows:

- Length: 20 m
- Width: 6.50 m
- Draft: 3.00 m

The Plan recommends that two 50-seat ferries operate to transport visitors to and from Inis Cealtra.

The preferred access route detailed in the Plan will be a direct crossing from Mountshannon to the proposed new landing pier at the northeast of the island. The proposed crossing route is shown on Figure 3.2.

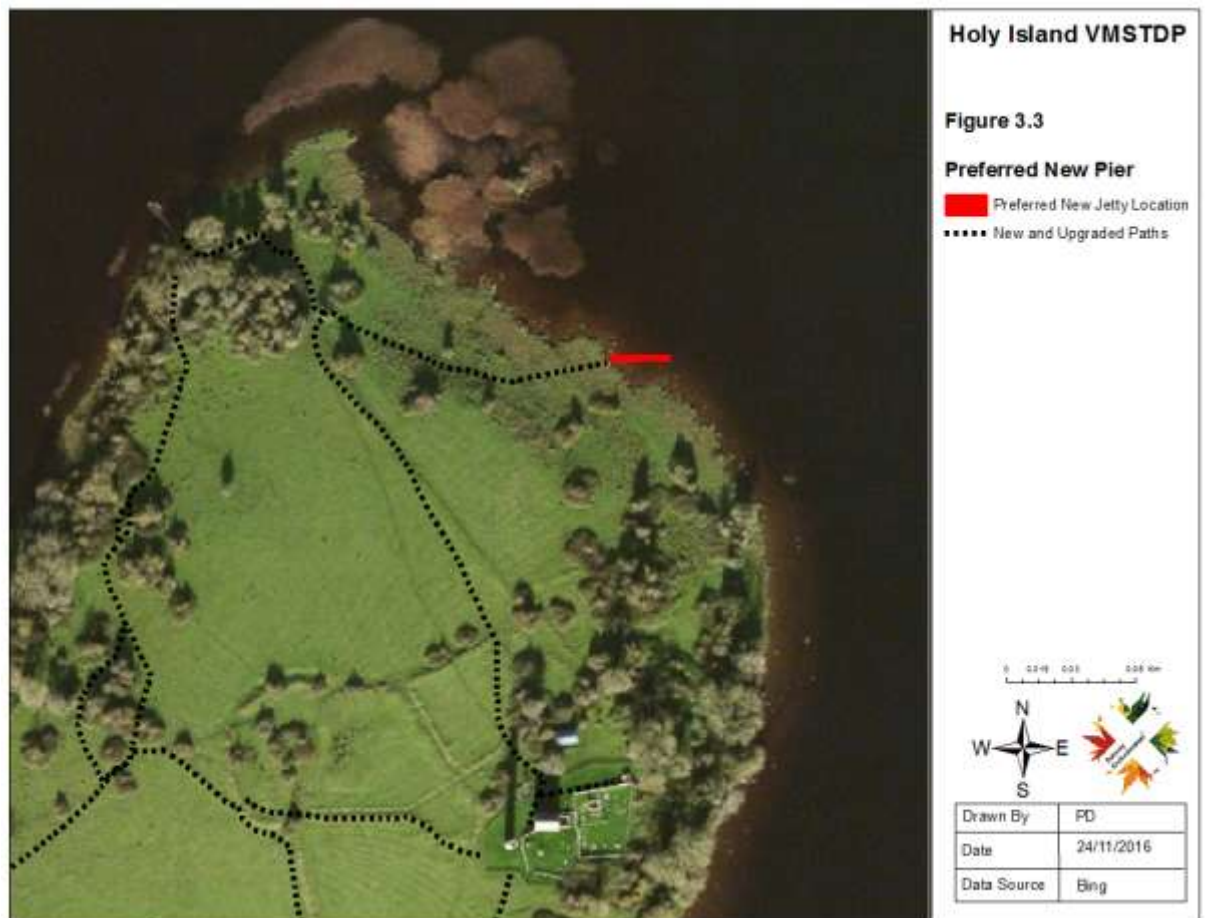


3.3.4 On-Island Facilities

Landing Facilities

The Plan's preferred landing point at Inis Cealtra is at a proposed new pier, to be constructed at the northeast of the island. The indicative location of the proposed new pier on the island is shown on Figure 3.3. The reasons for recommending a new pier at the northeast of the island as the preferred landing point are:

- This location is sheltered from the prevailing wind particularly influential (i.e. dangerous) in the Knockaphort channel), increases the number of days when the pier is accessible for visitors, and the local community,
- It allows the creation of both a gently sloped path from the shore and an easy connection to the current historic approach to the monuments (from the northwest pier across from
-



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- Knockaphort) so preserving the majority of the experience of approaching the monuments through woods, then meadow, as has been the experience for decades if not centuries,
- That junction offers a suitably unobtrusive location for the new pods (emergency/toilet facilities) referred to below) also shielded as they would be by the higher woodland that is there.
- It moves visitor traffic away from the area between the island and Knockaphort which is a well-used angling zone, particularly in April and May,
- By careful infill planting of the ‘copses’ of native woodland upslope of the north east shore, a fringe of woodland can be created. This would work as a backdrop to the landing point so separating the visitor landing areas from the path to the monuments and the monuments areas themselves -to ensure tranquillity and visual separation of these activities/areas.

The provision of a new pier to the north of the island is justified in the Plan in the context of developing an enhanced and safe visitor facility.

In terms of the new pier structure, the preferred option is for the installation of floating pontoons connected to the mainland using an extended gangway. The advantage of the floating pontoons is that they can facilitate vessel berthing under the full range of water levels (provided that there is sufficient water depth). The feasibility of using a gangway connection would primarily depend on the combination of the near-shore bathymetry and the range of water levels. Low water levels might restrict the functionality of the pontoons or even damage them. Therefore, bathymetric data is necessary to determine whether it would be feasible to install the pontoons at an appropriate distance from the shore, i.e., in a distance not exceeding 10-12m so that a gangway could be used. Pontoons of 3m x 25m (total length) would be the minimum required in order to accommodate the design vessel and provide safe pedestrian access to the shore.

The Plan acknowledges potential constraints, particularly archaeological constraints, to the provision of the proposed new pier and as such also outlines an alternative landing option. The alternative landing option is to revert to the current north west pier where a radical upgrade (including breakwater, raised level, new paths, etc.) would be provided so as to make it safe in all weathers.

The Plan goes on to make a number of recommendations for the final landing facility, irrespective its final location. These recommendations are as follows:

- that management procedures be put in place to ensure that the new main pier/landing place, at either location, becomes the sole point of landing for the licenced ferry and any other non-local /community vessels (these may use the existing northwest pier if desired).
- that the design of this main landing point should allow for isolating, immobilising or otherwise curtailing access to the island when it is deemed closed to tourism, and to prevent large cruisers docking during open periods, as this would prevent safe docking of the next ferry.

- that consideration be made for providing a ‘hidden’ access points for kayakers, adjacent to the northwest pier. This would make the island of interest to kayakers on the Lough Derg Canoe Trail/Blueway and is an initiative that has been suggested by a local kayak tour company.

Walking Paths & Routes & Surface Treatments

The proposed walking paths & routes on the island are shown on Figure 3.4. These paths & routes include existing paths and upgrades to sections of the existing path network, a new path to the proposed new pier location on the northeastern side of the island and a new looped walk around the perimeter of the island. The primary path (labelled the Main Loop Route in Figure 3.4) will be composed of crushed gravel and are 2m wide, narrowing to 1.5m for the back of the loop, and can accommodate all visitors and those with disabilities. Benches of a sensitive design should be provided at key path junctions ideally backgrounded in vegetation and never within approach view of the monuments.



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The secondary path (labelled Island Loop Walk on Figure 3.4) will be composed of mown strips in the meadow grass that will allow a longer loop around the island away from the monuments and allowing a visitor experience of Inis Cealtra as grassland, water edge and scrub woodland habitat.

No excavations will be associated with the new paths and routes proposed for the island. All paths and routes will be founded on geotextile with fines/gravel dressing consisting of location materials.

OPW Shed

The Plan considered the current OPW shed to be unsightly and highly incongruous with its surroundings and recommends that the shed be removed and its functions served by the proposed new pods. Any small or vulnerable artefacts lying near it should be conserved subject to other recommendation in this Plan and Appendices. Artefacts currently within it may be stored/displayed in the exhibition pods.

New Pods

The Plan provides for four new pods (see Figure 3.4 for location), which will consist of spaces necessary to provide minimum level of accommodation required of a public facility with employees. The pods could be of new or modular/prefabricated construction and must be built/installed, atop the current ground level, importing additional material to disguise their footings as necessary, in order to avoid any disturbance of the ground. The pods should be removable, leaving no trace once removed.

The proposed pods include:

- Guide/Usher Warden Hut,
- Toilet Pod – see Section 3.3.5.6 below for details
- Shelter located reasonably near the main pier, containing space for a number of visitors or group to shelter in exceptionally inclement weather and usable in an emergency (having a defibrillator, stock of drinking water/ emergency food, phone charging socket, heater, lamps, blanket, seat reconfigurable as a bed),
- Exhibition ‘Cube’ If necessary and to be used for protection of small vulnerable finds if moved from anywhere else on the island (glass walled, ventilated).

Toilet Pod & Wastewater Treatment

The toilet pod will be a compost toilet for solid waste (faeces) with a separate urinal provided for men. It will be based on a low water regime with rainwater harvested from the pod roof (or lake water used, via a surface covered unobstrusive pipe). Sanitary wipes will be used for hand cleansing and soiled wipes will be removed to the mainland on the last ferry.

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A reed bed (see Figure 3.4 for proposed location) will be provided to treat yellow/brown water and the treated water will be disposed to the lake. Regular sampling and testing (to be completed by wardens) of the reed bed outfall will be undertaken.

Treated compost material will be removed from the island and will be applied to land by wardens or by subcontractors. The final compost will be benign and an acceptable location for disposal will be identified.

Solar (PV) Power

A solar panel will be provided to facilitate warden/guide equipment (heater, phone charging, defibrillator and kettle/tea station).

Benches

Benches will be placed at well located positions on the island to allow visitors, particularly the elderly, to rest. So as to avoid the generation of litter on the island, picnic benches will not be permitted.

Surface Treatment

A mix of surface treatments (see Figure 3.4 for locations) including amenity grassland, using the same species mix as already existing at the ecclesiastical monuments and gravels overlaying a geotextile will be provided in the vicinity of the proposed new jetty and surrounding the ecclesiastical monuments.

Improved Kayak Access

As outlined in Section 3.3.4 a 'hidden' kayak access point will be provided at the existing northeast pier.

3.3.5 Visitors

Chapter Five of the Plan provides an analysis of the potential tourism market for Inis Cealtra. The key element of this Chapter of the Plan with respect to land use effects is the estimated market potential, in terms of number of visitors per annum, for the Visitor Centre, and most importantly for Inis Cealtra itself. Three estimates in relation to potential visitor numbers to Inis Cealtra were prepared by Rethinking Tourism. Estimates were based on low, medium and high numbers with the following assumptions made:

- Currently around 10,000 visitors p.a. come to Inis Cealtra by paid boat and an unknown number of additional day trippers, local community and anglers.
- Access to the Inis Cealtra, for the majority of visitors, is via the visitor centre with free access to the island confined to kayaks and permit holders & permit holders

restricted to residents of the Mountshannon-Scarriff area, the five boats leased by Lakeside Holiday Village and members of the Lough Derg Anglers.

- Approximately 40% of the visitors only go to the Inis Cealtra Visitor Centre and do not go to Inis Cealtra. This indicative figure is based on data from Bru na Boinne with the volume of free school places reduced, from other similar attractions such as Skellig Experience and an understanding of the appropriate visitor volume for the island.
- The number of visitors travelling to Inis Cealtra annually is based the 60% of the total visitor numbers, expected to go to both the Inis Cealtra Visitor Centre and Inis Cealtra itself, plus an annual figure of 2,500 for local community, kayakers and anglers landing on the island and visiting graves.

Based on the above scenarios Table 3.1 provides indicative figures for visitor numbers at low, moderate and high scales, over the sort to medium term for Inis Cealtra Visitor Centre.

Table 3.1: Indicative Market Potential Spread for Inis Cealtra Visitor Centre only (per annum)

• Period	• Low	• Medium	• High
• Year 1	• 20-30,000 (25,000)	• 30-40,000 (35,000)	• 50-60,000 (55,000)
• Year 2-3	• 40-50,000 (45,000)	• 50-60,000 (55,000)	• 70-80,000 (75,000)
• Year 4-5	• 60-70,000 (65,000)	• 70-80,000 (75,000)	• 100-130,000 (115,000)

The Plan has recommended that the Medium estimate be used for the estimated number of visitors visiting the Inis Cealtra Visitor Centre annually.

For the purposes of revenue calculation it is estimated that 40% of these visitors would only go to the visitor centre and would not travel to Inis Cealtra.

Table 3.2, below, indicates a Low, Medium and High estimation of visitor numbers for Inis Cealtra. This is based on the midpoint of the market potential estimate from Table 3.1, multiplied by 60%, and with 2,500 local community and small boat craft visitors added.

Table 3.2: Indicative Market Potential Spread for Inis Cealtra Visitor Centre and Inis Cealtra (per annum)

Period	Low	Medium	High
Year 1	15,000	21,000 (23,500)	33,000
Year 2-3	27,000	33,000 (35,500)	45,000
Year 4-5	39,000	45,000 (47,500)	69,000

It is recommended in the Plan that the Medium estimate in Table 3.2 be used for the estimated number of visitors visiting Inis Cealtra annually. For the purposes of impact consideration an additional 2,500 local community, anglers and kayakers are estimated to travel to the island annually. These are shown in the middle column of Table 3.2 above in brackets.

The Plan also provides estimated monthly visitor numbers to the island over the first five year of operation. These estimates are provided in Table 3.3 below.

Table 3.3: Monthly Estimate of visitors to Inis Cealtra Year 1 - 5

	% weighting	Year 1	Years 2-3	Years 4-5
Jan	0	0	0	0
Feb	0	0	0	0
Mar	5	1050	1650	2250
Apr	8	1680	2640	3600
May	12	2520	3960	5400
June	15	3150	4950	6750
July	20	4200	6600	9000

Aug	20	4200	6600	9000
Sep	12	2520	3960	5400
Oct	8	1680	2640	3600
Nov	0	0	0	0
Dec	0	0	0	0
Annual		21000	33000	45000

The monthly estimates provided in Table 3.3 above are based on the following assumptions:

- The visitor centre would be open from 10am-6pm for 6 days per week,
- There would be no service in Nov, Dec, Jan, Feb,
- Boats land and depart on the hour,
- Journey time would be 30 minutes,
- The service could be reduced during the non peak season depending on demand,
- Two 50 seat ferries would be used, which requires less capital investment per operator than if one large ferry was used and reduces operational risk,
- If the maximum daily capacity is 400 and ferries were to operate for 6 days a week (27 days/month) it could be estimated maximum operating capacity would be 10,800 per month i.e. with headroom above the envisaged operating requirement,
- However visitors would be requested to stay for a maximum of two hours and there would be a maximum of 100 visitors at any one time on the island.

The plan recommends that the maximum monthly capacity for the island does not exceed 9,000 ferry passengers, that the maximum daily capacity does not exceed 400 and that the maximum number of people on the island at any one time not exceed 100.

3.3.6 Opening Period

The Plan proposes to confine tourist activities on Inis Cealtra to the period mid-March to mid-October.

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4. OVERVIEW OF THE ECOLOGICAL BASELINE OF THE PLAN AREA

4.1 INIS CEALTRA & LOUGH DERG

A detailed ecological assessment of Inis Cealtra was undertaken in 2015 and 2016 and is outlined in Doherty Environmental (2016). Inis Cealtra has been traditionally managed for the majority of the last century for livestock grazing and an ecclesiastical monument. The majority of the island has been in the ownership of the O'Brien family from 1927 until 2015 when the ownership was transferred to Clare County Council.

The land cover on the island is dominated by improved agricultural grassland (GA1) that is grazed by cattle between February/March and October/November. Woodland habitat fringes the western, northeastern and southern shorelines. This woodland is generally dominated by ash and sycamore and is classified as broadleaved woodland (WN2) habitat. Oak is rare on the island. The woodland in general is poorly structured, largely due to the linear nature of the woodland and limited canopy cover. An analysis of historical mapping suggests that the woodland on the island developed from treelines, which are indicated on the historical 25" maps, completed between the 1880's and 1913. Earlier 6' maps from the 1830's to 1850's do not indicate the presence of trees on the island suggesting that the island was predominantly treeless at this time.

Scrub habitat (WS1) is associated with the woodland habitat along the western, southeastern and northeastern shorelines. The dominant scrub species include blackthorn and hawthorn. Willows are at most occasional and alder is rare on the island. The presence of buckthorn on the island is notable and it is abundant to the southwest and southeast of the island. Spindle is rare while holly is occasional.

Scrub is spreading on the island with an increase in the extent of this habitat noted towards the landward sides of woodland habitat. The spreading scrub habitat is dominated by brambles, hawthorn and elder.

The island is fringed by marsh habitat, which corresponds to the EU Habitats Directive Annex 1 habitat hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (Habitats Directive Annex 1 Habitat Code: 6430). High quality examples of 6430 habitat occur along the western shoreline, where cattle disturbance has been less of an issue. 6430 habitat is also present on the northern, eastern and southern shorelines but high levels of grazing intensity have adversely affected the structure and function of this habitat. The overall extent of marsh habitat on the island that is representative of 6430 habitat is approximately 1.6 ha. However the majority of this is in unfavourable conservation status due to high grazing pressure.

Reed and tall sedge swamp habitat fringes the northern end of the island. The habitat is dominated by common club-rush with yellow iris and water horsetail also occurring in shallower areas. The extent of this habitat has increased significantly along the northern fringes of the island and also to the west of the island towards Knockaphort.

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Other terrestrial habitats included exposed calcareous rock, in the form of exposed boulders along the shoreline, a calcareous spring associated with the St Mary's Well, amenity grassland (GA2) surrounding the ecclesiastical structures and built land (ED3).

No protected flora species have been recorded from the island.

The island supports a range of breeding bird species with over thirty species using the island as a breeding site. Wetland bird species associated with fringing tall sedge habitats during the breeding season include tufted duck (a species listed as a special conservation interest of the Lough Derg SPA), mallard, coot and moorhen. No wetland birds, such as common terns, cormorant and gull species have been recorded breeding on the island. Black-headed gull frequently roost on the island during the breeding season but are not known to use the island as a breeding site. Kingfisher has been observed foraging and commuting along the western shore of the island.

During the winter the island serves as a roost site for a range of wetland species. Snipe regularly roost throughout the island, but are generally concentrated to north-facing slopes towards the north of the island. Small numbers of Greenland white-fronted geese have been recorded roosting on the island. Little egret regularly forages along the island shoreline during the winter months, while the very northwest tip of the island has been identified as a roost site for small flocks of lapwing.

A range of bat species have been recorded foraging within and along the islands shoreline. Bats recorded foraging here include Soprano pipistrelle, Common pipistrelle, Leisler's bat, Natterers bat, Daubenton's bat and brown long-eared bat. Soprano pipistrelle is the dominant species of bat using the island and the main foraging areas are located along the island's northern and northwestern shores. Soprano pipistrelle have been recorded roosting in small numbers in St Caiman's Church and the island's round tower. Bat droppings, indicative of Myotis species, have also been recorded from the fishermen's hut, near the existing pier on the northwestern shore of the island. Aside from these structures, there are a number of mature trees on the island that have been identified as having the potential to function as roost sites for bats. These trees are mainly located along the northern and western shores of the island and their locations coincide with areas of high bat foraging activity.

Evidence of otters was noted along the shoreline of the island with a couch site and spraint recorded on the southeastern tip of the island and a second spraint recorded on the northern side of the island in 2016.

A review of published waterfowl counts (1994/95-2000/01) for Lough Derg (see Table 4.3 below) suggested that Lough Derg is internationally important for wintering mute swans and nationally important for three waterfowl species. The lake is designated as an SPA for the presence of resident cormorant, breeding common tern, resident tufted duck and wintering goldeneye.

Annual winter counts of wetland bird for the IWeBS subsite OH077 from Mountshannon to Scariff provides relevant baseline information of the Plan area. Table 4.1 provides summary peak count information for the three most recent survey years at this subsite. This table shows that low numbers

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were counted for the majority of species observed in this subsite during the three winter seasons. Tufted duck was the only species recorded in important numbers over the three years.

Table 4.1: Summary Peak Annual Numbers at Subsite OH077 Mountshannon to Scariff (Aerial)

Species	1% National	1% International	2004/05	2008/09	2009/10
Mute swan	90		20	12	20
Whooper Swan	150	270		40	
Greylag Goose	50	980		2	
Wigeon	630	15000	130	4	
Teal	340	5000	40	4	10
Mallard	290	20000	87	13	22
Tufted Duck	310	12000	578	207	284
Goldeneye	60	11500	20		132
Little Grebe	20	4000	1		
Cormorant	120	1200	30	8	
Grey Heron	25	2700		1	
Coot	220	17500	510	80	72

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Lapwing	1100	20000	30		
Black Headed Gull		20000	30		

Counts have also been undertaken at a wider resolution for subsite OH090, which stretches from Scariff further northeast to Doorosbeg Point, an encompasses an areas of approximately 900 hectares. Annual winter wetland bird count data is available for this subsite over the four-year period from 2009/10 to 2012/13. The annual peak numbers for wetland birds recorded over this timeframe is provided in Table 4.2 below. This table shows the peak numbers are generally low for the majority of species observed in this subsite over the four year period. The only species that important mean numbers (i.e. numbers approaching, equal to or greater than 1% of the national population) were recorded for are tufted duck and coot.

Table 4.2: Summary Peak Annual Numbers at Subiste OH090 Doorosbeg Point to Scariff (Aerial)

Species	1% National	1% International	2009/10	2010/11	2011/12	2012/13	Mean
Mute swan	90		43	82	43	75	61
Whooper Swan	150	270				74	19
Greylag Goose	50	980		35		21	14
Wigeon	630	15000	56	30	40	36	41
Teal	340	5000	50		42	22	29
Mallard	290	20000	24	41	38	147	63
Shoveler	30	400			2		1

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Pochard	160	3000		100			25
Tufted Duck	310	12000	127	957	153	178	354
Goldeneye	60	11500	16	36	30	25	27
Little Grebe	20	4000		2			1
Great Crest Grebe	40	3500	3	2			1
Cormorant	120	1200	1	15	6	7	7
Grey Heron	25	2700			8		2
Coot	220	17500	71	547	204	475	324
Lapwing	1100	20000		20	35	2	14
Curlew	350	8400	1		11		3
Black Headed Gull		20000	2	10	41	1	14
Lesser Black-backed Gull		5500	1	1			1
Herring		10200				1	0

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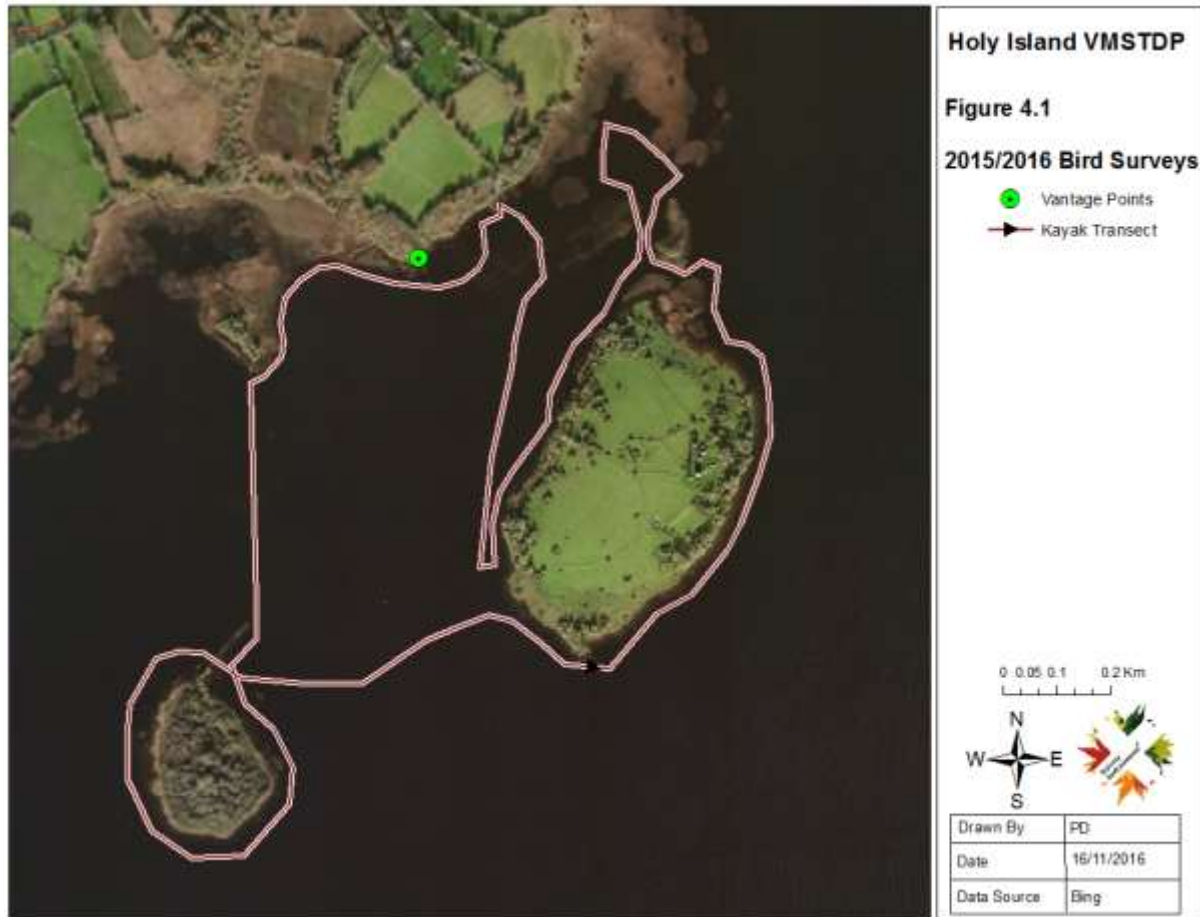
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Gull							
Great Black-backed Gull		4200	1				0

Overwintering wetland birds surveys were undertaken in the vicinity of Inis Cealtra during the 2015/2016 winter season by Doherty Environmental. These surveys were based on vantage point surveys and a kayak transect survey around the island. The location of the vantage point survey and the kayak transect survey are shown in Figure 4.1. these focused on identified the range and density of wetland bird species during winter surveys. The results of the winter surveys are provided in Table 4.3. All wetland species identified during these surveys were recorded in low numbers.

Breeding season surveys were also undertaken on Inis Cealtra during the 2016 summer season. This survey aimed to identify breeding birds on and in the immediate vicinity of the island. During the breeding bird surveys the only wetland bird species found to be breeding in the immediate vicinity of Inis Cealtra were coot and mallard. No evidence of breeding tufted duck in the vicinity of the island was noted. Other species noted to be breed on the island included Raven, which nest in the Round Tower and a range of warblers and other passerines. In addition White-tailed sea eagles, which breed on Bushy Island, have been known to roost on Iniscealtra, however according to Allen Mee, Golden Eagle Trust (pers.comm. 2015) the island is not used for nesting due principally to low cover of trees.



A review of the Bird Atlas for Britain and Ireland 2007 – 2011 was undertaken to identify bird species of conservation concern whose presence has been confirmed in the two hectads R68 and R78, in which Inis Cealtra is located. Table 4.3 and 4.4 lists these species of concern that have been previously identified as wintering or breeding in the vicinity of Inis Cealtra and also lists the species recorded in the vicinity of the island during winter and breeding season surveys in 2015/2016.

Table 4.3: Winter Season Bird Species Associated with Inis Cealtra and the surrounding Plan Area

Common Name	Scientific Name	Status	Bird Atlas 2007 - 2011	Oct '15	Dec '15	Feb '16	Feb '16	Mar '16	Oct '16
Barn Owl	Tyto alba	BoCCI Red	Yes	-	-	-	-		-

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		List							
Black-headed Gull	Larus ridibundus	BoCCI Red List	Yes	21	10	6		60	15
Common gull	Larus canus	BoCCI Amber List	No	4	-	-	-	-	12
Coot	Fulica atra	BoCCI Amber List	No	15	12	10	16	24	12
Cormorant	Phalacrocorax carbo	BoCCI Amber List	No	-	4	3	6	3	-
Curlew	Numenius arquata	BoCCI Red List	Yes	-	-	12	8	9	-
Dunlin	Calidris alpina	BoCCI Red List; Annex 1	Yes	-	-	-	-	-	-
Fieldfare	Turdus pilaris	BoCCI Green List	No	-	25	-	-	-	-
Golden Plover	Pluvialis apricaria	BoCCI Red List; Annex	Yes	-	-	-	-	-	-

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		1							
Goldeneye	Bucephala clangula	BoCCI Red List	Yes	-	-	1	1	-	
Great Black-backed Gull	Larus marinus	BoCCI Amber List		-	-	1	-	2	-
Great Crested Grebe	Podiceps cristatus	BoCCI Green List		2	3	2	3	2	2
Greenland White-fronted Goose	Anser albifrons	BoCCI Amber List; Annex 1	Yes	-	18	26	10	16	-
Grey heron	Ardea cinerea		No	-	-	1	1	-	2
Grey wagtail	Motacilla cinerea	BoCCI Red List	Yes	-	-	-	-	-	-
Herring Gull	Larus argentatus	BoCCI Red List	Yes	-	-	2	3	-	-
Kestrel	Falco columbarius	BoCCI Amber List	No	-	-	1	-	-	-
Kingfisher	Alcedo atthis	Annex 1	Yes	-	-	-	-	-	-

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Lapwing	Vanellus vanellus	BoCCI Red List	Yes	-	-	210	-	-	-
Little egret	Egretta garzetta	Annex 1	Yes	-	-	1	2	-	2
Mallard	Anas platyrhynchos	BoCCI Green List	No	8	4	10	4	6	8
Meadow pipit	Anthus pratensis	BoCCI Red List	Yes	-	-	-	-	-	-
Moor hen	Gallinula chloropus	BoCCI Green List	No	2	1	-	4	-	-
Mute swan	Cygnus olor	BoCCI Green List	No	6	2	2	6	3	5
Pochard	Aythya larina	BoCCI Red List	Yes	-	-	-	-	-	-
Red Grouse	Lagopus lagopus	BoCCI Red List	Yes	-	-	-	-	-	-
Redshank	Tringa totanus	BoCCI Red List	Yes	-	3	5	6	-	-

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Shoveler	Anas clypaeta	BoCCI Red List	Yes	-	-	-	-	-	-
Snipe	Gallinago gallinago	BoCCI Amber List	No	-	-	6	12	8	5
Sparrowhawk	Accipiter gentilis	BoCCI Amber List	No	-	-	1	-	-	-
Teal	Anas crecca	BoCCI Amber List	No	-	-	2	-	-	2
Tufted Duck	Aythya fuligila	BoCCI Red List	Yes	2	14	2	6	12	6
Water rail	Rallus aquaticus	BoCCI Green List	No	-	-	1	-	-	-
White-tailed sea eagle	Haliaeetus albicilla	BoCCI Red List; Annex 1	Yes	-	-	-	-	-	-
Whooper swan	Cygnus cygnus	BoCCI Amber List; Annex 1	Yes	-	32	45	21	26	-

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Wigeon	Anas penelope	BoCCI Red List	Yes	2	2	-	-	-	4
Woodcock	Scolopax rusticol	BoCCI Red List	Yes	-	-	-	1	-	-

Table 4.4: Bird Species recorded at Inis Cealtra during Breeding Season surveys in 2016

Common Name	Scientific Name	Status	Bird Atlas 2007 - 2011	May	June	July	Breeding association with Inis Cealtra
Blackbird	Turdus merula	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island throughout the breeding season. Breeding
Blackcap	Sylvia atricapilla	BoCCI Green List	Yes	✓	-	-	Possible territory on the island. Breeding
Black-headed Gull	Larus ridibundus	BoCCI Red List	Yes	✓	✓	✓	Regularly seen roosting on the eastern shoreline. Not breeding
Blue tit	Cyanistes caeruleus	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island throughout the breeding season. Breeding
Chaffinch	Fringilla coelebs	BoCCI Green	Yes	✓	✓	✓	Territories registered on the island throughout

		List					the breeding season. Breeding
Chiffchaff	<i>Phylloscopus collybita</i>	BoCCI Green List	Yes	✓	✓	-	Territories registered on the island. Breeding
Common Gull	<i>Larus canus</i>	BoCCI Amber List	Yes	-	✓	✓	Seen flying by the island between the island and Knockaphort.
Common tern	<i>Sterna hirundo</i>	BoCCI Amber List; Annex 1	Yes	-	✓	✓	Seen flying by the island between the island and Knockaphort. Seen foraging to the east of the island. Not breeding on the island.
Coot	<i>Fulica atra</i>	BoCCI Amber List	Yes	✓	✓	✓	Territories in emergent large sedge habitat. Breeding
Cormorant	<i>Phalacrocorax carbo</i>	BoCCI Amber List	Yes	✓	✓	✓	Seen flying between the island and Knockaphort. Not breeding on the island.
Dunnock	<i>Prunella modularis</i>	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Goldcrest	<i>Regulus regulus</i>	BoCCI Amber List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Great Black-	<i>Larus marinus</i>	BoCCI Amber	Yes	-	✓	-	Seen flying between the island and Knockaphort.

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backed Gull		List					Not breeding on the island.
Great Crested Grebe	Podiceps cristatus	BoCCI Amber List	Yes	✓	✓	✓	Seen foraging between the island and Knockaphort, to the north and east of the island. Potentially breeding in the vicinity of the island.
Great tit	Parus major	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Grey heron	Ardea cinerea	BoCCI Green List	Yes	✓		✓	Observed foraging along the shoreline of the island.
Grey wagtail	Motacilla cinerea	BoCCI Red List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Herring Gull	Larus argentatus	BoCCI Red List	Yes	✓	✓		Seen flying between the island and Knockaphort. Not breeding on the island.
Hooded crow		BoCCI Green List	Yes	✓	✓	✓	Regularly observed on the island.
House sparrow	Passer domesticus	BoCCI Green List	Yes	-	-	✓	Observed on the island. Possible breeding.

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Jackdaw	Corvus mondula	BoCCI Green List	Yes	✓	✓	✓	Regularly observed on the island.
Kingfisher	Alcedo atthis	Annex 1	Yes	-	✓	-	Observed commuting along the shoreline of the island.
Lapwing	Vanellus vanellus	BoCCI Red List	Yes	-	-	-	
Little egret	Egretta garzetta	Annex 1	Yes	-	✓	-	
Mallard	Anas platyrhynchos	BoCCI Green List	No	✓	✓	✓	Breeds in the vicinity of the island. No confirmed nests on the island.
Meadow pipit	Anthus pratensis	BoCCI Red List	Yes	-		✓	Observed on the island. Possible breeding.
Moor hen	Gallinula chloropus	BoCCI Green List	No	✓	✓	✓	Observed with juveniles to the north and west of the island. Breeding in fringing habitats.
Mute swan	Cygnus olor	BoCCI Green List	No	✓	✓	✓	Foraging along the shoreline of the island. Not breeding.
Pheasant	Phasianus colchicus	BoCCI Green List	Yes	✓	✓	✓	Observed on the island throughout the breeding season. Likely

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							breeding on the island.
Raven		BoCCI Green List	Yes	✓	✓	✓	Nest in round tower. Breeding.
Red-breasted merganser	<i>Mergus serrator</i>	BoCCI Green List	Yes	-	✓	-	Observed roosting on the eastern shoreline of the island. Not breeding.
Redshank	<i>Tringa totanus</i>	BoCCI Red List	No	-	✓	✓	Observed roosting on the eastern shoreline of the island. Not breeding.
Reed Buntings	<i>Emberiza schoeniclus</i>	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Robin	<i>Erithacus rubecula</i>	BoCCI Amber List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Snipe	<i>Gallinago gallinago</i>	BoCCI Amber List	No	-	-	✓	Roosting on the island. Not breeding.
Song thrush	<i>Turdus philomelos</i>	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding

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Starling	<i>Sturnus vulgaris</i>	BoCCI Amber List	Yes	-	-	✓	Recorded on the island. Possibly breeding.
Stonechat	<i>Saxicola rubicola</i>	BoCCI Amber List	Yes	-	-	✓	Territories registered on the island. Breeding
Swallow	<i>Hirundo rustica</i>	BoCCI Amber List		✓	✓	✓	Nesting in St/ Caiman's Church. Breeding.
Tufted Duck	<i>Aythya fuligila</i>	BoCCI Red List	Yes	✓	✓	✓	Seen foraging between the island and Knockaphort, to the north and east of the island. Seen with chicks in to the northwest of the island. Potentially breeding in the vicinity of the island.
White-tailed sea eagle	<i>Haliaeetus albicilla</i>	BoCCI Red List; Annex 1	Yes	-	-	-	No breeding on the island
Whitethroat	<i>Sylvia communis</i>	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Willow tit	<i>Poecile montanus</i>	BoCCI Green List	Yes	-	✓	✓	Territories registered on the island. Breeding

Willow warbler	Phylloscopus trochilus	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding
Wood pigeon		BoCCI Green List	Yes	✓	✓	✓	Breeding
Wren	Troglodytes troglodytes	BoCCI Green List	Yes	✓	✓	✓	Territories registered on the island. Breeding

The role the entire lake plays in supporting wetland bird species has been recently reviewed by McCarthy, Keville O’Sullivan (2015), who compiled data on waterbirds supported by Lough Derg and sourced this information from records of gulls and terns from Reynolds (1990); the Common Scoter Survey of Lough Derg (Collins & Heery, 1995), Ecofact (2015), Crowe (2005) and Boland & Crowe (2007). The data compiled by McCarthy, Keville O’Sullivan (2015) is reproduced in Table 4.5 below.

Table 4.5: Baseline Count Bird Data for Wintering and Breeding Wetland Bird Species at Lough Derg

Species	Winter Season Peak Count	Breeding Season Records
Black headed gull	814, 1995 - 2000	
Common Gull		9 breeding between 1985 - 1987 but no records since 1995
Common Tern		Nationally important breeding colony on Goat Island
Coot	229, 1995 - 2000	118 breeding pairs in May 1995
Cormorant	120, 1995 - 2000	Two breeding colonies on

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		islands near Portumna. 122 nests counted at Lough Derg in 1999
Feral Greylag Goose	4, 1996 – 2001	
Gadwall	8, 1996 – 2001	
Goldeneye	215, 1995 – 2000	
Great Black-backed Gull		12 individuals (not breeding) in May 1995. 1 breeding pair recorded during 1985 – 1987
Great Crested Grebe		47 pairs, 1995
Greenland white-fronted geese	Recorded on Lough Derg in winter 1995 – 1996. 20 recorded again in 2014	
Grey Heron	11, 1996 – 2001	16 individuals, not all breeding
Herring Gull		1 in May 1995
Kingfisher	1, 1996 - 2001	
Lesser Black-backed Gull		8, not breeding in May 1995
Little Gull		1, not breeding in May 1995
Mallard	417, 1995 - 2000	90 breeding pairs, May 1995
Moorhen	59, 1996 - 2001	8 breeding pairs, May 1995

Mute Swan	235, 1995 – 2000	316 non breeding individuals, May 1995
Pintail	2, 1996 - 2001	
Pochard	124, 1996 – 2000	
Red-breasted Merganser	7, 1996 – 2001	18 breeding pairs, May 1995
Snipe	1, 1996 – 2001	
Teal	342, 1995 – 2000	
Tufted Duck	1,029, 1996 - 2001	
Water Rail	3, 1996 – 2001	
Whimbrel		2 individuals, May 1995
White-tailed Eagle	Resident on Bushy Island	1 breeding pair on Bushy Island
Wigeon	272, 1995 - 2000	

4.2 MOUNTSHANNON

The NPWS Rare and Protected Species database was consulted for records of species of conservation importance. According to this database, the study area lies within the 10km grid squares (hectads), the following are listed in this database:

Name	Latin	Location 10km
Fallow Deer	Dama dama	Bodyke

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Pine Marten	Martes martes	Bodyke
Lutra lutra	Otter	Carrogar Bay, Ogonnolloe
Inula salinica	Irish Fleabane	
Cervus elephus	Red deer	Carrogar Bay, Ogonnolloe
Fallow Deer	Dama dama	Carrogar Bay, Ogonnolloe

Bats are also present in this area with Daubenton Bats associated most strongly with the lake, but other species including Leislars, Common and Soprano Pipistrelle utilising woodland and hedgerows in particular for foraging and commuting. The bat habitat suitability map for all bats is produced below, with the red area showing the areas of highest habitat suitability for all bats.

5. RELATIONSHIP BETWEEN THE INIS CEALTRA PLAN & EUROPEAN SITES

5.1 IDENTIFICATION OF EUROPEAN SITES IN THE SPHERE OF INFLUENCE OF THE PLAN

Guidance (see DEHLG, 2010) for screening plans for Appropriate Assessment recommends that the sphere of influence of a plan be set at distance of 15km (or more where required) from the plan area (as defined in Section 3.3 above). However the sphere of influence of the of the Plan has been defined, in consultation with statutory authorities, and the area encompassed by this sphere of influence is of a much smaller scale than a 15km radius surrounding the plan area. The area occurring within the sphere of influence of the plan is shown in Figure 5.1 below.

The sphere of influence of the plan as presented in Figure 5.1 is based on the following:

- Acknowledgement of the access links between Mountshannon/Knockphort and Inis Cealtra
- Visitor management and visitor centre siting around the Mountshannon Area
- Regional Roads of R463 and R352 provides an accessible boundary and covers a scenic road designation in the Clare CDP.

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- The cluster of drowned drumlins of which Inis Cealtra is one and consistency of limestone bedrock between Inis Cealtra and neighbouring islands within this area;
- The landing points between Aughinish Point near Ogonnoloe (southern point) and Inishparran Point (northern point).

Notwithstanding the above, in order to adhere to established guidelines all European Sites occurring within the wider 15km surrounding area of the Plan have been identified and are presented in Appendix A along with reasons justifying why each of these European Sites do not occur within the sphere of influence of the plan.

Only one European Site, namely Lough Derg SPA, occurs within the sphere of influence of the Plan. Figure 5.2 presents the boundary of the Lough Derg SPA in the context of the sphere of influence of the Plan.

The remainder of this Section provides a brief description of the Lough Derg SPA and identifies the SCIs of this SPA that are likely to occur within the sphere of influence of the Plan.



Inis Cealtra VMSTP

Figure 5.1

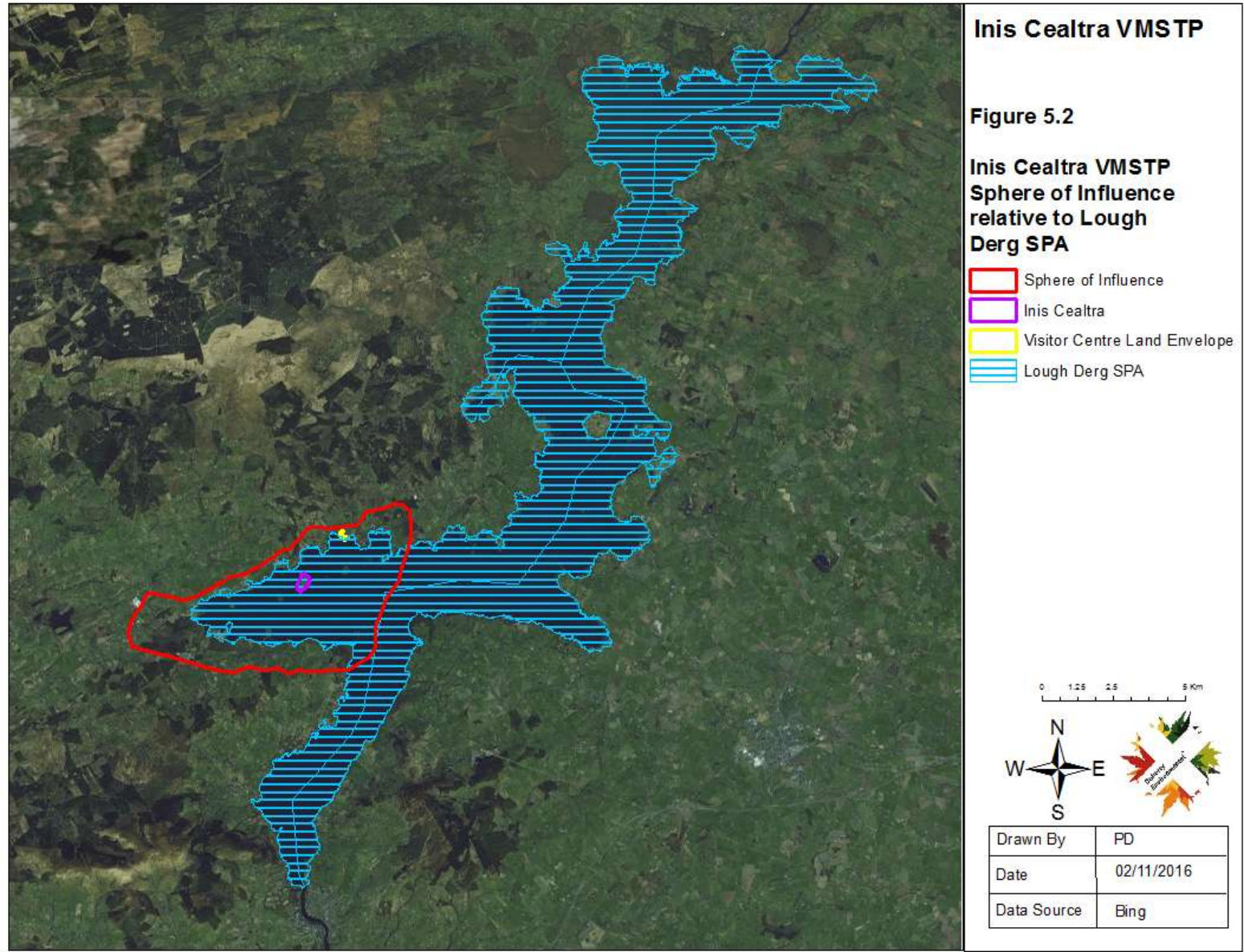
Inis Cealtra VMSTP Sphere of Influence

-  Sphere of Influence
-  Inis Cealtra
-  Visitor Centre Land Envelope

0 0.375 0.75 1.5 Km



Drawn By	PD
Date	02/11/2016
Data Source	Bing



5.2 LOUGH DERG SPA

Lough Derg is designated as a Special Protection Area (SPA) for its role in supporting resident populations of Cormorant and Tufted Duck, breeding populations of Common Tern and wintering populations of Goldeneye. These four species along with the wetland habitats of the lake and lake shoreline make up the special conservation interests for which Lough Derg is designated as an SPA. The following sub-sections provide a brief overview of the special conservation interest species and wetland habitats of Lough Derg SPA.

5.2.1 Overview of Special Conservation Interest Species

Data on the numbers of wintering and or breeding populations of each of the four special conservation interests of the SPA is provided in Table 5.1.

Table 5.1: Data for special conservation interest bird species of Lough Derg

Species	Winter Season Peak Count	Breeding Season Records
Common Tern	NA	Nationally important breeding colony on Goat Island. 55 breeding pairs, 1995
Cormorant	120, 1995 - 2000	Three breeding colonies on Bear Island, Crane Island and Carrigeen Island. 122 nests counted at Lough Derg in 1999.
Goldeneye	215, 1995 – 2000	
Tufted Duck	1,029, 1996 - 2001	326 individuals (not all breeding, May 1995)

Winter and breeding bird surveys were completed in 2015 and 2016 at and in the vicinity of Inis Cealtra. These surveys were based upon vantage point watches and kayak transect surveys, the location of which is shown in Figure 4.1 above.

Records (and maximum numbers counted during winter surveys) of special conservation interest species recorded during the winter and breeding season surveys are provided in Tables 5.2 and 5.3 respectively. As coot have been identified during past surveys as occurring nationally important numbers in the vicinity of Inis Cealtra focus is also provided on the potential interactions between the plan and this wetland species.

Table 5.2: Winter Season Bird Surveys in the Vicinity of Inis Cealtra during 2015 and 2016 winter season and October 2016

Common Name	Oct '15	Dec '15	Feb '16	Feb '16	Mar '16	Oct '16
Cormorant	-	4	3	6	3	-
Goldeneye	-	-	1	1	-	
Tufted Duck	2	14	2	6	12	6
Coot	15	12	10	16	24	12

Table 5.3: Breeding season bird surveys in the vicinity of Inis Cealtra during the 2016 breeding season

Common Name	May	June	July	Breeding association with Inis Cealtra
Common tern	-	✓	✓	Seen flying by the island between the island and Knockaphort. Seen foraging to the east of the island. Not breeding on the island.
Cormorant	✓	✓	✓	Seen flying between the island and Knockaphort. Not breeding on the

				island.
Tufted Duck	✓	✓	✓	Seen foraging between the island and Knockaphort, to the north and east of the island. Seen with chicks in to the northwest of the island. Potentially breeding in the vicinity of the island.

The 2015/2016 bird surveys in the vicinity of Inis Cealtra recorded low numbers of special conservation interests species and coot in the vicinity of the island during both winter season surveys. Of these species, only coot was identified as breeding within the vicinity of Inis Cealtra.

In addition to the above, field surveys for habitats and wetland birds were undertaken in 2015 during the preparation of the Lough Derg Canoe Trail planning application. The presence of special conservation interest species for the SPA were not reported in the vicinity of Mountshannon Harbour during these surveys. The wetland bird species observed during the survey were mute swan and black-headed gull.

Cormorants and common terns at Lough Derg rely almost exclusively on fish while goldeneye and tufted duck have a more varied diet. The diet of goldeneye consists predominantly of aquatic invertebrates such as molluscs, worms, crustaceans, aquatic insects and insect larvae (e.g. dragonflies, damselflies and mayflies) as well as amphibians, small fish (del Hoyo et al. 1992) and some plant material (mainly in the autumn) such as seeds, roots and the vegetative parts of aquatic plants. Tufted duck diet is omnivorous, with a major part of its diet consisting of molluscs (especially *Mytilus* and *Cardium* spp., gastropods and zebra mussels *Dreissena polymorpha*), crustaceans and aquatic insects, as well as grain and the seeds and vegetative parts of aquatic plants. Coot are also omnivorous, although they predominantly rely upon vegetation. As all five species are reliant on the aquatic environment the maintenance of good water quality status is a key requirement for their favourable conservation status.

The threats (ranked as high, medium and low) to the conservation status of these species, as identified in Ireland's Summary Report for Article 12 of the EU Birds Directive 2008 – 2012, are outlined below in Table 5.4.

Table 5.4: Threats to the Conservation Status of Special Conservation Interests Species

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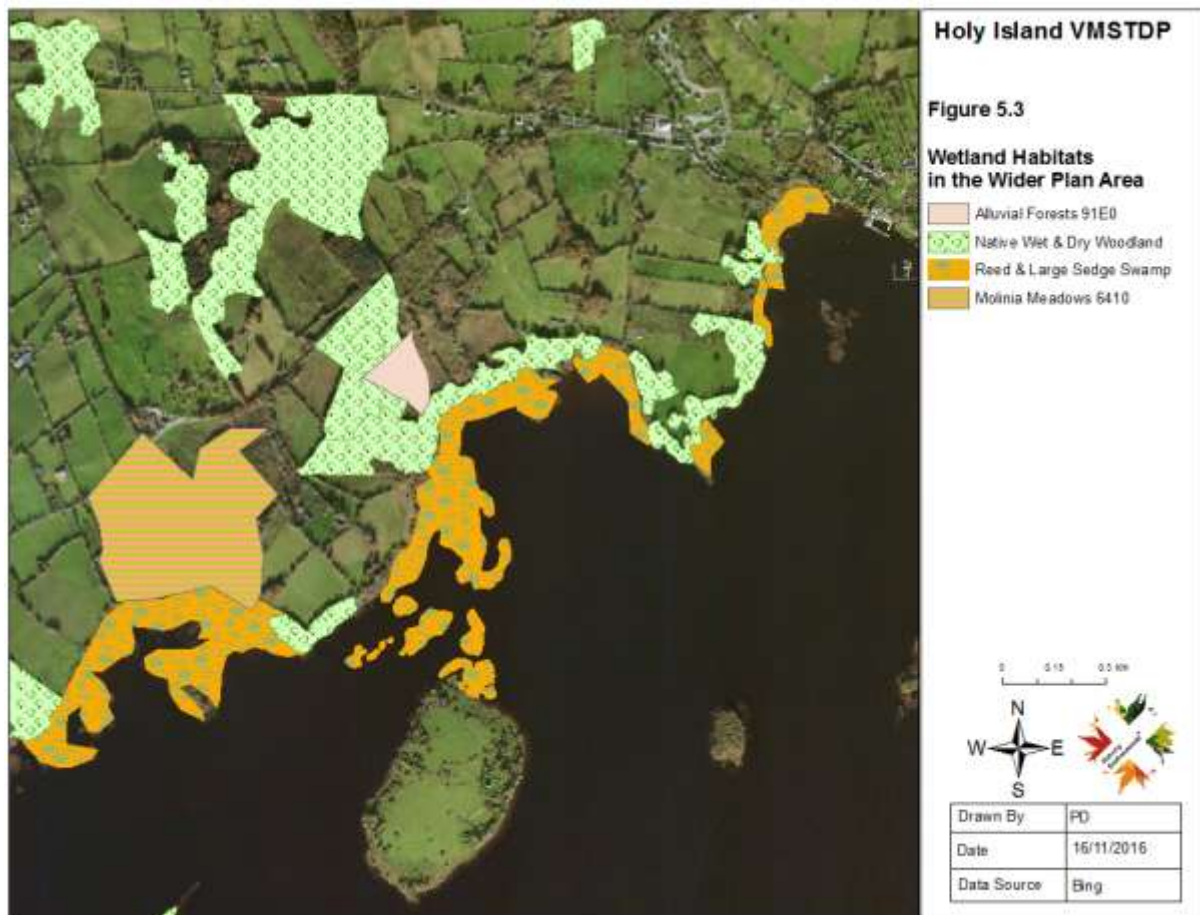
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Species	Threats
Cormorants	Fishing and harvesting aquatic resources (medium) Renewable abiotic energy use (low) Hunting and collection of wild animals (low) Marine pollution (low).
Common Tern	Outdoor sports and leisure activities (medium) Renewable abiotic energy use (medium)
Tufted Duck	Changes in biotic conditions (medium) Pollution to surface waters (medium) Outdoor sports and leisure activities (medium) Renewable abiotic energy use (low)
Goldeneye	Changes in biotic conditions (medium) Pollution to surface waters (medium) Outdoor sports and leisure activities (medium) Hunting and collection of wild animals (medium) Renewable abiotic energy use (low) Marine and Freshwater aquaculture (low) Other forms of pollution (low)
Coot	Outdoor sports and leisure activities (medium)

	Hunting and collection of wild animals (medium) Changes in biotic conditions (medium) Pollution to surface waters (medium)
--	--

5.2.2 Overview of Lough Derg Wetland Habitats

Lough Derg supports a range of wetland habitats from open lake to fringing marshes and swamps. The wetland habitats occurring within the wider plan area have been mapped and are presented in Figure 5.3. These wetland habitats have been identified during habitat surveys at Inis Cealtra in 2015 and 2016; from NPWS database records; National Biodiversity Centre Database; The East Clare Habitat Survey (2008); and from a review of Bing satellite imagery.



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5.2.3 Likelihood of special conservation interests being Influenced by the Plan

In light of the recently identified presence of all four special conservation interest species of the SPA in the vicinity of Inis Cealtra, the presence of coot in nationally important numbers in the vicinity of the island and the presence of a range of wetland habitats in the plan area all special conservation interests of the SPA and coot are susceptible to interactions with land use activities associated with the Plan.

6. SCREENING OF THE PLANS POTENTIAL TO RESULT IN LIKELY SIGNIFICANT EFFECTS TO LOUGH DERG SPA

6.1 INDIVIDUAL ELEMENTS OF THE PLAN (EITHER ALONE OR IN COMBINATION WITH OTHER PLANS OR PROJECTS) LIKELY TO GIVE RISE TO IMPACTS TO LOUGH DERG SPA

The Plan will require the provision of new infrastructure to facilitate the development of Inis Cealtra as a tourism destination. As such construction activity will be required to realise one of the key objectives of the plan, which is to expand the island's attractiveness and ability to cope with significantly increased numbers of visitors.

The infrastructure to be provided within the plan area, at both Mountshannon and Inis Cealtra, has been listed in Section 3 above. The most significant infrastructural elements associated with the plan will be the delivery of the visitor centre in the lakeshore area of Mountshannon and the new pier on the northern shore of Lough Derg.

The construction phase of elements of the plan will have the potential to result in the following impacts that could negatively affect the status of special conservation interests of Lough Derg SPA:

- Loss of and/or disturbance to wetland habitat of the Lough Derg SPA.
- Hydrological emissions from construction sites resulting in pollution to Lough Derg.
- Noise emissions from construction sites resulting in disturbance of special conservation interest species of the SPA.
- Light emissions from construction site, resulting in disturbance of special conservation interest species of the SPA.
- Introduction of non-native alien species during construction works.

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Once in place the infrastructural elements of the plan will lead to an increase in tourism activity within the plan area. The potential operational effects of the plan primarily relate to the projected increase in tourism activity on Lough Derg associated with ferry transportation, increased tourism activity at the Mountshannon visitor centre and on Inis Cealtra. The future promotion of the island as a visitor destination, in combination with the recently approved Lough Derg Canoe Trail project, is also likely to lead to an increase in kayak activity around the island as well as landing on it.

The increased presence of people on the lake, at Mountshannon lake shore and Inis Cealtra will have the potential to result in disturbances to populations of special conservation interest species of the SPA and the wetland habitats upon which they, and other waterbird species, rely.

6.2 LIKELY SIGNIFICANT EFFECTS TO LOUGH DERG SPA

The elements of the Plan that are likely to have the potential to effect the conservation status and integrity of Lough Derg SPA relate to the overarching aim of the Plan as well as the specific Objectives and Actions outlined therein. Chapter One of the Plan sets out its Vision and Aims. A total of 28 Objectives are defined in the Plan. The Plan's Vision, overall aims and objectives are to be realised through the implementation of a five-year Action Plan outlined in Chapter Five of the Plan. It is the Vision, Aims, Objectives and Actions of the Plan that could have the potential to influence the conservation status and integrity of Lough Derg SPA. The Screening exercise assesses the potential for vision, aims, objective and actions to result in likely significant effects to Lough Derg SPA and its associated special conservation interests.

The assessment of likely significant effects is based on whether the vision, aims, objectives or actions of the Plan have the potential to result in land use effects. Land use effects associated with these elements of the Plan will relate to the provision of infrastructure which could result in negative ecological effects during construction and operation or the increase in tourism and associated potential for human disturbance. As such all elements of the Plan with the potential to result in land use effects have been screened in and require Stage 2 Appropriate Assessment.

Reasons for Screening Out elements of the Plan relate to:

- Aims/Objectives/Actions expressing policy indicating the general intention of the Plan without prescribing specific land use intentions;
- Aims/Objectives/Actions that will have the potential to result in positive effects for the conservation status of the Lough Derg SPA and associated special conservation interests; and
- Aims/Objectives/Actions that will not have any potential to result in land use activity.

The Screening of the Plan for its potential to result in likely significant effects is structured as follows:

- Table 6.1 Screens the Vision and overarching aims of the plan.

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- Table 6.2 Screens the objectives of the Plan; and
- Table 6.3 Screens the Action Plan.

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Table 6.1: Screening of the Plans Vision & Aims

Element	Screen In/Out	Reason
<p>Vision:</p> <p>Inis Cealtra, protected for future generations through exemplary conservation management and interventions and through a balanced and sustainable management approach to providing access for visitors and the local community. An expansion of the visitor experience, enjoyment and respect for the island's living and built cultural heritage and that of the greater area, and an increase in the long-term, socio-economic benefits to both the local community and the wider region</p>	In	While this vision aims to ensure that the natural heritage of Inis Cealtra and the surrounding area is protected for future generations through sustainable development an increase in tourism activity at the island and between Mountshannon and Inis Cealtra could potentially result in likely significant effects to the status of the Lough Derg SPA.
<p>Overarching Aim:</p> <p>To ensure a balance is struck between attracting the maximum number of visitors to Inis Cealtra and ensuring that the natural and built heritage of the island, above and below ground, is not negatively impacted by an unsustainable volume of visitors. In addition, it is critical</p>	In	See reasons set out for the Plan's Vision above.

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that the unique ambience and character of the island is not placed at risk through increased visitor numbers. In conjunction with this to maximise the socio-economic benefits from increased visitor numbers to the island and wider Lough Derg area to support a sustainable rural economy.		
Values: The above approach is to be implemented through a series of key objectives set out throughout the Plan all of which have the following	Out	Each of the Objectives of the Plan are Screened below.
Have an ethos of minimum intervention on Inis Cealtra	Out	This approach aims to minimise the infrastructural footprint of the Plan on Inis Cealtra and well as ensuring that the built and natural heritage of the island is maintained and enhanced.
Repair and stabilise the built heritage of Inis Cealtra	Out	Section 5.5 of the Plan outlines the works proposed under the Plan for repairing and stabilising the built heritage of Inis Cealtra. These works will concentrate on the existing structures on the island will not interfere with special conservation interests of the Lough Derg SPA.

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Preserve the archaeological heritage, historic areas and cultural heritage of Inis Cealtra	Out	The preservation of the archaeological heritage, historic areas and cultural heritage of Inis Cealtra will not in itself have the potential to result in likely significant effects to the Lough Derg SPA.
Safeguard the tangible and intangible values of the Inis Cealtra and the host community	Out	The natural heritage of the island represents a significant value of the island and any aims to safeguard this heritage will represent a positive effects for the Lough Derg SPA.
Ensure maintenance and preservation of the site in the short, medium and long term	Out	Maintaining and preserving the island, including its natural heritage will represent a positive aim for the future status of the Lough Derg SPA.
Enhance understanding and heighten public awareness of Inis Cealtra	Out	Enhancing the understanding and public awareness of the natural heritage of Inis Cealtra will have the potential to have positive outcomes for the Lough Derg SPA.
Provide socio-economic benefit to the local community through increased visitor revenue	Out	This aim will not in itself have negative consequences for the Lough Derg SPA.

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Table 6.2: Screening of the Plans Objectives

Objectives	Screen In/Out	Reason
Objective 1. To commence the nomination of Inis Cealtra, in combination with the other significant early medieval monastic sites, as a serial World Heritage Site in the near term	Out	The 'Early Medieval Monastic Sites' referenced in this objective relate to Clonmacnoise, Durrow, Glendalough, Kells and Monasterboice-these form a tentative World Heritage Site listing. The nomination process for World Heritage Site status would further support the cultural heritage and potential visitor proposals for the plan.
Objective 2: To restrict access to the island to a maximum number at any one time of 100 persons (excluding guides and staff), no more than 400 in any day and a maximum of 45,000 over the course of the year. These numbers should be taken as the maximum number of persons arriving on the island for all subsequent studies, projections, models and projects	In	The presence of an increased number of tourists visiting the island will have the potential to result in disturbance to: special conservation interest bird species known to use the fringes of the island as a roosting site; Wetland habitat fringing the island that has the potential to function as a breeding site for special conservation interest bird species.
Objective 3. To have primary visitor access to the island be via a ferry from a new visitor centre in Mountshannon with	In	The Plan proposes that access to Inis Cealtra will be via two 50-seat ferries along a fixed route from Mountshannon to a new

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<p>a small access charge and to afford the local community be able to continue accessing the island free of charge with established local tourism businesses using a discounted permit system</p>		<p>pier at the northeast end of Inis Cealtra.</p> <p>Noise and visual stimuli will be generated by the ferry along its crossing route and special conservation interest bird species of the SPA may be at risk of disturbance by such stimuli.</p> <p>Such disturbance along a regularly used crossing route could lead to the effective abandonment of the area of the lake along and adjacent to the route crossing.</p> <p>As such the potential for this element of the Plan to result in likely significant effects to special conservation interest bird species requires further assessment.</p>
<p>Objective 4: To procure a new visitor centre to serve the needs of visitors seeking to learn more about the island.</p>	<p>In</p>	<p>The development of a visitor centre in the vicinity of the lakeshore at Mountshannon will have the potential to result in disturbance to special conservation interest bird species during the construction phase.</p> <p>The construction and operation phase will have the potential to generate contaminated surface water from denuded areas, construction materials such as fuels and cement and parking areas during the operation phase.</p> <p>Wastewater will be generated at the visitor centre during the</p>

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		operation phase and the release of any wastewater from the centre to the lake will have the potential to undermine water quality.
Objective 5: To develop a new visitor centre for Inis Cealtra at the south end of the community park in Mountshannon (Site 2) with views to the island and access from the main street via the Aistear Park. Alternative options assessed for the development of a visitor centre, including the Old Rectory and the Aistear Centre, can be explored further should the new-build option prove unfeasible.	In	See Screening for Objective 16 above
Objective 6: To engage a professional interpretation design company to design and develop an interpretive experience for the visitor centre taking account of the wealth of academic, social and anecdotal information assembled in this Plan (including Appendix 1).	Out	This Objective will not result in land use activities.
Objective 7: To provide in a new visitor centre the following services and facilities for visitors; audio visual auditorium, exhibition, visitor information and ticketing, café, retail, toilets, meeting rooms, spiritual space, pilgrim traveller	Out	This Objective will not result in land use activities.

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facilities, connection to ferry point and drop off points with limited parking facilities		
Objective 8: To have access across the lake to Inis Cealtra from Mounshannon.	In	See reasons outlined for Objective 2 above.
Objective 9: To construct a new landing facility at a location that allows both a safe passage to and safe landing and embarkation on/from the island. This will become the main landing point for visitors to the island	In	<p>The loss of wetland habitats as a result of the construction of the new pier have the potential to result in disturbance to special conservation interest bird species and loss of wetland habitat.</p> <p>The construction and operation of the pier will have the potential to disturb special conservation interest bird species via noise and visual stimuli and the presence of people.</p> <p>The implication of these potential impacts on the conservation status of the SPA and its special conservation interests requires further assessment.</p>
Objective 10: To introduce new visitor facilities on Inis Cealtra comprising pathways around monuments and the	In	As this Objective represents the key physical interventions on Inis Cealtra, additional assessment and commentary is provided

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<p>island, suitable orientation signage, new pods to provide for emergency, toileting and staff facilities, wastewater, benches and improved landing points for kayaks.</p>		<p>on each of the elements listed therein.</p>
<p>Pathways</p> <p>Pathways around the monuments to enable controlled access but also prevent people going into or on sensitive structures</p> <p>Looped pathway around the island to facilitate access and visitor flow, with visitors being requested to keep to the pathways.</p> <p>In a small number of areas which are currently subject to occasional ponding and where visitor gather to hear a guide, improvements of the ground surface (by laying landscape modules above the current ground surface only) should be carried out</p> <p>These must be constructed to National Trails Office Multi Access standard.</p>	<p>In</p>	<p>The proposed pathways outlined in the Plan (see Figure 3.4 above) are largely restricted to improved grassland habitat and with the exception of the section of pathway leading from the proposed new pier are buffered back from the lakeshore by a minimum of 25m. In addition the majority of the pathways proposed on the island are screened from the lakeshore by existing woodland habitat. The closure of the Inis Cealtra for formal tourism activities during the winter months between mid-October and mid-March will ensure that over-wintering species known to use the grassland habitats on the island as a roost/foraging site (e.g. Greenland white-fronted geese; Snipe) will not experience disturbance.</p> <p>The section of the pathway not screened by existing woodland vegetation comprise:</p> <p>A circa 145m length of the Main Looped Walk between the proposed new pier and pods:</p> <p>A circa 75m length of the island looped walk in the</p>

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		<p>south/southwest end of the island; and</p> <p>A circa 125m length of the island looped walk in the south/southeast side of the island.</p> <p>Wetland habitats fringing these sections of the proposed pathways provide suitable roosting and breeding habitat for wetland bird species. The construction and operation of these pathway will have the potential to undermine the capacity for these wetland habitats to function as suitable roosting and breeding habitat for wetland bird species. Their exposure to these sections of pathway will leave them susceptible to potential disturbance arising from noise and/or visual stimuli and the presence of people during the construction and operation phase.</p> <p>In addition this section of the proposed Main Loop Pathway passes through wetland habitats including marsh, with links to the Annex 1 habitat hydrophilous tall herb vegetation (6430) and wet grassland habitat. The provision of this section of pathway will result in the loss of approximately 250m².</p> <p>In light of the above the significance of potential disturbance special conservation interest bird species and loss of wetland</p>
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		habitat requires further assessment.
Orientation signage	Out	The proposed orientation signage for Inis Cealtra will be minimal in extent and will not result in any loss of wetland habitat or disturbance to special conservation interest bird species.
New pods to provide for emergency, toileting and staff facilities	Out	<p>A total of four pods are proposed in the Plan amounting to a combined footprint of 120m². The proposed location of the pods is in improved grassland in a location sheltered from the surrounding lakeshore. The pods will be pre-fabricated structures and will be assembled on site by hand and using hand held tools.</p> <p>There assembly will be completed over a short time-frame (estimated 3 to 4 days) and will generate minimal disturbance.</p> <p>The proposed location will ensure that these structures do not result in visual stimuli.</p>
Wastewater	In	The provision of a toilet pod on the island will lead to the generation of wastewater. While it is acknowledged that the proposed toilets will be compost toilets with minimal water usage any release of untreated wastewater to Lough Derg will

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		have the potential to result in adverse effects to the status of special conservation interest wetland habitats of the SPA.
Benches	Out	Benches will be provided primarily as resting points. They will be placed along the proposed pathway infrastructure. The provision of such benches in these areas will not have the potential to result in disturbance effects to special conservation interest bird species over and above that outlined for pathways above.
Improved landing points for kayaks	In	<p>Kayak landing points are proposed for the northwest pier. This pier is currently utilised as a crossing point for livestock and is also used as a landing point by current tour operators and kayakers. No sensitive fringing wetland habitat occurs at the northwest pier landing point.</p> <p>There is sufficient capacity at this location to provide one to two landing points for kayakers without encroaching upon surrounding wetland habitats.</p> <p>However it is noted that promotion of landing points for kayakers will have the potential to result in increased kayak traffic to and in the vicinity of the island. The presence of an</p>

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		<p>increased number of kayakers landing at the island will have the potential to result in the following:</p> <p>Increase disturbance to special conservation interest bird species from kayaking; and</p> <p>Increased risk of spreading non-native invasive species.</p> <p>The potential significance of these effects on the conservation status of the SPA and special conservation interests requires further assessment.</p>
<p>Objective 11: To remove, or if necessary relocate, the OPW shed and wooden fencing and the shed functions served by one of the new 'pods' which will provide spaces necessary to meet a minimum level of accommodation required of a public facility with employees.</p>	<p>Out</p>	<p>The removal of the OPW shed will be completed over a short timeframe (over a number of days) and will not have the potential to result in significant effects to the status of the SPA or special conservation interests.</p>
<p>Objective 12: To develop an Accessibility Plan, that facilitates accessing the monuments; maintaining their protection and maintaining the character and ambience of the setting</p>	<p>Out</p>	<p>The accessibility plan sets out the rational for the proposed pathways and associated infrastructure on the island such as benches, signage etc. The land use infrastructure associated with the Plan has been screened above under Objective 5.</p>

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Objective 13: To install a sustainable natural toilet system on the island	In	The provision of toilet facilities on the island has been screened under Objective 5 above.
Objective 14: To limit impacts on archaeology, ecology and the character of Inis Cealtra, the island will be closed to visitors during winter and at other time the maximum numbers of visitors will not be exceeded.	Out	This Objective seeks to avoid disturbance to the island during over-wintering season when land use activities have a greater footprint and when a range of overwintering bird species are supported by Lough Derg.
Objective 15: To develop an interpretive approach that focuses on the heritage of Inis Cealtra and endeavours to broaden visitor interest to encompass other important heritage sites in the region also. And to have this holistic focus be reflected in all interpretative activities of the Plan	Out	This objective will not result in land use activities.
Objective 16: To develop a comprehensive presentation and communication strategy grounded in the human interaction of guides rather than signage (on the island) and relying on both traditional and modern means and technologies (at the visitor centre).	Out	The use of guides on the island will provide a more authentic and interactive experience for visitors as well as providing increased supervision of visitor behaviour on the island.
Objective 17: To provide a warden during the open season	Out	The person in this position would have some training in health

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<p>with specific responsibility for caretaking of the island from first to last boat and to provide guides and ushers to fulfil other specific functions necessary for the smooth safe running of visitor operations on the island.</p>		<p>and safety as well as an understanding of archaeological and natural heritage protection and agriculture. Duties would also include monitoring of monuments, paths etc and occasional monitoring of water quality.</p> <p>As with the professional guides and ushers, interpretation would be enhanced through these proposals.</p> <p>More generally, these proposals would assist in terms of managing and monitoring visitors as well as encouraging responsible visitor behaviour.</p>
<p>Objective 18: To manage entry into the area known as the Saints' Graveyard so it is supervised and controlled, and so that walking on the medieval grave-slabs is deterred in order to prevent further wear and damage to them</p>	<p>Out</p>	<p>This Objective relates to the protection of archaeological features and will not result in land use activities with potential implications for the Lough Derg SPA.</p>
<p>Objective 19: To seek the assistance of the OPW in the management of Inis Cealtra</p>	<p>Out</p>	<p>This Objective will not in itself result in land use activities.</p>
<p>Objective 20: To develop a landscape management plan in</p>	<p>Out</p>	<p>The aim of this Objective is to manage Inis Cealtra in a manner</p>

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consultation with an archaeologist an ecologist, and an agricultural consultant or farmer and to include active management of vegetation by sheep.		that results in positive effects for the status of habitats and species on the island.
Objective 21: To create a Community forum representing the interest of the local communities in the development and managing of the island's future including the Local Access provision.	Out	This Objective will not result in land use activities.
Objective 22: To discourage and, if persistent, prohibit camping, unaccompanied tours, and fishing on the island and to prohibit dogs except companion dogs and sheep dogs being used for management purposes.	Out	The implementation of this Objective will have the potential to result in positive effects by avoiding disturbance to habitats and fauna associated with such activities.
Objective 23: To commission a Conservation Management Plan focussing on Inis Cealtra's archaeology and monuments prior being initiated on or for the island.	Out	This Objective sets out the intention to prepare a Conservation Management Plan for the island archaeology and monuments. Should this Plan contain any land use elements then these elements will be assessed for their potential to result in likely significant effects to the Lough Derg SPA.
Objective 24: To target the market segments previously identified for the lake in the new marketing strategy ie;	Out	This Objective will not in itself result in land use activities.

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Culturally Curious, Great Escapers and Nature Lovers		
Objective 25: To provide the ferry service to the island using a fleet of two 50-seater ferries.	In	See Screening for Objective 2 above.
Objective 26: To develop a branding strategy, to include naming, titles, logos, digital and print media initiatives, through a single party services contract with the content (of the appropriate sections of) the Plan forming the brief to tenderers	Out	This Objective will not in itself result in land use activities.
Objective 27: To create a dedicated website for Inis Cealtra visitor along with a social media presence so as to provide information about the island and centre and to promote the use of Inis Cealtra as the islands name.	Out	This Objective will not in itself result in land use activities.
Objective 28: To carry out urgent stabilisation, maintenance or conservation work as set out in this Plan to monuments on Inis Cealtra, as soon as possible but prior to any increase in visitor numbers or other development work being initiated	Out	The proposed works associated with this Objective will not have the potential to disturb the special conservation interest bird species or wetland habitats of the Lough Derg SPA.

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6.2.1 Screening of the Plan's Action Plan

Section 5.6 of the Plan includes a 5-year action plan covering the following themes:

- Organisation and Management
- Pre-Development, Survey, Design and Enabling Works on Inis Cealtra
- Product Development
- Product Development – Supporting Measures
- Marketing and Communication

The follows tables present the actions prescribed in the Plan under each of these theme headings and provides an assessment as to whether or not the actions will have the potential to result in land use effects that could cause likely significant effects to the Lough Derg SPA.

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Table 6.3: Screening of Action Plan

Action Ref	Action	Assessment
01-01	Establish Inis Cealtra Management Team (ICMT) to coordinate development	The action will not in itself result in land use effects.
01-02	Establish Inis Cealtra Community Forum	The action will not in itself result in land use effects.
01-03	Secure land required for Mountshannon visitor centre and parking	The action will not in itself result in land use effects.
01-04	Set up Inis Cealtra development progress website to inform	The action will not in itself result in land use effects.

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	stakeholders and aid promotion	effects.
01-05	Remove cattle from Inis Cealtra and replace with a defined number of sheep (a 'quiet' breed) for grazing during a defined period	The action will not in itself result in land use effects.
01-06	Apply for Ministerial consent from the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs as required under National Monuments legislation (prior to any works taking place on Inis Cealtra)	The action will not in itself result in land use effects.
01-07	Hire a Inis Cealtra Marketing and Development Coordinator	The action will not in itself result in land use effects.
01-08	Issue tender for service management for operation of Inis	The action will not in itself result in land use

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	Cealtra Visitor Centre (including café franchise) in MS under contract	effects.
01-09	Negotiate phase out and compensation for current ferry operators	The action will not in itself result in land use effects.
Action Ref	Survey, Design And Enabling Works On Inis Cealtra	Assessment
02-01	Prepare Inis Cealtra Conservation Management Plan to protect the island and its heritage, and to guide and inform development	This will have the potential to result in positive effects for the island's natural heritage by enhancing the status of grassland, woodland and wetland habitats and providing for their management and protection.
02-02	Commission geophysical survey of Inis Cealtra and analysis by archaeological experts	Noted, good practice and recommended in mitigation measures.
02-03	Commission underwater archaeological survey	As above

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02-04	Commission best-practice conservation of built heritage (incl. masonry, earthworks, etc.) on Inis Cealtra	As above
02-05	Commission best-practice conservation of sculptural heritage (incl. cross-slabs, grave-slabs, crosses, etc.) on Inis Cealtra	As above
02-06	Commission detailed business plan for operation of Inis Cealtra Visitor Centre	The action will not in itself result in land use effects.
02-07	Commission Landscape Management Strategy for Inis Cealtra	As with the preparation of a Conservation Management Plan, this action will have the potential to result in positive effects for the island's natural heritage.
02-08	Design of Inis Cealtra pods, including surveys, ministerial consents, planning, etc.	The design of the pods, as currently envisaged by the plan and as set out in Section 3.3.4.4 above is not anticipated to have the potential to result in likely significant effects to special conservation interests species or other wetland bird species of the Lough Derg SPA.

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02-09	Design of Inis Cealtra landing point, paths, etc. (including above)	As outlined in Table 6.1 the design and subsequent provision of the preferred land point and associated paths will have the potential to result in likely significant effects to the Lough Derg SPA
02-10	Commission interpretation & signage strategy for Inis Cealtra Visitor Centre and Inis Cealtra (conforming to Lough Derg Signage Strategy & Official Languages Act 200, and see section 4.8 for detail and interpretation brief in chapter 6 of Appendix 1)	The action will not in itself result in land use effects.
02-11	Design of visitor centre in Mountshannon (and parking) including surveys, planning, etc.	As outlined in Table 6.1 the design and subsequent provision of the visitor centre will have the potential to result in likely significant effects to the Lough Derg SPA
02-12	Commission Construction of Inis Cealtra landing facilities, paths and Inis Cealtra pods	As outlined in Table 6.1 the construction and provision of infrastructure on the island will have the potential to result in likely significant effects to special conservation interests species and other wetland bird species supported by the Lough Derg SPA.

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Action Ref	Main Development Projects	Assessment
03-01	Commission interpretation and signage for Inis Cealtra Visitor Centre and Inis Cealtra including multi-media (see section 4.8 for detail and interpretation brief in chapter 6 of Appendix 1)	See 7.2 Pre-Development, Survey, Design And Enabling Works On Inis Cealtra above.
03-02	Commission construction of Inis Cealtra Visitor Centre (to be informed by required interpretative content) and on-island facilities including piers, trails, toilets and kayak access points (see chapter 4 for detail) to be accompanied by and ecological, archaeological impact assessment and Habitats Directive Assessment and with Construction Environmental Management Plan	See 7.2 Pre-Development, Survey, Design And Enabling Works On Inis Cealtra above.
03-03	Commission 3-year contract for ferry service from Mountshannon to Inis Cealtra	The action will not in itself result in land use effects.
Action Ref	Local Access	Assessment
	Non-commercial local access to remain in place	See 7.6 Monitoring, Evaluation and Impact

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	Camping, unaccompanied tours, fishing, will be discouraged (and if persistent) later prohibited	Assessment above for assessment.
	Access to continue to St Mary's and St Caimín's burial grounds and pre-existing plots to remain in use for plot holders. No new plots should be assigned and no new graves opened up. The Saints' Graveyard can no longer be used for burial purposes (for further detail see 4.5.5)	
Action Ref	SUPPORTING MEASURES	Assessment
	Introduce online timed ticketing system for entry to Inis Cealtra	The action will not in itself result in land use effects.
	Produce Volunteer Management & Training Plan	The action will not in itself result in land use effects.
	Commission accessibility audit and drive increased accessibility where possible	The action will not in itself result in land use effects.

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	Hire Inis Cealtra wardens/guides (see section 4.8 of chapter 4)	The provision of wardens and guides on the island during the operation phase will represent a positive effect in that wardens tasked with the responsible environmental stewardship of the island and will be tasked with influencing good environmental behaviour of visitors to the island.
Action Ref	MARKETING AND COMMUNICATION	Assessment
	Issue bi-annual progress newsletter to local community online through development website	Noted, no landuse impacts identified for these actions.
	Brand Identity	
	Commission logo for Inis Cealtra (see chapter 5 for detail)	
	Digital Strategy	
	Commission a Inis Cealtra digital and print media strategy including implementation to cover: website, social media	

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	(Facebook, Instagram, Twitter, Snapchat) and short videos for use at trade fairs and for embedding on websites. Website to include online booking capability (see chapter 5 for detail)	
	Include and optimise information for Inis Cealtra on www.discoverireland.com	
	Promotional Activities	
	Organise familiarisation visits for domestic and overseas tour operators and accommodation providers	Noted, as above.
	Regular attendance at trade shows/fairs and presentations in main centres	
	Develop bundled offers for transport, accommodation and activities e.g.	

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	rail, accommodation, bike hire for both cycling and walking	
	Engage with domestic and overseas journalists to get favourable online and print articles	
	Education & training	
	Develop education programme for schools and position Inis Cealtra as a Discovery Centre for primary schools	Noted, positive impacts on awareness raising and cultural heritage
	Develop training programme for interpretative guides	As above
	World Heritage Site Nomination	
	Re-nominate Iniscealtra as part of a serial nomination World Heritage Site in combination with the early medieval ecclesiastical sites of Clonmacnoise, Durrow, Glendalough, Kells and Monasterboice	As above.

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Action Ref	Monitoring, Evaluation And Impact Assessment	Assessment
	Commission and implement visitor monitoring strategy for Inis Cealtra to include numeric data through installation of trail counters, visitor satisfaction and carrying capacity	Noted, this is also a mitigation measure
	Monitor visitor numbers with a maximum number of 100 on the island at any one time, a maximum of 400 per day and a maximum annual capacity of 45,000	These numbers will represent an increase in the number of people on the island during the open season from mid-March to mid-October and, as noted in Table 6.1, will have the potential to result in disturbance to wetland habitat and the wetland birds for which they provide roosting and foraging habitat.
	Maximum visitor capacity monitored against visitor impacts (on archaeology, ecology, landscape, etc.) and adjusted on an iterative basis	The ongoing monitoring of the island and the inclusion of a provision to adjust the operating regime in the event of adverse environmental effects being identified represents a positive measures in the Plan.
	Maximum number of tour coaches to be capped at 4 arrivals/day	This will not result in land use effects with the

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		potential to influence the status of the Lough Derg SPA.
	Inis Cealtra to be closed to visitors between November and February	This represents a positive measure in the Plan in that the operating season will for the most part be outside the overwintering season for wetland bird species.
	Overnight camping to be banned on Inis Cealtra	This represents a positive measures in the Plan in that it will avoid night time disturbance on the island and eliminate other potential impacts associated with camping such as litter, wastewater generation, trampling etc.
	No commercial access allowed to Inis Cealtra except for guided kayak tours and five small pleasure boats from Lakeside Holiday Homes	This represents a positive measure in the Plan it that it provides controls on the visitor numbers to the island.
	Access by non-locals to the island other than by the Visitor Centre/Ferry or outside of its hours and season of operation is to be restricted	As above

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	Visitor centre to prioritise local people for employment and source a minimum proportion (50%) of food from the locality	This will not result in land use effects.
	Provide code of good practice for kayakers to all kayak hire companies in the Lough Derg area	This represents a positive measure in the Plan and ensures consistency between the Plan and environmental safeguards adopted for the Lough Derg Canoe Trail.
	Cruiser hire companies asked to inform visitors renting boats that insurance is not valid on Inis Cealtra	This represents a positive measure in the Plan in that it will discourage additional boat visitors not supported by the Plan.

Tables 6.1 to 6.3 outline the results of the Screening of the land use elements of the Plan. Of the 28 Objectives set out in the Plan, 12 have been Screened it for their potential to result in likely significant effects to the Lough Derg SPA. The elements of the Plan that aim to be implemented by this Objectives relate to the following:

1. The increase in the presence of tourist on Inis Cealtra
2. The provision of a ferry crossing between Mountshannon and Inis Cealtra;
3. The provision of tourist infrastructure facilities on Inis Cealtra such as a new pier, pathways and toilets;
4. The construction and operation of a visitor centre at Mountshannon in the vicinity of the lakeshore;
5. The provision of kayak landing points and the promotion of Inis Cealtra as a kayak destination

Actions that have the potential to result in likely significant effects to the Lough Derg SPA have been identified in Table 6.3 and the potential effects of these overlap with the potential effects of the Plan's Objectives and are related to the five elements outlined above.

Table 6.4 below provides a summary of the effects of the Plan's Objectives and Action Plan by screening these five elements of the Plan. The Screening Summary provided in Table 6.4 uses established criteria as outlined in EC guidance (EC, 2001) to screen these elements of the Plan. A conclusion of this Screening exercise is provided in Table 6.4.

Table 6.4: Screening of Potential Effects to Lough Derg SPA

Assessment Criteria	
Describe any likely direct, indirect or secondary impacts of the plan (either alone or in combination with other plans or projects) on the European Site by virtue of:	
Size and Scale	<p>The plan has been described in Section 3 above. The plan involves the construction of both small and large scale infrastructure at Inis Cealtra and Mountshannon. Minor infrastructural elements include the installation of news pods and new landscaping.</p> <p>The main infrastructural elements to be installed at Inis Cealtra are the new pier</p>

	<p>on the northern shore, the preferred option for which will be a floating pontoon and new paths on the island.</p> <p>The main infrastructural element at Mountshannon and for the Plan is the provision of a new visitor centre and associated car parking.</p> <p>The provision of a two 50-seat ferries between Mountshannon and Inis Cealtra represents a key infrastructural element of the Plan.</p> <p>Site management recommendations outlined in the Plan, such as the preparation of a landscape management plan and the management and enhancement of habitats in Inis Cealtra will have the potential to result in positive effects for the island's natural heritage.</p>
<p>Land-take</p>	<p>Elements of the plan that will result in land take within the Lough Derg SPA relate to the infrastructural elements required for Inis Cealtra. All of these elements, with the exception of the proposed new pier on the northern end of the island, the section of pathway leading from the new pier to the existing path on the island, and the proposed reed bed treatment facility, will be located outside of wetland habitats, on terrestrial improved agricultural grassland habitat.</p> <p>The indicative location of the new pier, the path leading from the new pier and the proposed reedbed will be located within wetland habitats, which are listed as a special conservation interest of the SPA. The loss of wetland habitats as a result of the construction of the new pier and associated path could have the potential to result in significant effects to this special conservation interest of the SPA. As such the potential implications of this loss of wetland habitat will have on the status of this special conservation interest of the SPA requires further assessment as part of a Stage 2 Appropriate Assessment.</p> <p>The proposed visitor centre at Mountshannon will not result in any land take within the SPA, or the loss of any lands relied upon by special conservation interest species of the SPA.</p>
<p>Distance from Conservation Sites or key features of the site</p>	<p>The Plan Area is located within the Lough Derg SPA.</p> <p>The indicative location of the proposed new pier, the first 145m of pathway leading from the new pier and reedbed are located within wetland habitats that</p>

	<p>include mesotrophic lake, marsh habitat and wet grassland habitat.</p> <p>The pathway leading from the proposed new pier will cross over existing marsh habitat, while minor sections of the reedbed facility will also be situated on marsh habitat. The marsh habitat at these locations is representative of the Annex 1 habitat Hydrophilous tall herb vegetation (6430) in unfavourable conservation status.</p>
<p>Excavations and Resource requirements</p>	<p>Excavations will be required for the construction of the proposed new visitor centre at Mountshannon. Excavations will be avoided for all construction works associated with infrastructure on the island.</p>
<p>Emissions</p>	<p>Emissions will arise during both the construction and operation phase.</p> <p>Potential construction phase emissions will include:</p> <p>Surface water emissions from the proposed visitor centre construction site to Lough Derg. Such emissions will have the potential to perturb the water quality of the lake, which is representative of a special conservation interest wetland habitat of the SPA.</p> <p>Noise emissions from construction activity. Noise emissions are likely to be most substantial during the construction of the visitor centre. It is envisaged that only hand held machinery, with limited noise output, will be required for construction of infrastructural elements proposed for Inis Cealtra. Noise generated during the construction of the visitor centre will have the potential to disturb special conservation interest species occurring in the surrounding vicinity of this location.</p> <p>Light emissions: light emissions will not arise during the construction phase. All construction activity associated with proposed infrastructural elements of the plan will be completed during daylight hours.</p> <p>Potential operation phase emissions will include:</p> <p>Hydrological emissions: hydrological emissions generated during the operation phase will include wastewater generated by tourists and/or staff at the visitor centre and Inis Cealtra and surface water runoff from vehicle parking areas associated with the visitor centre. Any emissions of wastewater or contaminated surface water runoff from parking areas to the lake will have the potential to perturb special conservation interest wetland habitat.</p>

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	<p>Noise: noise will be generated by the proposed ferry as well as tourists and staff at the visitor centre and Inis Cealtra. These sources of noise could result in disturbance to special conservation interest species of the SPA.</p> <p>Visual Stimuli: the ferry and kayakers visiting the island will represent a visual stimuli for wetland bird species that could result in disturbance to foraging individuals.</p> <p>Increases in Tourism: The presence of increased numbers of people on Inis Cealtra, during the open season will have the potential to result in the disturbance of special conservation interests species, coot and other wetland bird species that utilise the marginal habitats of the island as roost sites.</p> <p>Lighting: New lighting in the vicinity of the visitor centre: No new lighting is proposed for Inis Cealtra. Any external light installations associated with the Visitor Centre in Mountshannon, will follow best practice guidance as recommended by Bat Conservation Trust (2009), Bat Conservation Ireland (2010) and Stone (2013).</p> <p>Non-native Species: The ‘emission’ of non-native, invasive species to Lough Derg as a result of visitor activity: Increased activity on the lake by kayakers visiting the island as a result of the Plan will also increase the risk of introducing non-native invasive species to Lough Derg, which already supports a number of invasive species that have resulted in significant disruption to the ecology of the lake.</p>
<p>Transportation requirements</p>	<p>The main transportation element associated with the plan will be the operation of a new ferry from Mountshannon to Inis Cealtra.</p> <p>This ferry will operate along a single route between the visitor centre at Mountshannon and Inis Cealtra and it is estimated that there will be approximately 8 number of ferry journeys per day during the plans operational season between mid-March and mid-October.</p>

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<p>Duration of construction, operation etc.</p>	<p>No information on the duration of the construction for infrastructural elements of the plan is available at this stage. Construction phase schedules will be established for each of the infrastructural elements at project level.</p> <p>However the visitor centre is the most significant item of infrastructure to be provided as part of the plan and it is likely that the construction of this will take at least 24 months.</p>		
<p>In-Combination Effects</p>	<p>A list of plans and projects relevant to Lough Derg is provided below and each of these are evaluated for their potential to combine with the Plan to result in likely significant effects.</p>		
	<p>Plan Name</p>	<p>Comment</p>	<p>Cumulative effects</p>
	<p>Clare County Development Plan 2017 - 2023</p>	<p>This Plan contains Policies and Objectives for the sustainable development and management of County Clare over the six year period from 2017 to 2023. The Plan contains numerous Policies and Objectives that will combine with and influence the implementation of this Plan. Examples of such Objectives are Tourism Objectives CDP9.4; 9.13; 9.17; World Heritage Site Designation Objectives CDP14.23; Architectural Heritage CDP 15.1 – 15.5; and Natural Heritage Objectives such as CDP14.2; 14.3; 14.7; 14.8; 14.11; 14.13; 14.14; 14.17;</p>	<p>Policies and Objectives of the CDP support the sustainable development of tourism and the aim of this Plan for Inis Cealtra and Mountshannon. Other Objectives of the CDP such as the Objectives relating to architectural heritage and natural heritage aim to ensure that such development is implemented in a sustainable manner and does not result in likely significant effects to European Sites or adversely effect the status of valuable architectural and natural heritage receptors.</p>

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	14.19; 14.26.	
County Clare Heritage Plan 2011- 2017	The Plan includes a number of objectives and actions relating to natural and cultural heritage such as ‘Work to ensure that Clare County Council fulfils its obligation under the European Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora)’.	No in- combination impacts are predicted as a result of implementation of the Plan
Neighbouring County Development Plans	Lough Derg and the River Shannon support a number of European and National level designations in particular the following: Lower River Shannon SAC Lough Derg North East Shore SAC Lough Derg SPA The following County Development Plans include the Lough Derg within their plan sphere of influence: Limerick City and County 2010-2016	No in- combination impacts were predicted as a result of implementation of the Plans

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	<p>Galway County Development Plan 2015-2021</p> <p>and North Tipperary County Development Plan 2010 -2016 .</p> <p>These plans were subject to full SEA and AA and concluded that subject to full adherence and implementation of measures likely significant effects were not identified.</p>	
<p>Shannon River Basin District Management Plan</p>	<p>The Plan underwent SEA and AA.</p> <p>2nd Cycle River Basin Management Plans: 2015-2021 – are currently being prepared and consultation due December 2016. Shannon now part of a national River Basin District.</p>	<p>No in- combination impacts are predicted as a result of implementation of the Plans</p>
<p>Shannon CFRAMS Study</p>	<p>SEA Scoping Report available. Draft CFRAMS available for Shannon unit.</p> <p>Inis Cealtra has been identified as an Area of Further Assessment (AFA) through this process. Since the CFRAMS studies are at</p>	<p>Uncertain impacts as recommendations and final CFRAMS not currently available.</p>

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	<p>the stage of drafting flood maps, it is too early to identify where there may be conflicts or potential for in- combination impacts arising.</p> <p>The Clare CDP 2017-2023 AA states :Therefore it is recommended that during the subsequent stages of the CFRAMS study that all proposals for works are in full compliance with the Objectives of the CDP 2017- 2023 and are consistent with the zoning proposals in the Settlement Plans</p>	
Wild Atlantic Way Operational Programme	<p>This was subject to SEA and AA and included a number of environmental management and monitoring requirements. Loops off the Wild Atlantic Way are proposed but Failte Ireland do not envisage these extending to Lough Derg (Failte Ireland, pers comm)</p>	No in combination impacts are predicted.
Ancient East	<p>No operational programme available at this point. Promotion of</p>	Uncertain impacts at this point due to no operational programme

	<p>itineries along the River Shannon (from 3 to 7 days) are listed on the ancient east website. Potential increase in visitor numbers associated with attractions and water based activities over time.</p>	to date.
Projects	Comment	Cumulative Effects
Water Extraction from Lough Derg	<p>Project planning is currently being undertaken by Irish Water into the delivery of water services to the Eastern and Midlands Region. Parteen close to Ardnacrusha is the emerging preferred option for this project.</p>	<p>At this stage uncertain impacts however the emerging preferred option was determined as being the most environmentally robust and would have minimal effects on water levels in the lake.</p> <p>Further information and assessment will be provided through the planning process and in particular the Environmental Impact and Habitats Directive Assessment processes.</p>
Lough Derg Canoe Trail.	<p>On a smaller scale a canoe trail comprising formal access points and enhancing facilities to support lakeside overnight stays has been granted permission. The</p>	<p>Yes. The future promotion of the island as a visitor destination, coupled with a increase in kayak activity following the provision of infrastructure</p>

		<p>proposed trail follows the shores of the lake and provides a stop off point approximately every 10km. The trail is envisaged to follow both the western and eastern shores of the lake to allow paddlers to select the most appropriate route taking into account the prevailing wind. Paddlers may choose to travel south to north or north to south also according to prevailing conditions and may even choose to circumnavigate the lake.</p>	<p>associated with this project, will have the potential to combine to result in an increase in kayak visits and activity at and surrounding Inis Cealtra.</p> <p>Increases in kayak activity at and around the island will have the potential to disturb wetland birds that use the island and its marginal habitats as roosting sites and foraging sites.</p>
<p>Describe any likely changes to the European Site arising as a result of:</p>			
<p>Reduction of habitat area</p>	<p>Infrastructural elements of the plan, particularly the proposed new pier, associated pathway and proposed reedbed on the northern shore of Inis Cealtra will have the potential to result in a reduction of wetland habitat, namely mesotrophic lake shore, marsh habitat representative of the Annex 1 6430 habitat, in unfavourable status and wet grassland habitat.</p>		
<p>Disturbance of key species</p>	<ul style="list-style-type: none"> Construction activity and the presence of tourists at Inis Cealtra will have the potential to result in disturbance to special conservation interest bird species of the SPA, should they be found to utilise habitats on or surrounding the island. These activities could also diminish the capacity of wetland habitats fringing Inis Cealtra to function as roosting or breeding sites for wetland bird species. 		

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Habitat or species fragmentation	<p>The plan is not predicted to have the potential to result in significant fragmentation of wetland habitats or special conservation interest species that rely on Lough Derg.</p> <p>The new pathway leading from the proposed new pier to the existing path network on the island will cross through marsh habitat. The potential for this path to result in a significant effect to the future conservation status of this habitat is considered further in Stage 2 Appropriate Assessment of this NIR.</p>
Reduction in species density	<p>Noise and the presence of people, plant and machinery during construction can have the potential to result in significant disturbance to bird species, resulting in reductions in densities in the vicinity of such receptors. The potential for construction activity associated with the proposed infrastructural elements of the plan to result in reductions of special conservation interest or other wetland bird species is considered further in Stage 2 Appropriate Assessment of this NIR.</p> <p>The operational phase with its projected increase in visitors and associated ferry transport will have the potential to disturb flocks of special conservation interest species occurring in the vicinity of Inis Cealtra and the proposed ferry crossing route and result in a decrease in population numbers in such areas over time. The significance of this effect is considered further in Stage 2 Appropriate Assessment of this NIR.</p>
Changes in key indicators of conservation status	<p>Key indicators of the conservation status of the Lough Derg SPA include population trends, distribution, productivity, and levels of disturbance to special conservation interest species of the SPA, as well as the area of wetland habitat supported by the SPA.</p> <p>In preceding sections of this Screening table a number of elements of the plan have been identified to have the potential to result in changes to these key indicators of conservation status. As such the significance of these changes requires further assessment.</p>
Describe any likely impacts on the European Site as a whole in terms of:	

<p>Interference with key relationships that define the structure and function of the site</p>	<p>The role of Lough Derg in providing roosting, breeding and foraging habitat for special conservation interest species, as well as other waterbird species, is the key function for which the lake is designated as an SPA. Elements of the Plan, identified in the preceding sections of this Screening table, will have the potential to interfere with the role of Lough Derg in supporting special conservation interest species, wetland habitats and other waterbirds.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p> <ul style="list-style-type: none"> • Loss • Fragmentation • Disruption • Disturbance <p>Change to key elements of the Site (e.g. water quality etc.)</p>	<p>Loss</p> <p>The Plan will have the potential to result in the loss of wetland habitat as a result of the installation of the proposed new pier and associated walking route. The significance of this potential effect is considered further in Section 7 Appropriate Assessment of this NIR.</p> <p>Fragmentation</p> <p>The Plan will not result in species fragmentation. The proposed path leading from the new pier will overlay wetland habitat and the potential for this new path to result in significant fragmentation of the marsh/Annex 1 6430 habitat is assessed further in Section 7.</p> <p>Disruption</p> <p>Hydrological emissions associated with the construction and operation phase have been identified as having the potential to undermine the status of mesotrophic lake habitat through perturbations to water quality. Any perturbations to the water quality of the lake will have the potential to result in the disruption of the ecology of this habitat.</p> <p>Increased human activity on the lake and at Inis Cealtra also has the potential to increase the risk of introduction of non-native invasive species to Lough Derg and Inis Cealtra. Non-native species have already resulted in significant disruption to the lake habitat of Lough Derg and further introductions of invasive species could exacerbate this effect.</p> <p>Disturbance</p> <p>Construction phase activity associated with the visitor centre will have the potential to result in disturbance to special conservation interest species of the SPA.</p> <p>Operation phase activities could potentially disturb wintering and breeding</p>

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	<p>special conservation interest species and other waterbirds of the SPA.</p> <p>The likelihood and significance of these potential impacts are considered further in Section 7.</p> <p>Changes in Key Elements of the Site</p> <p>This Screening has identified the potential for the Plan to result in effects to special conservation interest species, wetland habitat and other waterbirds, all of which are key elements of Lough Derg SPA. The significance of these effects is further assessed in Section 7 of this NIR.</p>
<p>Describe from the above the elements of the plan or combination of elements, where potential effect to the conservation status of Lough Derg may arise.</p>	
<p>This Screening has identified the potential for the Plan to result in impacts to the Lough Derg SPA as a result of habitat loss, habitat disruption and disturbance to special conservation interest species of the SPA. A Stage 2 Appropriate Assessment is provided in Section 7 of this NIR to further consider the implication of these potential effects to the conservation status of the SPA and where necessary to prescribe mitigation measures, whose aim to prevent such effects from occurring.</p>	

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7. STAGE 2 APPROPRIATE ASSESSMENT

The EC Guidance Assessment Criteria for a Stage 2 Appropriate Assessment seeks the following information:

1. A description of the elements of the plan that are likely to give rise to significant effects to European Sites.
2. The setting out of the Conservation Objectives of the European Site at risk of being effected by the plan.
3. A description of how the plan will affect key species and key habitats.
4. A description of how the integrity of the European Sites (determined by structure and function and conservation objectives) is likely to be affected by the plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes etc).
5. A description of the mitigation measures that are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of European Sites.

7.1 ELEMENTS OF THE PLAN LIKELY TO GIVE RISE TO SIGNIFICANT EFFECTS TO THE LOUGH DERG SPA

The elements of the plan likely to give rise to negative effects to Lough Derg SPA are:

- The increase in tourism activity at Lough Derg and visitor numbers to Inis Cealtra as a result of the plan.
- The provision of a ferry crossing between Mountshannon and Inis Cealtra;
- The provision of tourist infrastructure facilities on Inis Cealtra such as a new pier, pathways and toilets;
- The construction and operation of a visitor centre at Mountshannon in the vicinity of the lakeshore;
- The provision of kayak landing points and the promotion of Inis Cealtra as a kayak destination

7.2 CONSERVATION OBJECTIVES

No detailed Conservation Objectives for the Lough Derg SPA have been published by the NPWS and only generic Conservation Objectives for the SPA are currently available.

The generic Conservation Objectives state that the overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of species and habitats of community interest.

Favourable conservation status of special conservation interest species of the SPA is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

Favourable conservation status of special conservation interest wetland habitats of the SPA is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

With regard to these definitions of favourable conservation condition for species and habitats, detailed Conservation Objectives for SPAs set out the attributes and associated targets for achieving favourable conservation condition. However as no detailed Conservation Objectives have been published for the Lough Derg SPA a review was undertaken of other SPAs to identify sample attributes and targets for resident cormorant and tufted duck; breeding common tern; wintering goldeneye; and wetland habitats. The source of sample Conservation Objectives for each of these special conservation interests are outlined in Table 7.1.

Table 7.1: Source of Conservation Objectives used for the special conservation interests Lough Derg SPA

Special Conservation Interests	Conservation Objectives Source
Cormorant (Breeding & Wintering)	River Shannon and River Fergus Estuaries SPA (004077) for breeding cormorant Castlemaine Harbour SPA for wintering cormorant
Common Tern (Breeding)	Rockabill SPA (004014)
Tufted Duck (Breeding &	No detailed Conservation Objectives available at the time of writing. Tufted duck is listed as a special

Wintering)	conservation interest of 11 SPAs in Ireland. No detailed Conservation Objectives have been provided for these SPAs. As such the objectives used for cormorants above will also apply for tufted duck.
Goldeneye (Wintering)	Lough Swilly SPA (004075)
Wetlands	River Shannon and River Fergus Estuaries SPA

The attributes and targets (along with the method to measure whether targets are being achieved) used to defined favourable conservation condition for resident, breeding and wintering birds are outlined in Table 7.2 and 7.3 respectively. Each of the Conservation Objectives has been assigned a number (from 1 to 10) for later use during the assessment of how the integrity of Lough Derg SPA could be affected by the Plan (see Section 7.4 below).

Table 7.2: Attributes and Targets for achieving Favourable Conservation Status of Resident/Breeding Cormorants, Tufted Duck & Common Tern

Ref No.	Attribute	Measure	Target
1	Breeding population abundance: apparently occupied nests	Number	No significant decline
2	Productivity rate: fledged young per breeding pair	Mean number	No significant decline
3	For Tufted Ducks - Distribution: suitable nesting habitat	Location; area (hectares)	No significant decline
4	Distribution: breeding colonies	Number; location; area (hectares)	No significant decline

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5	Prey biomass available	Kilogrammes	No significant decline
6	Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
7	Disturbance at breeding sites	Level of impact	Human activities should occur at levels that do not adversely affect the breeding population.

Table 7.3: Attributes and Targets for achieving Favourable Conservation Status of Wintering Cormorants, Tufted Duck & Goldeneye

	Attribute	Measure	Target
8	Population Trend	Percentage change	Long term population trend stable or increasing
9	Distribution	Number and range of areas used by waterbirds	No significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation

Table 7.4: Attributes and Targets for achieving Favourable Conservation Status of Wetland Habitats

Ref No	Attribute	Measure	Target
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10	Wetland Habitat Area	Hectares	The permanent area occupied by the wetland habitat should be stable and not declining, other than that occurring from natural patterns of variation.
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7.3 DESCRIPTION OF HOW THE PLAN COULD NEGATIVELY EFFECT KEY SPECIES & HABITATS

7.3.1 Cormorant

Three cormorant breeding colonies occur at Lough Derg. These are located on Bear Island, Crane Island and Carrigeen Island. A peak count of 122 nests was recorded for all three islands in 1999.

Each of these islands are located at remote distances from the Plan area. Carrigeen Island is the nearest cormorant breeding site to the Plan area and is located approximately 7.5km to the east of Mountshannon and 10km to the east of Inis Cealtra. None of these islands occur within the sphere of influence of the Plan and the Plan will not result in any activities in the vicinity of these islands. As such the Plan will not have the potential to result in direct disturbance to cormorant breeding colonies.

However the Plan could result in indirect impacts to both breeding and wintering cormorants by degrading the quality of the foraging resource offered by Lough Derg. Water pollution associated with construction and operation of infrastructure and the spread of invasive species will have the potential to disrupt fish stocks supported by the lake and undermine the quality of foraging resource for cormorants. Lake-based activity associated with the plan could also result in disturbance to foraging and roosting cormorant.

Inputs of polluted surface water runoff from the construction footprint of the proposed visitor centre or from vehicle parking areas during the operation phase could result in localised perturbations to water quality. Any negative effects to water quality will have the potential to adversely effect the distribution of fish prey in this area of Lough Derg.

Discharge of inappropriately treated wastewater from the visitor centre or the toilet pod/reedbed on Inis Cealtra, to Lough Derg during the operation phase will have the potential to result in localised perturbations to water quality.

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Notwithstanding the potential for such impacts to occur, it is noted that cormorants forage widely over the lake and results of recent surveys suggest that they do not rely on the area surrounding Inis Cealtra or Mountshannon as a prime foraging or roosting locations. Low numbers of cormorant were identified during winter and summer surveys in the vicinity of Inis Cealtra, with all birds recorded commuting by the island.

The lake-based elements of the Plan relate to the transiting of the proposed ferry along the fixed ferry route between Mountshannon and Inis Cealtra and a potential increase in kayak visits to the island following the promotion of the Lough Derg Canoe trail and Inis Cealtra as a visitor destination. These lake-based elements will not have the potential to result in disturbance to cormorant roosts as no important roost site occur in the vicinity of the proposed ferry route or at Inis Cealtra.

The potential for these lake-based elements to result in disturbance to foraging cormorants is considered to be insignificant. While cormorants forage both individually and in flocks (Wright, 2002), observations at Inis Cealtra during winter and breeding surveys in 2015 and 2016 did not record any flock feeding by cormorants in this area of Lough Derg. When observed, cormorants were always solitary or in very low numbers. Furthermore these individuals were generally observed in flight commuting past Inis Cealtra rather than foraging in the wider area. In addition research has shown a high degree of habituation by cormorants to human activity. For instance Iguchi et al (2015) noted that the flight initiation distance of cormorants, which is used as a measure of tolerance to human-associated disturbances, was shorter in areas of human activity, suggesting that this species habituated to the presence of humans. Iguchi et al (2015) also noted that the cormorant's capacity for learning seems to enable an easy habituation to humans. Also the cormorant is a flexible species and adapts to a range of habitats. In light of the above and considering that the cormorant populations of the lake is already likely to be habituated to existing recreational users throughout the year, the addition of a regular ferry service along a fixed line from Mountshannon to Inis Cealtra is not predicted to have the potential to result in a level of disturbance that will undermine the status or distribution of the cormorant population supported by Lough Derg SPA.

As cormorants do not use Inis Cealtra as a breeding site or important roost site, and do not rely on the immediate surrounding area as a foraging habitat, the increased presence of visitors on the island is not predicted to have the potential to result in disturbances to this species.

Nevertheless, notwithstanding the assessment regarding potential disturbance outlined above, a range of environmental safeguards are outlined in Section 8 below to further ensure that any lake based activities associated with the plan do not result in significant disturbance effects to cormorants.

The introduction of non-native invasive species, which is more likely to be a risk associated with the operation phase of the plan, will have the potential to negatively affect the status of cormorants at Lough Derg. While the exact nature of the ecological disruption caused by the introduction of novel species cannot be appreciated until after the fact, the spread of such species in the past has been shown to have the capacity to result in significant adverse effects. The accidental introduction of any

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species that could disrupt the trophic balance of the lake will have the potential to result in significant adverse effects to the cormorant populations supported by it.

Specific mitigation measures are outlined in Section 8 to minimise the spread of invasive species at Lough Derg SPA during the operation phase of the Plan.

7.3.2 Common Tern

One common tern breeding colony is supported by Lough Derg SPA. This colony is located on Goat Island, which is located approximately 12km and 14km to the northeast of Mountshannon and Inis Cealtra respectively. This island occurs outside the sphere of influence of the Plan and no activities associated with the Plan will be undertaken in the vicinity of it. As such the Plan will not have the potential to result in disturbance to common tern breeding colonies.

However the Plan could result in indirect impacts to breeding terns through water pollution associated with the construction and operation of infrastructure and the spread of invasive species.

Inputs of polluted surface water runoff from the construction footprint of the proposed visitor centre or from vehicle parking areas during the operation phase could result in localised perturbations to water quality. Inappropriate discharge of wastewater from the visitor centre or the toilet pod on Inis Cealtra during the operation phase will have the potential to result in localised perturbations to water quality. Any negative effects to water quality will have the potential to adversely effect the distribution of fish prey in this area of Lough Derg.

Terns forage widely over the lake and results of recent surveys suggest that they do not rely on the area surrounding Inis Cealtra as a prime foraging or roosting location. Terns were regularly recorded commuting in the vicinity of Inis Cealtra during 2016 breeding bird surveys, but were not noted to rely on the area of the lake surrounding Inis Cealtra as a prime foraging area.

Similarly for cormorants, the transiting of the proposed ferry along the fixed ferry route between Mountshannon and Inis Cealtra and a potential increase in kayak visits to the island (following the promotion of Lough Derg as a canoe trail) represent the only proposed lake-based elements of the plan.

Terns are known to have high levels of tolerance to human activities, are able to habituate to the presence of humans (Kury, and Gochfeld, 1973; Nisbet, 2000; Rodgers, 2003) and are most vulnerable to disturbance at nesting colonies (i.e. Burger, 1998). This evidence suggests that they are not likely to be susceptible to human-induced disturbance while foraging. In light of the high tolerance levels of this species to human activity, along with the limited role the Plan area plays in supporting foraging terns, and the existing use of this area as a recreational boating area, it is considered that the lake-based activities resulting from the Plan will not have the potential to result in significant levels of disturbance that could undermine the distribution and population status of this species at Lough Derg SPA. Notwithstanding the above, a range of environmental safeguards are outlined in Section 8 below

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to further ensure that any lake based activities associated with the Plan do not result in significant disturbance effects to common terns.

The introduction of non-native invasive species (a risk more likely to be associated with the operation phase of the Plan) will have the potential to negatively effect the status of common terns at Lough Derg. While the exact nature of the ecological disruption caused by the introduction of novel species cannot be appreciated until after the fact, the spread of such species in the past has shown the capacity to result in significant adverse effects.

Specific mitigation measures are outlined in Section 8 to minimise the spread of invasive species at Lough Derg SPA during the operation phase of the Plan.

7.3.3 Tufted Duck

Tufted duck nest along the margins of Lough Derg in marginal vegetation. No evidence of nesting tufted duck on Inis Cealtra was noted during breeding season surveys at the island in 2016. In addition no suitable breeding habitat for this species occurs in the vicinity of the proposed visitor centre at Mountshannon. As such, based on current baseline survey results, the Plan will not have the potential to result in direct disturbance to breeding tufted duck.

Tufted duck are known to have a high level of tolerance to humans. Cryer et al (1987) noted that tufted ducks remained unaffected by the presence of anglers at a lake study site in Wales, while Goodhead & Johnson (1996) listed tufted duck as a species tolerant to relatively close contact by human activity and return after the source of disturbance has passed. They are also considered to respond well to regular and predictable stimuli as opposed to erratic and startling stimuli (Marsden, 2000). Marsden (2000) noted that pedestrian activity did not result in significant disturbance to the overwintering population of tufted ducks at an industrial dockland site in Manchester and also observed a high degree of flexibility by tufted duck to disturbance events and found no decline in the population of this species occurring at dockland site. In light of the above lake-based activity associated with the proposed ferry is not predicted to have the potential to result in significant levels of disturbance to tufted duck.

The proposed location of the new pier for the ferry on Inis Cealtra has been positioned a minimum distance of 50m from the nearest example of tall reed swamp habitat. This buffer distance will minimise the disturbance to this habitat and the potential for the ferry and visitors to undermine the potential for this example of reed habitat to function as a roost or breeding site for tufted duck.

The proposed landing points for kayakers at Inis Cealtra will also minimise any potential disturbance to tufted duck. The landing points will be situated at the existing northwest pier, where no suitable breeding/roosting habitat for tufted duck occurs. Also previously published research by Batten (1977) suggests that the population of tufted duck supported by the sections of Lough Derg with the sphere of influence of the Plan is not predicted to be adversely effected by an increase in kayaking activity in

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the vicinity of the Inis Cealtra. Whilst he observed a flight response distance of approximately 200m from rowing boats for flocks of circa 90 tufted duck and suggested that large flocks of tufted duck are more sensitive to the approach from vessels than smaller ones, he found that tufted duck continued to inhabit the study site (a reservoir in North London) despite an intensification of sailing activities. It is noted that contrary to the finding of Batten, no large flocks of tufted duck were observed in the vicinity of Inis Cealtra during baseline surveys completed during 2015 and 2016 and recent counts within the Subsite OH090 (encompassing an area of approximately 900 hectares) recorded peak numbers of tufted duck at less than 200 individuals. As such recent observations suggest that no large flocks of this species occur in the vicinity of Inis Cealtra and Mountshannon, thus reduces their sensitivity to disturbance by kayaking activity. In light of the above it is predicted that kayak activity promoted by the Plan will have the potential to result in low levels of disturbance to tufted duck. Mitigation measures are outlined in Section 8 to further minimise the potential for kayakers to disturb tufted duck and other wetland bird species.

However the Plan could result in indirect impacts to tufted duck through water pollution associated with construction and operation of infrastructure and the spread of invasive species.

Inputs of polluted surface water runoff from the construction footprint of the proposed visitor centre or from vehicle parking areas during the operation phase could result in localised perturbations to water quality. Inappropriate discharge of wastewater from the visitor centre or the toilet pod on Inis Cealtra during the operation phase will have the potential to result in localised perturbations to water quality. Any negative effects to water quality will have the potential to adversely effect the distribution of prey in this area of Lough Derg.

The introduction of non-native invasive species, while is more likely to be a risk associated with the operation phase of the Plan, will have the potential to negatively effect the status of cormorants at Lough Derg. While the exact nature of the ecological disruption caused by the introduction of novel species cannot be appreciated until after the fact, the spread of such species in the past has shown the capacity to result in significant adverse effects.

7.3.4 Goldeneye

Lough Derg supports a wintering population of goldeneye. Only very low levels of goldeneye were noted in the vicinity of Inis Cealtra during bird surveys over the 2015 and 2016 winter season – one individual was observed during surveys in February 2016. No goldeneye were recorded in the vicinity of Inis Cealtra during further surveys undertaken in October 2016. The results of these surveys suggest that this area of the lake is not heavily relied upon as a roosting or foraging area for goldeneye.

Ruddock & Whitfield (2007) reviewed the disturbance effects to goldeneye and reported that goldeneye response distances of between 100 – 200m to human disturbance have been identified, with individuals immediately re-settling elsewhere on the water. They reported a greater sensitivity to motorboats, which caused an instantaneous reaction and subsequent abandonment of the water

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body between 350m and 750m. Hume (1976) considered goldeneye to be very sensitivity to boats, with the mere sight of them initiating an evasive response. Hume deemed goldeneye winter densities to be negatively affected by boating.

Notwithstanding the sensitivity of goldeneye to boating activity, it is considered that the proposed ferry operating between Mountshannon and Inis Cealtra will not have the potential to adversely effect the winter population of goldeneye using the Lough Derg as no ferry activity will be undertaken as part of the plan between the latter half of October and the former half of March in any year. As goldeneye typically do not arrive in Ireland until the latter half of October and migrate north in March, the operating regime of the proposed ferry will not have the potential to result in disturbance to the overwintering populations at Lough Derg.

However the Plan could result in indirect impacts to tufted duck through water pollution associated with construction and operation of infrastructure and the spread of invasive species.

Inputs of polluted surface water runoff from the construction footprint of the proposed visitor centre or from vehicle parking areas during the operation phase could result in localised perturbations to water quality. Inappropriate discharge of wastewater from the visitor centre or the toilet pod on Inis Cealtra during the operation phase will have the potential to result in localised perturbations to water quality. Any negative effects to water quality will have the potential to adversely effect the distribution of prey in this area of Lough Derg.

The introduction of non-native invasive species, while is more likely to be a risk associated with the operation phase of the plan, will have the potential to negatively effect the status of cormorants at Lough Derg. While the exact nature of the ecological disruption caused by the introduction of novel species cannot be appreciated until after the fact, the spread of such species in the past has shown the capacity to result in significant adverse effects.

7.3.5 Coot & Other Wetland Species

Coot and other wetland species including mallard, mute swan, grey heron, little egret and black-headed gull were frequently observed either foraging and roosting in the vicinity of Inis Cealtra. In addition a coot territory was noted in the club-rush habitat to the north of the island.

In the absence of the appropriate time of construction activities on Inis Cealtra coot breeding sites will be susceptible to disturbance from construction noise, machinery and human presence. This effect will be of a short term nature and will not have the potential to negative effect the status of the coot population supported by Lough Derg SPA.

The increased presence of humans on the island is not predicted to have a significant negative effect to coot. Numerous studies have shown that this species adapts well to the presence of humans and in fact actively select built-up areas for nesting, most probably as a predator avoidance strategy

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(Brzezinski et al. 2013). For instance Platteeuw & Henkens (1997) identified coot as the most confident species, remaining unperturbed by the source of a disturbance to distances of <10m.

The predicted disturbance effect of increased visitors to the island on roosting black-headed gulls and foraging/roosting mute swan and mallard along the eastern shoreline is expected to be low. These species are considered to have a low sensitivity to disturbance due to their habitat flexibility, their ability to use other suitable areas within Lough Derg SPA as roosting/foraging sites and their relative tolerance of human disturbance. It is also noted that the nearest point of any proposed pathway along the island is buffered back from the eastern lakeshore by a minimum distance of 35m. Grey heron and little egret were generally observed foraging on the western shore of the island on the shore side of woodland and marginal habitat. The presence of these habitats will act as a suitable buffer that will minimise potential disturbance arising from visitors on the island.

The operation of the ferry and increases in kayak activity around the island will have the potential to result in disturbances to these species, should kayakers approach roosting sites and/or birds. The selection of the kayak landing points at the existing northwest pier will however minimise disturbance by kayakers to roosting sites of wetland bird species: this is an existing land point and no wetland bird species roost at or in the immediate vicinity of this landing point. In addition a range of mitigation measures and best practice guidelines are outlined in Section 8 below and the environmental management plan with the aim of minimising kayaker disturbance to wetland bird species.

7.3.6 Wetland habitat

The wetland habitats of the plan area that could be negatively affected include marsh habitat, representative of the Annex 1 habitat tall herb fringe (6430), unfavourable status and mesotrophic lake habitat.

There will be a minor area of 6430 Annex 1 habitat lost to the footprint of the proposed new path leading from the pier to the existing path network on the island. The indicative footprint of the proposed path in this habitat is approximately 250m². No special conservation interest species of the SPA were noted utilising this area during bird surveys on Inis Cealtra during the winter and breeding seasons of 2016. The 6430 habitat in this area is adversely affected by the presence of cattle, which prevents suitable conditions for nesting wildfowl species.

Furthermore the indicative location of the proposed new pier has been chosen to maximise its distance from adjacent tall sedge swamp habitat, which provides shelter for coot and mallard.

The potential adverse effect to mesotrophic lake habitat relate to the release of polluted surface water from the footprint of construction areas; release of polluted surface water from carparking areas at the Mountshannon visitor centre; the inappropriate discharge of wastewater from the visitor centre at Mountshannon and the toilet pod at Inis Cealtra to the lake.

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Elements of the plan that will result in land take within the Lough Derg SPA relate to the infrastructural elements required for Inis Cealtra. All of these elements, with the exception of the proposed new pier on the northern end of the island and a section of pathway leading from the new pier to the existing path on the island will be located outside of wetland habitats, on terrestrial improved agricultural grassland habitat.

The infrastructural elements to be sited on improved agricultural grassland habitat on Inis Cealtra include new paths and routes on the island as well as other minor elements such as benches, fencing and signage.

The improved agricultural grassland does not function as an important roosting or breeding habitat for the special conservation interest species of the Lough Derg and the minor land take associated with the new paths and routes will not have the potential to result in the loss of habitats for these species.

The proposed new pier location at the northern end of the island will approximately 50m² in size. This will be a floating pier to avoid disturbance to the lake bed. The indicative location of the new pier has been chosen to minimise the loss of wetland habitats.

The paths leading from the new pier location will be cross an area of marsh habitat with links to the Annex 1 habitat Hydrophilous tall herb fringe (6430) which is representative of a wetland habitat. The status of the 6430 habitat at this location is currently assessed as being unfavourable and no special conservation interest species were noted to rely on this area during winter and breeding season surveys in 2015 and 2016.

Increased human activities and particularly a likely increase in kayaking, will also present a risk of spreading non-native invasive species to Lough Derg with potential significant ecological disruption to the structure and function of the lake.

7.3.7 Summary of Potential Negative Effects of the Plan to Key Species & Habitats

Following the assessments outlined for each of the special conservation interests of Lough Derg the following have been identified as having the potential to negatively effect the status of the SPA:

1. Hydrological emissions to Lough Derg: hydrological emissions could arise as a result of surface water runoff from construction footprints; surface water runoff from car parking areas; and inappropriate wastewater discharges from the visitor centre and the toilet pods to Lough Derg.
2. The risk of spreading non-native invasive species: increased human activity at the lake will have the potential to result in the spread of non-native invasive species.

3. Low level disturbance to tufted duck and other wetland bird species as a result of kayaking activities associated with the Plan.

7.4 DESCRIPTION OF HOW THE INTEGRITY OF EUROPEAN SITES COULD BE AFFECTED BY THE PLAN

EU Guidelines (2001) recommend as part of a Stage 2 Appropriate Assessment that a checklist of site integrity is carried out. This aids in establishing the nature of potential adverse effects to the favourable conservation status of special conservation interests, as defined by the conservation objectives for these features outlined in Section 7.2 above.

Conservation Objectives	
Does the Project have the potential to:	
Cause delays in progress towards achieving the conservation objectives of the site	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
Interrupt progress towards achieving the conservation objectives of the site	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
Disrupt those factors that help to maintain the favourable conditions of the site	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
Interfere with the balance, distribution and	Yes, negative impacts to the water quality and

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density of key species that are the indicators of the favourable condition of the site.	the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
reduce the area of key habitats?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
reduce the population of key species?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
change the balance between key species?	Yes, negative impacts to the water quality and the spread of invasive species will have the

	potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
reduce diversity of the site?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
result in fragmentation?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.
result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, etc.)?	Yes, negative impacts to the water quality and the spread of invasive species will have the potential to undermine targets outlined for Conservation Objective 5, 9 and 10.

8. MITIGATION

This chapter outlines the mitigation measures that will prevent, reduce, and offset likely significant effects to the conservation status and integrity of the Lough Derg SPA.

Mitigation involves ameliorating significant negative effects. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts or where this is not possible, to lessening or offsetting those effects. Mitigation measures can be generally divided into those that:

- Avoid effects;
- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

In order to facilitate the consideration of environmental resources in any future development associated with the Plan, an environmental management plan (EMP) is proposed. This will be a core

section of the Plan (see Section 9 of the Inis Cealtra Plan); where appropriate it replicates key environmental policies in the draft Clare CDP 2017-2023 (due for adoption in end 2016/early 2017). Clare CDP 2017-2023 represents the most up-to-date landuse policies for the county and will be the framework under which any new proposals associated with the Plan will be assessed. Moreover, this plan has been subject to consultation with the statutory authorities and reflects their comments on objectives in the Clare CDP 2017-2023.

Where appropriate, the EMP has also replicated key commitments from other relevant plans and projects including the Lough Derg Canoe Trail (Planning Reference 16-165 for Mountshannon) and part of the environmental management commitments from the Wild Atlantic Way.

This section is structured as follows:

Principal environmental protective policies and objectives from the Clare CDP 2017-2023 are presented initially, and thereafter targeted mitigation measures for elements of the Plan that have the potential to result in likely significant effects to the Lough Derg SPA are presented. Furthermore best practice measures for other elements of the plan are also outlined to ensure no adverse effects to other nature conservation interests not listed as special conservation interests of the SPA are addressed.

8.1 POLICY SAFEGUARDS: RELEVANT ENVIRONMENTAL PROTECTION OBJECTIVES FROM CLARE CDP 2017-2023

8.1.1 General Environmental Objectives:

Development Plan Objective: Appropriate Assessment, Strategic Environmental Assessment and Strategic Flood Risk Assessment	
CDP2.1	<p>It is an objective of the development plan:</p> <p>a) To require the preparation and assessment of all planning applications in the plan area to have regard to the information, data and requirements of the Appropriate Assessment Natura Impact Report, SEA Environmental Report and Strategic Flood Risk Assessment Report contained in Volume 10 of this development plan;</p> <p>b) To require projects to be fully informed by ecological and environmental constraints at the earliest stage of project planning and any necessary assessment to be undertaken, including assessments of disturbance to species, where required;</p> <p>c) To require compliance with the objectives and requirements of the</p>

	Habitats Directive, specifically Article 6(3) and, where necessary, Article 6(4), the Bird Directive, Water Framework Directive and all other relevant EU Directives.
Development Plan Objective: Environmental Impact Assessment	
CDP14.9	<p>It is an objective of Clare County Council:</p> <p>a) To implement the EIA Directive, ensuring that all elements/stages or components of the project are included in one overall assessment and all reasonable alternatives are taken into consideration in choosing the option with the least environmental impact.</p> <p>b) To have regard to ‘Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessments (2013)’ when considering proposals for which an EIA is required;</p> <p>c) To ensure full compliance with the requirements of the EU Habitats Directive, SEA Directive and associated legislation/regulations, including the associated European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004-2011, and the European Communities (Environmental Impact Assessment) Regulations 1989 – 2011 (or any updated/superseding legislation).</p>

8.1.2 Tourism Development:

Development Plan Objective: Tourism Developments and Tourism Facilities	
CDP9.3	<p>It is an objective of the development plan:</p> <p>a) To permit tourism-related developments and facilities inside existing settlements where the scale and size of the proposed development is appropriate and in keeping with the character of the settlement, subject to normal site suitability considerations;</p> <p>b) To permit tourism-related developments outside of settlements where there is a clear need for the specific location and the benefits to the local community are balanced with the potential environmental impact of the development. The requirements of Article 6 of the Habitats Directive</p>

	Objective CDP2.1 will have to be considered in such cases. c) Development proposals must be accompanied by an Appropriate Assessment Screening Report and/or Natura Impact Statement, whichever is deemed necessary. The proposal should clearly identify the spatial extent of any tourism activities and should address the implications of increased recreational disturbance (both in isolation and in combination with other tourism activities) on any European sites as a result of increased tourism and recreation in the area/County, taking into account any current pressures on these Sites.
Development Plan Objective: Lakeland and Waterway Tourism	
CDP9.13	It is an objective of the development plan: To support the development of tourism activities in lakeland areas and waterways subject to normal planning and environmental criteria. All proposed developments shall be in accordance the Birds and Habitats Directive, Water Framework Directive and all other relevant EC Directives.
Development Plan Objective: Sustainable Tourism	
CDP9.17	It is an objective of Clare County Council: To support sustainable and responsible tourism initiatives across County Clare in order to ensure that on-going growth in the tourism industry is balanced with the long term protection of the natural environment and cultural identity of the count

8.1.3 Cultural and Natural World Heritage Status and Designation

Development Plan Objective: World Heritage Sites Status	
CDP14.23	It is an objective of Clare County Council: a) To collaborate with landowners, local communities and other relevant stakeholders to achieve World Heritage Site status for the sites identified in County Clare; b) To protect the Outstanding Universal Value of the tentative World Heritage Sites in County Clare that are included in the UNESCO Tentative List, Ireland

	2010 and engage with other national and international initiatives which promote the special built, natural and cultural heritage of places in the county.
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In the event that any site in County Clare, is found to have Outstanding Universal Value, the following objective will apply when assessing proposals for development within the World Heritage areas/landscapes.

Development Plan Objective: Development Proposals in Designated World Heritage Sites	
CDP14.24	<p>It is an objective of the development plan:</p> <p>To ensure that proposals for development in designated World Heritage Sites will be assessed having regard to the contribution of the development to the preservation and enhancement of the special qualities of these areas and the potential impact of the Outstanding Universal Value of the designated site.</p>

8.1.4 Biodiversity, Flora and Fauna

Development Plan Objective: European Sites	
CDP14.2	<p>It is an objective of the development plan:</p> <p>a) To afford the highest level of protection to all designated European sites in accordance with the relevant Directives and legislation on such matters;</p> <p>b) To require all planning applications for development that may have (or cannot rule out) likely significant effects on European sites in terms of the site's Conservation Objectives, either in isolation or in combination with other plans or projects, to submit a Natura Impact Statement in accordance with the requirements of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended);</p> <p>c) To recognise and afford appropriate protection to any new or modified SPAs or SACs that are identified during the lifetime of this plan, having regard to the fact that proposals for development outside of a European site may also have an indirect effect.</p>

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Development Plan Objective: Requirement for Appropriate Assessment under the Habitats Directive	
CDP14.3	It is an objective of the development plan: a) To implement Article 6(3) and where necessary Article 6(4) of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s) b) To have regard to 'Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009' or any updated version.
Development Plan Objective: Non-Designated Sites	
CDP14.7	It is an objective of Clare County Council: a) To ensure the protection and conservation of areas, sites, species and ecological networks/ corridors of biodiversity value outside of designated sites throughout the county and to require an ecological assessment to accompany development proposals likely to impact on such areas or species; b) To ensure that available habitat mapping is taken into consideration in any ecological assessment undertaken; b) To complete the Habitat Mapping of the county (in accordance with A Guide to Habitats in Ireland – The Heritage Council 2000) in order to identify and record the natural habitats of the county at a detailed level and afford appropriate protection to areas of importance, as required.
Development Plan Objective: Natural Heritage and Infrastructure Schemes	
CDP14.8	It is an objective of the development plan: To ensure the protection of natural heritage when considering proposed services, infrastructure and roadworks (both realignments and new roads) located in close proximity to, or nearby protected ecological sites or sites of importance in terms of biodiversity
Development Plan Objective: Habitat Protection	

CDP14.11	<p>It is an objective of the development plan:</p> <p>a) To protect and promote the sustainable management of the natural heritage, flora and fauna of the county through the promotion of biodiversity, the conservation of natural habitats and the enhancement of new and existing habitats;</p> <p>b) To promote the conservation of biodiversity through the protection of sites of biodiversity importance and wildlife corridors, both within and between the designated sites and the wider plan area;</p> <p>c) To ensure that there is no net loss of potential Lesser Horseshoe Bat feeding habitats, treelines and hedgerows within 3km of known roosts.</p>
Development Plan Objective: Habitat Fragmentation	
CDP14.13	<p>It is an objective of the development plan:</p> <p>To ensure that development proposals support and enhance the connectivity and integrity of habitats in the plan area by incorporating natural features into the design of development proposals.</p>
Development Plan Objective: Inland Waterways and River Corridors	
CDP14.14	<p>It is an objective of the development plan:</p> <p>a) To work with all relevant stakeholders to protect and manage inland waters, river corridors and their floodplains, turloughs, lakes, fens and other water bodies from degradation and damage, and to recognise and promote them as natural assets and key elements in the green infrastructure network in the county;</p> <p>b) To protect riparian zones / areas, where appropriate, in the plan area.</p> <p>c) To ensure that, where development occurs within a riparian zone, it does not have a negative impact on associated habitats and species;</p> <p>d) To work with all relevant stakeholders to protect and improve appropriate access to waterways and river corridors whilst ensuring their conservation and the protection of the resource and water quality;</p>

	<p>e) To have regard to the ‘Clare County Wetlands Survey 2008’ and other relevant documentation, including the ‘Convention on Wetlands of International Importance’ (Ramsar Convention), 1971 (ratified, 1984) and the ‘EU Communication – Wise Use and Conservation of Wetlands 1995’, in the assessment of developments;</p> <p>f) To encourage developments to :</p> <ul style="list-style-type: none"> • Maintain an appropriate width for the riparian zone to be protected; • Improve appropriate access and compatible leisure activities; • Maintain and enhance the fishing potential for both local interests and tourism by protecting the natural spawning beds of trout and salmon; <p>g) To protect the county’s valuable inland fishery resource and support its sustainable development through the protection of water quality and facilitation of ancillary infrastructure at appropriate locations.</p>
<p>Development Plan Objective: Freshwater Pearl Mussels</p>	
<p>Development Plan Objective: Woodland Trees and hedgerows</p>	
<p>CDP14.17</p>	<p>It is an objective of the development plan:</p> <p>a) To preserve and conserve individual or groups of trees identified in Volume 2 of this plan as ‘Trees for Preservation’ which will enhance the character and appearance of an area;</p> <p>b) To carry out tree survey work during the lifetime of this plan to identify future trees of importance in the county and facilitate their future protection;</p> <p>c) To protect individual or groups of trees within the plan area which are important for environmental, recreational, historical, biodiversity and/or aesthetic reasons or by reason of contribution to sense of place, including groups of trees which correspond with protected habitats, or which support protected species, under the Habitats Directive;</p> <p>d) To work with landowners, local communities and other relevant groups to promote the retention and conservation of existing trees and hedgerows and encourage development proposals that enhance the landscape through positive management and additional planting/sensitive replanting of native</p>

	<p>tree species;</p> <p>e) To protect woodlands and hedgerows from damage and/or degradation and to prevent disruption of the connectivity of woodlands and hedgerows of the county;</p> <p>f) To ensure, where required, applications for development include proposals for planting / leave a suitable ecological buffer zone, between the development works and areas/features of ecological importance;</p> <p>g) Where hedgerows are required to be removed in the interests of traffic safety or where breaches to hedgerows occur due to river drainage/maintenance works and flood repair, to require the applicant/developer to replace/reinstate the hedgerows with a suitable replacement of native species to the satisfaction of the Council;</p> <p>h) To require each large green space in new residential developments to have at least one native oak tree, or other naturalised tree species of similar stature and lifespan, integrated into the agreed planting/landscaping scheme;</p> <p>i) To require, where possible, that all trees felled as a result of development proposals be replaced at a minimum ratio of 10 new native species per 1 tree felled.</p>
<p>Development Plan Objective: Wetlands</p>	
<p>CDP14.19</p>	<p>It is an objective of the development plan:</p> <p>To manage, enhance and protect the wetlands in County Clare having regard to the ‘County Clare Wetlands Survey (2008)’, the ‘Planning and Development Regulations 2001 (as amended)’ and ‘Drainage and Reclamation of Wetlands – Draft Guidelines for Planning Authorities, 2011’ and any subsequent guidance documents</p>
<p>Development Plan Objective: Alien and Invasive Species</p>	
<p>CDP14.26</p>	<p>It is an objective of the development plan:</p> <p>a) To raise awareness of the threat of alien invasive species and take all necessary steps to prevent the spread of non-native invasive species and noxious weeds in the plan area, including requiring landowners, developers</p>

	<p>and boat operators to adhere to best practice guidance in relation to their control;</p> <p>b) To require all development proposals to address the presence or absence of invasive alien species on the proposed development site and to require the preparation of an Invasive Species Management Plan where such species are present;</p> <p>c) To implement the requirements of EU Regulations 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species.</p>
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8.1.5 Water Resources

Development Plan Objective: Water Framework Directive	
CDP 8.21	<p>It is an objective of Clare County Council:</p> <p>a) To facilitate the implementation of the Shannon River Basin Management Plan and the Western River Basin Management Plan (together with any subsequent National River Basin Management Plan) for groundwaters and surface waters in the plan area as part of the implementation of the EU Water Framework Directive;</p> <p>b) To protect groundwater resources in accordance with the statutory requirements and specific measures as set out in the relevant River Basin Management Plan;</p> <p>c) To consider proposals for development where it can be clearly demonstrated that the development will meet the requirements of the relevant River Basin Management Plan.</p>
Development Plan Objective: Protection of Water Resources	
CDP8.22	<p>It is an objective of the development plan:</p> <p>a) To protect the water resources of County Clare having regard to the requirements of the relevant EU Directives;</p> <p>b) To ensure that developments that would have an unacceptable impact on</p>

	<p>water resources, including surface water and groundwater quality and quantity, designated sources protection areas, coastal and transitional waters, river corridors and associated wetlands are not permitted;</p> <p>c) In areas of potable groundwater resources or over vulnerable aquifer areas, development proposals will only be considered if the applicant can clearly demonstrate that the proposed development will not pose a risk to the quality of the underlying groundwater;</p> <p>d) To protect groundwater resources, in accordance with statutory requirements and specific measures as set out in the Shannon and Western River Basin Management Plans;</p> <p>e) To ensure that proposals for development which infringe on a river boundary, or an associated habitat, including their connection by groundwater, will only be considered where it can be clearly demonstrated that:</p> <ul style="list-style-type: none"> • The character of the area will be conserved; • An acceptable physical riparian zone will be maintained with all natural vegetation preserved; • There will be no impact on the ecological, aquatic or fishing potential of the waters or associated waters; • All proposals are in compliance with the requirements of the Habitats Directive, where appropriate.
<p>Development Plan Objective: Strategic Flood Risk Assessment</p>	
<p>CDP 18.7</p>	<p>It is an objective of Clare County Council:</p> <p>To ensure that proposals for development in areas where there is a risk of flooding, (based on the Flood Risk Maps contained in Volume 2 of the Clare County Development Plan 2017-2023, or any updated version), shall have regard to ‘The Planning System and Flood Risk Management (and Technical Appendices) – Guidelines for Planning Authorities 2009’ and any future OPW flood assessment information. Such proposals must also demonstrate that appropriate mitigation measures can be put in place.</p>
<p>Development Plan Objective: CFRAMS</p>	

CDP 18.8	<p>It is an objective of Clare County Council:</p> <p>a) To comply with the EU Floods Directive 2007/60/EC;</p> <p>b) To have regard to the requirements and outcomes of the Catchment Flood Risk Assessment and Management Studies (CFRAMS) prepared for the Areas for Further Assessment in County Clare, once finalised, in the assessment of development proposals.</p>
Development Plan Objective: Storm Water Management	
CDP 18.8	<p>It is an objective of the development plan:</p> <p>a) To ensure that adequate storm water infrastructure is in place to accommodate the planned level of growth in the plan area;</p> <p>b) To require all new developments to provide a separate foul and surface water drainage system;</p> <p>c) To ensure the implementation of Sustainable Urban Drainage Systems (SuDS) and in particular, to ensure that all storm water generated in a new development is disposed of on-site or is attenuated and treated prior to discharge to an approved storm water system;</p> <p>d) To request the submission of details regarding Surface Water Attenuation Systems for multi-unit development applications in the plan area. Development will only be permitted in areas where sufficient surface water capacity exists.</p>

8.1.6 Water Services & Waste Management

Development Plan Objective: Water Services	
CDP8.24	<p>It is an objective of the development plan:</p> <p>a) To work closely with Irish Water to identify and facilitate the timely delivery</p>

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	<p>of the water services required to realise the development objectives of this plan;</p> <p>b) To facilitate the provision of integrated and sustainable water services through effective consultation with Irish Water on the layout and design of water services in relation to the selection and planning of development areas and the preparation of master plans;</p> <p>c) To ensure that adequate water services will be available to service development prior to the granting of planning permission and to require developers to consult Irish Water regarding available capacity prior to applying for planning permission;</p> <p>d) To ensure that development proposals comply with the standards and requirements of Irish Water in relation to water and waste water infrastructure to facilitate the proposed development.</p>
Development Plan Objective: Water Supply	
CDP8.25	<p>It is an objective of Clare County Council:</p> <p>a) To advocate the provision, by Irish Water, of adequate water supply to accommodate the target population and employment potential of the county in accordance with the statutory obligations set out in EU and national policy and in line with the Core Strategy and Settlement Hierarchy set out in this plan;</p> <p>b) To advocate for the on-going upgrade of water supply Public Main infrastructure in the county;</p> <p>c) To maximise the use of existing capacity in water service in the planning of new development;</p> <p>d) To protect existing wayleaves and protection areas around public water services infrastructure through appropriate zoning and to facilitate the provision of appropriate sites for required water services infrastructure as required;</p> <p>e) To work with all stakeholders to promote water conservation and sustainable water usage;</p> <p>f) To promote and support the use of rainwater harvesting (in new buildings</p>

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	and as a retrofit) where viable; g) To prohibit the use of bored wells for water supply in areas where public supply is available.
Development Plan Objective: Wastewater Treatment and disposal	
CDP8.27	It is an objective of Clare County Council: a) To advocate the provision, by Irish Water, of adequate waste water services and capacity to accommodate the target population and employment potential of County Clare in accordance with the statutory obligations set out in EU and b) To support Irish Water in the promotion of effective management of trade discharges to sewers in order to maximise the capacity of the existing sewer networks and minimise detrimental impacts on sewage treatment works; c) To permit the development of single dwelling houses only where it is demonstrated to the satisfaction of the Planning Authority that the proposed wastewater treatment system is in accordance with the Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses EPA (2009); d) To permit the development of treatment systems for small businesses/community facilities in unserved areas where they are in single ownership and where it is demonstrated to the satisfaction of the Planning Authority that the proposed wastewater treatment system is in accordance with Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses EPA (2009) and Wastewater Treatment Manuals Treatment Systems for Small Communities, Business, Leisure Centres and Hotels, EPA (1999); e) To encourage and support a changeover from septic tanks/private waste water treatment plants to public collection networks wherever feasible, subject to connection agreements with Irish Water and to ensure that any future development connects to the public wastewater infrastructure where it is available.
Development Plan Objective: Litter Management	

CDP 8.30	It is an objective of Clare County Council: To implement the provisions of the Clare County Litter Management Plan 2015-2018 and any updated version of the plan
Development Plan Objective: Construction and Demolition Waste	
CDP8.31	<p>It is an objective of Clare County Council:</p> <p>a) To require a C&D Waste Management Plan to be prepared by the developer having regard to the DoEHLG’s publication Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects for new construction or demolition projects and to require that the maximum amount of waste material generated on site is reused and recycled;</p> <p>b) To promote the production and reuse of aggregates from C&D waste and their use in construction projects in the region;</p> <p>c) To encourage the development of C&D waste recycling facilities at suitable sites, including quarries, subject to normal planning and environmental considerations.</p>

8.1.7 Mitigation Measures for specific elements of the Inis Cealtra PLAN

Increasing Visitor Numbers (Visitor Management Mitigation Measures)

Sustainable tourism is dependent on the continued pristine condition of the island and the survival of the archaeological remains but overcrowding could be detrimental to the conservation of the site. In addition to the Management and Monitoring Mitigation Measures outlined above, the following measures are also recommended:

M1: Seasonality: It is recommended that the commercial access to the island be limited to March to October to avoid disturbance to overwintering birds and to avoid trampling associated with wetter autumn/winter conditions.

M2: Overnight camping on the island should be discouraged.

AR: Awareness Raising and Education

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AR1: A primary objective for managing heritage is to communicate its significance and the need for its conservation to the local community and to visitors; sustainable tourism on Iniscealtra and the island's conservation are dependent on the recognition of the importance of its cultural heritage.

A4: The code of good practice for canoeists has been prepared as part of the Lough Derg Canoe Trail and will be replicated in the Visitor Centre also. It is recommended that this code be communicated to businesses that rent kayaks around the Lough Derg area, particularly around Mountshannon.

GS: Guide Service

General Recommendations

GS1: It is recommended that a regular, quality guide service operates on the island.

GS2: The main function of the guide service should be to protect the site, interpret and provide information on the history, archaeology, and significance of the site, assist visitors, and monitor visitor numbers, the number of boats landing, and weather conditions. The guides' principal duty should relate to monitoring the condition of archaeological and nature conservation features on the island.

These measures cross reference with AR and MS Mitigation measures.

AT2: the proposed ferry path to the island will be restricted to a defined path so as to avoid disturbance to wetland bird species. The ferry path will be buffered from emergent reed and tall sedge habitat to minimise disturbance to breeding wetland birds.

AT4: On Skellig Michael, access to the island is controlled by a permit system and its visitor season is dependent on weather conditions and the availability of the guide service; in the interest of its continued protection, to prevent damage to the monuments and for reasons of health and safety, access to Skellig Michael outside of the defined period is not permitted and access by private craft is also discouraged. In addition, an agreement was put in place with local boatmen to limit the daily number of visitors. It is recommended that a similar system be put in place for Iniscealtra in order to control the number of boats and people visiting the island.

8.1.8 Mitigation Measures for Physical Proposals.

PP: Physical Proposals

PP4: Areas identified for physical interventions should be subject to archaeological geophysical surveys initially and be informed by the 2015-16 ecological surveys. The findings of same will inform the precise site location.

PP9: Mitigation of impacts should be attempted at the earliest possible stage. Various approaches should be considered, such as avoidance, design modification, and relocation where appropriate.

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PP12: The use of construction machinery should be avoided on the island where possible, and should minimise crossing/landing on Annex 1 tall herb fringe habitat 6430 and avoid crossing/landing on archaeologically sensitive zones as identified in the inventory (Appendix 3) and in proposed geophysical surveys.

Overall Principles for ecology and physical proposals

PP14: Any proposed works to built structures on the island should be preceded by ecological assessments to determine the potential effect of such works to roosting bat species or nesting bird species.

PP15: The Plan will not include any proposals for night time lighting on the island.

PP16: The extent of physical infrastructure to be sited on fringing wetland habitat will be restricted to the path leading from the proposed new pier location. No other physical infrastructure will be placed on fringing wetland habitat.

PP17: An ecological impact assessment of all physical proposals arising from the Plan will be required.

PP18: A Habitats Directive Assessment will be required for all physical proposals arising out of the Plan.

SP: Shoreline and Pier Proposals

SP2: The shoreline should be regarded as an ecologically sensitive area. Tall herb swamp habitat occurs along the majority of the islands shoreline. Sections of this habitat are currently representative of the Annex 1 habitat hydrophilous tall herb fringe community (6430).

SP3: The selection of the northeast area of the island as a possible location for a new pier has been identified based on ecological, navigational, and safety considerations; the exact siting of the new pier will be subject to required archaeological, ecological, and landscape assessments as outlined in Mitigation Measures C1 to C10, PP1 to 4, SP1 and relevant objectives in the Clare CDP 2017-2023.

Sp6: If new access is being provided for from the northeast shore of the island or from any other new landing place on the island, it should be ensured that any new paths leading from this new pier avoid crossing areas of tall herb swamp that are currently representative of Annex 1 habitat hydrophilous tall herb fringe community (6430) in favourable conservation condition. In addition any removal of vegetation, should be kept to a minimum.

SP7: Proposed construction works associated with the pier should be completed at an appropriate time of year to minimise disturbance to breeding and overwintering bird species. Construction activity for a proposed new pier should commence in the second half of August and be completed in as short a time frame as possible so as to avoid the overwintering season. It would be preferred it all

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construction works associated with the proposed pier could be completed over a 3 month period between the latter half of August and the first half of October.

SP8: Proposed new pier on northeast –has been moved slightly east to avoid disturbance to existing reedbeds.

GR: Grazing and Woodland Management

General Recommendations

GR1: Active management and monitoring of trees and scrub is necessary. The growth and spread of trees and scrub can disturb and damage buried archaeological deposits and undermine aboveground remains.

GR2: Where necessary, trees should be cut off at ground level and the stumps treated to prevent re-growth; the stumps should be left to rot rather than dug out.

GR3: Windblown trees can uproot soil, disturbing and destroying archaeological contexts; if possible, their trunks should be cut and the root-plate eased back into place.

GR4: Mature trees on the island have potential to function as bat roosts and nesting bird sites. Where trees are to be felled to avoid wind-throw and disturbance to archaeology, then it should be completed at an appropriate time of year between the months of September and November (i.e. outside the bat maternity season and bird nesting season). any trees to be felled should be inspected and surveyed for roosting bats by an prior to felling.

GR5: Any tree felling should be undertaken in line with Transport Infrastructure Irelands Guidelines for the Treatment of Bats during the Construction of National Road Schemes.

GR6: In some areas (e.g. St Michael's) saplings and woody plants should be removed by cutting off the stems close to the ground and treating them, while scrub and bracken should also be controlled.

GR8: Loose branches should be removed from the site as they can encourage rabbit colonisation.

GR9: Particular care should be taken to avoid loss of soil cover in the meadows on the island. Grazing and human footfall will impact this while weather conditions will also be a factor.

GR10: Existing grass cover should be maintained to protect the archaeology from erosion damage, especially the earthworks.

GR11: Where erosion has taken place and the protective cover of soil has been broken, re-seeding may be necessary. Any necessary re-seeding of native grasses and other grassland improvement should not include soil disturbance of any kind.

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GR12: No landscaping should be undertaken: uneven/undulating ground should not be smoothed out.

GR13: An archaeologically informed programme for such activities as grass-cutting should be put in place. Burning should not be undertaken and burrowing activities of animals such as rabbits should be monitored.

GR14: If new trees are being planted, ministerial consent must be sought and if granted, ground disturbance must be archaeologically monitored. In general, planting of trees should be avoided; natural regeneration is preferable and Clare Development Plan states that sites should avail of existing topography and vegetation. A new small scheme of native hedging is proposed to provide screening around the proposed pods. This will be subject to a geophysical survey in advance of any tree planting.

GR15: A more sustainable grazing scheme is needed in order to protect the archaeology and enhance the biodiversity value of the island. Cattle should be removed from the island not permitted to graze on the island in the future. Cattle should be replaced with other livestock that will have less ground impact.

GR16: The Cotswold AONB Partnership archaeology and farming guide notes that ‘the best stocking regime for archaeological sites is sheep ... [as] Sheep rarely cause problems unless they are overstocked’ (Russell 2003, 7). Cattle have a greater weight than sheep and therefore have more impact on archaeological features, both above and below ground. Sheep usually cause less damage than cattle to earthwork banks and other historic pathways.

GR17: The Plan provides details on a proposed grazing regime for the island and the number of livestock units on the island (no matter what the breed) should be capped to ensure minimum damage in terms of erosion of archaeological features and grazing pressure to grassland and woodland habitats.

P: Pathways

Note, as part of the plan preparation process, proposed pathways have been modified to avoid going through areas of greater ecological sensitivity including the woodlands, marsh habitat representative of 6430 Annex 1 habitat and close to the existing reedbeds on the northern parts of the site.

It is hoped that the provision of new paths will keep tourists away from the most vulnerable and sensitive archaeological and ecological zones and control their movement in an effort to minimise inappropriate behaviour (e.g. climbing church walls) while providing a good view of all the monuments.

P1: While consideration of the intended users of the new paths is crucial, the site-type and landscape through which the paths will pass must also be taken into account when deciding what type of

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pathways should be developed; there must be a balance between the needs and expectations of users and the archaeological environment in which the paths will be located. According to the National Trails Office (2008, section 1.1), a sustainable recreational trail must not impact ‘negatively on the ability to use this resource [in this case the archaeological site] in the future’, and must not impact negatively on the heritage or environment of the site (2012, section 1.7).

P2: Ministerial consent must be sought before any new pathways are created (it is acceptable that records may not be available for older routes established in the past); depending on the level of disturbance involved in their provision a detailed Archaeological Impact Assessment may need to be commissioned.

P3: A geophysical archaeological survey should be carried out prior to laying down new paths; this is particularly important in the vicinity of the earthworks as the survey will reveal their true extent and complexity. The results of this survey should inform any decisions regarding the layout and positioning of new paths which should follow the route which will cause the least amount of impact.

P4: The number of new paths created should be kept to a minimum.

P5: New pathways should be minimised in fringing tall herb swamp habitat. Only one section pathway should be placed in this habitat to provide access to the proposed new landing pier.

P6: Any new pathways in woodland habitat should minimise disturbance to woodland. Pathways in woodland habitat should follow existing livestock paths within woodland habitat. No mature trees should be removed in woodland habitat to cater for new pathways. These pathways should be designed around existing trees to minimise tree clearance.

P5: Older tourist paths already established should be reinstated if deemed suitable, e.g. the path which was laid down c.2001 leading from the northwest pier the initial saturated section needs to be addressed.; any new pathway in this area should ideally follow the existing track and avoid the earthwork nearby in order to prevent it from being eroded on the slope. This ‘road’ is a right of way and so should be maintained for legal, social, and historical reasons in accordance with the Burra Charter.

P6: New paths must respect the aesthetic quality and cultural significance of the island; this can be achieved by limiting the number and size of the paths, through the use of appropriate materials, and especially by avoiding archaeologically sensitive areas.

P7: In particular, the new paths should not follow, or be laid down close to any existing pilgrims' paths or earthworks; in addition they should not enter the historic cemeteries, especially the Saints' Graveyard. Ideally the earthworks should be avoided completely but in circumstances where the paths cannot avoid the earthworks, they should cross them at an angle (i.e. perpendicular to the line of the earthwork) and ideally at a single point but under no circumstances should they follow the line of the earthworks. Any proposed path through the centre of the island east/west is problematic due

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to the complexity of the earthworks in this area, especially in the vicinity of St Michael's; the pilgrims' path in this area is an archaeological monument of some complexity and the space between the banks of the pilgrims' path is quite narrow and constricted in reality, and should not be used to accommodate the movement of tourists as this will erode its surface and the associated banks. The existing path leading into St Michael's burial ground/'kissing stone' should not be upgraded or altered as this will involve damage to the probable ruins of the church that have inadvertently been incorporated in the track.

P8: Any proposed pathways should be designed of material overlaying the ground so that ground disturbance can be avoided where possible. As indicated by the Burra Charter, section 15.2, 'Changes [in this case the provision of paths] which reduce cultural significance should be reversible'; paved paths should be avoided.

P9: The earthworks (incl. banks, ditches, paths, mounds, etc.) are archaeological monuments which are protected RMPs (RMP: CL029-009002-), and should be preserved and treated with the same respect as the more visually impressive stone monuments on the island. This is also true of the penitential stations (see Appendix 3). New paths should avoid earthworks and penitential stations.

P10: Ground should never be 'landscaped' and undulating ground should never be smoothed out.

P11: Walking on pilgrims' paths and earthworks should be discouraged by tour guides or visitor centre information.

P12: If new paths cross earthworks, they should be monitored regularly, particularly during busy periods or periods of drier or wetter weather.

P13: The paths should avoid, where possible, areas of overgrowth. In circumstances where it is not possible to avoid such areas, removal of roots needs archaeological supervision as the roots are likely to have penetrated into archaeological material. Where practical, this work should take place when the soil is dry.

P14: Section 22 of the Burra Charter identifies that any new work 'should be readily identifiable as such', and so the paths should be visually distinctive from the medieval and post-medieval pilgrims' paths and other earthworks on the island, and should not attempt to mimic them.

SI: Signage.

More detail on the proposed interpretation is provided in the PLAN and physical interpretation is proposed as part of the visitor centre (off island). Measures for signage on the island is provided below:

SI 1: Overall, new signage should be avoided as its insertion may necessitate ground disturbance. It also imposes visually on the experience of the site. If new signs are to be erected they should sit on the ground, and should not cause ground disturbance.

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SI2: Consideration may be given to removing existing signage, which provides out-of-date information.

SI3: Information should be provided in the proposed interpretive centre on the mainland, by trained tour guides, and/or via a downloadable app.

F: Fencing

F1: Erection of new fencing should be avoided unless absolutely necessary.

F7: Any fenced-off areas will require subsequent management, i.e. mowing and strimming, which should be informed by best ecological and archaeological practice.

TF: Toilet Facilities

The development and provision of toilet facilities on Iniscealtra has the potential to cause damage to the archaeological and cultural significance of the island; it should be noted that other important archaeology sites which function as tourist destinations do not require toilet facilities to operate successfully (e.g. the World Heritage Site of the island of Skellig Michael, Co. Kerry, although this has been raised as a concern in the most recent management plan). Furthermore the introduction of toilet facilities increases the physical elements and proposals on the island and potential hydrological links between the island and Lough Derg. Notwithstanding the above, the current situation of people using bushes for toilets is not feasible and in light of proposed increase of visitor numbers would give rise to nuisance and potentially nutrient run off to Lough Derg. The following approach is recommended:

TF1: Toilets will be provided at the Visitor Centre and on commercial boats, the provision of toilets on the island are essentially 'emergency' toilets and this should be part of the communication to visitors prior to the island and should aim to reduce overall visitor use of these facilities.

TF2: Hand sanitisers will be provided to avoid the need for running water for handwashing.

The absence of power on the island (See Chapter Six, Consideration of Alternatives) means that emergency toilet facilities require low impact wastewater treatment; the reedbed toilet system is the preferred option in this regard.

Reedbed Toilet Systems

TF3: Few archaeology sites have reedbed toilet systems and so it is difficult to determine their potential impact on the archaeology; Bodiam Castle, East Sussex, which functions as a visitor centre, has developed a reedbed system (National Trust 2011).

TF4: Any plans involving the provision of reedbed toilet systems on Iniscealtra needs to be cognisant of the sensitive landscape setting. The toilet site should be carefully selected so as to minimise visual

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impact on the sensitive surroundings; this includes consideration of lines of sight from the monuments that could be affected and negatively impact the historical integrity of the site and visitor experience.

TF4: The provision of a reedbed toilet system on Iniscealtra may necessitate the removal of overgrowth in the vicinity and potentially the planting of reeds; this would require ministerial consent and archaeological monitoring as it would involve ground disturbance.

TF5: We recommend that the toilets be as far from the archaeological core of the site as possible (i.e. not in the eastern sector of the island nor in the vicinity of St Michael's). The area in the vicinity of the proposed northeast pier or the existing northwest pier is probably most suitable from an archaeological perspective; it is also an area already densely occupied by natural reedbeds.

TF6: the toilets and reedbed habitats should be situated outside areas of high nature conservation value. The reedbed system should include a species list that is made up of hydrophilous vegetation occurring at the island. Hydrophilous vegetation species not associated with the island should be avoided. This is to ensure that the seed stock of surrounding tall herb swamp vegetation is not altered by the introduction of new vegetation.

SH: Shelters:

Proposal to Upgrade Fisherman's Hut

SH1: The hut has been vandalised and its door has been detached. Cattle regularly enter the currently open doorway of the hut, which causes damage. Also, one of the hut's rafters has become detached so the roof is at risk of collapse. The structure is in urgent need of repair.

SH2: Any proposed works involving the fisherman's hut should ensure its preservation as an interesting vernacular structure connected with the post-medieval use of the island for fishing and farming.

SH3: any proposed works to the fisherman's hut should be preceded by a bat inspection and where deemed necessary a bat survey. This hut is infrequently used as a night roost by bats. Where upgrades to the fisherman's hut are proposed, measures to enhance its potential to support roosting bats should be incorporated into the upgrade design.

SH3: Following conservation, the hut could be re-used as a convenient shelter.

Proposal to Provide Rain Shelters, Unobtrusive Pod, or Storm Shelter

SH4: Any proposed shelters constructed on the island should avoid visual imposition and preserve lines of sight from the monuments in order to ensure the historical integrity of the site and visitor experience. The area in the vicinity of the proposed northeast pier or the existing northwest pier is

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probably most suitable from an archaeological perspective; it is preferable that all modern structures are grouped together.

SH5: Ground disturbance should be avoided.

SH6: The use of construction machinery should be avoided on the island where possible, and should always avoid crossing/landing on archaeologically sensitive zones as identified in the inventory (Appendix 3) and in proposed geophysical surveys.

Construction Environmental Management Plan

Visitor Centre.

- Clare County Council (CCC) will be informed in advance of construction activities in sensitive environmental areas.
- CCC will be informed of all construction or maintenance works located within the vicinity of European Sites, NHAs or pNHAs or in the vicinity of watercourses linked to these designated conservation areas. Monitoring of works in these locations will be undertaken and the results of monitoring will be provided to CCC.
- Where works are undertaken in/adjacent to sensitive environmental receptors all construction/maintenance staff will be inducted by means of a “Tool-box Talk” which will inform them of environmental sensitivities and the best practice to be implemented to avoid disturbance to these receptors
- All construction and maintenance works will be undertaken in accordance with the following guidance documents:
- Inland Fisheries Ireland’s Requirements for the Protection of Fisheries Habitat during Construction and Development Works.
- CIRIA (Construction Industry Research and Information Association) Guidance Documents
- Control of water pollution from construction sites (C532)
- Control of water pollution from linear construction projects: Technical Guidance (C648)
- Control of water pollution from linear construction projects: Site Guide (C649)
- Environmental Good Practice on Site (C692)
- NRA Guidance Documents

Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes

Guidelines for the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads

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Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub
Prior to, during and Post Construction of National Road Schemes

- Any excavations and/or vegetation removal will be minimised during construction and/or maintenance works.
- Excavated material will not be stored immediately adjacent to watercourses.
- Disturbance to natural drainage features should be avoided during the construction and/or maintenance of routes.
- Construction machinery should be restricted to public and or site roads. As a general rule machinery should not be allowed to access, park or travel over areas outside the footprint of proposed walking/cycling routes.
- During route maintenance no construction activities should be undertaken at watercourse crossing in wet weather conditions.
- Suitable prevention measures should be put in place at all times to prevent the release of sediment to drainage waters associated with construction areas and migration to adjacent watercourses. To reduce erosion and silt-laden runoff, create, where possible, natural vegetation buffers and divert runoff from exposed areas, control the volume and velocity of runoff, and convey that runoff away from.
- Where necessary drainage waters from construction areas should be managed through a series of treatment stages that may include swales, check dams and detention ponds along with other pollution control measures such as silt fences and silt mats
- Where vegetation removal associated with treelines, hedgerows, individual mature trees, scrub or woodland is required, this shall only be undertaken outside the breeding bird season, between March and August inclusive.
- Where extensive areas of ground are to be exposed during route construction or maintenance dust suppression should be undertaken during periods of dry weather.
- All chemical substances required during construction and/or maintenance works will be stored in sealed containers.
- Any refuelling or lubrication of machinery will not be undertaken within 50m of a watercourse
- Spill kits will be required on site during construction and/or maintenance works.
- Ensure non-native, invasive species do not occur at construction/maintenance areas, or if occurring, are not spread as a result of works. The NRA Guidance on Invasive species, outlined above will be adhered to.
- Disseminate information on sensitive ecological receptors, such as sensitive habitats, breeding upland birds etc. occurring adjacent to or in the wider area surrounding routes. This information will aim to educate recreational users on the conservation status and sensitivities of such receptors to encourage responsible usage of routes.

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Construction Environment Management Plans (CEMPs)

A CEMP Shall be prepared in advance of the physical elements proposed as part of the Inis Cealtra PLAN and will be implemented throughout. Such plans shall incorporate relevant mitigation measures indicated in this Appendix to the Operational Programme and any lower tier Environmental Impact Statement or Appropriate Assessment.

- CEMP will be prepared in advance of construction activities in sensitive environmental areas.
- Where construction or maintenance works are located within the vicinity of European Sites, NHAs or pNHAs or in the vicinity of watercourses linked to these designated conservation areas. monitoring of such works will be undertaken and the results of monitoring will be provided to CCC.
- Where works are undertaken in/adjacent to sensitive environmental receptors all construction/maintenance staff will be inducted by means of a “Tool-box Talk” which will inform them of environmental sensitivities and the best practice to be implemented to avoid disturbance to these receptors
 - All construction and maintenance works will be undertaken in accordance with the following guidance documents:
 - Inland Fisheries Ireland’s Requirements for the Protection of Fisheries Habitat during Construction and Development Works.
- CIRIA (Construction Industry Research and Information Association) Guidance Documents
 - Control of water pollution from construction sites (C532)
 - Control of water pollution from linear construction projects: Technical Guidance (C648)
 - Control of water pollution from linear construction projects: Site Guide (C649)
 - Environmental Good Practice on Site (C692)
- NRA Guidance Documents
 - Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes
 - Guidelines for the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads
 - Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub Prior to, during and Post Construction of National Road Schemes
- Any excavations and/or vegetation removal will be minimised during construction and/or maintenance works.

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- Excavated material will not be stored immediately adjacent to watercourses.
- Disturbance to natural drainage features should be avoided during the construction and/or maintenance of routes.
- Construction machinery should be restricted to public and or site roads. As a general rule machinery should not be allowed to access, park or travel over areas outside the footprint of proposed walking/cycling routes.
- During route maintenance no construction activities should be undertaken at watercourse crossing in wet weather conditions.
- Suitable prevention measures should be put in place at all times to prevent the release of sediment to drainage waters associated with construction areas and migration to adjacent watercourses To reduce erosion and silt-laden runoff, create, where possible, natural vegetation buffers and divert runoff from exposed areas, control the volume and velocity of runoff, and convey that runoff away from.
- Where necessary drainage waters from construction areas should be managed through a series of treatment stages that may include swales, check dams and detention ponds along with other pollution control measures such as silt fences and silt mats
- Where vegetation removal associated with treelines, hedgerows, individual mature trees, scrub or woodland is required, this shall only be undertaken outside the breeding bird season, between March and August inclusive.
- Where extensive areas of ground are to be exposed during route construction or maintenance dust suppression should be undertaken during periods of dry weather.
- All chemical substances required during construction and/or maintenance works will be stored in sealed containers.
- Any refuelling or lubrication of machinery will not be undertaken within 50m of a watercourse
- Spill kits will be required on site during construction and/or maintenance works.
- Ensure non-native, invasive species do not occur at construction/maintenance areas, or if occurring, are not spread as a results of works. The NRA Guidance on Invasive species, outlined above will be adhered to.
- Disseminate information on sensitive ecological receptors, such as sensitive habitats, breeding upland birds etc. occurring adjacent to or in the wider area surrounding routes. This information will aim to educate recreational users on the conservation status and sensitivities of such receptors to encourage responsible usage of routes.

CEMPs typically provide details of intended construction practice for the proposed development, including:

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- a. location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse,
- b. location of areas for construction site offices and staff facilities,
- c. details of site security fencing and hoardings,
- d. details of on-site car parking facilities for site workers during the course of construction,
- e. details of the timing and routing of construction traffic to and from the construction site and associated directional signage,
- f. measures to obviate queuing of construction traffic on the adjoining road network,
- g. measures to prevent the spillage or deposit of clay, rubble or other debris,
- h. alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works,
- i. details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,
- j. containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater,
- k. disposal of construction/demolition waste and details of how it is proposed to manage excavated soil,
- l. a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains,
- m. details of a water quality monitoring and sampling plan.
- n. if peat is encountered - a peat storage, handling and reinstatement management plan.
- o. measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed).
- p. appointment of an ecological clerk of works at site investigation, preparation and construction phases.

Biosecurity measures to reduce risk of spread of alien and invasive species

Any soil or topsoil required within the plan area will be sourced from a stock that has been screened for the presence of any invasive species and where it is confirmed none are present.

All machinery will be thoroughly cleaned and disinfected prior to arrival and departure from the site to prevent colonisation or introduction of invasive species. This process will be detailed in the contractor's method statement.

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Inland Fisheries Ireland and Canoeing Ireland have produced guidelines for the disinfection of paddle sport equipment to prevent the spread of invasive species.

8.1.9 Monitoring

It is proposed, in line with the SEA of the Plan, to base monitoring on a series of indicators, which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water pollution levels. Monitoring will focus on the aspects of the environment that are likely to be significantly impacted upon by the implementation of the Inis Cealtra plan.

The targets and indicators are derived from the Strategic Environmental Objectives (SEOs) discussed in Chapter Five. The target underpins the objective whilst the indicators are used to track the progress of the objective and targets in terms of monitoring of impacts.

The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component. Similarly, monitoring will be carried out frequently to ensure that any changes to the environment can be identified. This monitoring programme will guide one of the key mitigation measures contained within the Environmental Management Plan presented in Chapter Eight.

Frequency of Monitoring and Reporting

Given the proposed increase in visitor numbers envisaged through the Inis Cealtra Plan the potential impacts of this increase is identified as a key potential environmental issue. Therefore as part of the EMP, annual monitoring is proposed pre and post peak visitor season for Years 1 to 5. Further detail is provided in Chapter Eight.

With regard to natural heritage should new data or the following occur, additional monitoring will be required:

Trampling/disturbance to priority habitats

In turn the list below is subject to review at each reporting stage to reflect new data. Should the monitoring regime identify significant impacts (such as impacts on designated sites) early on in the Plan implementation, this should trigger a review of the Plan and monitoring regime. In addition, the identification of positive impacts from monitoring should also be reported as this will assist in determining successful environmental actions.

Finally, it is recommended that the monitoring report be made available to the public upon its completion. Table below presents the targets for natural heritage monitoring for the Plan. These monitoring actions are in line with the Monitoring requirements outlined in the Plans SEA.

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Table 8.1: Natural Heritage Monitoring

Objective	Target	Indicator	Data Source
B1 – Protect, conserve, enhance where possible and avoid loss of diversity and integrity of the broad range of habitats, species and wildlife corridors.	<p>No reduce in length or loss of hedgerows associated with plan.</p> <p>Operators who conduct mechanical hedge cutting should have achieved the Teagasc proficiency standard MT 1302-Mechanical Hedge Trimming.</p> <p>No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the plan.</p>	<p>Percentage of unique habitats and species lost in non-designated sites within the plan area of the plan over the lifetime of the Plan through trending of annual/bi-annual surveys.</p> <p>EIA and AA project level habitat survey and assessment associated with planning applications.</p>	<p>CCC OPW Coillte NPWS Shannon RBD/National RBD NPWS CCC OPW National Biodiversity Data Centre</p>
B2 – To achieve the conservation objectives of European Sites (SACs and SPAs) and other sites of nature conservation.	<p>No loss of protected habitats and species associated proposals arising from the plan.</p> <p>No compromise in the favourable conservation condition of European sites in particular the Lough</p>	<p>Percentage of unique habitats and species lost in designated sites through plan planning applications.</p> <p>No./percentage of developments in/near Natura 2000 network.</p>	<p>CCC</p>

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	Derg SPA and wetland habitats associated with Inis Cealtra		
B3 - Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries as well as protected species outside these areas as covered by the Wildlife Act.	<p>No loss of protected habitats & species during the lifetime of the plan.</p> <p>Submission of HDA for proposed developments with planning applications in/and/or near Natura 2000 sites</p>	<p>Percentage of unique habitats and species lost in designated sites through trending of annual surveys.</p> <p>Provision/No. of HDAs with developments proposed for sites in/and/or near Natura 2000 sites</p>	CCC
B4 - Meet the requirements of the Water Framework Directive and the Shannon River Basin Management Plan/National River Basin Management Plan	<p>All waters within the plan area to achieve the requirements of the WFD and the relevant River Basin Management Plan by 2027.</p> <p>Ensure provision of riparian zones at project/site level</p>	<p>No of surface and groundwater bodies achieving “Good Status”.</p> <p>No of waterbodies indicating deterioration in status.</p> <p>No of planning applications associated with plan (or EIA) with sufficient inclusion of buffer zones where necessary and applicable.</p>	
B5 – To minimise and, where possible, eliminate threats to bio-diversity including invasive species.	<p>Prevent the introduction of new invasive or alien species to Inis Cealtra in particular.</p> <p>Control/manage new</p>	<p>Prevent the introduction of new invasive or alien species on Inis Cealtra.</p> <p>Control/manage new invasive species associated with proposals for plan</p>	CCC

	invasive species in line with Clare CDP 2017-2023		
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8.2 LIKELIHOOD OF MITIGATION MEASURES AND ENVIRONMENTAL SAFEGUARDS SUCCEEDING

The mitigation measures and environmental safeguards outlined above are taken from established best practice guidelines that have been successfully implemented for a wide range of project-level infrastructural developments. These measures have undergone extensive and rigorous monitoring for their effectiveness at development sites where they have previously been applied to ensure adverse environmental impacts are avoided.

The results of this monitoring and the recommendation of these measures as standard best practice guidelines for any future projects arising out of the Plan is based upon their high degree of success in ensuring negative environmental impacts are avoided.

The best practice guidance that have informed the mitigation measures and environmental safeguards proposed in this assessment and that will be adhered to throughout the construction and operation of the proposed development include:

- The Good Practice Guidance notes proposed by EA/SEPA/EHS:
- PPG1: General Guide to the Prevention of Water Pollution
- PPG2: Above ground oil storage tanks
- PPG4: The disposal of sewage where no Main Drainage is Available
- PPG5: Works In, Near or Liable to Affect Watercourses
- PPG10: Working at Construction and Demolition Sites.
- PPG21: Pollution Incident Response Planning
- PPG26: Dealing with Spillages on Highways
- CIRIA Environmental Good Practice on Site.
- CIRIA Control of Water Pollution from Construction Sites. Technical Guidance C648.
- CIRIA SuDS Manual Technical Guidance C697.
- Development on Unstable Land. Department of Environment (DOE), UK.

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9. CONCLUSION

It is concluded that, provided the mitigation measures and the guidelines outlined in this assessment are implemented this Inis Cealtra Plan will not result in likely significant effects to the:

Special conservation interest species, namely cormorant, common tern, tufted duck and goldeneye of the Lough Derg SPA; or

Special conservation interest Wetland habitat of the Lough Derg SPA.

These measures will ensure that the Plan does not result in likely significant effects to the conservation status and integrity of this European Sites.

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APPENDIX A: EUROPEAN SITES IN THE WIDER 15KM RADIUS OF THE STUDY SITE

Current guidance on undertaking EU Habitats Directive Article 6 Assessments advises that all European Sites occurring within a 15km radius of a Plan should first be included within a Screening Assessment (Scott Wilson et al., 2006; DEHLG, 2010). Apart from Lough Derg SPA, nine other European Sites, comprising of eight SACs and one SPA occur within the surrounding 15km radius of Inis Cealtra and the proposed visitor centre at Mountshannon (see Figure 1 & 2; Table 1 for list of European Sites).

A preliminary Screening of these European Sites to identify which, if any, of these sites occur within the sphere of influence of the project.

A source-pathway-receptor model has been used to establish which European Sites could occur within the sphere of influence of potential indirect impacts. Under such a model the Plan represents the source.

Potential impact pathways are restricted to hydrological pathways as this represents the principal emission generated by activities at the Plan.

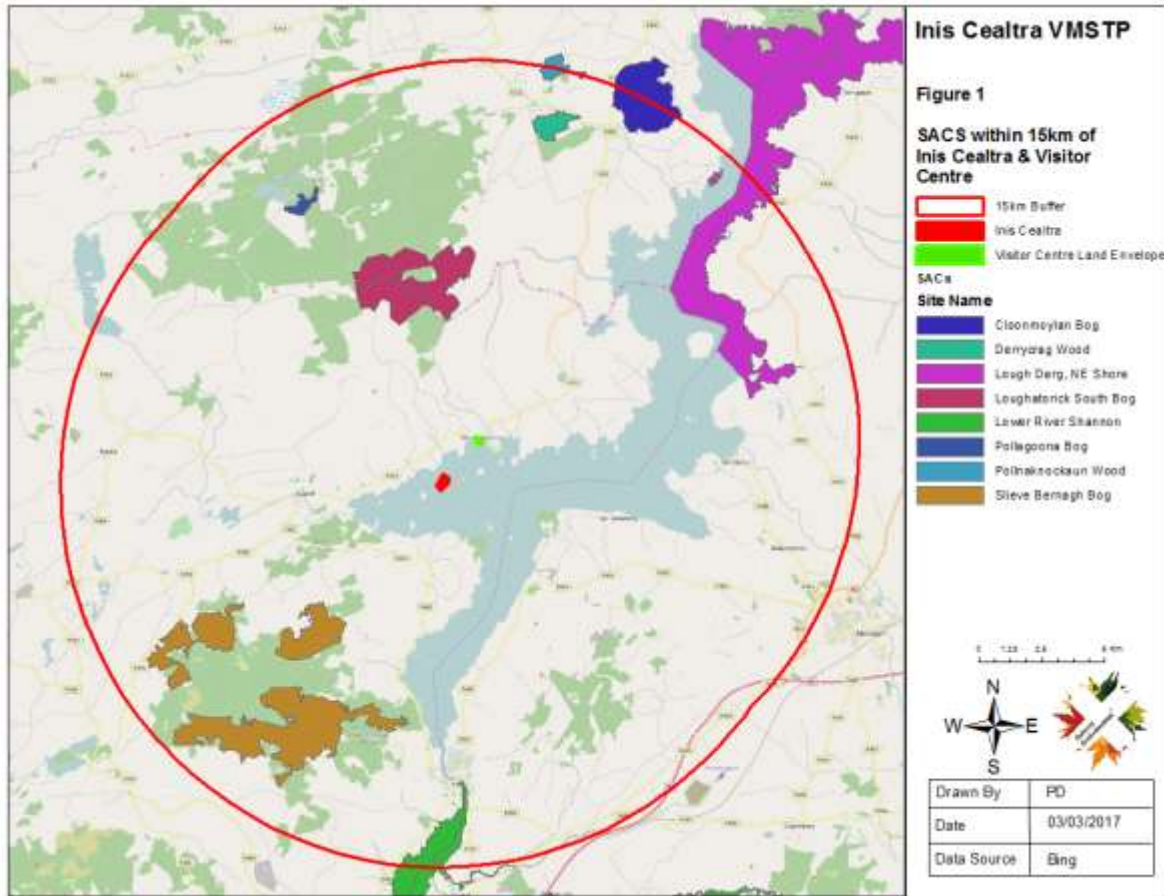
The receptors represent European Sites and their associated qualifying features of interest.

European Sites and their associated qualifying features are likely to occur in the sphere of influence of the Plan only where hydrological pathways establish a link between the project and the European Site or where the Plan is likely to play an important role in supporting populations of Annex 2 species that are listed as special conservation interests/qualifying species for surrounding European Sites. Table 1 provides a determination as to whether each European Site within a 15km buffer distance of the Plan area occur within its sphere of influence. This determination has been undertaken in line with the following assessment questions:

- Is there a hydrological pathway linking the Plan to European Sites and does this pathway have the potential to function as an impact pathway?
- Are qualifying habitats of these European Sites at risk of experiencing impacts as a result of the Plan?
- Does the Plan have the potential to interact with or support Annex II qualifying species/special conservation interest species of these European Sites?

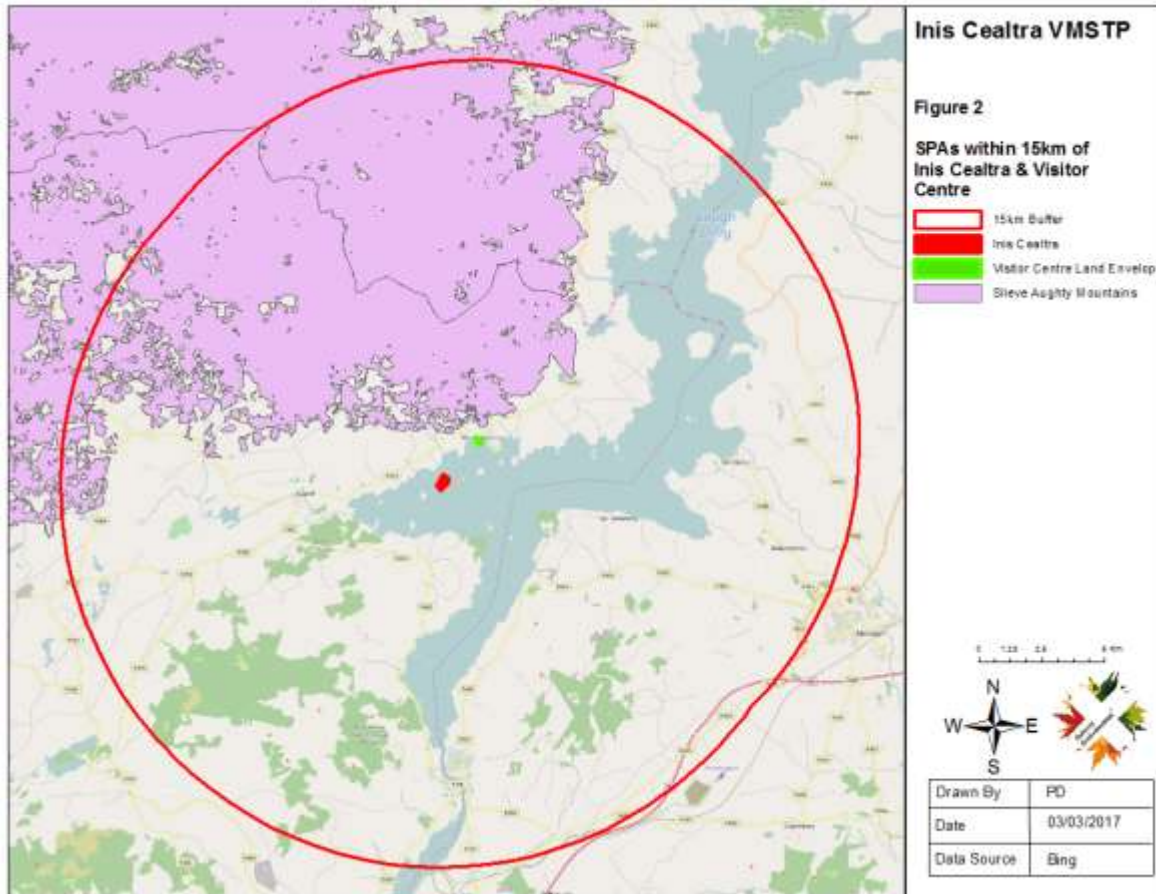
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Table.1: European Sites occurring in the wider 15km area surrounding the Plan

European Sites	Distance from Project Site	Is there a Hydrological Pathway and does it have the potential to function as an Impact Pathway	Do qualifying habitats of the European Site occur within the sphere of influence of the Project	Do qualifying species of the European Site occur within the sphere of influence of the Project	Does the European Site or features of the European Site occur within the Projects Sphere of Influence?
Cloonmoylan Bog SAC	13.5km to the northeast	No. This is an ombrotrophic peatland site, designated for the occurrence of a range of Annex 1 peatland habitats. There is no link between the project site and this SAC	No. All Annwx 1 habitats are located at a remote distance from all elements of the Plan	No. No Annex 2 species are listed as qualifying feature of interest for this SAC.	No.
Derrycrag Wood SAC	11.5km	No. This SAC is designated for terrestrial woodland habitats located at a remote distance from all elements of the Plan.	No. See comments opposite.	No. No Annex 2 species are listed as qualifying feature of interest for this SAC.	No.

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Lough Derg, North East Shore SAC	10km to the northeast	No. While this SAC is located within the same waterbody, Lough Derg, as the Plan and all its associated elements. It is designated for its role in supporting fringing and terrestrial Annex 1 habitats. It is located upstream of the Plan and is situated at a remote distance that provides a sufficient buffer zone between the Plan and this SAC. Furthermore this SAC was not considered to occur within the sphere of influence of the Plan during the SEA and Appropriate Assessment.	No. All qualifying habitats of this SAC are located at very remote distances from the project site.	No. All qualifying species of this SAC are located at very remote distances from the project site.	No.
Loughatorick South Bog SAC	5km to the north	No. This is an ombrotrophic peatland site, designated for the occurrence of a range of Annex 1 peatland habitats. There is no link between the	No. All Annex 1 habitats are located at a remote distance from all elements of the Plan	No. No Annex 2 species are listed as qualifying feature of interest for this SAC.	No.

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		project site and this SAC			
Lower River Shannon SAC	12km to the south.	No. While this SAC is located downstream of the project site, the Lough Derg waterbody will effectively function as a hydrological break between the Plan and its elements and this SACs. Any potential emissions to the lake arising from the plan elements will be restricted to the Lough Derg.	No. All Annex 1 habitats are located at a remote distance from all elements of the Plan.	No. the distance buffering the Plan from this SAC and its associated qualifying species is sufficient to ensure that the Plan will not present a risk to the Annex 2 species associated with this SAC.	
Pollagoona Bog SAC	11.5 to the northwest	No. This is an ombrotrophic peatland site, designated for the occurrence of a range of Annex 1 peatland habitats. There is no link between the project site and this SAC	No. All Annex 1 habitats are located at a remote distance from all elements of the Plan	No. No Annex 2 species are listed as qualifying feature of interest for this SAC.	No.
Pollnacknock-aun Wood	14.5km to the north	No. This SAC is designated for terrestrial woodland habitats	No. See comments opposite.	No. No Annex 2 species are listed as qualifying feature of interest for this	No.

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SAC		located at a remote distance from all elements of the Plan.		SAC.	
Slieve Bernagh SAC	6.7km to the south	No. This is an ombrotrophic peatland site, designated for the occurrence of a range of Annex 1 peatland habitats. There is no link between the project site and this SAC	No. All Annex 1 habitats are located at a remote distance from all elements of the Plan	No. No Annex 2 species are listed as qualifying feature of interest for this SAC.	No.
Slieve Aughty Mountains SPA		No. This SPA is designated for its role in support breeding populations of hen harrier. This is an upland site not linked to the project site.	No. the habitats upon which hen harrier rely are located at a remote distance from the Plan.	No. the hen harrier population of tis SPA do not rely on Lough Derg.	No

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APPENDIX B: SEA AND AA SCREENING OF PROPOSED ADDITIONS TO THE PLAN

INTRODUCTION

This addendum assesses the proposed new additions to the VMSTDP against the SEA and AA processes. New text proposed is presented in blue font. Table 1 presents the proposed text, accompanied by a response from the SEA and AA. Table 2 provides a SEA Screening under Schedule 2a of the SEA regulations (2004) as amended. Table 3 provides a screening against Habitat Directive Assessment criteria. The report provides a concluding statement also.

Table 2 Proposed additional text to VMSTDP and response from SEA and AA.

	New text	SEA COMMENT	AA COMMENT
1	Location of the visitor centre Changes 1. old rectory (now for sale) 2. the Aistear Centre – ; assuming upward extension/replace ment . now included on list and appraised in	<p>Table 15 of the SEA ER has included these in the assessment of alternatives and against the SEOS. The following commentary is taken from Table 15 of the SEA ER:</p> <p>Site 12: the Old Rectory: Site no 12 would involve reuse of and likely extension to the existing Rectory building. It would have the advantage of reusing a fine historic building with strong heritage value . However to accommodate a visitor centre in this building would require adaptation and addition of new accommodation given the visitor numbers proposed in the</p>	<p>An assessment of the proposed use of these sites as alternatives to the preferred visitor centre location outlined in the plan is provided below.</p> <p>The Old Rectory is an existing structure but would require adaptation and addition of new accommodation given the visitor numbers proposed in the plan. The larger site area could facilitate this additional accommodation. accessibility from the main street and there may also be constraints accessing this location via the Aistear Park as such access</p>

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	New text	SEA COMMENT	AA COMMENT
	matrix and paragraph below	<p>plan. The larger site area could facilitate this additional accommodation. Therefore positive effects are identified for Cultural Heritage and Soil and Geology SEOs in this scenario.</p> <p>However, the orientation of the Rectory offers a poorer view to the island, and this is one of the key design considerations for the visitor centre.</p> <p>The main environmental constraint associated with Site 12, similarly to Sites 4 and 5 relates to accessibility from the main street and there may also be constraints accessing this location via the Aistear Park as such access may not be as easily facilitated to this location. In turn, this may result in the requirement for additional physical interventions such as additional footpaths through the Aistear or a new footpath between the Aistear and adjacent lands to the west. The issue of promoting circulation from the main street via the Aistear Park is not easily realised at this location. Additional physical interventions to enhance access at this site may result in local adverse effects on population and human health, biodiversity and material assets SEOS. Removal or thinning of trees may</p>	<p>may not be as easily facilitated to this location. In turn, this may result in the requirement for additional physical interventions such as additional footpaths through the Aistear or a new footpath between the Aistear and adjacent lands to the west.</p> <p>The Aistear Centre Option would require considerable works and alterations, either through demolition of existing buildings and removal/reorganising of the Aistear Maze. Some removal of trees may be required and additional landscaping to reinstate the maze if necessary.</p> <p>This would require considerable works to accommodate the envisaged visitor numbers and proposed contents of the Visitor Centre.</p> <p>Both alternative sites are located close to the lakeshore and</p>

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	New text	SEA COMMENT	AA COMMENT
		<p>also be required under this scenario.</p> <p>In summary, this option gives rise to positive effects in relation to re-use of an existing historical building (and Cultural Heritage and Soil and Geology SEOs), as well as avoidance of development on flood risk as it is outside Flood Zones A/B. However this is tempered by potential adverse effects in relation to views to the island (a design and landscape consideration) and transport and accessibility around the site.</p> <p>Site 10 is the current Aistear centre itself. Preliminary assessments viewed this as being too small a footprint (surrounded as it is by the berms and wall of the Aistear maze) to accommodate the scale of building envisaged for the visitor centre. However if one considers a replacement of the current building, possible re structuring of the Aistear maze in part and a design that rises up from the current structure (perhaps to 3 storey), it is possible that an elegant, even iconic solution could emerge. Clearly this would have (at the higher level) good views as well as enjoying the direct connection to both</p>	<p>would require construction activity to make them fit for purpose as a visitor centre.</p> <p>The potential risks posed by these alternative options will be similar to those identified for the Plan's proposed visitor centre.</p> <p>As with the Plan's proposed visitor centre the construction and operation phase of a visitor centre at these alternative locations will have the potential to generate contaminated surface water from denuded areas, construction materials such as fuels and cement and parking areas during the operation phase.</p> <p>Wastewater will be generated at these alternative visitor centre locations during the operation phase and the release of any wastewater from the centre to the lake will have the potential to undermine water quality.</p>

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	New text	SEA COMMENT	AA COMMENT
		<p>main street and down to the lake front.</p> <p>This option would require considerable works and alterations – either through demolition of existing buildings and removal /reorganising of the Aistear Maze. Some removal of trees may be required and additional landscaping to reinstate the maze if necessary.</p> <p>This would require considerable works to accommodate the envisaged visitor numbers and proposed contents of the Visitor Centre.</p> <p>Depending on detailed design for a number of SEOs; positive as with many of the other options in terms of landscape, cultural heritage and population and human health with connectivity to existing village. However, to facilitate this option a considerable works programme is required to include demolition, ground works, new build, services and landscaping. Given the scale of works required to accommodate a new centre here, including demolition of existing buildings, landscaping and construction of a new building, this option is</p>	<p>The Plan includes a range of mitigation measures to ensure that such potential negative affects to the water quality of Lough Derg and the Conservation Objectives of the Lough Derg SPA do not occur during the construction or operation phase. Provided these mitigation measures are implemented in full there will be no potential for a visitor centre at these alternative locations to result in likely significant effects to the conservation status of the Lough Derg SPA.</p>

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	New text	SEA COMMENT	AA COMMENT
		excluded on these grounds.	
2	<p><u>Evaluation of 12 VC sites identified in the draft plan.</u></p> <p>3.3.3</p> <p>In all, 11 sites in the village were identified as having potential and a 12th added after public consultation</p> <p>The sites identified for evaluation (see map in Fig. 16 above) were:</p> <ol style="list-style-type: none">1. North west stretch of southern boundary (lower	<p>This additional text summarises each of the above listed sites and have been assessed already in Table 15 of the SEA ER. The preferred alternative was selected through this process and please sees Table 15 of the SEA ER for more detailed commentary on each of the 12 sites.</p>	<p>See SEA Comment. Table 15 of the SEA assessed each of these sites in terms of their environmental implications and identified preferred options for the visitor centre location. A summary of this assessment and the reasons for exclusion proposed alternative options is provided in Section 3.3.1.1 of the NIR.</p>

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	New text	SEA COMMENT	AA COMMENT
	<p>road) of Aistear Park</p> <ol style="list-style-type: none">2. Middle of southern boundary (lower road) of Aistear Park3. Public open space to lake side of lower road (south east of sailing club)4. Boundary between Aistear Park and the Rectory (along lower road)5. Southern part of rectory site6. Car park for marina/harbour area7. Lake edge park /swimming area near car park8. North east promontory point to lake shore9. Vacant site to main street (with boundary onto Aistear Park)		

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	New text	SEA COMMENT	AA COMMENT
	<ul style="list-style-type: none">10. Current Aistear centre- assuming the potential for extending it upwards11. Off-shore, south of harbour wall on/over /floating upon lake12. The Rectory (building and adjacent areas)		
3	<p>The selected sites were carefully assessed for AA, SEA and FRA as well as being evaluated against the six criteria set out above.</p> <p>Site 1 and 2 are similar being located at the north west of the southern boundary of the Aistear park and adjoin the lower (lakefront) road. They enjoy the advantages of potentially excellent views to Inis Cealtra and can, with careful design, negotiate the change in level down to the lake front. A visitor centre in either of these locations would offer both a connection to main street, make available synergies with the Aistear centre and park, could have almost direct access to embarkation and would enjoy the important visual connection to the island itself. In terms of disadvantages, development of a visitor centre in these locations would obstruct the view to the island from the north/eastern areas of the park and may necessitate removal of some trees.</p> <p>Site 3 is on the current open space southeast of the sailing club on the lake front. It has the advantage of having a lakefront location but this is somewhat offset by an inferior view to the island,</p>		<p>SEA and AA comment:</p> <p>This additional text provides more information and context for the proposed 12 locations as considered through the plan preparation process; and comments apply as above.</p>

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	<p>being more difficult to connect to main street and the Aistear and being challenging in overcoming potential environmental impacts.</p> <p>Sites 4 and 5 are similar in some regard to sites 1 and 2 in that they adjoin or continue on from the southern end of the Aistear park and into the Rectory lands. They enjoy fine views, good access and, particularly for the Rectory (site 5), more space than the previous sites.</p> <p>Development of site 6 would involve replacing the current public parking for the marina/harbour and or building above it. A visitor centre at this location would enjoy good views to Inis Cealtra but would reduce the parking that is a valuable resource for the boating (and to some extent sea eagle watching) activities. It would have no direct connection to main street or the Aistear park and would be more challenging in terms of overcoming environmental impacts than for the above locations.</p> <p>Sites 7 and 8 are on two separate small promontories of land on the lakeshore. A building at either of these two locations would enjoy uninterrupted views of the island and an immediate connection with the water with the opportunity for direct embarkation for visitors. However the sites are limited in size, do not have any tangible connection to main street and both will be extremely challenging from an environment impact perspective.</p> <p>Site 9 is a parcel of land located on main street adjacent to the entrance to the Aistear park. It has the advantages of being located on the main street, reinforcing associations with Mountshannons social and business life, coupled with its direct access to Aistear park which could be used as the route to the lakefront. However, the visitor centre would not enjoy a good view of the island and the site is quite limited in size.</p> <p>Site 10 is the current Aistear centre. Preliminary assessments concluded this was too small a</p>		

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		<p>footprint (surrounded as it is by the berms and wall of the Aistear maze) to accommodate the scale of building envisaged for the visitor centre. However, if a replacement of the current building were to be considered, with possible re-structuring of part of the Aistear maze and a building design that rises up from the current structure (perhaps to 3 storey), it is possible that an elegant, even iconic solution could emerge. This would have good views of the island from the higher level of the building and would enjoy direct connection to both main street and to the lake front.</p> <p>Site 11 is on the lake itself. It would make for a remarkable building but by any standards would present a serious challenge from an environmental impact perspective.</p> <p>Site 12 would involve the reuse, and probable extension, of the existing Rectory building. It would have the advantage of reusing a fine historic building (a Protected Structure) with strong heritage value, although it would most likely require major adaptation and the addition of new accommodation. It is less limited in terms of site area than other possible locations but it has a more restricted view of the island (obscured by trees, the orientation of the main façade of the building and to some extent by the slope of the land) and is further from the main street than some of the other sites assessed.</p> <p>Following the overall assessment of the sites for the visitor centre it is concluded that the most favourable location for a new visitor centre is site 2 which is located at the southern end of the Aistear park. It is envisaged that the visitor centre will be accessed from the main street which will be the start and end point of the visitor centre experience and that this in turn will encourage increased visitor activity in the village centre by encouraging visitors to stay longer to experience all that the local businesses have to offer. Visitors will then walk through the park past the Aistear centre, reinforcing and developing the close synergies and overlaps between the two facilities. The</p>	

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	New text	SEA COMMENT	AA COMMENT
	<p>permanent outdoor exhibition plates on Irish spirituality since pre-history along with the Aistear maze itself are also worthy of incorporation into the interpretive offering of the new visitor centre. These alliances would be mutually beneficial and potentially enhancing local community events and festivals. The community council have created an extremely attractive and well-landscaped park at the lake edge and their co-operation in progressing the development of a new visitor centre at this location will be essential.</p> <p>A number of the sites which have been assessed (sites 1-12 above) are very close in score to that of the preferred option which could present alternative opportunities for development of a visitor centre should the preferred site prove unfeasible.</p>		
	<p>Vision: Inis Cealtra, protected for future generations through exemplary conservation management and interventions and through a balanced and sustainable management approach to providing access for visitors and the local community. An expansion of the visitor experience, enjoyment and respect for the island`s living and built cultural heritage and that of the greater area will be expanded, and an increase in the long-term, socio-economic benefits to both the local community and the</p>	<p>Minor amendment and no significant effects identified with additional text.</p>	<p>Minor amendment to the text outlining the vision of the Plan. This amendment will not have land use implications and will not have the potential to influence the status of the Lough Derg SPA.</p>

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	New text	SEA COMMENT	AA COMMENT
	wider region		
	<p>Overarching Aim:</p> <ul style="list-style-type: none">• To ensure a balance is struck between attracting the maximum number of visitors to Inis Cealtra and ensuring that the natural and built heritage of the island, above and below ground, is not negatively impacted by an unsustainable volume of visitors.• In addition, it is critical that the ensure that the unique ambience and character of the island is not placed at risk through increased visitor numbers.• In conjunction with this to maximise the socio-economic benefits from increased visitor numbers to the island and wider Lough Derg area to support a sustainable rural economy.	As above, minor additions to text, no significant effects identified for this change.	Minor amendment to the text outlining the overarching aims of the Plan. This amendment will not have land use implications and will not have the potential to influence the status of the Lough Derg SPA.

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	New text	SEA COMMENT	AA COMMENT
	<p>Section 2.1.1</p> <p>On the basis of this research two fundamental conclusions emerged which form the key principles on which this Plan is based which are:</p> <p>a) that, in accordance with best international practice, there should be little or no physical intervention on the island itself, this being the most fundamental key objective;</p> <p>b) that, in order to attract greater numbers of visitors to Inis Cealtra and the wider area, while also improving access and ensuring a quality and authentic experience at both, it is critical</p>	<p>This key principles are articulated clearly through the additional text and reflect and state the principles underlying the plan preparation.</p> <p>As such, the ethos of minimal intervention is in line with international best practice as it relates to built heritage in particular.</p> <p>Positive effects are also identified for this in relation to biodiversity, soil and water SEOs. Section b has significant positive long term effects relating to cultural heritage, landscape and population in particular.</p>	<p>As noted in the SEA comment opposite this additional text sets out the Plan’s aims to ensure that the use of Holy Island as a visitor destination does not undermine the cultural and natural heritage of the island and surrounding area.</p> <p>The commitment outlined in this additional text to minimise physical infrastructure on the island and implement mechanisms to control visitor access and usage of the island is considered to be positive in terms of avoiding significant effects to the wetland habitats and special conservation interest bird species supported by Lough Derg SPA.</p>

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	New text	SEA COMMENT	AA COMMENT
	<p>that appropriate new visitor facilities are provided. Failure to provide formal, safe and easy access to the island, coupled with an increase in visitor information, services and facilities, will limit the potential for the sustainable growth in visitor numbers and therefore in realising the full tourism potential to the local economy. Similarly, any potential increase in visitor numbers to the island, without a comprehensive visitor management and development plan in place, addressing visitor access, provision of appropriate modern visitor facilities, etc. is likely to have a detrimental impact on the built heritage and natural</p>		

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	New text	SEA COMMENT	AA COMMENT
	environment of Inis Cealtra		
	Objective 5. To develop the new visitor centre for Inis Cealtra at the south end of the community park in Mountshannon, (Site 2) with views to the island and access from the main street via the Aistear park. Alternative options assessed for the development of a visitor centre, including the Old Rectory and the Aistear Centre, can be explored further should the new build option prove unfeasible.	Minor amendment in the first sentence. The Old Rectory (site 12) and Aistear Centre (site 10) are already assessed in Table 15 of the SEA ER and the commentary is repeated in the preceding section of this table.	Minor amendment to the text relating to access to the Old Rectory and the Aistear Centre. The potential implications of access to these sites is considered above with respect to the SEA and Appropriate Assessment of the use of these two site options as a visitor centre.
	Objective 23: To commission a Conservation Management Plan	Minor amendment to text –no significant effects identified	Minor amendment to text that will not result in any land use

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	focussing on Inis Cealtra's archaeology and monuments prior to any works being advanced initiated on or for the island	with this change.	implications.
	Objective 27: To create a dedicated website for Inis Cealtra visitor along with a social media presence so as to provide information about the island and the visitor centre and to promote the use of Inis Cealtra as the island's name.	As above	Minor amendment to text that will not result in any land use implications.
	Objective 28: To carry out urgent stabilisation, maintenance or conservation work as set out in this Plan to monuments on Inis Cealtra, as soon as possible but	As above	Minor amendment to text that will not result in any land use implications.

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	New text	SEA COMMENT	AA COMMENT
	<p><i>and</i> prior to any increase in visitor numbers or other development work being initiated</p>		
	<p>Traffic Management and Parking (above <i>Design Brief</i>)</p> <p>The issue of carparking in terms of both quantum and location will be examined as part of the project level assessment of the visitor centre. The nature of the assessment will assess whether it be car or bus generated traffic which will inform the preparation of any plans for the visitor centre. Similarly the feasibility of potential traffic calming and shared surface along part of the lakefront road will be considered as part of the overall project. The over-riding</p>	<p>No site identified at this stage and would be subject to more detailed site identification.</p> <p>Enhancing accessibility to the lakefront from the park would give rise to moderate positive effects for pedestrians in and around the visitor centre and to the lake.</p> <p>Subject to the adherence to the full range of mitigation measures presented in the Plan significant adverse environmental effects are not identified for this proposal.</p>	<p>The construction of additional car parking infrastructure and the potential for hydrological emissions during both the construction and operation phase to the Lough Derg SPA were identified as potential risks to the conservation status of the SPA.</p> <p>A range of mitigation measures have been outlined in the Plan to ensure that any emissions arising from the car park during the construction or operation phase do not result in adverse effects to the water quality of Lough Derg or likely significant effects to the conservation status of the SPA</p>

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	New text	SEA COMMENT	AA COMMENT
	principle however, will be the development of a sustainable tourism product.		
	<p>Pilgrims Path its potential for further investigation to develop as a walking route.</p> <p>4.9.4 Add (above <i>National Linkages include</i>)</p> <p>Of these the most easily realisable is the potential creation of a pilgrim trail with Inis Cealtra as the terminus or a principle stop on the route. The visitor centre will provide facilities for such an activity. It is recommended that such a pilgrim path initiative could be undertaken in parallel with the</p>	<p>Support for walking /pilgrim paths is provided for in the Clare CDP 2017-2023 for example through CDP9.22 Tourism in East Clare.</p> <p>New trails would require project level assessment and be subject to detailed design and compliance with existing provisions of the above CDP 2017-2023 as well as those developed for the VMSTP as appropriate. At this stage no proposed pilgrim path route is identified and would require more detailed assessment during route identification and appraisal.</p>	<p>The route the proposed Pilgrim Path has yet to be identified. Where this route traverses European Sites, is linked to European Sites via potential impact pathways, or has the potential to disturb qualifying species of surrounding European Sites, then a Stage 2 Appropriate Assessment will be required. Screening for Appropriate Assessment of a proposed Pilgrims Path will be required to determine if any of the above criteria apply and whether a Stage 2 Appropriate Assessment is needed</p>

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	New text	SEA COMMENT	AA COMMENT
	implementation of the objectives of this plan.		

Table 3 Schedule 2 a SEA Screening Assessment.

Criteria for determining whether the proposed additional text to the VMSTDP is likely to have significant effects on the environment
1. The characteristics of the plan having regard, in particular, to:
<i>the degree to which the additional text sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources,</i>
<p>The additional elements of the Plan relate to the inclusion of additional visitor centre location options, the provisions of associated car parking for the final visitor centre and the Plan’s support for the establishment of a Pilgrims Path.</p> <p>The additional visitor centre options and associated car parking are identified as giving rise to similar environmental effects as those previously identified for the preferred location of the visitor centre. To address these effects, the VMSTDP as well as the SEA and NIR of same outline a comprehensive suite of measures to ensure that any construction associated with the final visitor centre and car park location do not result in likely significant adverse environmental effects. These changes have been assessed against the SEOs and are not identified as given rise to significant</p>

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adverse effects as any projects arising will be subject to the existing provisions of both the Clare CDP 2017-2023 and the mitigation measures identified through the SEA and AA process of the VMSTDP.

The Plan's support of Pilgrims Path will not, at this stage, have the potential to result in likely significant effects to European Sites or give rise to other environmental effects as its route is not known at this point. It is reiterated that once a final route for this path is selected it will be Screened for Appropriate Assessment and where necessary an Appropriate Assessment will be completed of the path's development. The Pilgrims Paths will only be supported by the objectives of the Plan where it can be shown that it will not result in likely significant effects to the conservation status and Conservation Objectives of European Sites.

the degree to which the additional text influences other plans, including those in a hierarchy,

The additional text as presented in Table 1 above does not influence other plans.

the relevance of the additional text in the integration of environmental considerations in particular with a view to promoting sustainable development,

In terms of proposals associated with the additional text the existing mitigation measures which aim to integrate and promote a sustainable development approach to implementing the VMSTDP.

Environmental problems relevant to the additional text

No particular environmental problems are relevant to the additional text.

the relevance of the additional text in the implementation of European Union legislation on the environment (e.g. plans linked to waste-management or water protection).

The additional text is not relevant to the implementation of EU legislation and environment, being relatively minor in nature and extent at this point.

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2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:

the probability, duration, frequency and reversibility of the effects,

Effects are not identified as significant in terms of the above criteria, subject to full implementation of mitigation measures in the Clare CDP 2017 -2023 and those measures developed for the VMSTDP.

the cumulative nature of the effects,

As above

the transboundary nature of the effects

As above

the risks to human health or the environment (e.g. due to accidents),

As above

the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected).

As above

the value and vulnerability of the area likely to be affected due to:

(a) special natural characteristics or cultural heritage

Visitor centre locations – these have been assessed and the locations that are identified as giving rise to most adverse environmental effects (eg on the lake) have been excluded. At SEA level, the remaining options for consideration are not identified as being highly vulnerable and existing mitigation measures, subject to their full implementation will not give rise to significant effects on the special natural or cultural heritage

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characteristics of the Lough Derg SPA or archaeological resources of Holy Island.

(b) exceeded environmental quality standards or limit values,

Not identified as relevant in relation to the additional text proposed. Both the SEA and AA have identified wastewater treatment and capacity as an issue that will require measures in advance of the visitor centre and this approach is in line with key provisions of the Clare CDP 2017-2023.

(b) intensive land-use,

not identified as relevant in relation to the additional text as proposed.

(d) the effects on areas or landscapes which have a recognised national, European Union or international protection status..

It is noted that once identified, a Pilgrims Path may have the potential to influence other European Sites in the vicinity of the path's route. However, as this path has yet to be identified it is not possible to list the European Sites that could occur within the zone of influence of this additional element

The other additional text will not give rise to significant effects on areas or landscapes subject to full implementation of the mitigation measures in the Clare CDP 2017-2023 and the VMSTDP.

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Table 4 Habitat Directive Assessment Criteria.

Criteria	Commentary
Brief description of the project or plan	<p>The proposed additions to the Plan include the following elements that have the potential to result in changes to land use within the Plan area:</p> <ul style="list-style-type: none"> the listing of additional alternative options for the proposed visitor centre; a commitment to providing car parking infrastructure for the proposed visitor centre; and an objective to support an initiative to establish a Pilgrims Path terminating at Inis Cealtra.
Brief description of the Natura 2000 site	<p>The European Sites occurring within the zone of influence of these additional elements to the Plan is restricted to the Lough Derg SPA. It is noted that once identified, a Pilgrims Path may have the potential to influence other European Sites in the vicinity of the path's route. However, as this path has yet to be identified it is not possible to list the European Sites that could occur within the zone of influence of this additional element</p>
Assessment criteria	

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<p>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site</p>	<p>The additional elements of the Plan will have the potential to pose risks to the conservation status of the Lough Derg SPA during the construction and operation phase.</p> <p>These risks are restricted to the potential disturbance of special conservation interest bird species of the SPA and the release of potentially polluting substances to Lough Derg, with consequent negative effects to the water quality and status of the lake upon which special conservation interest bird species rely.</p>
<p>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:</p>	
<p>■ size and scale</p>	<p>The scale of the alternative visitor centre options will be reduced from that identified for the preferred visitor centre location due to the fact that the alternative locations are existing structures that will require internal refitting and external extensions to accommodate the visitor centre.</p> <p>The car parking required for the visitor centre will be the same in scale as that assessed in the NIR of the draft Plan.</p> <p>The scale of the Pilgrims Path is as yet unknown, but is likely to be at least regional geographic scale, taking into account a number of surrounding counties.</p>
<p>■ land-take;</p>	<p>No land take of European Sites will be associated with any of the alternative visitor centre options or the associated car</p>

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	<p>parking facilities.</p> <p>The Pilgrims Path is as yet unidentified and its land take on European Sites cannot be assessed at this stage. However it is noted, in line with the approach to the Plan and its mitigation measures as well as the Policies and Objectives of the Clare County Development Plan, the final Pilgrims Paths will be developed to ensure no significant effects to qualifying feature of interest of European Sites arise during its establishment.</p>
<p>■ distance from the Natura 2000 site or key features of the site</p>	<p>All visitor centre options and the car park are within a 500m radius of the Lough Derg SPA.</p> <p>The terminus of the Pilgrims Path will be located adjacent to the Lough Derg SPA.</p>
<p>■ resource requirements (water abstraction etc</p>	<p>No resources associated with European Sites are required for the proposed additional elements of the Plan.</p>
<p>■ emissions (disposal to land, water or air);</p>	<p>As noted above the provision of a visitor centre and car park will have the potential to result the the potential for hydrological emissions during both the construction and operation phase to the Lough Derg SPA.</p> <p>Inadequate construction management practices; inadequate treatment of surface water draining from construction footprints and the surface of the finished car park; and the inadequate treatment of waste water generated during the construction and operation phase of the visitor centre will have the potential to result in the emission of potentially polluting material to Lough Derg.</p>

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	<p>However the Draft Plan, and the NIR and SEA of the Draft Plan outlined a suite of comprehensive mitigation measures that aim to ensure the construction and operation phase of the visitor centre and car park do not result in the release of emissions that will have the potential to undermine water quality at Lough Derg.</p> <p>Provided these measures are implemented the additional visitor centre options or the car park will not have the potential to result in likely significant effects to the conservation status of the Lough Derg SPA.</p> <p>It is noted that the Pilgrims Path route is as yet unidentified. The terminus at Mountshannon and Inis Cealtra is likely to utilise existing pathways, thus avoiding the need for the installation of new paths and associated construction works. Potential emissions associated with this proposed element will require Habitats Directive Assessment once the route becomes finalised.</p>
■ excavation requirements	No excavation works will be undertaken within European Sites.
■ transportation requirements	The proposed additional elements will not result in any changes to transportation requirements from that identified in the Draft Plan and associated NIR.
■ duration of construction, operation, decommissioning, etc.;	The proposed additional elements will not result in any significant changes to duration of construction or operation from that identified in the Draft Plan and associated NIR.

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■ other.	n/a
Describe any likely changes to the site arising as a result of:	
■ reduction of habitat area	The proposed additional elements are all located outside the boundary of the Lough Derg SPA and will be managed in line with the Draft Plan's environmental safeguards to ensure significant indirect impacts are avoided. As such they will not result in any reduction in habitat area within the Lough Derg SPA.
: ■ disturbance to key species	The proposed additional elements are all located outside the boundary of the Lough Derg SPA and will be managed in line with the Draft Plan's environmental safeguards to ensure significant indirect impacts are avoided. These safeguards include a number of measures that specifically aim to ensure disturbance to special conservation interest bird species of the SPA are avoided. As such they will not result in any reduction in habitat area within the Lough Derg SPA.
■ habitat or species fragmentation	The proposed additional elements are all located outside the boundary of the Lough Derg SPA and will not have the potential to fragment the wetland habitats or distribution of special conservation interest bird species of the SPA.
■ reduction in species density;	The implementation of all environmental safeguards and mitigation measures outlined in the Draft Plan will ensure that these additional elements of the Plan do not have the potential to result in a reduction in the densities of special conservation interest bird species of the SPA.

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<ul style="list-style-type: none"> ■ changes in key indicators of conservation value (water quality etc.); 	<p>Water quality of Lough Derg as well as the extent of wetland habitats and distribution of special conservation interest bird species within the SPA is key indicators of conservation status for Lough Derg SPA. For reasons outlined above the additional elements to the Plan will not have the potential to result in adverse effects to these key indicators of conservation status.</p>
<ul style="list-style-type: none"> ■ climate change 	<p>None identified</p>
<p>Describe any likely impacts on the Natura 2000 site as a whole in terms of</p>	
<ul style="list-style-type: none"> ■ interference with the key relationships that define the structure of the site 	<p>None identified: see reasons outlined for “Changes in key indicators of conservation value (water quality etc.)” above.</p>
<ul style="list-style-type: none"> ■ interference with key relationships that define the function of the site 	<p>None identified: see reasons outlined for “Changes in key indicators of conservation value (water quality etc.)” above.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of</p>	

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■ loss;	No loss identified
■ fragmentation	No fragmentation identified
■ disruption	No disruption identified
■ disturbance	No disturbance identified
■ change to key elements of the site (e.g. water quality etc.).	No changes at this juncture can be identified.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is	<p>The additional elements of the Plan relate to the inclusion of additional visitor centre location options, the provisions of associated car parking for the final visitor centre and the Plan's support for the establishment of a Pilgrims Path.</p> <p>The additional visitor centre options and associated car parking will pose similar issues to Lough Derg as those identified for the preferred visitor centre location and associated car park. These issues relate to the potential release of polluting substances to the lake and the disturbance of special conservation interest bird species during construction activities.</p> <p>The Draft Plan as well as the NIR and SEA of the draft Plan outline a comprehensive suite of measures to ensure that any construction associated with the final visitor centre and car park location do not result in likely significant effects to the sc</p>

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not known	<p>of the SPA.</p> <p>Provided these measures are implemented in full during the construction and operation of the visitor centre and car park, these additional elements of the Plan will not have the potential to result in likely significant effects to the conservation status of the Lough Derg SPA or undermine the Conservation Objectives for the special conservation interests of this SPA.</p> <p>The Plan's support of Pilgrims Path will not, at this stage, have the potential to result in likely significant effects to European Sites. It is reiterated that once a final route for this path is selected it will be Screened for Appropriate Assessment and where necessary an Appropriate Assessment will be completed of the path's development. The Pilgrims Paths will only be supported by the objectives of the Plan where it can be shown that it will not result in likely significant effects to the conservation status and Conservation Objectives of European Sites.</p>
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10.1 B.2 CONCLUSION

Section 9 (1) of the (2004) Regulations (S.I. No. 435) states “*subject to sub-article (2), an environmental assessment shall be carried out for all plans and programmes*

(a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications and tourism, and which set the framework for future development consent of projects listed in Annexes I and II to the Environmental Impact Assessment Directive, or

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(b) which are not directly connected with or necessary to the management of a European site but, either individually or in combination with other plans, are likely to have a significant effect on any such site.”

The VMSTDP was subject both full SEA and Appropriate Assessment under the Habitats Directive. The above additional text proposed for inclusion in the plan has now been screened for likely significant effects on the environment and on the conservation management objectives of Lough Derg SPA. These have concluded that subject to the adherence to and implementation of relevant mitigation measures developed for the VMSTDP as well as existing environmental protection objectives in the Clare CDP 2017-2023 likely significant environmental effects are not identified.



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