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DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

LACCAMORE SOLAR FARM AND BESS

Natura Impact Statement

Prepared for:

BNRG Laccamore Limited

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Abstract: This document is to inform the Competent Authority in carrying out their statutory obligations relating to the Habitats Directive requirement for Appropriate Assessment for plans and projects seeking consent. Appropriate Assessment is required under Article 6 (3) of the Habitats Directive for any project or plan that may give rise to significant effects on a European (Natura 2000) site.

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1. INTRODUCTION

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Fehily Timoney and Company (FT) was commissioned by BNRG Laccamore Limited ('the Applicant') to prepare a Natura Impact Statement (NIS) for a proposed solar farm, near Tralee Co. Kerry, hereafter referred to as the 'Proposed Development', with associated lands referred to as the 'Proposed Site'.

The Proposed Development has been screened for Appropriate Assessment (AA) (see Appropriate Assessment Screening Report, submitted separately), in which it was determined that significant effects to Lower River Shannon SAC could not be ruled out. The Proposed Development is therefore deemed to require Appropriate Assessment by the Competent Authority. To this end, FT has prepared this NIS to inform the Competent Authority in its assessment.

1.1 Legislative Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the "favourable conservation status" of habitats and species of European Community Interest. These habitats and species are listed in the Habitats Directive and the Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) have been designated to afford protection to these habitats and species of European importance. These two designations are collectively known as 'European sites', which form the 'Natura 2000' Network.

The European Communities (Birds and Natural Habitats Regulations 2011 (S. I. No. 477 of 2011) transpose the Habitats Directive and the Birds Directive (as amended). AA is required by the Habitats Directive which is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European site. These sites consist of SACs and SPAs and provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats. The specific provision of the regulations are (6) and (9):

> *(6) The public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.*
>
> *(9) Where a public authority is required to conduct an Appropriate Assessment pursuant to paragraph (6) in relation to a plan or project that it proposes to undertake or adopt, it shall:*
>
> *a) Prepare a Natura Impact Statement;*
> *b) Compile any other evidence including, but not limited to, scientific evidence that is required for the purposes of the Appropriate Assessment; and*
> *c) Submit a Natura Impact Statement together with evidence compiled under subparagraph (b) to the Minister not later than six weeks before it proposes to adopt or undertake the plan or project to which the Natura Impact Statement and evidence relates.*

1.2 Statement of Authority

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This report was prepared by Steven Tooher ACIEEM. Steven holds a B.Sc. (Hons) in Zoology and a M.Sc. in Environmental Resource Management, and has 10 years' experience in ecological consultancy. He has coordinated the delivery of ecological surveys and reporting for large-scale projects across various industries in Ireland and the UK.

This report was approved by Rita Mansfield. Rita holds a B.Sc. (Hons) in Applied Ecology and a H. Dip Environmental Protection and Pollution Control. Rita is a Principal Ecologist and Associate Director with 20 years' experience as a technical ecology lead within the environmental and planning services sector. She specialises in statutory consent and environmental assessment for large scale public infrastructure projects in the energy, water (including flood relief schemes) and transport sectors. She is a qualified ecologist with responsibility for environmental impact assessment, planning applications (conventional and strategic infrastructure development), Appropriate Assessment, foreshore licensing, and stakeholder engagement for large scale plans and projects in Ireland, including for wind energy developments. Rita has undertaken and managed a wide range of ecological field assessments including mammal, herpetofauna, bird, fishery, invertebrate and habitat assessments. Rita has held numerous licences under the Wildlife Act and Habitats Directive for disturbance to species which included mitigation (e.g. construction of artificial otter holt, bat exclusion). Rita has provided advice on ecological / environmental design to various private and public sector clients.

2. METHODOLOGY

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This NIS investigates the impacts of the potential significant effects identified in the AA Screening Report, in relation to the potential for significant adverse effects on the integrity of Lower River Shannon SAC, considering its conservation objectives.

2.1.1 Conservation Status

Conservation objectives refer to whether the conservation status of a QI is 'favourable'. According to the NPWS (2012):

The favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- 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.

The favourable conservation status of a species 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;
- 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.

3. ASSESSMENT OF ADVERSE EFFECTS ON SITE INTEGRITY (AESI)

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The screening process concluded that the Proposed Development has the potential to result in the following significant effects on Lower River Shannon SAC during the construction and decommissioning phases:

- Otter - surface water quality perturbations and noise disturbance;
- Salmon - habitat loss/degradation, surface water quality perturbations and noise disturbance;
- All lamprey species - habitat loss/degradation, surface water quality perturbations and noise disturbance;
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation - surface water quality perturbations

With reference to the above, the potential significant effects and the qualifying interests to which these effects apply, are presented in Table 3-1 alongside their respective conservation objectives. The assessment considers the potential for the Proposed Development to undermine the European site's conservation objectives.

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Table 3-1: Assessment of Adverse Effects on Site Integrity - Lower River Shannon SAC (002165)

Potential Impacts	Potential Effects on QIs	Assessment of Adverse Effects on Site Integrity	AESI (Y/N)
Otter		<u>Conservation Objectives:</u> To restore the favourable conservation condition of otter in the Lower River Shannon SAC.	
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse. Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.	• Reduction in prey availability; • Reduction of prey habitat suitability (e.g. sedimentation of salmon/lamprey redds), leading to a reduction in prey availability; and • Ingestion of contaminated prey and associated biomagnification.	A reduction in prey availability, and/or morbidity associated with ingestion of contaminants, would contribute to a decline in SAC populations of otter. A population decline would undermine favourable conservation status, and is therefore considered an adverse effect on site integrity.	Y
<u>Noise emissions</u> No resting places (holts or couches) were identified within the Proposed Site, but it is acknowledged that a holt could be created in the interim period between the survey and the commencement of construction. In accordance with NRA (2009), disturbance of a holt can occur if works encroach within 20m, and this increases to 150m for natal holts.	• Abandonment of holts; and • Prevention of upstream migration, and fragmentation of home range.	The abandonment of a natal holt would result in a population decline. Barrier effects from noise emissions would reduce the natural range of otter. These effects would undermine favourable conservation status, and are therefore considered an adverse effect on site integrity.	Y

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Potential Impacts	Potential Effects on QIs	Assessment of Adverse Effects on Site Integrity	AESI (Y/N)
Salmon and Lamprey		<u>Conservation Objectives</u> Salmon: To restore the favourable conservation condition of salmon in the Lower River Shannon SAC. Sea lamprey: To restore the favourable conservation condition of sea lamprey in the Lower River Shannon SAC. Brook lamprey: To maintain the favourable conservation condition of sea lamprey in the Lower River Shannon SAC. River lamprey: To maintain the favourable conservation condition of sea lamprey in the Lower River Shannon SAC.	
<u>Habitat loss/degradation</u> As a precaution, the habitat immediately downstream of proposed culvert installation and upgrades is assumed to be suitable for spawning salmon and lamprey. It is also precautionarily assumed that lamprey ammocoetes are present in bankside sediment. Sedimentation from in-stream works may cause clogging of gravel beds, thereby rendering them no longer suitable as spawning habitat.	• Reduction in spawning habitat availability; • Abandonment of active redds; • Smothering of existing spawn; and • Direct kills of lamprey ammocoetes during in-stream works.	Any potential effects on spawning habitat can be reasonably assumed to ultimately result in population declines. Similarly, the loss of lamprey ammocoetes represents a population decline. These effects would undermine favourable conservation status for salmon and lamprey, and are therefore considered an adverse effect on site integrity.	Y
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse.	• Ingestion of contaminants; • Deterioration of optimal physico-chemical conditions (e.g. O2 concentrations); and • Reduction in prey availability.	A reduction in prey availability, morbidity associated with ingestion of contaminants and/or deterioration of water quality would contribute to a decline in SAC populations of salmon and lamprey. A population decline would undermine favourable conservation status, and is therefore considered an adverse effect on site integrity.	Y

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Potential Impacts	Potential Effects on QIs	Assessment of Adverse Effects on Site Integrity	AESI (Y/N)
Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.			
<u>Noise emissions</u> Piling works have the potential to disturb spawning salmon and lamprey, on the assumption that suitable habitat is present in watercourses adjacent to the Proposed Site.	• Abandonment of redds; and • Prevention of upstream migration.	The abandonment of a redd would result in a population decline. Barrier effects from noise emissions would reduce the available range for salmon and lamprey. These effects would undermine favourable conservation status, and are therefore considered an adverse effect on site integrity.	Y
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation		<u>Conservation Objectives:</u> To maintain the favourable conservation condition of Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation in the Lower River Shannon SAC	
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse. Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.	• Deterioration of optimal physico-chemical conditions (e.g. eutrophication); and • Alterations to substrate composition.	Changes in physico-chemical conditions could lead to changes in floral composition, such that an area no longer conforms to Annex I criteria, effectively meaning that overall coverage of this habitat is reduced. Similarly, accumulation of fine sediment has been identified as a driver of degradation of this habitat (NPWS, 2019). The reduction in coverage of this habitat would undermine favourable conservation status, and is therefore considered an adverse effect on site integrity.	Y

3.1 Conclusion – Assessment of Adverse Effects on Site Integrity

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This assessment has concluded that, in light of the precautionary principle, adverse effects to the integrity of Lower River Shannon SAC, as a result of the Proposed Development, cannot be ruled out.

4. MITIGATION

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In light of the potential adverse effects on site integrity that have been identified, mitigation measures are proposed in this section, whose aim is to avoid, reduce, and/or offset such effects. All mitigation measures are reflected in the Construction Environmental Management Plan (CEMP), submitted separately.

4.1 Surface Water Quality Perturbations

4.1.1 Surface Water Management

Measures to reduce potential impacts during the construction phase are outlined in the below subsections.

4.1.1.1 Terrestrial Works

- The increase in the rate of runoff along the route of the site access tracks will be mitigated by the proposed drainage system which includes provision of stilling ponds to reduce concentration of suspended solids in the runoff from these areas.
- Stilling ponds with a diffuse outflow detail will be put in place in advance as construction progresses across the site. Erosion control and retention facilities, including stilling ponds will be regularly maintained during the construction phase. A suspended scaffold supported by the bridge deck will be installed under the clear span bridge to provide access to the underside of the bridge, this will fully encase the bridge and will be supported by the bridge itself. Note that the scaffold will be fully installed from the bridge without the need for any access to the riverbed. This will prevent any instream works and prevent impacts to the watercourse under the bridge.
- Impermeable membranes will be installed on the scaffold and work platforms to prevent ingress of dust, sediment or pollutants during bridge beam and deck construction.
- The three-stage treatment train (swale – stilling pond – diffuse outflow) proposed to retain and treat the discharges from hard surface areas as a result of the development will reduce any risk of flooding downstream.
- Where access tracks pass close to watercourses, silt fencing will be used to protect the watercourses.
- Silt traps will be provided at outfalls from roadside swales to stilling ponds.
- A suitably qualified person will be appointed by the applicant to ensure the effective operation and maintenance of drainage and other mitigation measures during the construction phase. The operations management will include regular monitoring of the drainage system and maintenance as required.
- The Applicant will ensure that erosion control, namely silt-traps, silt fencing, swales, stilling ponds and diffuse outflow areas are regularly maintained during the construction phase.
- Interceptor cut-off drains will be provided, where required, on the upslope side of the access tracks to prevent the mixing of overland flows with the drainage for the proposed development. These interceptor drains will discharge diffusely over land to avoid concentration of runoff. The roadside drains will therefore only carry the site access track runoff and so avoid carrying large volumes of water and concentrating flows.
- Cross drains of 450 mm will be provided to prevent a risk of clogging for drainage crossings and conveying flow from agricultural drains under access tracks.

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- Where new cross-drains are proposed on this site to convey surface water from roadside swales to stilling ponds, these will be sized at a minimum of 225 mm diameter to avoid blockages.
- Site access tracks have been laid out to reduce longitudinal slope of roadside drains where possible. Where roadside drains are laid at slopes greater than 2%, check damns will be provided. This will reduce effective slope and runoff velocities and any consequent potential for erosion.
- Any diesel, fuel or hydraulic oils stored on site will be stored in bunded storage tanks within the temporary construction compounds – the bund area will have a volume of at least 110 % of the volume of such materials stored.
- Refuelling of plant during construction will only be carried out at the temporary construction compounds.
- Cables will be installed in trenches adjacent to the access tracks, or laid within the access track, where required. Trenches will be excavated during dry periods where possible in short sections and left open for minimal periods, to avoid acting as a conduit for surface water flows.
- The temporary storage of excavated material on site will be stockpiled at least 50 metres from watercourses.
- Emergency drip trays and spill kits will be kept available on site, to ensure that any spills from vehicles are contained and removed off site.
- Portaloos and/or containerised toilets and welfare units will be used to provide toilet facilities for site personnel. Sanitary waste will be removed from site via a licenced waste disposal contractor.
- A vehicle wheel wash facility will be used to remove any deposited soil, debris or other material from vehicles to prevent soiling of the public road during construction.
- If necessary, concrete chutes will be washed out on site at a designed impermeable (lined) washout area at the temporary construction compounds; there will be no concrete wash out of trucks.

4.1.1.2 In-Stream Works

Any in-stream works shall be carried out in accordance with NRA (2008)[1], and will include the following measures:

- In-stream containment and dewatering operations may facilitate activity within closed periods. Having created a temporary diversion during the open season, construction of a culvert can proceed during the closed season in the original channel.
- Subsequent re-diversion of the stream back to the original channel must be undertaken in the open season.
- All dewatering flows should be passed through settlement ponds or tanks to remove sediments in order to minimize any potential environmental impacts.
- Operation of machinery in-stream should be kept to an absolute minimum. All construction machinery operating in-stream should be mechanically sound to avoid leaks of oils, hydraulic fluid, etc. Machinery should be steamcleaned and checked prior to commencement of in-stream works.
- All in-stream works must be carried out in accordance with an approved method statement and under the direction of IFI personnel.

[1] NRA (2008). Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes

4.1.1.3 Horizontal Directional Drilling

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HDD operations will be carried out in accordance with the below methodology.

- A specialist contractor will be appointed to prepare Method Statements of works.
- Fuels, lubricants and hydraulic fluids for equipment use on Site will be carefully handled to avoid spillage, properly secured and provided with spill containment kits in case of incident.
- The depth of the bore should be at least 3m below the level of the stream bed so as not to conflict with the watercourse;
- Fluid return lines used in HDD process will be tested for leaks prior to use to check their reliability;
- Inert, biodegradable drilling fluid will be used;
- All practices involving bentonite will be monitored closely, that is: pumping pressure,
- drilling mud formulation i.e., drilling fluid volume and the volume of mud returns.
- A comprehensive monitoring system will be established to closely oversee any procedures involving bentonite, encompassing the careful observation of pumping pressure, the precise formulation of drilling mud (including drilling fluid volume), and the accurate measurement of mud returns.

4.2 Pre-Construction Surveys

4.2.1 Otter

No more than 3 months prior to commencement of works (construction and decommissioning), a confirmatory survey for otter will be carried out by a suitably-experienced ecologist along the banks of all watercourses within the Proposed Site, with particular attention given to reaches 150m upstream and downstream of proposed culvert works. The purpose of the survey will be to update existing data pertaining to otter in these areas. If otter holts are located, then appropriate buffer zones will be implemented once holt status is established (this may require further monitoring if breeding is considered likely). Works that are likely to disturb an active holt can only proceed under a derogation licence.

4.2.2 Aquatic Habitat Survey

In advance of commencement of works (construction and decommissioning), a suitably-experienced freshwater ecologist shall assess the habitat immediately downstream of proposed culvert works for its potential as lamprey and/or salmon redds. In the event that high suitability is established, then adjacent works will need to be timed to avoid migratory and spawning periods for salmon and lamprey (see next subsection).

4.3 Aquatic Habitat Loss/Degradation and Disturbance Mitigation

In-stream works should not be carried out during the Annual Close Season for salmonids (13th October-31st January[2]). The duration of the season varies regionally within the period from the beginning of October to the end of February. As such, the timing of works should always be considered on a site specific basis and in agreement with Inland Fisheries Ireland (IFI).

[2] As per Fisheries (Consolidation) Act (No.14 of 1959)

In-stream works should not be carried out during the sensitive period for lamprey spawning and larval development (typically April–July), when adults are migrating and spawning, and ammocoetes are present in fine sediment habitats.

Where in-stream bed material is to be removed, coarse aggregates, if present, should be stockpiled for replacement in the reformed or new channel.

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4.4 Noise Mitigation

The below measures shall be implemented across all aspects of the Proposed Development.

Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006).

The main control measures will be control of noise at source using the following methods in line with Clause 8 'Control of noise' of BS 5228-1:2009+A1:2014:

- Operators of all mobile equipment will be instructed to avoid unnecessary revving of machinery (Clause 8.2.1 General);
- Use of appropriate plant and equipment where possible with low noise level generation where possible (Clause 8.2.2 Specification and substitution);
- All construction plant to be used on site should have effective well-maintained silencers (Clause 8.2.3 Modification of existing plant and equipment);
- Noise generating equipment will be located as far as possible away from local noise sensitive areas identified (Clause 8.2.5 Use and siting of equipment); and
- Regular and effective maintenance of site machinery including a full maintenance schedule to ensure that all pieces of equipment are in good working order. With efficient use of well-maintained mobile equipment, considerably lower noise levels than those predicted can be attained (clause 8.2.6 Maintenance).

In addition, the following best practice measures are proposed:

- Training of site staff in the proper use and maintenance of tools and equipment;
- Avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment;
- Machines that could be in intermittent use will be shut down between work periods or will be throttled down to a minimum;
- Plant start-up will be sequential rather than all together;
- Internal access tracks to be well maintained;
- Plant known to emit noise strongly in one direction will, when possible, be orientated so that the noise is directed away from noise-sensitive locations; and

Drop heights for materials such as gravels will be minimised whenever practicable.

5. ASSESSMENT OF RESIDUAL EFFECTS

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This section assesses whether, following the implementation of the mitigation proposed, adverse effects remain to the integrity of Low River Shannon SAC. The assessment is presented in Table 5-1.

It should be noted that the assessment of residual effects includes in-combination effects, because the elimination of adverse effects from the Proposed Development eliminates the possibility of acting in combination with effects from other plans or projects.

5.1 Conclusion – Assessment of Residual Effects

Following the implementation of mitigation measures as proposed, it has been concluded that the Proposed Development will not result in adverse effects on site integrity in the case of Lower River Shannon SAC.

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Table 5-1: Assessment of Residual Effects

Potential Impacts	Potential AESIs	Mitigation	Residual Effects (Y/N)
Otter			
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse. Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.	• Reduction in prey availability; • Reduction of prey habitat suitability (e.g. sedimentation of salmon/lamprey redds), leading to a reduction in prey availability; and • Ingestion of contaminated prey and associated biomagnification.	• Suite of surface water management measures, as detailed in Section 4.1.1. • In-stream works protocols, as detailed in Sections 4.1.1.2 and 4.3.	N
<u>Noise emissions</u> No resting places (holts or couches) were identified within the Proposed Site, but it is acknowledged that a holt could be created in the interim period between the survey and the commencement of construction. In accordance with NRA (2009), disturbance of a holt can occur if works encroach within 20m, and this increases to 150m for natal holts.	• Abandonment of holts; and • Prevention of upstream migration, and fragmentation of home range.	• Pre-works surveys; • Implementation of buffer zones as appropriate; • Suite of noise management measures, as detailed in Section 4.4.	N

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Potential Impacts	Potential AESIs	Mitigation	Residual Effects (Y/N)
Salmon and Lamprey			
<u>Habitat loss/degradation</u> As a precaution, the habitat immediately downstream of proposed culvert installation and upgrades is assumed to be suitable for spawning salmon and lamprey. It is also precautionarily assumed that lamprey ammocoetes are present in bankside sediment. Sedimentation from in-stream works may cause clogging of gravel beds, thereby rendering them no longer suitable as spawning habitat.	• Reduction in spawning habitat availability; • Abandonment of active redds; • Smothering of existing spawn; and • Direct kills of lamprey ammocoetes during in-stream works.	• Pre-works surveys; • Timing of works to avoid sensitive seasons for salmon and lamprey; • In-stream works protocols, as detailed in Sections 4.1.1.2 and 4.3.	N
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse. Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.	• Ingestion of contaminants; • Deterioration of optimal physico-chemical conditions (e.g. O2 concentrations); and • Reduction in prey availability.	• Suite of surface water management measures, as detailed in Section 4.1.1.	N

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Potential Impacts	Potential AESIs	Mitigation	Residual Effects (Y/N)
<u>Noise emissions</u> Piling works have the potential to disturb spawning salmon and lamprey, on the assumption that suitable habitat is present in watercourses adjacent to the Proposed Site.	• Abandonment of redds; and • Prevention of upstream migration.	• Timing of works to avoid sensitive seasons for salmon and lamprey; • Suite of noise management measures, as detailed in Section 4.4.	N
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation			
<u>Surface water quality perturbations</u> In-stream works, specifically the installation of a culvert on the Ballyconnell watercourse, and upgrade of two other culverts, presents a risk of: • Sediment mobilisation; • Ingress of petrochemicals into the watercourse; and • Ingress of cementitious materials into the watercourse. Terrestrial works also pose similar risks in the absence of appropriate runoff control measures.	• Deterioration of optimal physico-chemical conditions (e.g. eutrophication); and • Alterations to substrate composition.	• Suite of surface water management measures, as detailed in Section 4.1.1. • In-stream works protocols, as detailed in Sections 4.1.1.2 and 4.3.	N

6. CONCLUSION - NATURA IMPACT STATEMENT

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For the reasons set out in detail in this NIS, in light of the best scientific knowledge in the field, all aspects of the Proposed Development in isolation, or in combination with other plans or projects, which may affect the relevant European Site (Lower River Shannon SAC) have been considered.

Specific mitigation has been proposed in response to the potential for significant effects to occur. With the incorporation of site-specific mitigation measures, the Proposed Development alone will have no adverse effect on the site integrity, in respect of the SAC's Conservation Objectives. This includes any potential interaction with other plans or projects leading to in-combination effects.

The NIS contains information which the competent authority may consider in making its own complete, precise and definitive findings and conclusions. This NIS is intended to be used by the competent authority to determine that all reasonable scientific doubt has been removed as to the effects of the Proposed Development on the integrity of the relevant European sites.

Therefore, it can be concluded beyond reasonable scientific doubt that there will no adverse effects on the integrity of European sites as a result of the Proposed Development, either alone, or in combination with other plans or projects.

7. REFERENCES

RECEIVED: 26/09/2025

Department of the Environment, Heritage and Local Government (DoEHLG, 2010). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin (2009, updated 2010).

Environmental Protection Agency (EPA) - https://gis.epa.ie/EPAMaps/ (accessed (20/02/24)

European Commission (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities.

European Commission (2013) Interpretation Manual of European Union Habitats. EUR 28.

European Commission (2019). Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. (2019/C 33/01). Brussels.

European Commission (2021) "Commission notice- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC."

NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2019) The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS Report.

Office of the Planning Regulator (2021) OPR Practice Note PN01. Appropriate Assessment Screening for Development Management.

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