



An
Bord
Pleanála

Inspector's Report ABP-307637-20

Development	Construction of a flood protection embankment, land raising, penstock/sluice, pump station and associated site works.
Location	Springfield, Cappavilla North, Cottage and Illaunyregan Co. Clare.
Local Authority	Clare County Council
Type of Application	Application for approval made under Section 177(AE) of the Planning and Development Act, 2000 (local authority development requiring appropriate assessment)
Prescribed Bodies	Department of Culture Heritage and the Gaeltacht.
Observer(s)	Joseph Quinlivan

Barry and Clare Downes

Evan Quinlivan

Geraldine Quinlivan

Sharon Keane

David and Shirley Mulcahy.

Date of Site Inspection

9th September 2020

Inspector

Sarah Lynch.

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1.0 Introduction

- 1.1. Clare County Council is seeking approval from An Bord Pleanála to undertake undertake flood defence works at Clonlara Co. Clare adjacent to the Lower River Shannon SAC which is a designated European site. There are several other designated European sites (SPAs and SACs) in proximity to the proposed works (see further analysis below). A Natura Impact Statement (NIS) and application under Section 177AE was lodged by the Local Authority on the basis of the proposed development's likely significant effect on a European site.
- 1.2. Section 177AE of the Planning and Development act 2000 (as amended) requires that where an appropriate assessment is required in respect of development by a local authority the authority shall prepare an NIS and the development shall not be carried out unless the Board has approved the development with or without modifications. Furthermore, Section 177V of the Planning and Development Act 2000 (as amended) requires that the appropriate assessment shall include a determination by the Board as to whether or not the proposed development would adversely affect the integrity of a European site and the appropriate assessment shall be carried out by the Board before consent is given for the proposed development.

2.0 Proposed Development

- 2.1. The proposed development will comprise of the following:
 - Construction of embankment of approximately 850 metres in length to be constructed on mainly agricultural land and will vary in height with a highest point of 2.75 metres.
 - Raising 435m² of local lands to a maximum of 500mm near to cottage stream to prevent shallow flood waters from the River Shannon entering the Springfield catchment at this location.
 - Pumping platform which will be located immediately north of the proposed embankment. The pumping platform will be designed to facilitate over pumping of flood flows from all watercourses within the Springfield Catchment. During flood events water will be pumped from the north to the south of the embankment reducing the risk of flooding to properties in the defended area.

The platform will be above flood level on the north side of the proposed embankment.

- One sluice gate is proposed which will be located at the pumping platform site where the embankment meets the Illanuyregan stream.
- New access road to the west of the Illaunuyregan Stream.
- Realigned drainage channel.
- 4 no. culverts

2.2. **Accompanying documents:**

- Notices
- 10 no. drawings – W3325-151-P1 to W3325-160-P1
- Natura Impact Statement
- EIAR Screening document
- Outline Construction Management Plan
- Springfield Flood Relief Scheme – Report 1
- Planning Report
- Appendices

3.0 **Site and Location**

3.1. The proposed works are to be carried out at mainly 2 no. locations within the townlands of Springfield/Illaunuyregan/Cappavilla and Cottage. The proposed access road commences at the junction of the Illaunuyregan stream with the Springfield Road and continues along the western bank of this stream traversing through agricultural fields to the final point c. 946 metres south of the Springfield Road. Lands within this element of the site are used for a mix of grazing and tillage and the banks of the stream are bounded by mature hedgerows and treelines.

3.2. The proposed embankment will be located to the south of the access road c. 1km south of the Springfield road. The proposed sluice gate will be located within the Illaunuyregan Stream at this point and a temporary compound will be located in the adjoining agricultural lands to the west. The topography of the lands is relatively

flat within the development site and fields and streams are bounded by native hedgerows.

- 3.3. Land raising at the cottage stream is located to the north east of the Illraunregan Stream works and is located entirely within agricultural lands to the north of the disused Landscape house Golf and Leisure facility. Lands are lowlying in this area and appear to be partially used for agriculture and partially left to scrub. These lands are bounded by a local public road and the area is interspersed by rural development.

4.0 **Planning History**

- 4.1. There is no recently recorded history pertaining to this site.

5.0 **Legislative and Policy Context**

- 5.1. **The EU Habitats Directive (92/43/EEC):** This Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) and 6(4) require an appropriate assessment of the likely significant effects of a proposed development on its own and in combination with other plans and projects which may have an effect on a European Site (SAC or SPA).
- 5.2. **European Communities (Birds and Natural Habitats) Regulations 2011:** These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgements. The Regulations in particular require in Reg 42(21) that where an appropriate assessment has already been carried out by a 'first' public authority for the same project (under a separate code of legislation) then a 'second' public authority considering that project for appropriate assessment under its own code of legislation is required to take account of the appropriate assessment of the first authority.
- 5.3. **National nature conservation designations:** The Department of Culture, Heritage and the Gaeltacht and the National Parks and Wildlife Service are responsible for the designation of conservation sites throughout the country. The three main types of

designation are Natural Heritage Areas (NHA), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and the latter two form part of the European Natura 2000 Network.

5.4. European sites located in proximity to the subject site include:

- Lower River Shannon SAC
- River Shannon and River Fergus SPA

5.5. Planning and Development Acts 2000 (as amended): Part XAB of the Planning and Development Acts 2000-2017 sets out the requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.

- 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
- Section 177(AE) (1) requires a local authority to prepare, or cause to be prepared, a Natura impact statement in respect of the proposed development.
- Section 177(AE) (2) states that a proposed development in respect of which an appropriate assessment is required shall not be carried out unless the Board has approved it with or without modifications.
- Section 177(AE) (3) states that where a Natura impact assessment has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply to the carrying out of the appropriate assessment.
- Section 177(V) (3) states that a competent authority shall give consent for a proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.
- Section 177AE (6) (a) states that before making a decision in respect of a proposed development the Board shall consider the NIS, any submissions or observations received and any other information relating to:

The likely effects on the environment.

The likely consequences for the proper planning and sustainable development of the area.

The likely significant effects on a European site.

6.0 Policy Context

6.1. National Policy

Implementing the National Flood Risk Policy 2018

Limerick is identified as a relief scheme that is planned, (note: the development is located upstream of the proposed works in Limerick, future planned projects downstream are reviewed in the context of the proposed development).

National Planning Framework

The National Planning Framework – Ireland 2040, which seeks to ensure flood risk management is in accordance with best practice.

Regional Spatial and Economic Strategy for the Southern Region

- RPO 113 - Floods Directive It is an objective to support, at a regional level, the implementation of the Floods Directive to manage flood risks. It is an objective to encourage collaboration between local authorities, the OPW and other relevant Departments and agencies to implement the recommendations of the Catchment Flood Risk Assessment and Management (CFRAM) programme to ensure that flood risk management policies and infrastructure are progressively implemented.
- RPO 119 - Flood Relief Schemes It is an objective to:
 - a. Support investment in the sustainable development of Strategic Investment Priorities under the National Development Plan 2018-27 and to ensure that flood risk assessment for all strategic infrastructure developments is future-proofed to consider potential impacts of climate change;
 - b. Support investment in subsequent projects by capital spending agencies to deliver flood relief schemes under the National Strategic Outcome, Transition to a Low Carbon and Climate Resilient Society. Such projects should be future proofed for adaptation to consider potential impacts of climate change.

c. Ensure that all Infrastructure and energy providers/operators provide for adaptation measures to protect strategic infrastructure (including roads, railways, ports and energy infrastructure) from increased flood risk associated with climate change.

Clare County Development Plan 2017-2023

- CDP 18.7 - It is an objective of Clare County Council:
 - a) To comply with the EU Floods Directive 2007/60/EC;
 - 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.
- CDP 18.10 - To encourage and facilitate the maintenance of rivers and waterways by statutory authorities and the cleaning of drains in urban areas where appropriate, subject to the requirements of Objective CDP2.1 and OPW Best Practice Guidelines.

7.0 The Natura Impact Statement

7.1. Clare County Council's application for the proposed development was accompanied by a Natural Impact Statement (NIS) which scientifically examined the proposed development and the European sites. The NIS identified and characterised the possible implications of the proposed development on the European sites, in view of the site's conservation objectives, and provided information to enable the Board to carry out an appropriate assessment of the proposed works.

7.2. The NIS was accompanied by details of habitats and species assessments.

8.0 Consultations

8.1. The application was circulated to the following bodies:

- Department of Culture, Heritage and the Gaeltacht
- Inland Fisheries Ireland
- Waterways Ireland

- The Heritage Council
- An Taisce
- ESB Head Office
- Health Service Executive

Responses were received from Department of Culture, Heritage and the Gaeltacht

8.2. Department of Culture, Heritage and the Gaeltacht:

NIS

- Control of invasive species should be dealt with in detail. It is acknowledged that the walkover did not report the presence of any invasive species. Imported soil should be screened for invasive species
- NIS and CEMP should contain measures to monitor for colonisation by invasive species.
- Vegetation clearance should be carried out outside of bird nesting season.
- Any large trees to be removed should be assessed prior to felling to ensure that they do not contain bat roosts.

Underwater Archaeology

A detailed Under Water Archaeological Impact Assessment should be carried out.

8.3. Public Submissions:

14 no. observations have been received from local residents. All of these submissions outline support for the proposed scheme for a number of reasons. The issues raised can be summarised as follows:

- Residents are living in fear of another flood.
- Many residents are elderly and have difficulty maintaining flood pumps and carrying out protection works to their properties.
- Reference is made to families with family members having different difficulties in terms of disabilities and the challenges this brings when dealing with protecting their homes from flooding and the disruption and difficulty managing

such issues when they are required to move out of their homes or are prevented from accessing their homes.

- Costs in relation to insurance for homes and vehicles and the loss of property value due to flooding.
- Limited notice of release from Parteen Weir, people have in some cases not been able to move vehicles in time or adequately prepare.
- The flood can last for weeks resulting in significant disruption to day to day life.
- Impact of stress on residents' health.
- Impacts of flooded septic tanks and the contamination of domestic water supplies.
- Destruction left by receding waters and the resultant significant impacts on agriculture.
- ESB has been using Springfield as part of their water management system, ESB merely sends a warning text message to residents downstream.
- Government gave planning permission for houses to be built without flagging that the area was susceptible to flood.
- Fundamental human right to movement has been restricted as properties cannot be sold or rented.
- Access to education and employment is also restricted as a result of flooding.
- The flooding is not a nature fluvial event but a result of a button being pushed.
- Flow at River Shannon in winter can rise to 700 tonnes per second during a major flood event.
- The maximum turbine capacity at Ardnacrusha power station is 400 tonnes per second.
- 300 tonnes per second can be diverted down the old River Shannon.
- The river through lack of maintenance is not capable to cater for such flows.
- Floods have worsened with the choking of the river by vegetation overgrowth.
- No flooding occurred from 1929 to 1995.

- Confluence of fast flowing River Mulciar and slow flowing River Shannon results in significant silt deposition taking place downstream which further chokes the old River Shannon.

9.0 **Assessment**

9.1. Under the provisions of Section 177AE (6) of the Planning and Development Act, 2000 (as amended), the Board is required to consider the following in respect of this type of application:

- The likely consequences for the proper planning and sustainable development of the area;
- The likely effects on the environment; and
- The likely impact on any European sites.

9.2. **The likely consequences for the proper planning and sustainable development of the area:**

9.3. As outlined above consent is sought by Clare County Council for flood defence works at two locations, one being the proposed access road, embankment, sluice gate and pumping platform at the Illaunyregan stream and the second comprising of 435m² of land raising near to the Cottage Stream to the north of the disused Landscape house Golf and Leisure facility.

9.4. It is stated within the information provided that the Springfield area at Clonlara Co. Clare is vulnerable to flooding from the River Shannon. High water levels in the River Shannon resulted in significant flooding to the surrounding area in 2009, 2015 and 2020. The applicant states that the development site is located c. 11km downstream of the Parteen Weir, when the head race at this weir is reached the excess flood flows are directed down the old River Shannon which results in the river overtopping its banks and encroaching into the Springfield catchment. As a result, 21 homes were flooded and 13 homes were cut off by flood waters, access was only possible by boat for 6 weeks.

9.5. As a consequence of the foregoing, the Office of Public Works undertook a review of possible flood mitigation options for Springfield in 2016. The Springfield catchment consists of numerous watercourses and drains which connect in a complex manner to

drain the overall catchment. A number of alternative options were considered by the OPW and the proposed scheme was identified as the most effective and preferable in terms of costings.

- 9.6. The lands within the development consist of agricultural lands and are not zoned for development within the Clare County Development Plan 2017-2023. However it is the policy of the Council as outlined in objective CDP 18.7 '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' of which the site is one. Such works are also supported within both the National Planning Framework and the Regional Spatial Economic Strategy for the Southern Region in which it is sought to ensure that flood risk management policies and infrastructure are progressively implemented.
- 9.7. The proposed works will protect and enhance the residential amenity of a significant number of local residents by protecting their homes and lives from being significantly impacted by encroaching flood waters. Observations from local residents' as outlined above, overwhelmingly support the proposed scheme. The observations submitted outlined the difficulties that local residents have endured due to flooding in the area. It is contended within these submissions that the proposed development would provide a level of protection for residents that is welcomed.
- 9.8. Overall the proposed scheme which has been identified as an area of further study arising from the Catchment Flood Risk Assessment and Management Studies (CFRAMS) prepared for the Area is in accordance with provisions of the Clare County Development and is acceptable in this regard.
- 9.9. It is important to note at this juncture that the proposed works will be located within agricultural lands. The Springfield element of the proposed works which comprises the access road, embankment and sluice gate etc are largely out of sight of the surrounding public road network and existing residential dwellings. Given the remote location of the works, the nature of the surrounding landscape which is rolling countryside and the limited scale of the proposed work I am satisfied that visual impacts will not arise in this instance.

- 9.10. Furthermore, I note that there are no recorded monuments within or directly adjacent to the development site and as such I am satisfied that the proposed development will not give rise to any cultural heritage impacts.
- 9.11. Having regard to the foregoing I consider that the proposed development would be in accordance with the proper planning and sustainable development of the area.
- 9.12. **The likely effects on the environment**
- 9.13. The proposed works will include the removal of vegetation from the banks of the Illraunregan Stream, the installation of an access road for c.1km adjacent to the stream, the installation of a sluice gate and pumping platform and the raising of 435m² of lands by 500 mm. A temporary construction compound will be provided, to accommodate the storage of materials and vehicles in order to protect the surrounding area and watercourses from sediment and water pollution.
- 9.14. Given the location and scale of the proposed works, impacts arising from construction related activity in terms of noise and disturbance will be short term and are not considered to be significant. Such impacts will be considered in detail within the Appropriate Assessment Section of this report in relation to the qualifying interests of both the Lower River Shannon SAC and the River Shannon and River Fergus SPA.
- 9.15. It is important to note at this juncture that whilst the submission from the Department of Culture Heritage and the Gaeltacht makes reference to the management of invasive species, no such plants have been observed at or adjacent to the development site. Whilst I acknowledge the Departments concerns in this regard, I am satisfied that such issues can be adequately addressed by condition. Should the Board be of a mind to grant permission I recommend that a condition is imposed which requires the screening of imported soils prior to arrival at the site and the monitoring of soil excavation at the development site for the presence of invasive species during site works.
- 9.16. It is of further importance to note that the same submission from the Department of Culture Heritage and the Gaeltacht also makes reference to the need for an aquatic archaeological assessment to be carried out. The proposed works are located within minor tributaries of the River Shannon removed from any such site of aquatic archaeological significance. I note that there are no recorded monuments within or directly adjacent to the development site and as such I consider that should the Board

be minded to grant permission that a condition requiring any excavation works to be monitored by an archaeologist would be sufficient to ensure that any archaeological material encountered is adequately recorded and documented.

9.17. I note that the development site encompasses large areas of hedgerows and tree which will be cut back or removed to facilitate the propose development. Whilst I am satisfied that the habitat to be removed is mainly areas of scrub I note that the submission of the Department of Culture Heritage and the Gaeltacht requires trees to be inspected prior to felling in order to ensure that bats roost are not impacted. This is reasonable and can be adequately controlled by condition. Thus, should the Board be of a mind to grant permission I recommend that a condition is imposed which requests such inspections are carried out prior to felling.

9.18. With regard to more general environmental impacts I note that the applicants have submitted an Environmental Report in which the need for an EIAR was screened and excluded on the basis that the development was not of a class for the purpose of Schedule 5 of the Planning and Development Regulations, 2001-2020.

9.19. Impacts in relation to population, material assets and human health are examined in this report and it is concluded that whilst minor impacts may arise in relation to the construction phase of the development, the overall long term impacts in this regard are considered to be positive. The proposed works will result in a reduced risk of flooding and as such will have a positive impact on human health, population and material assets.

9.20. Short term impacts to air and climate arising from the construction phase of the development are expected and it is proposed to mitigate such impacts through the appropriate control of material stockpiles and traffic management in order to protect surrounding properties and the surrounding surface water regime. Impacts to water quality are examined in detail below within the Appropriate Assessment section of this report and will not be repeated within this section.

9.21. I have reviewed the documentation and plans submitted with the application and have carried out a detailed site inspection of the development site. Based on the foregoing I consider that the potential for environmental effects to arise relate to a number of factors which include:

- Changes to the hydrological regime of the area,

- Impacts on the SAC and qualifying interests and,
- Impacts on water quality.

Changes to the hydrological regime of the area

- 9.22. Impacts arising in relation to the hydrological regime of surrounding catchments and the potential for changes to occur in relation to the velocities and flows of the River Shannon, are examined within the Flood Relief Scheme Stage 1 report submitted with the application. This study outlines the options considered and examines the downstream impacts of these options in terms of water levels, flood duration and coverage and flows.
- 9.23. It is stated within this report that the downstream model limit was set as a water level condition based on the CFRAM study model results in order to ensure that the breakout model (flood event model) did not under-represent any backwater effect that would significantly affect predicted water levels in the lower reach of the model.
- 9.24. The study was informed by a review of Waterways Ireland Data provided by CCC/OPW in June 2019, investigations of the natural drainage paths in the north of the catchment and derived sub-catchment flow rates for key locations within the catchment, LiDAR data and data from historical flood events such as that in 2009.
- 9.25. Flooding in the Springfield catchment was found to originate solely from the River Shannon or the Cloon Diversion. Two options to alleviate flooding were considered which are outlined in Section 7.1 of the Flood Relief Scheme Stage 1 report submitted. After consideration, option 2 which locates the embankment further south and increases available storage was identified as the preferred option.
- 9.26. Results from modelling carried out in relation to the proposed option indicate that the proposed works will not impact the hydrological regime of the Springfield catchment or the Shannon catchment during non-flood conditions. It is also stated that changes to the regime will also not occur during time of peak flood in the Springfield catchment when the River Shannon is low.
- 9.27. During a flood event in the River Shannon, the proposed sluice gate will be dropped and the pumps engaged to protect the Springfield area. Flood levels were modelled for the catchments on this basis in order to examine the impacts of the proposed development on the flood levels, flood area and velocity of the River Shannon. Results indicate a negligible change to water levels during such times of peak flood.

- 9.28. The effect of displacement of the floodplain when modelled caused increased flood depths earlier in the event, however, gave no measurable effect in relation to maximum flood water levels coinciding with the peak flow in the Shannon. The maximum increase in flood depths arising from displacement of the floodplain equated to 15mm and 22mm on days 7 and 8 of the flood event and no increase on day 15 when flood levels reach their maximum.
- 9.29. Having regard to the information submitted I am satisfied that applicant has adequately demonstrated that the proposed works will not significantly impact the flows and velocities of the River Shannon and as such impacts to the surface water regime of the Springfield catchment and the River Shannon catchment do not arise in this instance.
- 9.30. It is of note and important to acknowledge at this juncture, that notwithstanding the underlying limestone bedrock in the surrounding area, impacts to ground water as a result of the proposed works are considered to be low. This is due to the low permeability of underlying soils in the area.
- 9.31. I also note that in stream works will be carried out in dry conditions and the diversion of the stream will occur in a manner whereby sediment levels in the river will be unaffected thus protecting existing aquatic species and habitats both up and downstream of the proposed works.
- 9.32. Having regard to the foregoing I am satisfied that the proposed development will not give rise to any significant environmental impacts and I consider the proposed development to be acceptable in this regard. Impacts in relation to the qualifying interests of the Lower River Shannon SAC and water quality will be examined within the following Appropriate Assessment Section.
- 9.33. **The likely significant effects on a European site:** The areas addressed in this section are as follows:
- Compliance with Articles 6(3) of the EU Habitats Directive
 - The Natura Impact Statement
 - Screening the need for appropriate assessment
 - Appropriate Assessment

- 9.34. **Compliance with Articles 6(3) of the EU Habitats Directive:** The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.
- 9.35. **The Natura Impact Statement**
- 9.36. The NIS dated 16th July 2020 has been prepared by Byrne Looby on behalf of Clare County Council.
- 9.37. The NIS prepared by Byrne Looby describes the proposed development, its receiving environment and relevant European Sites in the zone of influence of the development. It was informed by a general assessment of the site which was carried out in accordance with the Heritage Council Best Practice Guidance for Habitat Survey and Mapping, and habitats were classified to level 3 of the Fossit (2000) classification system. A desk top study, maps and ecological and water quality data from a range of sources were also consulted. Appendix H of the NIS details the habitat and species assessment methods. It is stated that the site was assessed for suitable habitat that would accommodate protected species such as Fresh Water Pearl Mussel, Salmon, Lamprey and Otter. Site surveys were undertaken on the 15th April 2018 and 8th April 2020.
- 9.38. The site was also assessed for the presence of protected habitat including, Floating River Habitat, Alluvial Wet Woodlands and Molinia meadows. As the site flows into the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA, the location of the qualifying interests of these Natura 2000 sites were also examined.
- 9.39. The report concluded that, taking into account the project design and the implementation of mitigation measures identified in the NIS, the proposed development will not result in adverse effects on the integrity of any Natura 2000 site.
- 9.40. Having reviewed the NIS and the supporting documentation, I am generally satisfied that it provides adequate information in respect of the baseline conditions, identifies the potential impacts, uses best scientific information and knowledge and provides

details of mitigation measures. I am satisfied that the information allows for a complete examination and identification of all the aspects of the project that could have an effect, alone, or in combination with other plans and projects on European sites.

9.41. Stage 1 Screening

9.42. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).

9.43. Notwithstanding the submission of a NIS, it is necessary to review the screening process to ensure alignment with the sites brought forward for AA and to ensure that all sites that may be affected by the development have been considered.

9.44. Having regard to the information and submissions available, nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, the following European Sites are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects.

Table 1. European sites considered for Stage 1 screening

European Site Name & Code	Distance	Qualifying Interest	Source-pathway-receptor	Considered further in screening
Lower River Shannon SAC 002165	390metres	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220]	Illraunregan Stream is a tributary of the Shannon	Yes, potential for significant effects arising from sedimentation and contamination of the river from run off from construction and potential disturbance to

		<p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]</p> <p>Mediterranean salt meadows (Juncetalia maritimi) [1410]</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]</p> <p>Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]</p> <p>Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]</p> <p>Petromyzon marinus (Sea Lamprey) [1095]</p> <p>Lampetra planeri (Brook Lamprey) [1096]</p> <p>Lampetra fluviatilis (River Lamprey) [1099]</p> <p>Salmo salar (Salmon) [1106]</p> <p>Tursiops truncatus (Common Bottlenose Dolphin) [1349]</p> <p>Lutra lutra (Otter) [1355]</p>		<p>otters and other qualifying interests such as salmon, lamprey and fresh water pearl mussel during the operation due to changes in flows and velocities.</p>
River Shannon and River Fergus Estuaries SPA 004077	6.9km south west	<p>Cormorant (Phalacrocorax carbo) [A017]</p> <p>Whooper Swan (Cygnus cygnus) [A038]</p> <p>Light-bellied Brent Goose (Branta bernicla hrota) [A046]</p> <p>Shelduck (Tadorna tadorna) [A048]</p>	Illraunregan Stream is a tributary of the Shannon	Yes, potential for significant effects arising from sedimentation and contamination

		<p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Scaup (<i>Aythya marila</i>) [A062]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Greenshank (<i>Tringa nebularia</i>) [A164]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>		<p>of the river from run off from construction. Potential for works to disturb qualifying interests of the site that may feed near to development site.</p>
Glenomra Woods SAC 001013	6.2km	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	No pathway to this site	No
Slieve Bernagh Bog SAC 002312	12.7km	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Blanket bogs (* if active bog) [7130]</p>	No pathway to this site	No

Danes Hole Poulnalecka SAC 000030	c.14km	Caves not open to the public [8310] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]	No pathway to this site	No
Glenstal Woods SAC 001432	C.12km	Trichomanes speciosum (Killarney Fern) [1421]	No pathway to this site	No
Slieve felim to Silvermines Mountains SPA 004165	c.10.5km	Hen Harrier (Circus cyaneus) [A082]	No direct pathway to the site.	No

Screening Determination

- 9.45. The NIS submitted screens out all Natura 2000 sites except the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA, on the grounds that they are removed from the development and there is no physical link to the proposed development site. This approach seems reasonable **and I do not consider that significant effects will arise in relation to the remaining Natura 2000 sites.**
- 9.46. Therefore, based on my examination of the NIS report and supporting information, the scale of the proposed development, its potential to contaminate and/or change the velocities and flow of the River Shannon, I conclude that a stage 2 Appropriate Assessment is required for the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA.
- 9.47. It is important to note that mitigation measures have not been considered in the Appropriate Assessment Screening.

Stage II Appropriate Assessment

- 9.48. The following Appropriate Assessment of the implications of the proposed works alone and in combination with other relevant plans and projects will be carried out in relation to the following European sites in view of their conservation objectives:
- Lower River Shannon SAC
 - River Shannon and River Fergus Estuaries SPA

- 9.49. The NIS submitted by the applicant concluded that the proposal will not beyond reasonable scientific doubt, adversely affect the integrity of any European Site either directly or indirectly.
- 9.50. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.
- 9.51. **Potential for direct and indirect effects**
- 9.52. It is important to note at this juncture that both the Shannon and Fergus rivers form the largest estuarine complex in Ireland and feature vast expanses of intertidal mudflats often fringed with saltmarsh vegetation. These sites also support the largest numbers of wintering waterfowl in Ireland which includes a significant number of birds listed on Annex I of the EU Birds Directive. There is also a resident population of bottle nose dolphins in the Shannon Estuary which is the only known resident population of this EU Habitats Directive Annex II species in Ireland.
- 9.53. Five species of fish listed on Annex II of the E.U. Habitats Directive are found within the site. These are Sea Lamprey (*Petromyzon marinus*), Brook Lamprey (*Lampetra planeri*), River Lamprey (*Lampetra fluviatilis*), Twaite Shad (*Allosa fallax fallax*) and Salmon (*Salmo salar*). The three lampreys and Salmon have all been observed spawning in the lower Shannon or its tributaries. The Fergus is important in its lower reaches for spring salmon, while the Mulkear catchment excels as a grilse fishery.
- 9.54. Overall these sites are of great ecological interest as they contains a high number of habitats and species listed on Annexes I and II of the E.U. Habitats Directive, including the priority habitats lagoon and alluvial woodland, the only known resident population of Bottle-nosed Dolphin in Ireland and all three Irish lamprey species and a number of species listed on Annex I of the E.U. Birds Directive either wintering or breeding.
- 9.55. The general conservation objectives for the qualifying interests of these sites seek to maintain or restore the favourable conservation condition for habitats and/or species at these sites. The maintenance of habitats and species within the Natura 2000 sites at favourable condition will contribute to the overall maintenance of favourable conservation status of those species at a national level.

9.56. The NIS submitted acknowledges that the proposed works will give rise to a potential for both direct and indirect significant impacts and has identified a zone of highest impact which is within 5km downstream of the proposed works. Whilst the zone of highest impact was examined for the presence of qualifying interests, it is of note that the potential impacts on protected habitats and species in the entire downstream section of the river were also considered.

Qualifying interests at risk within the Lower River Shannon SAC

9.57. Having regard to the NIS submitted, the nature and scale of the proposed work and the location of the following qualifying interests of the Lower River Shannon SAC relative to the proposed works, I consider that these are the specific qualifying interests that are at risk of potential impact. Impacts have the potential to arise from the deterioration of water quality and/or increased levels of sedimentation.

- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation
- Alluvial woodland – downstream just within the 5km zone of potential impact
- Atlantic Salmon
- Sea Lamprey
- Brook Lamprey
- River Lamprey
- Otter

Qualifying Interests at risk within the Lower River Shannon SPA

9.58. It is of note that the majority of the qualifying interests of the River Shannon and River Fergus SPA are found within the estuarine habitats in winter and are therefore significantly removed from the site of the proposed works. However, I note that it is stated within the NIS submitted that the Whooper Swan and Wigeon graze on grass beside the freshwater parts of the River Shannon and as such the potential for impacts to arise must be examined further in relation to these particular species.

9.59. Having regard to the foregoing the proposed works have the potential to give rise to the following direct and indirect impacts:

- The potential for deterioration in water quality as a result of construction works on site.
- The potential for increased levels in sedimentation as a result of construction works.
- Changes to the velocity and flows of the River Shannon as a result of the operation of the development.
- Habitat disturbance as a result of noise arising from construction works.

9.60. The impact of these effects will be discussed in detail in the context of proposed mitigation measures within the integrity test below.

9.61. Potential in-combination effects.

9.62. In combination effects are examined within section 6.7 of the NIS submitted. Current development and planning applications were examined in the context of in combination effects and it is of note that only one planning application for a dwelling has been granted in the area since 2013. No other proposed plans or projects are of relevance to this area.

9.63. Projects identified within CFRAMS studies are not considered to be plans or projects are they do not purport to be an intention to develop.

9.64. The NIS submitted, concluded that there would be no cumulative / in-combination effects arising from the proposed development.

9.65. Having regard to the foregoing, I do not consider that the potential for in-combination effects are likely to arise.

9.66. Mitigation Measures

9.67. Mitigation measures have been set out within the NIS and documentation submitted and include standard best practice in relation to construction. It is stated within these documents that works will be suspended during very wet weather. All widening and diversion of streams will occur during dry weather. Eroded soils will be stored in sediment control structures.

9.68. Fuelling and lubrication will not be carried out within 10m of watercourses and shall only be undertaken in designated bunded areas. Spill kits will be available at site work locations and any waste oils and hydraulic fluids will be collected in leak proof

containers and removed off site and properly disposed of. Wash waters will be collected on site and permitted to settle prior to percolation to ground.

- 9.69. Construction machinery will be washed down prior to arrival on site to avoid importation of invasive species. Any invasive species encountered on site will be fenced off and movement prevented in the vicinity.
- 9.70. It is proposed to divert the existing channel during instream construction works. This diversion channel will be dug in dry weather and will be lined with 1mm HDPE plastic over its length or piped such that soil erosion will be minimised.
- 9.71. Silt traps and silt curtains are proposed at various locations in order to control sediment and visual monitoring of the water colour downstream will be carried out to ensure no breach occurs. Sampling of water is also proposed to be carried out every 30 minutes and tested for sediment levels. In the event that sediment levels are notably increased works will be halted until levels return to acceptable levels.
- 9.72. All mitigation measures will be assessed in relation to the potential for likely significant effects on the Lower River Shannon SAC and the River Shannon and River Fergus SPA within the following integrity test.
- 9.73. **Integrity Test**
- 9.74. I have considered the NIS along with the information submitted with the application and have had regard to the mitigation measures outlined. Potential for impacts to arise in relation to the leakage of oils and diesels or other such contaminants from construction vehicles has been dealt with within the mitigation measures outlined in Section 6 of the NIS submitted. All machinery will be checked prior to entering the works area and all fuel, lubricants and hydraulic fluids will be kept in a secure bunded area removed from the river.
- 9.75. These mitigation measures are standard in nature and are known to be effective. I am therefore satisfied that the mitigation measures outlined in relation to hydrocarbon contamination of soils and waters are acceptable.
- 9.76. It is important to note at this juncture that there are no works proposed within either the Lower River Shannon SAC or the River Shannon and River Fergus SPA. Works will be contained within the streams that lead to the Shannon and the banks of these streams. The use of silt traps and curtains and the process of carrying out works during

dry seasons will prevent the risk from silt laden run off. As will the diversion of the stream during the installation of the proposed penstock. It is stated within the NIS submitted that the probability of a significant impact on the Lower River Shannon SAC is low given the low sediment transport carrying capacity of the stream and the diluting effect of the River Shannon flows. I am therefore satisfied that the mitigation measures outlined in relation to the transportation of sediments are acceptable and will adequately prevent impacts arising in this regard.

9.77. A flood study analysis accompanies the application in which alterations to the velocities and flows of the river were examined in detail. It is outlined within this study that the proposed works will cause earlier onset and increased duration of flooding, however peak flood levels changes will be insignificant. Based on the information submitted significant changes to velocities and flows are not expected and as such significant effects arising from changes to velocities and flows of the river on qualifying interests such as salmon and lamprey and otter are not likely to arise.

9.78. I note from the Construction Environmental Plan submitted that noise levels are not expected to exceed that associated with common agricultural machinery. It is not expected that piling or other highly noise intensive activities will occur at the site. Noise monitoring is proposed at the start of construction and as required following a satisfactory assessment of levels.

9.79. With particular significance to feeding bird species, it is noted that works are to be carried out at the stream banks and during dry season with little disturbance to surrounding agricultural lands. Based on the nature and location of the proposed works, and that Whooper Swans are over wintering birds it is considered that impacts on this species and Wigeons is unlikely. Noise disturbance in relation to otters is also not considered likely to arise given this species would be habituated to noise and disturbance arising from agricultural activities in the vicinity.

9.80. **Overall Conclusion**

9.81. I have considered the location of the qualifying interests of both the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA in relation to the proposed works and the existing context of the site within agricultural lands and the activities and noise associated with such activities and I consider, on the basis of the information provided with the application, including the Natura Impact Statement,

and in light of the assessment carried out, I am satisfied that the proposed development individually, or in combination with other plans or projects would not adversely effect the European site Nos. **002165 and 004077** in view of these sites Conservation Objectives.

Table 2 AA summary matrix – Lower River Shannon SAC

Lower River Shannon SAC, site code: 002165 Summary of likely significant effects <ul style="list-style-type: none"> • Water Quality deterioration • Sedimentation • Changes to velocity and flows in River Shannon • Habitat Disturbance Conservation Objectives: To maintain or restore the favourable conservation status of habitats and species of community interest					
		Summary of Appropriate Assessment			
Qualifying Interest feature	Conservation Objectives Targets and attributes	Potential adverse effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
Water courses of plain to montane levels with the Ranunculon fluitantis and Callitricho-Batrachion vegetation	Area stable or increasing.	Increase in siltation and pollution due to construction works could have an impact on water quality. Noise arising from construction could disturb otters.	Use of silt traps and curtains, designated bunded areas for refueling, works to be carried out in dry periods, stockpiling of excavated material in designated contained areas. Noise monitoring. Insignificant change to velocity and flow of river Shannon.	Additional development in area.	Yes
Alluvial woodland	Area stable or increasing, no decline.				
Atlantic Salmon	No decline				
Sea Lamprey Brook Lamprey River Lamprey	Access to all watercourses. No decline in extent and distribution of spawning beds				
Otter	No significant decline				

Overall conclusion: Integrity test

Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of this European site.

River Shannon and River Fergus Estuaries SPA, site code: 004077**Summary of likely significant effects**

- **Water Quality deterioration**
- **Sedimentation**
- **Changes to velocity and flows in River Shannon**
- **Habitat Disturbance**

Conservation Objectives: To maintain or restore the favourable conservation status of habitats and species of community interest

Qualifying Interest feature	Conservation Objectives Targets and attributes	Summary of Appropriate Assessment			Can adverse effects on integrity be excluded?
		Potential adverse effects	Mitigation measures	In-combination effects	
Whooper - Swan Wigeon	Long term population trend stable or increasing.	Habitat Disturbance arising from construction activity.	Noise will be similar to existing agricultural levels and will be monitored. Works will be carried out largely during dry season when birds are not present.	Additional development in area	Yes

Overall conclusion: Integrity test

Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of this European site.

10.0 Recommendation

10.1. On the basis of the above assessment, I recommend that the Board approve the proposed development subject to the reasons and considerations below and subject to conditions including requiring compliance with the submitted details and with the mitigation measures as set out in the NIS.

11.0 Reasons and Considerations

Reasons and Considerations

In coming to its decision, the Board had regard to the following:

- a) the EU Habitats Directive (92/43/EEC),
- b) the Water Framework Directive (2000/60/EC)
- c) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European Site,
- d) the conservation objectives, qualifying interests and special conservation interests for the Lower River Shannon SAC (002165), the River Shannon and River Fergus SPA (004077),
- e) the policies and objectives of the Clare County Development Plan, 2017-2023,
- f) the nature and extent of the proposed works as set out in the application for approval,
- g) the information submitted in relation to the potential impacts on habitats, flora and fauna, including the Natura Impact Statement,
- h) the submissions and observations received in relation to the proposed development, and
- i) the report and recommendation of the person appointed by the Board to make a report and recommendation on the matter

Appropriate Assessment:

The Board agreed with and adopted the screening assessment and conclusion carried out in the inspector's report that the Lower River Shannon SAC (002165), the River Shannon and River Fergus SPA (004077), are the European sites for which there is a likelihood of significant effects.

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposal for the Lower River Shannon SAC (002165), the River Shannon and River Fergus SPA (004077), in view of the Sites Conservation Objectives. The Board

considered that the information before it was adequate to allow the carrying out of an appropriate assessment.

In completing the assessment, the Board considered, in particular, the

- i. Likely direct and indirect impacts arising from the proposal both individually or in combination with other plans or projects, specifically upon the Lower River Shannon SAC (site code: 002165), the River Shannon and River Fergus SPA (site code: 004077)
- ii. Mitigation measures which are included as part of the current proposal,
- iii. Conservation Objective for these European Sites, and
- iv. Views of the Department of Culture Heritage and the Gaeltacht.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the integrity of the aforementioned European Sites, having regard to the site's conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the site's conservation objectives.

Proper Planning and Sustainable Development/Likely effects on the environment:

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have significant negative effects on the environment or the community in the vicinity, would not give rise to a risk of pollution, would not be detrimental to the visual or landscape amenities of the area, would not seriously injure the amenities of property in the vicinity, would not adversely impact on the cultural, archaeological and built heritage of the area and would not interfere with the existing land uses in the area. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application except where otherwise may be required in order to comply with the following conditions.

Reason: In the interest of clarity.

2. All mitigation and environmental commitments identified in the Natura Impact Statement shall be implemented in full as part of the proposed development.

Reason: In the interest of development control, public information and clarity.

3. Clare County Council and any agent acting on its behalf shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: In the interest of the proper planning and sustainable development of the area and to ensure the protection of the European sites.

4. Clare County Council and any agent acting on its behalf shall ensure that all imported soils to the site are thoroughly screened for the presence of invasive species prior to the delivery to the site to prevent the spread of invasive species. The Council shall also ensure that all excavations carried out within the site are monitored for the presence of invasive species and if encountered disposed of in a manner which will not give rise to further spread of the species.

Reason: In the interest of the proper planning and sustainable development of the area and to ensure the protection of the European sites.

5. Clare County Council and any agent acting on its behalf shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. A suitably qualified archaeologist shall be appointed by Clare County Council to oversee the site set-up and construction of the proposed development and the archaeologist shall be present on site during excavation works.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

6. Trees shall be examined prior to felling to determine the presence of bat roosts. Any works shall be in accordance with the TII Guidelines for the Treatment of Bats during the construction of National Road Schemes.

Reason: In the interest of wildlife protection.

7. All works shall have regard to Inland Fisheries Ireland's published guidelines for construction works near waterways (Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, 2016). A programme of water quality monitoring shall be prepared in consultation with the contractor, the local authority and relevant statutory agencies and the programme shall be implemented thereafter.

Reason: In the interest of the protecting of receiving water quality, fisheries and aquatic habitats.

Sarah Lynch
Senior Planning Inspector

29th September 2020