Inspector's Report
ABP-322748-25

Development	Clonaslee Flood Relief Scheme
Location	Adjacent to, and in the vicinity of the Clodiagh River, in the townlands of Brittas, Bunastick, Clonaslee, Ballynakill and Brockagh, in County Laois
Planning Authority	Laois County Council
Applicant	Laois County Council
Type of Application	Application for approval made under Section 175 and Section 177AE of the Planning and Development Act, 2000 (local authority development requiring environmental impact assessment and appropriate assessment)
Prescribed Bodies	1. Transport Infrastructure Ireland 2. Uisce Éireann 3. Health Service Executive 4. Inland Fisheries Ireland

	5. Department of Housing, Local Government and Heritage
Date of Site Inspection	17th September 2025
Inspector	David Ryan

Contents

1.0 Introduction

1.1. Laois County Council is seeking approval from An Coimisiún Pleanála to undertake a development referred to as the 'Clonaslee Flood Relief Scheme', which relates to a proposed flood relief development which will consist of flood relief works along, adjacent to, and in the vicinity of the Clodiagh River, in the townlands of Brittas, Bunastick, Clonaslee, Ballynakill and Brockagh, in County Laois. The proposed development will include for 3 no. development areas and includes the following: the construction of a flood defence embankment c. 145 m long in Brittas Wood, to the south of Clonaslee village, and remediation works for the existing culvert within Brittas Wood, along with installing a debris trap in the Clodiagh River's channel and an associated access slipway; the construction of a reinforced flood defence wall c. 235 m long, along Chapel Street in Conaslee village, along with the addition of a public footpath along the length of the new wall; and the construction of a flood defence embankment c. 130 m long northeast of Chapel Street, and a flood defence wall c. 70 m long on the eastern bank of the Clodiagh River within the grounds of Clonaslee's Integrated Constructed Wetlands (ICW).

1.2. The application is being made by Laois County Council pursuant to Section 175 and Section 177AE of the Planning and Development Act, 2000 (as amended). Accordingly, an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) have been prepared in respect of the proposed development.

1.3. Before making a decision on the proposed development, the Commission shall consider the EIAR, any submissions or observations and any other information relating to (i) the likely effects on the environment of the proposed development, and (ii) the likely consequences for proper planning and sustainable development in the area in which it is proposed to situate the proposed development. The Commission shall also consider the NIS and the likely effects on European sites in respect of Appropriate Assessment.

1.4. The application was received on 11th June 2025. Submissions were received from 5 no. prescribed bodies which are summarised in Section 6.

1.5. A concurrent application ABP-322766-25 has been made by Laois County Council for the Clonaslee Flood Relief Scheme Compulsory Purchase Order No. 01 of 2025, which was lodged 10/06/2025.

1.6. **Oral Hearing**

1.6.1. Having regard to the details on file, my site inspection and the nature of the submissions, I do not consider that an oral hearing is necessary in respect of this section 175 application.

2.0 Site Location and Description

2.1. The proposed flood relief scheme is located on lands within and/or adjacent to Clonaslee Village, within the townlands of Brittas, Bunastick, Clonaslee, Ballynakill and Brockagh, Co. Laois. The site is located approx. 19km northwest of Portlaoise, c.13 west of Mountmellick, and c.14km south of Tullamore. The R422 which forms the Main Street runs from east to west through Clonaslee Village and connects to the N80 at Mountmellick. The local road L2006 including Chapel Street runs north-south intersecting the R422 at the western area of the village, connecting to Tullamore to the north and Brittas Forest to the south.

2.2. The site includes the Clodiagh River which flows from south to north through the western area of the village, flowing parallel to Chapel Street. The Gorragh River which flows from south to north is located to the eastern area of the village, before its confluence with the Clodiagh River c.1.3km to the north of the village. The **central area** of the proposal site includes for the eastern side of Chapel Street and lands to its northeast, riverbank walls, agricultural lands and private properties, which are located adjacent to/proximal to the Clodiagh River. Areas of this part of the proposal site are within a designated Architectural Conservation Area (ACA), with protected structures, archaeological sites and Monuments Record zones located within the development site vicinity. Utility infrastructure including power lines traverse this area of the site.

2.3. The **northern area** of the site includes lands to the eastern and western banks of the Clodiagh River, downstream of the village, and includes agricultural lands and part of the grounds of Clonaslee's Integrated Constructed Wetlands (ICW) Treatment Plant.

This area of the site is located parallel to the Clodiagh River and Tullamore Road, and Uisce Eireann pipeline infrastructure are located within this area.

2.4. The **southern** area of the proposal site includes for Brittas Wood/Forest, the Clodiagh River, agricultural lands, and Uisce Eireann pipeline infrastructure are located within this area, located to the south of the village. This area of the site which lies on the opposite side of the river from the Clonaslee Water Treatment Plant overlays with an amenity trail running to the west of the river in Brittas Wood. The designated European site Slieve Bloom Mountains SPA forms part of the southern area of the site, with the Slieve Bloom Mountains SAC located c.1.2km south of the site.

2.5. The Clodiagh River, located within the Brosna catchment, connects to Charleville Wood SAC c.10km to the north of the site, and connects to the River Shannon via the Brosna River at Shannon Harbour, Co. Offaly. The proposed development site is partially located within areas at risk of flooding.

3.0 Proposed Development

3.1. The proposed flood relief works will consist of the construction and/or installation of flood defence embankments and flood defence walls, as detailed in 3.3 - 3.16.

3.2. The 'Planning Report Clonaslee Flood Relief Scheme' and Chapter 5 of the EIAR (Main Report) provide a detailed description of the proposed development. The proposed scheme consists of flood relief measures for Clonaslee Village, specifically in connection with flooding from the Clodiagh River, and aims to protect the Clonaslee communities from flooding. Hydraulic modelling analysis and mapping have identified 74 properties (72 residential and 2 non-residential properties) in Clonaslee as being at risk of fluvial flooding events. The selected defences are required to deliver a Target Standard of Protection (SoP) for the 1% Annual Exceedance Probability (AEP) rainfall event. The scheme has a design life of 100 years and its adaptability to climate change has been considered. The flood wall heights include for a 300 mm 'freeboard', which sets the top level of the wall 300 mm above the maximum predicted flood level in the design event, and allows for contingency in the design and allows for the wave effect of floodwater. An extra 200 mm freeboard is added for embankments to cater for the additional risk of the

embankment material settling over time, which gives a total freeboard of 500mm. The proposed defence heights will cater for the High-End Future Climate Change Scenario (where peak flows are projected to increase by 30%), albeit with a reduced freeboard. The implementation of the proposed scheme will result in the creation of a Benefitting Area.

3.3. The proposed scheme is divided into **three areas:**

Area 1 - **Brittas Wood**

3.4. Brittas Wood includes a publicly accessible amenity trail, owned and operated by Coillte. The proposed works at this location aim to achieve 3 no. flood defence objectives, including: 1 - to catch fallen trees/debris that cause a blockage risk to the Clodiagh Bridge in Clonaslee village; 2 - ensure increased water levels due to debris trap blockages will not create a flood risk; 3 - facilitate ongoing maintenance and cleaning of the existing Brittas Lake Stream crossing culvert (600 mm diameter);

Construction Methodology

3.5. A flood defence **embankment** is proposed along a section of the existing amenity pathway in Brittas Wood to the west of the Clodiagh River, and seeks to prevent increased water levels, due to debris trap blockages, from creating a flood risk. The embankment will be a trapezoidal structure constructed from non-porous clay, measuring 145 metres long, 0.9 metres high and c.6 metres in width and will necessitate tree removal. It will entail an impermeable barrier to prevent water seepage. The concrete cut-off underneath the embankment will also serve to provide a protective slab to the water abstraction watermain pipes located within the embankment footprint. The Uisce Eireann pipelines associated with supply boreholes within the footprint will be excavated and backfilled with concrete to provide cut-off and protection during construction. The embankments crest (3 metres wide) will be paved allowing for vehicle, pedestrian and cyclist access. The embankments shoulder and side slopes will be reinstated.

3.6. A **debris trap** is proposed to capture fallen tree debris, which will comprise a concrete base extending the full width of the Clodiagh River's channel. The dimensions of the proposed debris trap foundation are 5.55 m x 1.75 m x 1 m (L x W x D). The top of the base will be set c. 500 mm below riverbed level to allow re-naturalisation of riverbed material above. 6 no. concrete poles will be cast into the

concrete base, measuring c. 3 m high and c. 300 mm in diameter. Erosion protection on the adjacent riverbanks is also proposed. Water flow management will be required to construct the debris trap, which is the only in-stream work proposed in the scheme. Maintenance access will occur via a proposed slipway extending from the trail pathway to the edge of the Clodiagh River, with a locked gate and fence installed across the slipway.

3.7. A site-specific scour analysis will be undertaken at design stage to assess the need to extend the debris trap foundation to form bed scour protection. This would comprise an extension of the debris trap foundation, matching the top level of it (i.e. 500mm below the natural bed level). With obstructions to flow introduced to the channel, soft engineering methods such as willow spiling will be taken to ensure it does not lead to excessive scour/erosion on adjacent banks.

3.8. To prevent vegetative encroachment on the existing culvert inlet where Brittas Lake Tributary meets the Clodiagh River, a concrete culvert headwall for the existing culvert on the upstream side is proposed. **Culvert remediation** works will include a new precast concrete headwall installed at the culvert's inlet, edge protection around the culvert's headwall, and vegetation removal to enable maintenance access. The existing c. 600 mm-diameter pipeline associated with the culvert will be retained to avoid disturbing the Clodiagh riverbank.

Area 2 – Chapel Street

3.9. A proposed **flood defence wall** is proposed in **Area 2 Chapel Street,** with the reinforcement of an existing roadside wall at this location designed to formalise the wall as a flood defence.

Construction Methodology

3.10. The proposed will include for existing wall retention, a new wall c. 235 m in length (135m along Chapel Street and 100m in private property) and 1.2m in height to be built adjoining the existing wall, constructed of reinforced concrete and clad in stone to match the existing wall appearance. The existing wall will therefore be widened by c. 0.5 m. As the existing wall has sufficient height for the flood defence (ranging from 0.8m to 1.2m from the existing road level; 0.5m to 0.7m higher than predicted flood water level), the new wall will match its height. To prevent water seepage, a trench will be excavated below bed level and backfilled with non-porous concrete. The

scheme also proposes a public footpath c.140 metres long and 1.8 metres wide along the Chapel Street section.

Area 3 - Tullamore Road and Uisce Eireann ICW

At **Area 3**, entailing the **Tullamore Road and Uisce Eireann ICW**, a **flood defence embankment** (c. 130 m long, height of 0.9 m, 7.5m in width) is proposed on the western bank of the Clodiagh River. A **flood defence wall** (c. 70 m long, 0.6 m in height) is also proposed on the eastern bank of the River Clodiagh within ICW grounds.

Construction Methodology

3.11. The **embankment** will comprise non-porous clay material, extending c. 1 m below ground level to prevent any flow path beneath. The embankment's design level will be set c. 0.5 m above the predicted flood water level for the 1% Annual Exceedance Probability (AEP) event, resulting in an average height of c. 0.8 m above the existing ground level. With the embankment offset from the existing embankment and treeline it will provide a secondary line of flooding defence. The embankment will detail a crest width of 2 metres, and will tie into the side slope of the road to the north of Area 3. The structure will be topped with topsoil and grass seeded and will be fenced off on its western side. The inlet pipe to the ICW beneath the embankment will also be protected during construction.

3.12. A **flood defence wall** will be of reinforced concrete, entailing an L-shaped configuration and c. 1 m wide footing. Its base will extend 0.6 m below ground level to prevent flow paths underneath. The level of the proposed wall is 0.3 m above the predicted flood water level in the 1% AEP event.

3.13. The proposal will also include for associated and ancillary development works to facilitate the proposed flood relief works, including clearance and vegetation removal; temporary construction signage and fencing; replacement of public lighting; fencing and gates; planting, reseeding, and biodiversity enhancement measures.

Construction Methodology

3.14. 2 no. temporary construction compounds (A and B) are proposed to facilitate the construction of the proposed scheme, which will be served by connections to the foul sewer network/by way of welfare facilities. These will be located in an existing field

north of Area 1 (Compound A - Brittas Wood), and in a field adjacent to the Tullamore Road in close proximity to Area 2 (Compound B - Chapel Street). The field entrance to Compound A will be widened to facilitate access and egress. The construction site at Area 3, west of the Clodiagh River will be used for a welfare unit and storage of material. Compounds will be reinstated following construction.

3.15. In terms of construction methodology for instream works in Area 1 Brittas Wood, this will involve the concrete base of the debris trap being poured in two parts to facilitate diverting the river to one site of the riverbed for each work stage. The works will be dammed on three side using sandbags, with pumping required. Following diversion, the foundation will be excavated and trench supports installed. The bottom of the excavation will be sealed with a concrete layer. The concrete base will be poured within trench boxes. Dewatering will be contained within the trench during concrete placement and reinforcement cages will be used. The debris trap poles will be precast off-site and dropped in place in the foundation, propped for line and level and grouted/concreted. The excavated riverbed material will be reinstated over the debris trap base before re-diverting flows over the area. Excavations will occur in Areas 1-3. In compounds the hardstanding will be laid on a geotextile layer following topsoil stripping.

3.16. Access to the site will be via an existing amenity trail head entrance and amenity trail path at Area 1, private property at Area 2 will be accessed via a field and a proposed entrance, with access to Area 3 via existing entrances. The construction phase is expected to take 24 months.

Accompanying documents

This application for approval is accompanied by the following documents:

- Environmental Impact Assessment Report
- Natura Impact Statement
- Planning Report
- Planning drawings
- Cover letter
- Site notice and newspaper notices

- Copies of letters issued to prescribed bodies

4.0 Planning History

4.1. Relevant History:

ABP 322766-25 – Application by Laois County Council for the Clonaslee Flood Relief Scheme Compulsory Purchase Order No. 01 of 2025, lodged 10/06/2025.

ABP 243327 PA Reg. Ref 13243 – Permission for bungalow refused

Reg. Ref. 12/269 Permission was refused for the construction of a bungalow

Reg. Ref. 06/1172 Outline Permission granted for a dwelling

Reg. Ref. 06/45 Outline Permission was refused for four houses

Reg. Ref. 04/879 Permission granted for removal of occupancy condition applied in 03/1628.

Reg. Ref. 031628 Outline permission granted for 2 dwellings

4.2. Relevant consented/refused developments in the vicinity include:

PA Reg. Ref 2560074 – Permission granted for A. convert The Swan Public House into hostel accommodation, comprising of 29 bed capacity and all associated site works. B. The provision of a new shopfront, additional windows C. The construction of 3 no. new masonry outbuildings to provide a bin store, general storage and a secure bike shed.

ABP 247390 (PA reg. ref 16220) - Upgrading of water treatment plant (WTP) including refurbishment of existing WTP building and ancillary structures, proposed new water treatment process building, modified by way of contribution appeal

PA Reg. Ref 19193 – Permission granted to modify the previous grant of permission to the Water Treatment Plant (WTP) site at Clonaslee (Planning Registration Number: 16/220) comprising the following: modifications to the proposed pumphouse building, revised location of the ESB substation, reduced footprint to the Water Treatment Plan Process Building, revisions to site layout

ABP 306246 - Application for leave to apply for substitute consent to regularise the planning status of Bord na Móna's historic peat extraction (and ancillary works) on

the milled peat production bogs - Board's Decision to grant quashed by Order of the High Court

5.0 Legislative and Policy Context

5.1. Relevant legislative provisions

EU EIA Directive (2014/52/EU)

The Environmental Impact Assessment Directive (EIA Directive) means Directive 2014/52/EU of the European Parliament and of the Council of 16th April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

These Regulations transpose the requirements of the 2014 Directive into Irish legislation setting out the requirements for planning consent procedures.

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).

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.

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.

European sites located within/in proximity to the subject site include:

- Slieve Bloom Mountains SPA (site code 004160)
- Slieve Bloom Mountains SAC (site code 000412)
- River Barrow and River Nore SAC (site code 002162)
- Charleville Wood SAC (site code 000571)

EU Floods Directive (2007/60/EC) - The EU Directive on the assessment and management of flood risk, often referred to as the 'Floods Directive', came into force in 2007. The assessment and management of flood risks in Ireland was aligned to meet the requirements of the EU Floods Directive through the Catchment Flood Risk Assessment and Management (CFRAM) Programme.

Planning and Development Acts 2000 (as amended)

Part X of the Act sets out the requirements for the environmental impact assessment of developments which necessitate the preparation of an EIAR.

- Section 175 (1) sets out the requirements for the environmental impact assessment of developments carried out by or on behalf of local authorities.
- Section 175 (1) requires a local authority to prepare, or cause to be prepared, an Environmental Impact Assessment Report in respect of the proposed development.
- Section 175 (2) states that a proposed development in respect of which an EIAR is required shall not be carried out unless the Commission has approved it with or without modifications.
- Section 175 (3) states that where an EIAR has been prepared pursuant to subsection (1), the local authority shall apply to the Commission for approval of the proposed development.

- Section 175 (6) states that before making a decision in respect of a proposed development, the Commission shall consider the EIAR and any other information furnished and relating to the likely effects on the environment; the likely consequences for proper planning and sustainable development in the area; the views of any other Member State of the European Communities or a state which is a party to the Transboundary Convention to which a copy of the EIAR was sent; the report and any recommendations of the person conducting an oral hearing.
- Under Section 175(9)(a), the Commission shall make its decision on the application within a reasonable period of time and may, in respect of such application:
    - approve the proposed development,
    - make such modifications to the proposed development as it specifies in the approval and approve the proposed development as so modified,
    - approve, in part only, the proposed development (with or without specified modifications of it of the foregoing kind), or
    - refuse to approve the proposed development,
    - and may attach to an approval under subparagraph (i), (ii) or (iii) such conditions as it considers appropriate.

Section 175 (12) states that the Commission shall have regard to the provisions of any special amenity order relating to the area; the area or part of the area is a European site or an area prescribed for the purposes of section 10(2)(c), that fact; where relevant, the policies of the Government, the Minister or any other Minister of the Government, and the provisions of this Act and regulations under this Act where relevant.

Part XAB 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 Commission 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 Commission 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 Commission 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.

Climate Action and Low Carbon Development Act, 2015, as amended.

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade. Section 17 of the Climate Action and Low Carbon Development (Amendment) Act, 2021 amends the principle act such that low carbon(1) requires:

"(*1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—*

a) the most recent approved climate action plan,

b) the most recent approved national long term climate action strategy,

c) *the most recent approved national adaptation framework and approved sectoral adaptation plans,*

d) *the furtherance of the national climate objective, and*

e) *the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State".*

"Relevant body" means a prescribed body or a public body.

5.2. Policy and Guidelines of Relevance

The following policy and guidelines are considered relevant to the proposed development:

5.2.1. Climate Action Plan 2025

Climate Action Plan 2025 builds upon the Climate Action Plan 2024 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with **Climate Action Plan 2024.** The Climate Action Plan 2025 (CAP25) is the latest annual update to Ireland's Climate Action Plan. The purpose of the Climate Action Plan is to lay out a roadmap of actions which will ultimately lead to meeting our national climate objective of pursuing and achieving, by no later than the end of the year 2050 (as committed to in the Climate Action and Low Carbon Development Act 2015, as amended), the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. It aligns with the legally binding economy-wide carbon budgets and sectoral emissions ceilings that were agreed by Government in July 2022. The plan highlights the direct impact of climate change arising from flooding events, and actions outlined for 2025 include to Develop a Sectoral Adaptation Plan for the Flood Risk Management sector, and to Implement a National Groundwater Flood Monitoring Programme. The principle of the proposed works is considered to be in compliance with the principles and provisions of the Climate Action Plan 2025.

Climate Action Plan 2024

The Climate Action Plan 2024 (CAP 24) follows the commitment in the Climate Act 2015, as amended, and sets out the range of emissions reductions required for each sector to achieve the committed to targets. The document sets out Irelands plan to

achieve a 51% reduction in greenhouse gas emissions from 2021-2030 and being carbon neutral by 2050. Actions outlined for 2024 include to complete a review of the national Preliminary Flood Risk Assessment to assess the potential impacts of climate change on flooding and flood risk across Ireland. The principle of the proposed works is considered to be in compliance with the principles and provisions of the Climate Action Plan 2024.

5.2.2. **The Revised National Planning Framework - Project Ireland 2040** was approved in April 2025. The National Planning Framework – Project Ireland 2040 is a high-level strategic plan for shaping the future growth and development of Ireland to 2040. Key objectives of the Framework include the sustainable management of environmental resources, and for the transition to a carbon neutral and climate resilient society. Embedded in these objectives is the need to consider the impact of climate change on the water cycle and the resultant impact on water services and flooding in settlement strategies, with adaptation measures required to respond to locally specific, place-based responses, which address not only climate impacts but also integrate coherently with local social, economic and ecological systems.

- **NPO 77** seeks to enhance water quality and resource management by: Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process, and integrating sustainable water management solutions, such as sustainable urban drainage, non-porous surfacing and green roofs, and nature based solutions, to create safe places.
- **NPO 78** seeks to promote sustainable development by ensuring flooding and flood risk management informs place-making by: Avoiding inappropriate development in areas at risk of flooding that do not pass the Justification Test, in accordance with the Guidelines on the Planning System and Flood Risk Management; Taking account of the potential impacts of climate change on flooding and flood risk, in line with national policy regarding climate adaptation.
- **NSO 9** Sustainable Management of Environmental Resources outlines in relation to water that climate change will have significant future effects on the availability of water sources, with objectives including for substantial investment in water programmes.

- **Section 9.3** Protecting Conserving and Enhancing our Natural and Cultural Capital, highlights the importance of flood risk planning and climate change adaptation.

5.2.3. **National Development Plan 2021-2030 (NDP).** The NDP sets out investment priorities underpinning the implementation of the NPF. The NDP Review was published in July 2025.

5.2.4. **National Biodiversity Action Plan 2023 – 2030 (NBAP)**

The NBAP includes five strategic objectives aimed at addressing existing challenges and new and emerging issues associated with biodiversity loss. Section 59B(1) of the Wildlife (Amendment) Act 2000 (as amended) requires the Commission, as a public body, to have regard to the objectives and targets of the NBAP in the performance of its functions, to the extent that they may affect or relate to the functions of the Commission. The impact of development on biodiversity, including species and habitats, can be assessed at a European, National and Local level and is taken into account in our decision-making having regard to the Habitats and Birds Directives, Environmental Impact Assessment Directive, Water Framework Directive and Marine Strategy Framework Directive, and other relevant legislation, strategy and policy where applicable.

A Plan target set out in Outcome 2D is that by 2027, optimised benefits in flood risk management planning and drainage schemes are in place.

5.2.5. **Climate Change Sectoral Adaptation Plan (OPW, 2019)**

The plan sets out a long-term goal for adaptation in flood risk management, along with a set of objectives and adaptation actions aimed at achieving those objectives.

5.2.6. **National Flood Policy 2004**

The recommendations of the Report included appointment of the OPW as lead agency for co-ordinating delivery of flood risk management policy.

5.2.7. **The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) -** The Guidelines seek to avoid inappropriate development in areas at risk of flooding and avoid new developments increasing flood risk elsewhere. The Guidelines outline the provision of flood protection measures in appropriate locations, such as in or adjacent to town centres, can significantly reduce

flood risk. It is outlined minimising risk can be achieved through structural measures that block or restrict the pathways of floodwaters, such as river or coastal defences.

5.2.8. **National Catchment-based Flood Risk Assessment and Management (CFRAM) Programme**

An objective of CFRAM was to identify and map the existing and potential future flood hazard and flood risk in the areas at potentially significant risk from flooding, called Areas for Further Assessment (AFAs). Clonaslee and environs, located at the Clodiagh River within the River Brosna catchment, were identified as an AFAs (ID no. 250420). The CFRAM Programme led to development of the Flood Risk Management Plan which identifies Clonaslee as an AFA and concludes that an FRS will be progressed.

5.2.9. **Flood Risk Management Plan Shannon Upper & Lower River Basin 2018**

Clonaslee is identified as an Area for Further Assessment in the FRMP. The proposed measures includes to: Progress the project-level development and assessment of a Flood Relief Scheme for Clonaslee, including environmental assessment as necessary and further public consultation, for refinement and preparation for planning / Exhibition and, if and as appropriate, implementation.

5.2.10. **Water Action Plan 2024: A River Basin Management Plan for Ireland**

The Plan sets out a roadmap to restore Ireland's water bodies to the equivalent of 'good status' or better and to protect water from any further deterioration. In relation to Structural Flood Protection, it is outlined the current policy in relation to flood protection is to implement the Floods Directive in full. This includes structural flood protection measures proposed for communities at significant flood risk, aimed at reducing the likelihood and/or degree of flooding, identified through the National Catchment Flood Risk Assessment and Management (CFRAM) Programme.

5.2.11. **National Adaptation Framework 2024**

The framework sets out the national strategy to reduce Ireland's vulnerability to climate change impacts, with flood risk management included at sector level.

5.2.12. **Architectural Heritage Protection Guidelines (2011).**

Refers to the main features of the Planning and Development Act 2000, as amended and to the requirement for planning authorities (PA) to create a record of protected

structures and to the responsibilities given to owners to maintain them and the additional powers given to PA's to ensure that protected structures are not endangered.

5.2.13. **Regional Planning Policy**

Eastern & Midland Regional Spatial & Economic Strategy 2019-2031

The RSES acknowledges the importance of the reduction and proactive management of flood risk. The identified Regional Policy Objectives include:

RPO 7.13 outlines the EMRA will work with local authorities, the OPW and other relevant departments and agencies to implement the recommendations of the CFRAM programme to ensure that flood risk management policies and infrastructure are progressively implemented.

RPO 7.14 outlines Local authorities shall take account of and incorporate into the development of local planning policy and decision making the recommendations of the Flood Risk Management Plans (FRMPs), including planned investment measures for managing and reducing flood risk.

RPO 7.15 outlines Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

5.2.14. **Development Plan**

The **Laois County Development Plan 2021-2027** is the relevant development plan.

Clonaslee is identified as a village in the settlement hierarchy for Laois.

Map 6.1 A of the Plan sets out the zoning for the village. The centre of village including lands within and adjacent the application site are zoned 'town centre'. Other lands within the site are zoned 'Residential 1. Established,' and 'Open Space/ Amenity'. The application site is also within/adjacent a buffer zone for sewage treatment plant, monuments buffer zones, within Zone A - Risk of Flooding once every 100 years, and within/adjacent Zone B - Risk of Flooding once every 1000 years.

In Map 6.1 B of the Plan the application site is located within an ACA and is located opposite protected structures in the Chapel Street area of the site. Protect tree stands are located along the riverbank, opposite the southern area of the application site. Mapping objectives include to 'provide walkway on riversides' along Chapel Street, and 'provide or improve footpaths and public lighting' on the L2006 south of its intersection with the R422.

Relevant policy objectives of the plan include the following:

Chapter 2: Core and Settlement Strategy:

CS 32: Facilitate the expansion of villages and small towns to provide for employment, retail and social opportunities at an appropriate scale subject to normal planning requirements

CS 36: Contribute, as practicable, towards achievement of the 17 Sustainable Development Goals 15 of the United Nations' 2030 Agenda for Sustainable Development, which came into force in 2016

Chapter 3: Climate Action and Energy: This includes the policy objective CA 1 which seeks to support and facilitate European and national objectives for climate adaptation and mitigation as detailed in Climate Action Plan, National Climate Change Adaptation Framework, any Regional Decarbonisation Plan, Sectoral Adaptation Plans, and the Laois Climate Change Adaptation Strategy 2019-2024.

Chapter 7: Retail and Town /Village Centre Management:

TC 5: Assist in site assembly and facilitate appropriate new development in town/village centres by way of alterations and extensions, infill development as well as demolition and redevelopment subject to planning considerations such as architectural heritage and flood risk

Chapter 10: Infrastructure:

FRM 3: Support the implementation of recommendations in the CFRAM Programme to ensure that flood risk management policies and infrastructure are progressively implemented.

FRM 4: Support the implementation of recommendations in the Flood Risk Management Plans (FRMP's), including planned investment measures for managing and reducing flood risk.

FRM 5: Consult with the OPW in relation to proposed developments in the vicinity of drainage channels and rivers for which the OPW are responsible, and to retain a strip on either side of such channels where required, to facilitate maintenance access thereto

FRM 8: Protect the integrity of any formal (OPW or Laois County Council) flood risk management infrastructure, thereby ensuring that any new development does not negatively impact any existing defense infrastructure or compromise any proposed new infrastructure.

FRM 9: Ensure that where flood risk management works take place that the natural and cultural heritage, rivers, streams and watercourses are protected and enhanced

FRM 10: Ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.

FRM 11:Consult, where necessary, with Inland Fisheries Ireland, the National Parks and Wildlife Service and other relevant agencies in the provision of flood alleviation measures in the County.

FRM 12: Prioritise plans for flood defence works in the towns as indicated in the Strategic Flood Risk Assessment in order to mitigate against potential flood risk.

FRM 13: Ensure new development does not increase flood risk elsewhere, including that which may arise from surface water runoff

In Chapter 11, Biodiversity and Natural Heritage, policy objectives BNH 2, BNH 7, BNH 13, BNH 14, DM BNH 2, seek to afford protection to protected habitats and species, pNHAs, local biodiversity, swift roosts, and require appropriate assessment of any development likely to impact on European sites.

BNH 26, BNH 27 seek to protect trees, woodland, hedgerows

BNH 28 seek to ensure that hedgerow removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required

BNH 31 seeks to protect waterbodies and watercourses from inappropriate development, to ensure they are retained for their biodiversity and flood protection

values and to conserve and enhance where possible, the wildlife habitats of the County's rivers and riparian zones, lakes, canals and streams

BNH 49 Development will not be permitted where a public right of way will be affected unless the level of amenity loss is minimised by: • the footpath/bridleway being diverted is by the minimal practical distance • the route continuing to be segregated from vehicular traffic • Appropriate legal procedures have been undertaken to extinguish the existing right of way and to establish the new right of way to replace it

Section 11.10 Landscape outlines in the Landscape Character Areas for County Laois the site is located within Lowland Agricultural Areas, which has a low landscape sensitivity rating, with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area. Areas to the south of the site are located within Hills and Upland, Mountain Areas Landscape Character Areas, which have a medium and high landscape sensitivity rating respectively.

SV 1 seeks to protect views from designated scenic routes indicated in Table 11.7 and Map 11.8 (Scenic Views and Prospects in County Laois) of the Plan, by avoiding any development that could disrupt the vistas or disproportionately impact on the landscape character of the area, thereby affecting the scenic and amenity value of the views.

There is an absence of designated scenic routes or protected views in the immediate vicinity of the site. Table 11.7: Scenic Views and Prospects in County Laois includes scenic view 017 - R422 in the townlands of Clonaslee - Views over farmland and Slieve Bloom Mountains, which details a view to the south, orientated away from the site.

LCA 2 seeks to protect and enhance the county's landscape

LCA 3: Seek to ensure that local landscape features, including historic features and buildings, hedgerows, shelter belts and stone walls, are retained, protected and enhanced where appropriate, so as to preserve the local landscape and character of an area, whilst providing for future development.

LCA 16: Recognise the importance of river corridors for scenic value, ecology, history, culture and for recreational purposes such as walking, cycling and various on-water activities.

LCA 17: Maintain the rivers throughout the county whilst ensuring that all works are carried out subject to appropriate environmental assessment in accordance with Article 6 of the Habitats Directive

LCA 18: Preserve riverside historic features and their landscape settings and Conserve valuable habitats focused on and around river corridors and estuaries including European and national designations.

Chapter 12 Built and Cultural Heritage

ACA 1 seeks to ensure that any development within an ACA are sited and designed appropriately, and are not detrimental to the character of the structure or to its setting or the general character of the ACA

AH 1 seeks to protect and conserve the integrity and character of archaeological heritage of the county

County Laois Strategic Flood Risk Assessment (SFRA) 2022

The SFRA which accompanies the CDP outlines that the River Clodaigh burst through a damaged wall as a result of heavy rainfall in 2017. In November 2009 Clonaslee flooded as gravel deposits in the River Clodiagh blocked a bridge resulting in water flowing through the village centre. The SFRA concludes in relation to Clonaslee that it is considered appropriate to retain the existing zoning, and any future development should be subject to an FRA which should follow the general guidance provided in Section 7 of the SFRA.

5.2.15. **Laois Heritage and Biodiversity Strategy 2021-2026**

The Laois Heritage and Biodiversity Strategy seeks to protect and promote the heritage and biodiversity of the county. A key action in the Strategy includes: 2 Investment in Key Sites and Programmes Objective: Build on investment in conservation and biodiversity undertaken to sustain and enhance key built, natural and cultural heritage assets in Laois.

5.2.16. **Laois Climate Action Plan 2024-2029**

Strategic Goal E of the Plan seeks to make the county more resilient through a range of climate adaptation measures. Objectives include E1 to continue to implement approved flood protection and drainage measures. Climate Actions of the Plan include no.37 which outlines Laois County Council will continue to support (subject to statutory processes and adherence to environmental standards) the development of OPW flood protection schemes in the towns of Mountmellick, Portarlington and Clonaslee; these schemes will make these settlements more resilient to flooding.

6.0 Consultations

6.1. Consultees Circulated

The application was circulated to the following bodies:

- Department of Climate, Energy and Environment
- Department of Culture, Communications and Sport
- Inland Fisheries Ireland
- Health Service Executive
- Waterways Ireland
- The Heritage Council
- An Chomhairle Ealaíon
- Fáilte Ireland
- An Taisce
- Offaly County Council
- The Eastern & Midland Regional Assembly
- Transport Infrastructure Ireland
- Environmental Protection Agency (EPA)

6.2. Responses Received from Consultees, and Response of Applicant to Submissions

Matters Raised in Submission from TII
Requests regard is had to the provisions of Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines in the assessment and determination of the subject application.
Response to Submission by Applicant (received from the applicant on the 22nd September, 2025).
The assessment of impacts in the EIAR has been undertaken in accordance and with reference to Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines (the Guidelines). The nearest National Road is the N80, approx.10km away. Potential impacts to the National Roads arising from the proposal is from haulage/some additional traffic. The Guidelines (Section 3.2) state: The P&DR 2001, as amended, require that valid planning applications are referred to the NRA where: The development consists of or comprises the formation, laying out or material widening of an access to a national road (as defined in Section 2(1) of the Roads Act, 1993 (No. 14 of 1993)), or, the development might give rise to a significant increase in the volume of traffic using a national road. The proposal will not require the 'formation, layout out or material widening of an access to a national road', nor will it give rise to a significant increase in the volume of traffic using a national road. With reference to Sections 3.4 and 3.5 of the Guidelines, the EIAR (Chapter 6) has concluded that there will be a potential short term slight negative effect on roads and road users during the construction phase due to additional traffic numbers, however with the implementation of mitigation measures including a CTMP, residual effects on roads, road users are assessed as imperceptible to slight. Potential impacts will be for the construction phase only and no national roads will be impacted. In line with the CEMP, the CTMP will be updated with any conditions and obligations that may form part of a consent.

Matters Raised in Submission from HSE
NEHS (National Environmental Health Service) recommends all mitigation identified in EIAR is implemented. If there are exceedances of the any of the guidance levels outlined in the EIAR mitigation measures should be reviewed and additional measures implemented, with the recommendation made in the interest of protection of public health. The construction phase will be subject to a Construction and Environmental Management Plan (CEMP). The CEMP identifies mitigation that the NEHS recommends should be implemented in full to protect Public and Environmental Health during the construction phase.
Response to Submission by Applicant
With regard to the HSE points outlined, the application commits to implementing all mitigation measures developed in both the EIAR and the CEMP. Furthermore, should the proposal be permitted, an updated CEMP will be submitted, prior to the commencement of any works. This update will incorporate recommended mitigation and monitoring measures, including conditions and obligations that may form part of the grant.

Matters Raised in Submission from IFI
Concerns and recommendations mainly relate to the protection of the aquatic resource and riparian habitat. The protection of the Clodiagh river, a very important salmonid river, main tributary of the Brosna river and site of some of the only high-status sites in the Shannon catchment in terms of water quality as assessed by the EPA, is of utmost importance. Given the lack of a detailed design for the proposed debris trap and that it is a novel structure, is difficult to make a full assessment of potential impact during construction and operation. While hydraulic analysis shows minimal impact of scour, there is no detail on structure efficacy. Maintenance will be a key component of its proper functioning and regime should be available with

responsibility assigned. The instream close season (October 1st to June 30th) will apply to the structure and no machinery can enter the river during this time for maintenance. There has not been a clear assessment of debris trap alternatives in the EIAR.

All riverbed material must be graded, cleaned and stockpiled for return to the river after works completion. Any loss of spawning habitat should be avoided given the serious decline in salmon stocks and the loss of high-status waters throughout the catchment. Post-construction monitoring should include provision for monitoring any increase in siltation downstream of the proposed structure. There is a preference for any bank revetment or erosion protection being soft engineering.

The decision to not proceed with weir removal in scheme represents a missed opportunity. EU 2030 Biodiversity Strategy calls for greater efforts to restore freshwater ecosystems and the natural functions of rivers, and includes an ambition to restore 35,000km of river to free-flowing by 2030. Weir removal will improve the WFD hydrometric status of the channel and would represent a biodiversity net gain for the project. IFI barrier assessment shows that the structures in the Brittas Wood area are high/moderate barriers to different life stages of salmonids.

Submission includes map of barriers in Clonaslee Area, and results of SNIFFER analysis of barriers.

Response to Submission by Applicant

Debris Trap efficacy, maintenance, instream close season - Maintenance of the debris trap will be the key operation element post-construction, and EIAR commits to: debris removal undertaken by LCC, a Standard Operating Procedure (SOP) developed by LCC, in consultation with ecologist and IFI to account for monitoring and operations at the Brittas Stream culvert and the River Clodiagh debris trap. The timing of instream works is limited. On the assessment of debris trap alternatives, there are limited options for catching the large trees that are a risk of flowing downstream during a flood event.

Reinstatement of riverbed material and post-construction monitoring - Excavated riverbed material will be saved and reinstated over the debris trap base, and the requirement to grade and clean material are noted, with an Ecological Clerk of Works ensuring measures are implemented.

EIAR Operational phase monitoring requirements at the debris trap are referenced, with a focus on scour around the debris trap. There will be monitoring of siltation downstream, with the EIAR committing to a monitoring procedure and potential remedial measures in agreement with IFI.

IFI preference for soft engineering – The design incorporates soft engineering, and final design will be discussed and agreed with IFI.

Weir Removal – Are aware of the weir removal objectives, and weir removal did not deliver a hydraulic benefit in terms of flood mitigation and was not progressed. Separately, recommend that care be taken to avoid damaging/visually impeding footbridge and associated weir, within NIAH Site ID 126.

Matters Raised in Submission from UE

There are Uisce Eireann assets within the zone of influence (250 m buffer) of the proposal including:

- Clonaslee Water Treatment Plant (Area 1),
- Clonaslee Reservoir (Area 1),
- Two active borehole sources (Old Forest BHI, New Forest BH 2) (Area 1),
- Clonaslee Integrated Constructed Wetland and Wastewater Treatment Plant (Area 3),
- Distribution and trunk mains and associated infrastructure (Areas 1, 2, 3),
- Foul water / sewer network and associated infrastructure (Areas 1, 2, 3),
- and there is also an Uisce Eireann surface water intake from the Clodiagh river, mapped just south of and outside the zone of influence.

Drinking Water Source Protection - There is uncertainty about the location of the active supply wells and the condition of the active, inactive supply wells. EIAR

cites the GSI database for locations, which is not up to date and UE infrastructure maps show active supply wells conflict with EIAR. EIAR suggests that there are three active boreholes (two in Brittas Wood west of the River Clodiagh, one on the WTP site east of the River Clodiagh) and refers to figures. UE infrastructure map shows only decommissioned/out-of-service wells at the WTP site. There is no mention of the physical condition of the boreholes.

Flooding Impacts - Area 1: There is a possibility of surface water overtopping the embankment and flooding the borehole sites in Area 1, if there is a design underestimation. EIAR does not explicitly discuss the risk of overtopping due to design underestimation, and potential impacts on drinking water sources. If public wells are inundated with surface water, water supply to Tullamore and surrounding areas would be at risk, which supplies c18,000 people.

Area 3 - If flood waters were to flow over through to the existing Wastewater Treatment Plant in Area 3 this could make the plant inoperable leading to pollution of the river Clodiagh. The proposed defense wall should go the full length of the ICW adjacent to the river and wrap around southern end by at least 15 meters.

From Chainage 72 through to 0 the embankment is higher than the defensive wall. 103.449 is the highest point of the embankment whereas the proposed wall is 102.800. It is critical that the defense wall is as high or higher than the embankment at all times. Defense wall should be stone faced in keeping with the stone wall at the entrance to the plant.

Proposed Temporary Working Area - Area 3: The proposed temporary working area is intruding onto the settlement ponds and treatment pond No 1. The base and the embankments of these ponds must not be disturbed in any way.

Proposed Build Over and Diversion Uisce Eireann Assets – Concerns with the proposal to build the flood defence walls over the existing UE assets which would limit future access for maintenance. The trunk watermain that supplies Tullamore passes through Area 3 works area and a possible diversion is proposed. Applicant has not engaged with UE in relation to this. Given the significance of the

infrastructure to be built over and/or diverted, the proposals need to be agreed with the UE Diversion's team prior to the issue of planning consent.

Recommendation – Given UE's responsibility to protect public water and wastewater services, requests the following is submitted:

1. Confirmation of the active supply boreholes in the vicinity of Area 1 and the structural integrity of these and inactive boreholes must be submitted

2. The EIAR must address the risk of flooding and surface water overtopping due to design underestimation, and potential impacts on drinking water sources in Area 1.

3. The proposed defense wall must be amended go the full length of the ICW adjacent to the river and wrap around southern end by at least 15 meters. The height of the wall must be amended to match the height or be higher than the proposed embankment

4. The proposed temporary working area is be to amended not to intrude onto the settlement ponds and the treatment pond No 1.

5. A diversion enquiry must be lodged with UE Diversion's team and a Confirmation of Feasibility obtained for the proposed build over and diversions of Uisce Eireann's assets.

An Advisory note is set out for connection agreement, UE Standards Codes and Practices.

Response to Submission by Applicant

Confirmation of Boreholes in the Vicinity of Area 1 and structural integrity - The EIAR cites GSI data for abstraction points, and locations of UÉ infrastructure are based on site visits, surveys. On borehole integrity, these will be avoided and remain in their current condition. Prior to the commencement of ground works, pre and post-construction asset condition surveys will be undertaken incorporating abstraction points. Consultation and location testing of infrastructure that overlaps with the scheme will take place. EIAR commits to monitoring the borehole water

quality, with groundwater quality and level monitoring of boreholes occurring prior to, during and post construction.

Risk of Flooding to boreholes due to design underestimation - The proposal is designed to retain flood water levels for the 1% Annual Exceedance Probability (AEP) fluvial event. Embankments are provided with 500mm freeboard. Area 1 embankment is designed for a situation where the debris trap has caught trees/woody debris and is substantially blocked. Model runs were completed to assess Climate Change scenarios where peak flows were increased by 30%. In this high-flow scenario there remained 0.23m freeboard on the Area 1 embankment.

The design mitigates against the risk of the abstraction boreholes being compromised by floodwater and will provide a level of flood protection not currently present.

Extent and height of the defence wall in the ICW land - Riverbank and ground levels on the ICW side of the river are sufficiently high to provide protection. i.e. the presence of a flood embankment on the other side of the river is not increasing the flood risk to the ICW. Consultation with UÉ and service providers will be undertaken at pre-construction design stage and the construction phase.

Temporary working area not to intrude on settlement ponds and treatment pond no 1 - The intention is not to extend excavation works beyond the kerb line of the access road, with signage and fencing being erected at boundary between work zones and ponds.

Diversion enquiry must be lodged with UE Diversion's team - As discussed in the EIAR, for the remainder of the project life cycle, the FRS team will engage with UE via their Connection and Developer Services department, with approach agreed during consultation in 2024.

Matters Raised in Submission from Department of Housing, Local Government and Heritage (Development Applications Unit)

The submitted report sets out heritage related observations/recommendations under the headings of Archaeology and Archaeological Recommendations. The report is summarised as follows:

Archaeology

The department has attended pre-planning consultations, reviewed and commented on an EIAR scoping consultation and carried out a site walkover. Details of the proposed FRS are set out.

Planning Submission, Cultural Heritage Chapter EIAR - The archaeological background to the study area in the EIAR is set out. It is outlined although there are no Recorded Monuments within the proposed scheme boundary, three Recorded Monuments (LA002-011, LA002-012, LA002-019) are situated within the wider study area. Similarly, no SMR sites within the boundary, but five SMR sites (LA002-011; LA002-012; LA002-012001, LA002-012002 and LA002-019) lie within 100m of it. There are no Protected Structures within the scheme boundary but five such assets (RPS 338, 963, 343, 344, 341) lie within 100m. Part of the proposal is within the ACA. Previous finds of archaeological objects are listed.

Geophysical survey for the proposed sites for construction compounds along the banks of the Clodiagh river identified subsurface anomalies of potential archaeological significance, including a potential enclosure, and a possible burnt spread/mound. These require post consent test excavation for confirmation. Wade and metal detection survey along a 45m stretch of the Clodiagh River at Brittas and Bunastick identified a number of features, including a weir, footbridges and groynes.

Designed-in mitigation measures prioritising preservation by avoidance have reduced the likely significant effects of the project on cultural heritage and potential direct and indirect impacts have been identified on 59 cultural heritage receptors (see Table 16-8: Summary of Predicted Construction Effects; Table 16-9 Receptor specific mitigation measures during construction Phase), the more significant, archaeologically, of which relate to the riverside wall (CH-024), the River Clodiagh area of archaeological potential (CH-019), the site of a former bridge (CH-018) and footbridge (CH-040), and potential archaeological features identified in advance geophysical surveys, including a possible ditch, enclosing ditch, curvilinear ditch,

and areas of burning. General mitigation principles proposed include agreement, following advance archaeological test excavations, with the Department (and other stakeholders) on a final mitigation strategy, to include preservation by record; recording of impacted townland boundaries; architectural heritage surveys of vernacular buildings/structures; archaeological monitoring 'confined to areas where advance archaeological works are not feasible'; public dissemination, publication of results.

Legal Codes and Policy Context – Legislative provisions for the protection of archaeological monuments and wrecks are set out. The Frameworks and Principles for the Protection of the Archaeological Heritage sets out national policy on the protection of the archaeological heritage, and Archaeology and Flood Relief Schemes: Guidelines (NMS 2023) have been developed to support the efficient planning and development of Flood Relief Schemes and the protection of archaeological heritage.

The assessment of the project undertaken facilitates the Department to determine its likely significant effects on archaeological heritage, resulting from the construction and operation of the project and whether the proposed mitigation measures would adequately allow for the avoidance, reduction/offsetting of significant effects. Whilst the Department broadly concurs with the proposed mitigation measures as set out in Chapter 16 of the EIAR, in order to ensure the project aligns with statutory obligations, policy and guidelines for the protection of the State's archaeological heritage, it is recommended the following conditions are attached to any approval:

<u>Archaeological Recommendations</u>

EIAR Mitigation

1.All recommendations and mitigation measures as set out in Clonaslee Flood Relief Scheme EIAR shall be implemented

Project Archaeologist

2. A Project Archaeologist shall be appointed to oversee and advise on all aspects of the Project

Monitoring of Site Investigations

3. All site investigation works shall be subject to archaeological assessment and monitoring by a suitably qualified archaeologist, with submission of archaeological report.

Archaeological Impact Assessment Detailed Design

4. The Final Detailed Design for the project shall be the subject of an Archaeological Impact Assessment (AIA), to be submitted to the Department for review and approval, prior to commencement. The AIA report shall contain: a) Results of licenced archaeological test-excavations, accompanied by a hand-held metal detection survey, of identified areas of high archaeological potential where ground disturbances will take place, b) a detailed AIA that addresses all identified/potential impacts on archaeological heritage, including on archaeological objects, sites and features.

Archaeological Monitoring (Terrestrial)

5. Archaeological monitoring shall be undertaken to include monitoring carried out by a suitably qualified archaeologist, under licence, to include a finds retrieval strategy, historic and buildings archaeology investigation, with submission of report

Archaeological Monitoring (Underwater)

6. Archaeological monitoring shall be undertaken to include monitoring carried out by a suitably qualified archaeologist, under licence, to include a finds retrieval strategy, dive surveys where required, with submission of report

Construction Environment Management Plan (CEMP)

7. The CEMP shall be updated to include the location of archaeological/underwater cultural heritage constraints as set out in the Final Design AIA and EIAR, and shall describe all identified likely archaeological impacts, and mitigation measures to be employed

8. In default of agreement on any requirements of the Department, the matter shall be referred to An Coimisiún Pleanála for determination.

Response to Submission by Applicant

Erroneously refenced by DAU the Cultural Heritage Assessment was undertaken by John Cronin and Associates, and was undertaken by Archaeological Management Solutions (AMS).

EIAR recommendation and mitigation to be implemented in full - Application commits to implementing mitigation and monitoring measures in the EIAR and CEMP, with the latter updated for obligations.

Project Archaeologist - OPW employs a project archaeologist to advise on flood protection schemes, and project will procure competent archaeology consultants, with testing and monitoring carried out under licence from the NMS.

Archaeological Monitoring of Site Investigation Works – Archaeological supervision is included in the Site Investigation package, and will be carried out under licence.

Archaeological Impact Assessment (AIA) at Detailed Design – Will be included in the scope of the archaeologist procured for the pre-construction test trenching.

Terrestrial Archaeological Monitoring during Construction – Monitoring requirement will be determined through advance works undertaken at pre-construction. EIAR outlines an archaeological mitigation strategy will be agreed in consultation with the NMS, Local Authority, in advance of on-site works.

Archaeological Monitoring of Instream/river-margin - A Wade and Metal Detection Survey has been undertaken. Requirement of monitoring will be determined and agreed with NMS.

Update of CEMP to include all Archaeological/Underwater Cultural Heritage - EIAR mitigation measures in the CEMP will be updated for obligations forming part of a consent.

6.3. Public Submissions

No submissions were received

7.0 Assessment

Having regard to the requirements of the Planning and Development Act, 2000 (as amended), this assessment is divided into three main parts:

- The likely consequences for the proper planning and sustainable development of the area;
- The likely effects on the environment (Environmental Impact Assessment);
- The likely significant effects on a European site (Appropriate Assessment).

In each assessment, where necessary, reference is made to issues raised in submissions. There is an inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated but such overlaps are indicated in subsequent sections of the report.

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

8.1. The majority of the assessment in relation to the application now before the Commission focuses around environmental matters and I have dealt with these under the headings of Environmental Impact Assessment (EIA) and Appropriate Assessment (AA). The planning assessment therefore considers policy, the need/justification in respect of the proposal and proper planning and sustainable development. I consider that the issues arising can be assessed generally under the following headings:

- Principle of development
- Rationale
- Impact on residential amenity, property, population
- Biodiversity
- Water
- Material Assets
- Landscape and Visual
- Cultural Heritage
- Traffic and Transport
- Conclusion

8.2. **Principle of Development and Policy considerations**

The proposed development consists of a Flood Relief Scheme, with works divided into three areas in Clonaslee, Co. Laois, as set out in Section 3 of this report.

The EU Directive on the assessment and management of flood risk, came into force in 2007. The assessment and management of flood risks in Ireland was aligned to meet the requirements of the EU Floods Directive through the Catchment Flood Risk Assessment and Management (CFRAM) Programme. It is noted an objective of the CFRAM Programme was to identify and map the existing and potential future flood hazard and flood risk in the areas at potentially significant risk from flooding, called Areas for Further Assessment (AFAs). Under the CFRAM Programme, Clonaslee and environs, located at the Clodiagh River within the River Brosna catchment, were identified as an Areas for Further Assessment (AFAs - ID no. 250420). The CFRAM Programme led to development of the Flood Risk Management Plan (Shannon Upper & Lower River Basin 2018) which identifies Clonaslee as an AFA and concludes that a Flood Relief Scheme will be progressed. The proposed FRS consists of flood relief measures for Clonaslee Village, specifically in connection with flooding from the Clodiagh River, and aims to protect the Clonaslee community from flooding. I consider the proposal, identified under the CFRAM Programme and the Shannon Upper & Lower River Basin Flood Risk Management Plan, therefore aligns with the aims of the EU Flood Directive.

In terms of national policy, actions outlined in the Climate Action Plan 2025 include to develop a Sectoral Adaptation Plan for the Flood Risk Management sector. The principle of the proposed works is considered to be in compliance with the principles and provisions of the Climate Action Plan 2025.

The proposed development is also supported by the NPF, according with NPO objectives in terms of seeking to promote sustainable development by ensuring flooding and flood risk management informs place-making.

At a regional level, the RSES acknowledges the importance of the reduction and proactive management of flood risk. Objectives include the implementation of the recommendations of the CFRAM programme to ensure that flood risk management policies and infrastructure are progressively implemented, and that policy and decision making take into account the recommendations of the Flood Risk Management Plans - RPO 7.13, RPO 7.14 refers.

At a local level, the policies of the current Laois County Development Plan identify Clonalsee as a village. In relation to zoning, the proposed development is located within/adjacent a number of zoned areas, including ‘town centre’, ‘residential established,’ and ‘open space/amenity'. Given that the siting of the scheme would not materially impact on the uses of such area/sites, I consider that the existing zoning designations are not relevant in assessing the proposed development. Policy objective CS 32 seeks to facilitate the expansion of villages and small towns, with CA 1 supporting European and national objectives for climate adaptation and mitigation. In relation to infrastructure, policy objective FRM 3 seeks to support the implementation of recommendations in the CFRAM Programme, FRM 4 seeks to support the implementation of recommendations in the Flood Risk Management Plans, and Policy FRM 12 aims to prioritise plans for flood defence works in the towns as indicated in the Strategic Flood Risk Assessment in order to mitigate against potential flood risk. Policy objectives in relation to biodiversity and natural heritage, including BNH 2 and BNH 13, seek to afford protection to protected habitats, species, and biodiversity. The proposed development would accord with the outlined objectives and is supported by local policy. The proposal also aligns with actions in the Laois Climate Action Plan.

In summary, the European, national, regional and local policy support development of flood relief schemes in locations such as Clonaslee, and I consider that the proposed development is acceptable in principle. I also consider the proposed development would allow for the realisation of the aforementioned policies and objectives in relation to flood risk infrastructure and is specifically supported by national, regional and local policy. However, the suitability of the proposed development is contingent on planning considerations and ensuring that the effects on the environment would be acceptable. These matters are dealt with under the following sections.

8.3. **Rationale**

The need for the scheme is set out in Chapter 1 and 4 of the EIAR, and in the Planning Report submitted. In relation to flooding events, it is outlined Clonaslee Village has a history of fluvial flooding due to its location on the Clodiagh River, which flows through the village. It is outlined the main source of flooding in Clonaslee is the high water levels in the Clodiagh River which originate from the Slieve Bloom

Mountains, with the village located at the base of the mountains where the topography changes from steep slopes to flat terrain, resulting in large amounts of surface water flowing into the river. It is stated a flood event occurred in November 2017, when Chapel Street and adjacent properties were subject to flooding, which coincided with a breach in the existing stone wall that separates the river from the street. It is outlined anecdotal evidence indicates water seeps through the wall and bubbles up through the road on Chapel Street at times of high water levels, and that there is a risk of blockage to the bridge crossing the river in the middle of the village. During storm events, woody debris has blocked the bridge causing the river to back up and flood out of bank. It is submitted based on Clonaslee's current susceptibility to flooding in conjunction with forecasted increases in future flooding, there is a need to develop a FRS to protect Clonaslee's residents from serious flooding events and to preserve Clonaslee as an attractive village for tourism and development.

The Upper and Lower River Basin Shannon Catchment Flood Risk Assessment and Management (CFRAM) Study 2018 identified 45 properties at being at risk from 1% AEP fluvial flooding events, and included Clonaslee as an Area for Further Assessment (AFA) and that a FRS would be viable and effective for the community. I note that updated modelling analysis and mapping undertaken by RPS identified 74 properties (72 residential and 2 non-residential properties) in Clonaslee as being at risk of fluvial flooding events. The stated objective of the scheme is to alleviate the risk of flooding to a determined target Standard of Protection (SOP), to prevent flooding of properties and assets within the village during flood events with a 1% Annual Exceedance Probability (AEP) for fluvial floods. The proposal includes for a range of measures to address weaknesses in the Chapel Street wall, the blockage risk to Clonaslee Bridge, and the reinforcement of an existing embankment protecting properties to the north of the village, which would protect properties and amenity facilities from predicted future flooding events.

In terms of the schemes design, I note the proposal will include for hard defence flood infrastructure at three locations, consisting of flood defence embankments and walls of varying lengths and heights. Parts of the scheme will be sited in highly visible and cultural heritage locations, with the village centre entailing an ACA. However, having regard to the scale and extent of the scheme, I am of the view the proposals design is appropriate to its function, i.e. a flood defence system which

seeks to address the settlements existing vulnerability to flooding. Furthermore, having regard to the height and siting of the scheme, with defences not exceeding a height of 1.2m, and with the proposal mirroring existing informal defence infrastructure at locations within the village, I consider the proposals design would not give rise to significant/negative effects on the existing character of the village or area. The design and siting of the scheme are given further consideration in the following sections.

Having visited the site and its environs, I would agree that there are deficiencies in the existing informal flood defence network in the settlement. This is particularly the case in relation to the village centre area which includes existing stone and concrete walls at Chapel Street and within an existing garden property. With the settlement currently reliant on informal flood defences, I consider that the scheme entailing formal hard flood defence systems would enable for increased protection and safety from a flood risk perspective for the settlement and its population, while also giving rise to a structurally designed flood defence system which aligns with objectives set out in the CDP.

8.4. **Impact on residential amenity, property, population**

Potential impacts arising on residences, businesses, and landowners relate to air quality, noise, visual impact, traffic disruption and inconvenience, and the temporary acquisition of private lands within 10 landholdings, at the construction stage. There is a potential for negative impacts to arise on residential amenity by way of noise at construction stage. Such impacts would be of temporary duration and will be minimised by way of mitigation measures. The acquisition of private lands is required to facilitate the project build, and will involve accessing residential properties. While the acquisition of private lands has the potential to negatively impact on properties and residential amenities, I note construction works will be temporary and will be managed in accordance with mitigation measures to minimise impacts on properties, and will include for the implementation of a Construction Environmental Management Plan. A Construction Traffic Management Plan will also be implemented at construction stage.

The HSE (NEHS - National Environmental Health Service) has recommended that all mitigation identified in the EIAR is implemented, and if there are exceedances of any

of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. The applicant in their response to submissions outlines their commitment to implementing all mitigation measures developed in both the EIAR and the CEMP. The recommendations of the HSE in relation to the implementation of EIAR mitigation can be addressed by way of condition, in the event of an approval. The impacts of the construction phase, traffic generation and the temporary acquisition of private lands are addressed in the EIA section of this report.

The proposed development, in protecting the existing community with flood defence infrastructure at the operational stage, would have an overall positive effect on residential amenity, business, property and population. This is further addressed in the EIA section of this report.

Potential impacts arising on landholdings and residences at operational stage also relate to permanent land take within a single agricultural landholding, and the permanent procurement of wayleaves/rights of way in connection with 8 no. landholdings. While these acquisitions have the potential to negatively impact on land, property, residential amenities, the acquisitions will be subject to mitigation measures to minimise impacts for the most part. This would involve prior notice of any maintenance access requirements (via wayleave) being given to landowners. It is acknowledged that the land take of part of a single agricultural landholding to facilitate the proposal build in Area 3 would alter the existing land use at this specific location. In my opinion the requirements for a flood risk scheme at this location would not be outweighed by the negative impacts on a landholding or the procurement of wayleaves/rights of way within a limited number of holdings.

The acquisition of private lands is addressed in the EIA section of this report.

8.5. **Biodiversity**

IFI have outlined concerns and recommendations in relation to the proposal which relates to the protection of the aquatic resource and the associated riparian habitat. Concerns are outlined on the design of the proposed debris trap and the efficacy of the structure, and the loss of spawning habitat, with recommendations made in relation to scheme maintenance, monitoring and design. It is outlined the decision to not proceed with weir removal represents a missed opportunity, in light of the EU

2030 Biodiversity Strategy which calls for greater efforts to restore freshwater ecosystems and the natural functions of rivers, that weir removal would improve the WFD hydrometric status of the channel and would represent a biodiversity net gain for the project.

The proposal includes for the permanent small-scale loss of terrestrial habitat, and permanent small-scale loss of aquatic habitat in the River Clodiagh to facilitate the development. Mitigation measures set out in the EIAR include for replanting, water quality controls, and the reinstatement of the riverbed following construction. There is a potential for impacts on biodiversity, including birds, bats, otters, aquatic species, and a potential for the spread of invasive species and pathogens, and I note these potential impacts would be mitigated by measures outlined in the EIAR and NIS. I also note the site's location relative to Natura 2000 sites. Having regard to the nature, scale and siting of the scheme, I am of the view that significant effects on biodiversity would not arise subject to the implementation of EIAR and NIS mitigation measures and conditions outlined, which includes for the proposed debris trap design being agreed with IFI. I also consider that the proposal would be consistent with and support the relevant provisions of the CDP and comply with relevant legislation. The above issues are addressed in the EIA and AA sections of this report.

The IFI outline in relation to weir removal the EU 2030 Biodiversity Strategy seeks to restore 35,000km of river to free-flowing by 2030, and it is also outlined the IFI barrier assessment shows that the structures in the Brittas Wood area are high/moderate barriers to different life stages of salmonids. I note the applicant in their response to submissions outlines they are aware of weir removal objectives, and in this specific case, weir removal did not deliver a hydraulic benefit in terms of flood mitigation and therefore was not progressed. I further note that the proposed instream construction methodology employed aims to provide for the unhindered passage of fish. In addition, the design of the debris trap and its foundation, along with operational maintenance mitigation will ensure there will be no barrier to fish life stages introduced. While the proposal does not include for weir removal, I am of the view that effects on biodiversity by way of barrier effects to salmonids would not arise from the proposal, subject to the implementation of EIAR mitigation measures

and conditions outlined. Consideration of mitigation measures are addressed in the EIA and AA sections of this report.

8.6. Water

The proposed development has the potential to impact on water quality, including on watercourses onsite and downstream, and on drinking water supplies. The proposal, given its nature, also has the potential to give rise to flooding impacts. Uisce Eireann have outlined concerns in relation to the proposals impacts on public drinking water sources including boreholes, with a risk of flooding at Area 1 (boreholes sites) and Area 3 (Wastewater Treatment Plant, ICW site). The applicant in their response to submissions has outlined details on the flood defence design at Areas 1 and 3, detailing the design adequately mitigates against the risk of abstraction boreholes being compromised by floodwater, and that levels on the ICW side of the river provide protection.

On the basis of the information submitted, I consider that significant impacts on water, and negative impacts on the area/assets by way of flooding would not arise. The potential for significant effects arising on water and water supplies from contamination and sediment loading will be mitigated by measures outlined in the EIAR. The proposal is also designed to retain flood water levels for the 1% Annual Exceedance Probability (AEP) fluvial event. I am also of the view the proposed development, subject to the implementation of EIAR mitigation measures, including those set out to safeguard surface water, groundwater and biodiversity, complies with WFD Objectives. These issues are addressed in the EIA section of this report.

8.7. Material Assets

The proposed development has the potential to impact on Material Assets. Uisce Eireann have outlined concerns in relation to the proposals impacts on public drinking water infrastructure, on Area 3 which includes the Wastewater Treatment Plant and ICW site, and the proposed build over and diversion of UE assets including the trunk watermain that supplies Tullamore. The applicant in their response to submissions has included details on boreholes at Area 1, the intended extent of works in Area 3, and in relation to diversion enquiries outlines the project team will engage with UE during the project lifecycle. I consider that significant effects on material assets would not arise, with the potential for negative effects

arising being mitigated by measures outlined in the EIAR. Mitigation measures can be addressed by way of condition in the event of an approval. These issues and the potential for flood risk on UE assets are addressed in the Water and EIA sections of this report.

8.8. **Landscape and Visual Impact**

The proposal will include for flood defence infrastructure at three locations, which will entail flood defence walls and embankments. Defence walls will run to distances of 70 metres and 235 metres, with embankments detailing a length of 145 metres and 130 metres. The defence infrastructure will have a maximum height of 1.2 metres. The proposed development is located within a Lowland Agricultural Areas landscape as outlined in the Landscape Character Areas in the CDP. This landscape has a low landscape sensitivity rating. Having regard to the design, scale extent and nature of the scheme, the site and landscape context, and the demonstration of the visual and landscape effects in the Landscape and Visual Impact Assessment (LVIA), I consider the proposed development would not likely result in an negative visual impact on receptors or on visual amenities of the area, and would not negatively impact on the Landscape Character Areas or the sites landscape setting, subject to the implementation of mitigation measures. The proposal design will include for the use of sympathetic materials for the more visually prominent areas of the FRS, located within the village centre. These issues are addressed in the EIA section of this report.

8.9. **Cultural Heritage**

In relation to archaeology, there are no recorded monuments, or Sites and Monuments Record (SMR) within the proposal site, with a geophysical survey prepared identifying 32 anomalies within the study area. The proposed development is also partially located within a designated ACA, with recorded protected structures within its immediate vicinity, and Area 1 of the site is located within the historic demesne of Brittas House (RPS 432, NIAH 1280020). EIAR mitigation measures include for pre-development archaeological testing, and archaeological monitoring. Mitigation measures for the proposal within the ACA include for the use of appropriate materials and wall heights for the defence infrastructure.

The Department of Housing, Local Government and Heritage has recommended conditions be included in any approval, to include EIAR mitigation measures, appointment of a project archaeologist, Archaeological Impact Assessment Detailed Design, archaeological monitoring, and for an updated CEMP to include for cultural heritage constraints and mitigation. The applicant in their response to submissions has committed to the implementation of EIAR measures and an updated CEMP, with the scheme including for archaeological assessment, monitoring, and the engagement of archaeological services. Having regard to the scale, nature and siting of the scheme, and its locations relative to cultural heritage, and subject to the implementation of mitigation measures, I am of the view that significant effects would not arise on cultural heritage. These matters are further addressed in the EIA section of this report.

8.10. **Traffic and Transport**

At construction stage, mitigation will be addressed by way of a Construction Traffic Management Plan (CTMP), which has been prepared to address and reduce impacts on users of the local road network. Subject to the implementation of mitigation measures and conditions including for a CEMP and a CTMP to include for detailed haul routes, I am satisfied that the impact of traffic arising from the scheme on the existing network would not be significant. I am also satisfied that no negative effects are likely to arise at the operational stage.

Transport Infrastructure Ireland have requested that regard is had to the provisions of Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines in the assessment and determination of the subject application. I note the Guidelines (2012) provide for details in respect of development management and roads, and note the scheme does not involve physical changes to a national road, and does not necessitate new access junctions on the national road network. This is highlighted in the applicants response to the TII submission, which also outlines the proposal will not give rise to a significant increase in traffic volumes using a national road. While I note the applicant has carried out a Traffic and Transport Assessment (TTA) for their identified zone of influence, a TTA of the proposed development on the national road network is not outlined. Having regard to the siting of the scheme, the temporary duration of the construction stage, the estimated traffic generation associated with same, and TII's Traffic and Transport Assessment Guidelines PE-PDV-02045 May

2014, I consider a TTA entailing an assessment of the proposed development on the national road network is not warranted in this instance. These above issues are addressed in the EIA section of this report.

8.11. **Conclusion on proper planning and sustainable development**

The proposed development entailing flood risk infrastructure aligns with the aims of the EU Flood Directive and is specifically supported by national, regional and local policy. I consider the need for the proposal has been justified with the scheme seeking to enable for increased protection and safety from a flood risk perspective for the settlement, its population, and assets, where there are deficiencies in the existing informal flood defence network in the settlement. The settlement as existing is vulnerable to flood events, and I am satisfied that the proposals design is appropriate to its function. While there is a potential for negative impacts to arise at construction stage by way of noise and landtake, and also a potential for negative impacts to arise at operational stage by way of landtake, I consider these impacts would be minimised by mitigation measures set out for the most part. Having regard to the foregoing, I consider that the proposed development would be consistent with national, regional and local planning policy and the consequences on the proper planning and sustainable development of the area would be largely positive. This is contingent on ensuring that the effects on the environment of the proposed development would be acceptable and that the integrity of European Sites would not be adversely affected, in view of the relevant sites conservation objectives. These matters are dealt with under the following sections.

9.0 The likely effects on the environment (Environmental Impact Assessment)

9.1. **Statutory Provisions**

9.1.1. The proposed development comprises a Flood Relief Scheme. Schedule 5, Part 2, Class 10, set out the requirements for infrastructure projects. Class 10 (f) (ii) requires EIA for canalisation and flood relief works, where the immediate contributing sub-catchment of the proposed works (i.e. the difference between the contributing catchments at the upper and lower extent of the works) would exceed 100 hectares or where more than 2 hectares of wetland would be affected or where the length of

river channel on which works are proposed would be greater than 2 kilometres. Details submitted in the EIAR outline for the proposed scheme the immediate contributing sub-catchment equates to the catchment area at the downstream point of the works (278.92 ha) minus the catchment area at most upstream point of the works (176.68 ha). This gives a catchment area of 102.24 hectares for the proposal, which exceeds the limit of 100 hectares. The proposed development therefore requires EIA.

9.2. EIA Structure

9.2.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

> a. consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Commission, the reasoned conclusions of the Commission and the integration of the reasoned conclusion into the decision of the Commission, and
>
> b. includes an examination, analysis and evaluation, by the Commission, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

9.2.2. Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

9.2.3. This EIA section of the report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant

effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- population and human health,
- biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- land, soil, water, air and climate,
- material assets, cultural heritage and the landscape,
- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.

9.2.4. It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Commission's decision, should they agree with the recommendation made.

9.3. Issues Raised in Respect of EIA

9.3.1. Issues raised in respect of EIA by parties to the application are:

- Traffic and transport; if there are exceedances of guidance levels outlined in the EIAR mitigation measures should be reviewed and additional measures implemented; mitigation identified in EIAR and CEMP to be implemented; consideration of alternatives; impact of debris trap; design of scheme; impact on aquatic resource and riparian habitat; impact on public drinking water source /infrastructure boreholes; risk of flooding to Uisce Éireann infrastructure (Area 1) and (Area 3); proposals intrusion onto UÉ infrastructure (Area 3); proposals build over and diversion of UE assets; Concurs with cultural heritage mitigation.

  Issues are elaborated on in the assessment below.

9.4. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

9.4.1. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)

A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development
A description of the proposed development is contained in Chapter 5 of the EIAR including details on the location, site, design and size of the development, arrangements for access and construction methodology, spoil and waste to be generated. In each technical chapter the EIAR details are provided on use of natural resources and the production of emissions and waste, where relevant. It is noted that the proposal does involve demolition works, comprising existing road excavations. I am satisfied that the description is adequate to enable decision making.
A description of the likely significant effects on the environment of the proposed development
An assessment of the likely significant direct, indirect, and cumulative effects of the development is carried out for each of the technical chapters of the EIAR. I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development
The EIAR includes designed in mitigation measures and measures to address potential adverse effects identified in technical studies. These, and arrangements for monitoring, are summarised in Chapter 20 (Schedule of Environmental Commitments), CEMP, Appendix 9.6 (Biodiversity Management and Enhancement Plan), and Appendix 6.2 Construction Traffic Management Plan. Mitigation measures comprise standard good practices and site-specific measures and are largely capable of offsetting significant effects identified in the EIAR.
A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment
A description of the alternatives considered is contained in Chapter 4 of the EIAR. The alternatives considered include of **'**do nothing', 'do minimum', 'relocate and reconstruct', with an overview of 6 no. reasonable flood relief design measures undertaken. Alternate available flood defence development options were also considered. In relation to alternative designs, 5 no. potential design options are outlined. Alternatives were also considered in refining the preferred option. The main reasons for opting for the current proposal were based on four flood risk management objectives: social; economic; environmental; and technical. I am satisfied, therefore, that the applicant has studied reasonable alternatives in assessing the proposed development and has outlined the main reasons for opting for the current proposal before the Commission and in doing so the applicant has taken into account the potential impacts on the environment.
Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).
A description of the baseline environment and likely evolution in the absence of the development.
A description of the baseline environment is included in each technical chapter of the EIAR and an assessment of the likely evolution of it, in the absence of the development.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties encountered compiling the required information, and the main uncertainties involved
The methodology employed in carrying out the EIA, including the forecasting methods is set out, in each of the individual chapters assessing the environmental effects. *The applicant has indicated in the different chapters of the where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA. I comment on these, where necessary in the technical assessment below and for the reasons stated, I am satisfied that forecasting methods are adequate in respect of likely effects on water, population and human health, biodiversity.*

A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.
This issue is specifically dealt with in the in Chapter 19 of the EIAR. Specific risks have been identified in relation to the project's vulnerability to severe weather, its potential impacts on infrastructure. These risks are reasonable and are assessed in my report.
Article 94 (c) A summary of the information in non-technical language.
This information has been submitted as a separate standalone document. I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that is easily understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report
The sources used to inform the description, and the assessment of the potential environmental impact are set out in each chapter. I consider the sources relied upon are generally appropriate and sufficient.
Article 94 (e) A list of the experts who contributed to the preparation of the report
A list of the various experts who contributed to the report are set out in Chapter 1. This includes details of the individual's expertise, qualifications which demonstrates the competence of the person in preparation of the individual chapters within the EIAR. I am satisfied that the EIAR has been prepared by experts with competency in the technical subject areas.

Consultations

9.4.2. The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices. In addition, the applicant has carried out public consultation. Chapter 3 of the EIAR outlines the public consultation carried out, which I note included 3 no. public information days. These included for questionnaires and letters dropped to residences in close proximity to River Clodiagh, public information events, and use of a consultation website. Four stakeholder consultations were undertaken, and landowner liaison has also occurred. Submissions have been received from statutory bodies and are considered in this report, in advance of decision making.

9.4.3. I am satisfied, therefore, that appropriate consultations have been carried out and that third parties and landowners have had the opportunity to comment on the proposed development in advance of decision making.

Compliance

9.4.4. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, is sufficient to comply with article 94 of the Planning and Development Regulations, 2001.

9.4.5. Matters of detail are considered in my assessment of likely significant effects, below.

Cumulative Impacts

9.4.6. Consideration of cumulative impacts is addressed in my assessment. I consider a detailed list of existing, permitted and proposed developments within the study area are outlined in Chapter 18 of the EIAR.

Proposed Development

9.4.7. Chapter 5 provides a detailed description of the proposed development. In summary the proposed flood relief works are divided into three areas, as set out in Section 3 of this report. The construction phase of the proposed development is expected to take 24 months. As the proposal is intended to be a long-term / permanent development, I am satisfied a decommissioning project phase is not relevant.

9.5. Reasonable Alternatives

The consideration of alternatives are addressed in Chapter 4 of the EIAR.

9.5.1. Article 5 (1) (d) of the 2014 EIA Directive requires: "(d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;"

9.5.2. Annex (IV) (Information for the EIAR) provides more detail on 'reasonable alternatives': "A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for electing the chosen option, including a comparison of the environmental effects."

9.5.3. The EIAR outlines the alternatives that were considered and includes these under the headings of 'do nothing', 'do minimum', 'relocate and reconstruct', with an overview of 6 no. reasonable flood relief design measures undertaken. Alternate available flood defence development options were also considered. In relation to alternative designs, 5 no. potential design options are outlined. A Multi-Criteria Analysis (MCA) was used to compare the options, undertaken in accordance with the OPWs 'Technical Methodology Note - Option Appraisal and the Multi-Criteria Analysis (MCA) Framework (September 2018)', which utilises a scoring methodology

to enable the options to be ranked against the four flood risk management objectives: social; economic; environmental; and technical. Alternatives were also considered in refining the preferred option (Option 1b). This included consideration of alternative locations, alignment, construction methodology, flood defence types.

9.5.4. IFI outline there has not been a clear assessment of debris trap alternatives in the EIAR. The applicant in their response to submissions, in the assessment of debris trap alternatives, outlines there are limited options for catching the large trees that are a risk of flowing downstream during a flood event. It is outlined such debris has caused barrier issues at Clonaslee bridge, as highlighted during public consultation events. I note debris trap locations were considered in alternatives, and also note that option 1c and 2b as set out provide for no debris trap being included, with increased maintenance/flood response required to prevent the bridge from blocking. I consider the debris trap has been considered in alternatives.

9.5.5. Having examined the alternatives and the options proposed I am satisfied the applicant has considered sufficient alternatives and concur with the proposal as the optimum design option. On the basis of the above, I consider that the alternatives considered by the applicant are reasonable and sufficient.

9.6. Assessment of Likely Significant Effects

9.6.1. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Population and human health,
- biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- land, soil, water, air and climate,
- material assets, cultural heritage and the landscape,
- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.

9.6.2. Where applicable headings used in the EIAR are different from the above headings these are outlined in brackets, presented for ease of reference.

9.6.3. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following:

- Examination of the EIAR.
- Issues raised in the application.
- Analysis, Evaluation and Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

9.7. Population and Human Health (Population)

Issues Raised

9.7.1. The HSE (National Environmental Health Service) recommends that all mitigation identified in the EIAR is implemented. It is outlined if there are exceedances of any of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. It is also recommended that the mitigation identified in the CEMP should be implemented in full to protect public and environmental health during the construction phase.

Examination of EIAR

9.7.2. Chapter 7 of the EIAR deals with Population. Associated Appendices are: Appendix 6.2 Construction Traffic Management Plan, Construction and Environmental Management Plan. The assessment is undertaken in accordance with government and industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, desk top research, site survey. No limitations are identified and are not evident in the assessment

Baseline

9.7.3. The baseline Population Study Area (PSA) is defined by the EIAR study area and 6 no. Small Areas from the CSO Census of Population 2022, and details a total population of 1,859. The Laois CDP 2021-2027 classifies Clonaslee as a ‘village’ with a population of 566 persons as per the CSO Census 2016. The population has

increased by 7% to 608 as per the CSO Census 2022. It is outlined there are 618 no. buildings within the PSA, 511 of which are 'residential', 31 no. are 'commercial', and 76 no. properties are listed both 'commercial and residential', with commercial properties are mostly located along and/or adjacent Main Street (R422) and the Tullamore Road. Pobal Deprivation Index for 2022 details the study area is within marginally above average, marginally below average and disadvantaged areas. In terms of economic activity, businesses in the village are small to medium size.

In relation to private landholdings, the proposal will be constructed and/or operated on lands in public and private ownership. With regard to private land ownership, Figures 7.5 to 7.8 show the land folios that are fully or partly contained within the application boundary, which comprise residential properties, residential/agricultural properties, agricultural properties, commercial properties. Portions of public roads, pathways, and sections of the river channel are also landholdings contained fully/partly within scheme and these are under public ownership.

The EIAR outlines there are a range of community facilities located within the village, with recreation/tourism attractions in the area including Brittas Forest, Brittas Lake and Castle, walking routes, Slieve Bloom Mountains trailheads.

Potential Effects

9.7.4. Do Nothing Scenario

Under the Do-Nothing Scenario, flooding will likely continue to occur in Clonaslee Village and immediate adjacent areas, and it is expected that flooding severity is likely to increase in the coming years in the Mid-Range and High-End future scenarios, with peak flows projected to increase by 20% and 30%, respectively. Employment opportunities during construction, and opportunities to enhance future development, economic growth and population growth would be lost. This would have a permanent adverse effect on the village and adjacent areas.

9.7.5. Construction Phase

Population - The construction phase will last c.24 months providing employment for c. 20-25 people. Construction materials may also be sourced locally and the increase in construction employment will stimulate employment and economic activity.

Private Landholding - For lands temporarily required for construction only, impacts include landtake, interruptions to property accesses, or temporary loss of use of premises while works are underway. Temporary landtake consists of the temporary acquisition of lands within 10 private landholdings, including 5 no. residential properties.

There will be effects on residential amenities, recreation and tourism facilities, due to traffic, noise, vibration, air emissions, landscape and visual effects.

9.7.6. Operational Phase

Population-The proposal will positively affect the village as it becomes less vulnerable to flood events. This increased resilience should support population growth, protect businesses, create employment, positively impact on economic activity.

Proposal will have a positive effect on residential amenities, community, recreational and tourism facilities, and reduce flood risks on public roads.

Private Landholdings - The proposal will involve permanent land take of approximately 1,900 sqm from Folio No. LS25086F (at Area 3-Tullamore Road and ICW), with the holding to be acquired in agricultural use.

Wayleaves & Rights of Way - The proposal will involve the procurement of wayleaves/rights of way of approximately 4,000 sqm in connection with 8 no. landholdings.

9.7.7. Decommissioning

The proposal is intended to be a permanent/ long-term development. I am satisfied a decommissioning project phase is not relevant.

9.7.8. Cumulative Effects

Cumulative Effects are set out in Chapter 18 and in various chapters in the EIAR. In relation to Population, it is outlined there will be no significant effects arising from the proposal with any existing/permitted project/plans.

Mitigation

9.7.9. Mitigation measures are set out in the EIAR. At construction stage, measures are extensive and include for a CEMP, a Construction Traffic Management Plan (CTMP),

noise mitigation measures, dust nuisance mitigation measures, health and safety measures. Other measures include those where access to private property is required, and include measures for restricted access, fencing.

9.7.10. At operational stage, mitigation will include prior notice of any maintenance access requirements (via wayleave) being given to landowners; and permanent acquisition of properties, if and where required, will be agreed with all stakeholders in advance of any construction works.

Residual Effects

9.7.11. Residual impact during the construction stage is predicted to have negative, not significant and short-term effects on population. The residual impact of the operational phase is predicted have a positive, moderate and long-term effects.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

9.7.12. I have examined, analysed and evaluated Chapter 7 of the EIAR, all of the associated documentation and the submission on file in respect of population. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on population, as a consequence of the development have been identified. A submission has raised a number of issues in respect of population which I address below.

9.7.13. As outlined the HSE recommends that all mitigation identified in the EIAR is implemented. It is outlined that if there are exceedances of any of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. This issue is addressed in the noise section of this report. The HSE also recommended that the mitigation identified in the CEMP be implemented to protect public and environmental health during the construction phase.

9.7.14. Mitigation measures to manage the **construction phase** include the implementation of a CEMP and CTMP, noise and dust mitigation measures. Detailed assessments

for human health, air, climate, noise and vibration, traffic, land, soil, geology, hydrogeology, landscape and visual are set out in the specialist Chapters in the EIAR, and these highlight mitigation measures, where relevant, to address impacts on population and human health during construction/operation.

9.7.15. Given the proposed sites urban location in a built-up area within and in close proximity to residential properties, the local population would experience disturbance impacts relating to traffic, with a potential for impacts to arise by way of noise, vibration, air quality, water, soils, visual impacts. Having regard to the nature of the works and the temporary construction duration, I do not consider that significant adverse effects by way of noise, or significant effects by way of traffic/pollution are likely to arise on the amenities of the area during the construction phase, subject to the implementation of measures outlined in the EIAR, CEMP and CTMP, as per the recommendation of the HSE. The applicant in their response to the HSE submission has committed to implementing all mitigation measures in both the EIAR and the CEMP. Matters in relation to noise are further addressed in sections on Human Health, Noise and Vibration.

9.7.16. The proposed will also involve the temporary acquisition of private lands at construction stage, within 10 private landholdings, including 5 no. residential properties. The EIAR outlines the residual impact during the construction stage is predicted to have negative, not significant and short-term effects. I consider there is a potential for significant effects on population to arise by way of impacts on land/property, due to landtake, the loss of use of premises, and interruptions to property accesses. However, I note this would be of temporary duration and would also be confined to the limited/partial temporary acquisition of lands, and that mitigation would minimise effects, and measures will include for restoration and reinstatement works post construction. I am of the opinion that this element of proposed development would not give rise to negative or significant impacts on population to an extent that it would warrant a recommendation of refusal on population grounds. To ensure any potential significant effects are minimised, the issue of access to properties can be addressed by way of condition should the Commission be minded to approve.

9.7.17. At **operational stage** the proposed development is predicted to have a positive impact on the village, its population, economic activity, community facilities, recreation and tourism facilities, and transport. Given that flood risk and flooding would likely continue at this location in the absence of the proposed flood defence infrastructure, and having regard to the nature and scale of the proposed development and details submitted, I concur that the proposed development entailing flood defence infrastructure would for the most part have a significant positive effect on population and human health.

9.7.18. The proposed development entails the permanent land take of agricultural land within a single agricultural landholding, and the permanent procurement of wayleaves/rights of way in connection with 8 no. landholdings (4,000 sq m). Figure 7-5 indicates this includes wayleaves within 2 no. residential properties. The EIAR outlines the residual impact of the operational phase is predicted have a positive, moderate and long-term effects. I consider there is a potential for significant effects on population to arise from this element of the proposed development at operational stage, by way of landtake, procurement of wayleaves/rights of way, and impacts on residential amenity. However, given the predicted environmental benefits of the proposal in relation to flood risk, I am of the opinion that this element of proposed development would not give rise to negative or significant impacts on population to an extent that it would warrant a recommendation of refusal on population grounds. To enable potential significant effects to be minimised, EIAR mitigation set out includes prior notice of any maintenance access requirements (via wayleave) being given to landowners, and the agreement of the permanent acquisition of properties with stakeholders in advance of any construction works. While I note that there are difficulties in mitigating the effects of a permanent land take, I note this relates to a single holding, and I consider the prior notice of any maintenance access requirements would serve to minimise the effects of procurement of wayleaves/rights of way on landowners. The above mitigation measures can be addressed by way of condition, should the Commission be minded to approve. I also note ABP 322766 includes for an application by Laois County Council for the Clonaslee Flood Relief Scheme Compulsory Purchase Order No. 01 of 2025, which has been submitted in conjunction with the subject application.

9.7.19. Chapter 18 includes for a **cumulative** assessment with other permitted developments. In relation to population, it is outlined there will be no significant effects arising from the proposal with any existing, permitted project/plans. It is outlined as applications within the site vicinity are already granted, including PA reg. Ref. 2348 for development at St. Manman's GAA Club, it is likely that the developments are already built and / or won't have a temporal overlap between the construction phases. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of standard mitigation measures for the proposed development at construction stage, including those in relation to traffic, I consider that significant cumulative effects arising on population at construction stage unlikely. Cumulative effects arising on population at operational stage are not anticipated. Cumulative impacts are addressed for individual environmental factors below.

Conclusion: Direct and Indirect Effects

9.7.20. I have considered the written submission in relation to population. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. The proposed development, in protecting the existing community with flood defence infrastructure at operational stage, would have a significant positive effect on population and human health. There is a potential for significant effects to arise by way of noise on the amenities of the area during the construction phase, and this issue is addressed in the following sections. There is a potential for significant effects to arise on population from the proposed development at construction stage by way of impacts on land/property. There is also a potential for significant effects on population to arise at operational stage, by way of landtake, procurement of wayleaves/rights of way. However, given the predicted environmental benefits of the proposal in relation to flood risk, I am of the opinion that these elements of proposed development would not give rise to negative or significant effects on population to an extent that they would warrant a recommendation of refusal on population grounds. To ensure any potential significant effects are minimised, a condition requiring mitigation can be applied to any approval.

9.8. Population and Human Health (Human Health)

Issues Raised

9.8.1. A submission has been received from the HSE as outlined in Population section.

Examination of EIAR

9.8.2. Chapter 8 of the EIAR deals with Human Health. Associated Appendices are: Appendix 6.2 Construction Traffic Management Plan, Construction and Environmental Management Plan. The assessment is undertaken in accordance with government and industry best practice guidelines. The assessment methodology includes for the identification of a zone of influence. No limitations are identified and are not evident in the assessment.

Baseline

9.8.3. Based on 2022 CSO statistics the general health of Clonaslee ED is outlined as good, consistent with county and national averages. 53.4% of residents report “very good” health which is similar to Laois County (53.3%) and Ireland (53.2%). Overall, 93.4% of the population in Clonaslee ED reports fair to very good health. Life expectancy in Ireland at birth in 2022 was 80.9 for males and 84.2 for females. The EIAR outlines in relation to physical heath, the all-age all-cause mortality rate in Laois County (574.01 per 100,000 population) is lower than the national average (659.6 per 100,000 population) in 2021. Self-reported mental health status in the Midlands region performs similar to the national comparator.

Potential Effects

9.8.4. Do Nothing Scenario

Longer term trends and interventions in population health may influence the future baseline. Climate change may exacerbate physical and mental health risk factors.

9.8.5. Construction Phase

For Noise and Vibration, predicted noise levels from all activities at Area 2 – Chapel Street works area are high in magnitude, with effects ranging from moderate to significant post-mitigation.

9.8.6. Operational Phase

The significance of the population health effect for the determinant of health for housing is moderate beneficial (significant).

9.8.7. Decommissioning

The proposal is intended to be a permanent/ long-term development. I am satisfied a decommissioning project phase is not relevant.

9.8.8. Cumulative Effects

If the construction periods of the proposal scheme and planned developments within the area overlap, there is potential for cumulative impacts. However, effects are likely to be mitigated through appropriate construction management plans and would be temporary in duration.

Mitigation

9.8.9. At construction stage, measures are extensive and include for a CEMP, a Construction Traffic Management Plan (CTMP), noise mitigation measures.

Residual Effects

9.8.10. Residual effects due to noise and vibration from elements of the proposal range from negligible to moderate depending on the specific location.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

9.8.11. I have examined, analysed and evaluated Chapter 8 of the EIAR, all of the associated documentation and the submission on file in respect of human health. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site study is comprehensive and that the key impacts in respect of likely effects on human health, as a consequence of the development have been identified. A submission has raised a number of issues in respect of human health which I address below.

9.8.12. The HSE recommends that all mitigation identified in the EIAR is implemented, and it is outlined if there are exceedances of any of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. The HSE also recommended that the mitigation identified in the

CEMP be implemented to protect public and environmental health during the construction phase.

9.8.13. As outlined in the population section, mitigation measures to manage the **construction phase** include the implementation of a CEMP and CTMP, noise and dust mitigation measures. Detailed assessments for population, air quality, climate, noise and vibration, traffic, land, soil, geology, hydrogeology, landscape and visual are set out in the specialist Chapters in the EIAR, and these highlight mitigation measures, where relevant, to address impacts on population and human health during construction/operation.

9.8.14. Given the proposed sites urban location in a built-up area within and in close proximity to residential properties, the local population would experience disturbance impacts relating to traffic, with a potential for impacts on human health to arise by way of noise, vibration, air quality, water, soils, visual impacts. In relation to noise and vibration, I consider there is a potential for significant impacts on population, human health to arise from the proposed development at construction stage by way of noise. However, I note this would be of temporary duration, and noise mitigation will also be implemented at the construction phase by way of measures in the EIAR and CEMP, which is as per the recommendation of the HSE. The applicant in their response to the HSE submission has committed to implementing all mitigation measures in both the EIAR and the CEMP. Having regard to the nature of the receiving environment, the nature of the works, their temporary duration and the mitigation as set out, I am of the opinion that the proposed development would not give rise to negative or significant impacts on population and human health to an extent that it would warrant a recommendation of refusal on population and human health grounds. To ensure any potential significant noise effects are minimised, the issue of noise mitigation can be addressed by way of condition should the Commission be minded to approve. Matters in relation to noise and vibration are further addressed in section on Noise and Vibration.

9.8.15. At **operational stage** the proposed development is predicted to have a positive impact on human health. Given that flood risk and flooding would likely continue at this location, in the absence of the proposed flood defence infrastructure, and having regard to the nature and scale of the proposed development and details

submitted, I concur that the proposed development entailing flood defence infrastructure would have a significant positive effect on human health.

9.8.16. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of standard mitigation measures for the proposed development at construction stage, including those in relation to traffic and noise, I consider that significant **cumulative** effects arising on human health at construction stage unlikely. Cumulative effects arising on human health at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.8.17. I have considered the written submission in relation to human health. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. The proposed development, in protecting the existing community with flood defence infrastructure at operational stage, would have a significant positive effect on population and human health. There is a potential for significant effects to arise on population, human health by way of noise during the construction stage. Having regard to the nature of the works, their temporary duration and the mitigation set out which will serve to reduce potential significant noise effects arising, I consider the above effects would not warrant a refusal based on temporary noise impacts. To ensure any potential significant noise effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.9. Noise and Vibration

Issues Raised

9.9.1. A submission has been received from the HSE as outlined in the Population Section.

Examination of EIAR

9.9.2. Chapter 14 of the EIAR deals with Noise and Vibration. Associated Appendices are: Appendix 14.1 Noise Certs, Appendix 14.2 Noise Monitoring Locations, Appendix 6.2 Construction Traffic Management Plan, Construction and Environmental Management Plan. The assessment is undertaken in accordance

with industry best practice guidelines. The assessment methodology includes for a site survey. The noise and vibration study area considers noise sensitive locations (NSLs) up to 300 m from elements of the proposal. For cumulative effects, a zone of 600 m is set. No limitations are identified and are not evident in the assessment.

Baseline

9.9.3. The village is situated on two intersecting roads, the R422 and Chapel St/Tullamore Road, with Brittas Wood to the south of the village. Residential properties line the R422, are located along Chapel St, with a church, GAA pitch and primary school also accessed from Chapel St. A housing estate, residential properties and the ICW wastewater treatment facility are to the north of the village centre.

9.9.4. A baseline survey was carried out on 13 December 2023, with a 30-minute attended noise measurement taken at five noise monitoring locations (NMLs), representative of prevailing baseline noise levels at the nearest NSLs. All measurements were undertaken in accordance with ISO 1996-2:2017 (ISO, 2017). A Class 1 Sound Level Meter in accordance with IEC 61672-1:2013 was used. Baseline survey results ranged from 52-60 dB $L_{Aeq.}$ Results show all locations are classified as Category A using the BS 5228 ABC method (BSI, 2009), and the noise threshold value for each location is therefore 65 dB LAeq.

Potential Effects

9.9.5. Do Nothing Scenario

Under the Do-Nothing Scenario, none of the described construction noise and vibration effects would occur and the baseline conditions would continue.

9.9.6. Construction Phase

Construction noise predictions are undertaken using the methodology in BS5228 (BSI, 2009). The noise model has assumed that Best Practice Mitigation (BPM) in BS5228 will be implemented at all works locations.

Site Compounds (A and B)

Predicted impacts (noise level 69 dB LAeq) for the site enabling works at compound A (Brittas Woods) indicate moderate/significant significance of effects due to noise.

Predicted impacts (noise level 77 dB LAeq) for enabling works at compound B (Chapel Street) indicate significant or very significant significance of effects.

Area 1 – Brittas Wood

Noise predictions at the nearest NSL range from 63-65 dB LAeq, and no significant effects are predicted.

Area 2 – Chapel Street

Construction noise predictions arising from works (enabling, trench works, reinforced wall construction, road reinstatement) at the nearest NSL (7 metres) will range from 72-86 dB LAeq, exceeding the BS5228 threshold value during daytime periods. Predicted impacts indicate a temporary very significant significance of effect. Given the linear nature of the works, elevated noise levels will be temporary, with worst-case predicted noise levels experienced at each NSL for approx. eight weeks at a time. For water management, predicted noise levels when the generator is at a distance of 20 m from NSLs exceed the BS5228 night-time threshold value by 11 dB, indicating a very significant effect without mitigation.

Area 3 – Tullamore Road and ICW

Predicted impacts will range from 64 dB LAeq-66 dB LAeq, and no significant effects are predicted.

Construction Phase Vibration

For vibration levels at the nearest NSL, the magnitude of impact for these activities is predicted to be medium and, given the limited duration, the significance of effect is moderate. No adverse structural impacts to any properties are anticipated.

Construction Traffic

The predicted increase in traffic flows due to construction traffic is well below 25%, implying a negligible noise level increase of less than 1 dB, and no significant effects are predicted for construction traffic noise or vibration associated with the proposal.

9.9.7. Operational Phase

No likely significant effects due to noise and vibration are anticipated.

9.9.8. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.9.9. Cumulative Effects

Most projects are sufficiently remote/screened from the project such that noise or vibration levels will not be cumulative. Cumulative Effects set out in Chapter 18 outline there will be no significant cumulative effects arising.

Mitigation Measures

9.9.10. At construction stage, measures are extensive and include for a CEMP, a Construction Traffic Management Plan (CTMP), and the implementation of Best Practice Mitigation (BPM) to ensure that construction noise levels are properly controlled. It is outlined where proposed works indicate noise or vibration levels exceed those set out in the EIAR, permission will be sought from the Local Authority. Mitigation will also include for a formal stakeholder engagement process, temporary noise barriers, use of heras fencing, acoustic enclosures for plant, adoption of quiet working methods, pre and post conditions surveys, noise and vibration monitoring.

Residual Impacts

9.9.11. Following the implementation of mitigation, residual effects at the nearest NSLs due to noise and vibration will range from negligible to significant. At Area 2 for NSLs within 25 m of activities, the residual significance of effect is predicted to be temporary, significant.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

9.9.12. I have examined, analysed and evaluated Chapter 14 of the EIAR, all of the associated documentation and the submission on file in respect of noise and vibration. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site surveys, is comprehensive and that the key impacts in respect of likely effects on noise and vibration, as a consequence of the development have been identified. A submission has raised a number of issues in respect of noise and vibration which I address below.

9.9.13. The HSE recommends that all mitigation identified in the EIAR is implemented, and it is outlined if there are exceedances of any of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. It is also recommended that the mitigation identified in the CEMP be implemented to protect public and environmental health during the construction phase.

9.9.14. Predicted noise impacts arising from the proposed development are considered to be significant to **very significant** and temporary at the **construction stage.** With the implementation of mitigation, including Best Practice Mitigation (BPM), the application of a CEMP, and site-specific mitigation measures at works areas, residual effects at the nearest NSLs due to noise and vibration are predicted to range from negligible to significant.

9.9.15. Given the locations of the development site Areas relative to existing NSLs, I consider the proposed development has the potential for significant effects to arise by way of construction noise at NSL within the immediate vicinity of the site. I note noise construction levels at NSLs at Area 2 – Chapel Street will range from 72-86 dB LAeq, and this indicates a potential for significant effects to arise by way of construction noise. However, I note this would be of a temporary duration, and noise mitigation will apply with Best Practice Mitigation (BPM) in line with BS5228 to ensure that construction noise levels are properly controlled. I also note site-specific noise mitigation measures will be implemented at works areas, and the scheme will include for a CEMP. The NEHS has recommends that the mitigation identified in the CEMP is implemented in full to protect public and environmental health during the construction phase. The applicant in their response to the HSE submission has committed to implementing all mitigation measures in both the EIAR and the CEMP. In addition, prior to the commencement of construction, the EIAR outlines the contractor will set out and agree a schedule of noise monitoring with the Local Authority, and that vibration monitoring will be undertaken to ensure vibration levels are below the relevant thresholds.

9.9.16. Having regard to the nature of the works, their temporary duration, the hours of operation applying and the mitigation as set out which is standard and well tested and will serve to reduce potential significant noise effects arising, I consider the

above effects would not warrant a refusal based on temporary noise impacts. Impacts will be short term with no significant noise generated at operational stage. To ensure any potential significant noise effects are minimised, a condition requiring mitigation as set out in the EIAR and CEMP can be applied, should the Commission be minded to approve.

9.9.17. I note that a EIAR mitigation measure sets out details that where proposed works indicate noise or vibration levels exceed those set out in the EIAR, permission for these works must be sought from the Local Authority, and that the application for such works will require a detailed noise control plan. I further note the HSE outline if there are exceedances of any of the guidance levels outlined in the EIAR, mitigation measures should be reviewed and additional measures implemented. I consider that an application to the Local Authority for works where noise/vibration levels exceed those set out in the EIAR is not an appropriate mechanism to deal with emissions arising from the proposal. I consider that the EIAR mitigation as set out to address potential emissions arising is appropriate, save for this one specific measure. This issue can be addressed by way of condition in any approval.

9.9.18. Having regard to the nature of the development, I consider the **operational phase** will have no significant effects by way of noise/vibration.

9.9.19. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at construction stage, I consider that significant **cumulative** effects arising by way of noise and vibration at the construction stage unlikely. Cumulative effects arising by way of noise and vibration at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.9.20. I have considered the written submission in relation to population and human health. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. There is a potential for significant effects to arise on noise sensitive receptors during the construction stage. Having regard to the nature of the works, their temporary duration and the mitigation set out which will serve to reduce potential significant noise effects arising, I consider the above effects would

not warrant a refusal based on temporary noise impacts. Impacts will be short term with no significant noise generated at operational stage. To ensure any potential significant noise effects are minimised, as highlighted, a condition requiring mitigation can be applied to any grant.

9.10. Landscape (Landscape and Visual)

Issues Raised

9.10.1. No issues have been raised in submissions.

Examination of EIAR

9.10.2. Chapter 17 of the EIAR deals with Landscape and Visual. Associated Appendices are: Appendix 17-1 Photomontages, Appendix 17-2 Arboriculture Impact Assessment. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with LCC, desk top research, site survey. In terms of data limitations, it is outlined fieldwork was conducted from publicly accessible locations along with controlled access to the ICW facility on Tullamore Road and a private property. From the details submitted, I am of the view there are no limitations which prevent the drawing of robust conclusions.

Baseline

9.10.3. The receiving landscape comprises Clonaslee village and Brittas Wood, to the north of the Slieve Bloom Mountains. The Clodiagh River flows through the village. Two local landscape character areas (LLCAs) identified in the baseline include Clonaslee Village and Brittas Wood. The historic core of the village is a designated ACA. Visual receptor locations in the vicinity include public and recreation locations, dwellings. The site and surrounding area is located within the Lowland Agricultural Areas landscape character type in the CDP. The zone of influence/study area for the landscape and visual impact assessment is outlined in Figure 17.2: Baseline Landscape and Visual Amenity.

Potential Effects

9.10.4. Do Nothing Scenario

The Do-Nothing Scenario would result in no direct impacts on the receiving landscape and on viewers.

9.10.5. Construction Phase

The construction phase will last 24 months, with effects on the character of the village landscape arising due to the visibility of the construction activities. It is outlined due to the short-term nature of construction activities, effects will not be significant.

9.10.6. Operational Stage

Landscape Effects

Direct changes would arise within Clonaslee LLCA as a result of the proposed flood defences at Chapel Street and the ICW site, with vegetation loss. There would be a minor to moderate adverse and not significant effect on the LLCA.

Direct changes would arise within Brittas Wood LLCA, with the introduction of the proposed structures and the limited extent of the vegetation losses, resulting in a minor to moderate and not significant adverse effect. Direct impacts will arise to the ACA as a result of the proposed flood defence wall on Chapel Street, resulting in a minor to moderate adverse and not significant effect.

Visual Effects

7 no. viewpoint locations were selected to assess the visual effects arising as a result of the proposal, taken within the immediate vicinity of the site. Photomontages are included in Appendix 17-1, with viewpoint locations outlined in Figure 17-2. The assessment of visual effects outlines the significance of effect from 6 viewpoints will range from minor adverse to moderate adverse and not significant. The significance of effect at VP6 Brittas Wood will be moderate to major adverse and significant.

The proposal would not be visible from the nearest views and prospects documented in the Laois CDP and as a result, there will be no visual impacts at these locations.

9.10.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.10.8. Cumulative Effects

Cumulative effects are set out in Chapter 18 which outline there will be no significant cumulative effects arising.

Mitigation

9.10.9. At construction stage, measures are extensive and include for a CEMP, with an arboricultural survey, impact assessment and tree constraints plan prepared for tree protection. Mitigation also includes for replanting, use of barriers. At operational stage, mitigation will include replacement planting, flood walls being finished in a manner sympathetic to the ACA and similar to existing, site reinstatement.

Residual Effects

9.10.10. For the construction phase, temporary and reversible effects will arise to the surrounding landscape and visual amenity. For the operational phase, the residual effects on landscape and visual receptors at year 15 of operation would range from minor - moderate adverse and not significant. I note the criteria for *'moderate adverse'* effects is not set out in the EIAR and this is addressed in my assessment.

Analysis, Evaluation and Assessment: Direct and Indirect Effects Assessment

9.10.11. I have examined, analysed and evaluated Chapter 17 of the EIAR, and all of the associated documentation in respect of landscape. I am satisfied that the applicants understanding of the baseline environment, by way of a desk and a site survey, is comprehensive and that the key impacts in respect of likely effects on landscape, as a consequence of the development have been identified. Issues in respect of landscape are addressed below.

9.10.12. I note the criteria for 'moderate adverse' effects is not clearly set out in the EIAR, with the EIAR outlining such effects are not significant. I note the EIAR also outlines for the purposes of its assessment, those effects indicated as being Profound or Major or Moderate to Major are regarded as being significant in terms

of the LVIA methodology. Given the EIARs reference to the LVIA methodology, I have taken into account the 'moderate adverse' effects arising, as outlined in the EIAR, and what can be considered to be their significant significance of effects, in this assessment.

9.10.13. The proposed development is located within a Lowland Agricultural Areas landscape as outlined in the Landscape Character Areas in the CDP and Appendix 6 Landscape Character Assessment. This landscape has a low landscape sensitivity rating, with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area. Areas to the south of the site are located within Hills and Upland, Mountain Areas Landscape Character Areas, which have a medium and high landscape sensitivity rating respectively.

9.10.14. The **construction stage** will be relatively short at 24 months and while construction activities would mark a departure on parts of the *landscape* character of the local area, I consider such construction activities would be localised and standard for a development of this type. There will be impacts by way of the removal of trees and hedgerow required to facilitate the proposal, and from the visibility of construction activities and temporary construction compounds. While this would disrupt views at locations proximal to the site, given the nature and scale of construction activities, I consider these will not negatively impact on the local or wider landscape.

9.10.15. In terms of *visual effects* at the construction phase, from viewpoint locations identified in the immediate vicinity, it is outlined these would range from negligible to minor adverse and not significant. Mitigation measures include retention and protection of trees and wooded areas and the use of barriers. It is submitted with mitigation, effects will be temporary and reversible. Having regard to the details submitted and the mitigation measures as set out, I am satisfied that the mitigation measures are capable of being successfully implemented. This is a construction project of relatively limited construction phase duration and I do not consider that the proposed development would have an undue negative impact on the visual environment.

9.10.16. In terms of **operational effects**, and ***landscape***, it is outlined direct changes would arise within Clonaslee LLCA as a result of the proposed flood defences at Chapel Street and the ICW site, with direct changes arising at Brittas Wood LLCA as a result the introduction of proposed structures and vegetation loss. It is further outlined direct impacts will arise to the ACA as a result of the proposed flood defence wall on Chapel Street, and indirect effects would arise to the character of the surrounding landscape. It is outlined the proposal will result in a minor to moderate-moderate adverse and not significant effect on landscape.

9.10.17. In terms of ***visual effects***, as outlined a Landscape and Visual Impact Assessment (LVIA) including for baseline photography has been carried out. The study is supported by 7 viewpoints taken from various receptors points within the study area. Viewpoints include for existing views and predicted views. I note 2 no. referenced photomontages (VP1 and VP3) in the vicinity of the Tullamore Road are not included in the Appendix. However, I note an analysis of the viewpoints is undertaken and that VP2 in the vicinity of the Tullamore Road is included, which demonstrates the visual effects of the proposed development at this general location. The assessment of visual effects outlines the significance of effect from 6 viewpoints will range from minor adverse to moderate adverse and not significant, with the significance of effect at VP6 (Brittas Wood) being moderate to major adverse and significant. It is further outlined the proposal would not be visible from the nearest views and prospects documented in the Laois CDP.

9.10.18. Mitigation measures set out includes replacement planting, flood walls being finished in a manner sympathetic to the ACA and similar to existing, in accordance conservation architect specification, site reinstatement, and the restoration of lands and property.

9.10.19. As indicated in the LVIA the main visual influence will be concentrated in the immediate site vicinity. Following an inspection of the site, the surrounding area and an examination of the information submitted including the visual aids, I consider the proposed scheme would result in the introduction of new urban infrastructural features which would be visible from locations within the immediate urban area. However, having regard to the nature, scale and design of the proposed development, with flood defence walls and embankments having a maximum height of up to 1.2 m, and their siting within a low-lying landscape where

there is a presence of screening, I consider visibility of the proposal within the wider landscape would be limited.

9.10.20. One of the most visually prominent elements of the scheme will be the proposed flood defence wall at Area 2 - Chapel Street/Tullamore Road, which will be visible from this location, the road intersection with the R422 (Main Street), and from properties which form part of the site, opposite, and adjacent. As indicated on photomontages VP04 and VP05 the proposed development would be located within the centre of the viewing frames. I note this element of the scheme mirrors the existing wall structure at this location, and entails a stone finish sympathetic to the site's location within the village centre and ACA. In addition, the viewpoints submitted indicate the proposed structure can be visually integrated into the streetscape without negatively impacting on existing views. Furthermore, given its design, I consider there would be no significant impacts on the ACA. It is also noted that the structure when viewed from Chapel Street/north of Chapel Street will not impact on views of the Slieve Bloom Mountains. I also consider that the proposed public footpath would improve the existing streetscape at this location from a visual perspective. Given the scale and height of the proposed development within residential property to the northern area of this site area, I consider negative visual effects would not arise. Having regard to the above, I consider that this element of the scheme would have a moderate visual effect, and it would not result in a negative effect on the visual amenities of the area or impact on the areas landscape setting.

9.10.21. With Area 1-Brittas Wood located within and adjacent to an existing recreational trail, this element of the scheme will be visible to the public/trail users. The LVIA outlines the significance of effect at VP6 Brittas Wood which will be moderate to major adverse and significant, would be mitigated by replanting. While I acknowledge that this element of the proposal would require tree removal, I consider that its siting within an existing woodland and watercourse will serve to mitigate its visual impact. In addition, replanting would serve to integrate the scheme at this location and further mitigate its visual impact. I therefore consider that this element of the scheme would not result in a significant effect on the visual amenities of the area or impact on the areas landscape setting. Mitigation planting can be addressed by way of condition, in the event of an approval.

9.10.22. In relation to Area 3 - Tullamore Road-ICW, I consider the flood defence embankments siting within agricultural lands, to the east of an existing roadside boundary entailing mature vegetation, will serve to screen and mitigate its visual impact. The siting of a proposed flood defence wall on the eastern bank of the river, to the east of a treeline, will also serve to screen and mitigate its visual impact. I therefore consider that this element of the scheme would not result in a negative effect on the visual amenities of the area or impact on the areas landscape setting.

9.10.23. Furthermore, there is an absence of designated scenic routes or protected views in the immediate vicinity of the site. CDP Table 11.7: Scenic Views and Prospects in County Laois includes scenic view *017 - R422 in the townlands of Clonaslee - Views over farmland and Slieve Bloom Mountains*, which details a view to the south, orientated away from the site. Therefore, there are no visual impacts at this location.

9.10.24. Having regard to the topography of the site, its urban and rural setting, the scale and heights of the proposed development, it's partial screening at locations, and the extensive network of treelines adjacent to and proximal to parts of the site, I consider that the proposed scheme would not result in a significant effect on the visual amenities of the area. It is considered that the mitigation as outlined including tree protection and retention, replanting, site reinstatement and restoration and the use of sympathetic materials, would serve to screen and integrate the proposed scheme visually. With the proposed development sited within a Lowland Agricultural Areas landscape in the CDP, it is considered that the characteristics of the scheme and its outlined site context would not negatively impact on this Landscape Character Area or its landscape setting.

9.10.25. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at construction and operational stages, I consider that significant **cumulative** landscape or visual effects arising unlikely.

Conclusion: Direct and Indirect Effects

9.10.26. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms

of the application, aside from the criteria used for certain effects arising, which I have taken into account in my assessment. I am of the opinion that the proposed development would not give rise to undue negative or significant direct, indirect or cumulative effects on the landscape and visual amenities of the area, subject to the implementation of mitigation measures. To ensure any potential landscape and visual effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.11. **Material Assets (Traffic and Transport)**

Issues Raised

9.11.1. Transport Infrastructure Ireland have requested that regard is had to the provisions of Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines in the assessment and determination of the subject application.

Examination of EIAR

9.11.2. Chapter 6 of the EIAR deals with Traffic and Transport. Associated Appendices are: Appendix 6.1 Traffic Survey Data, Appendix 6.2 Construction Traffic Management Plan, Construction and Environmental Management Plan. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, site surveys. The proposed Zone of Influence (ZoI) in Figure 6.1 is Clonaslee Village and the approach roads and junctions impacted by the proposed scheme. Key parameters for assessment include the construction phase and operational stage. Central Growth factors have been applied to the 2026 Annual Average Daily Traffic (AADT) data to estimate future year traffic flows on the receiving road network. The forecast background network traffic levels are provided for the construction year of operation (2026-2028), with 2027 taken for peak assessment of construction traffic, and the year of Opening (YoO) is assumed to be Q4 of 2028. No limitations are identified and are not evident in the assessment.

Baseline

9.11.3. The primary road access to Clonaslee village is via the R422 regional road, which runs west-east. Chapel Street (L2006) runs parallel to the Clodiagh River and connects the village to Tullamore, and is predominately a residential street with

access to a school, GAA grounds and a Church. The street has a footpath on the western side only from the crossroads junction to 180 m from the junction where footpaths are introduced on both sides of the road for the extent on the village approach. Chapel Street transitions into the L2006 Tullamore Road at the change in speed limit location. The L6002 is a local road with access to the Brittas Wood forest walk. Baseline traffic flows for Chapel Street included Weekly Average Daily Traffic (WADT) of 1,592, for the R422 (Birr) 2,682 and (Mountmellick) 3,386, and the L6002 - 171. Corresponding Construction Year 2027 AADT (Annual Average Daily Traffic) volume calculations for these locations are 1,607; 2,708; 3,419; and 173 respectively. A sightline assessment demonstrated sightlines were not achievable at Compound A and ICW/Tullamore Road.

Potential Effects

9.11.4. Do Nothing Scenario

Under the Do-Nothing Scenario, the baseline environment conditions would continue. A negligible increase in road traffic volumes as a result of population growth would be expected.

9.11.5. Construction Phase

The construction phase will take approx. 24 months and include Heavy Vehicles (HV) importing/exporting materials, plant, fuel. There will be 15-18 persons involved in construction. The preferred haul route will be to and from Tullamore via the N80 National Road, L2004 and L2006. Length of programmes will be Area 1 Brittas Wood – 8 months, Area 2 Chapel Street - 15 months, Area 3 Tullamore Road/ICW - 9 months. There will be overlap in works Areas between period February 2027 and October 2028. For two construction crews there will be a maximum of 32 HV movements per day, and 12 car/van vehicle movements per day. The EIAR outlines there will be an estimated 380 round trips for material delivery. Percentage increases expected will be 5% on Chapel Street, 3% on R422 to Birr, 2% on R422 to Mountmellick. The magnitude of impact on Brittas Wood Road/L6002 is high, with a percentage increase of 44%, which has an existing low AADT. Other potential impacts set out include localised traffic disruption, temporary impacts on the L6002 during construction of Area 1 works, access restrictions to the Brittas Loop Trail, with an alternative entrance proved; Short term impact at

Area 2 with a single lane closure of the southbound lane for approx. 12 months, and full road closures may be required to facilitate a delivery over short durations (1 – 2 hours). There will be short term impacts on access to receptors along Chapel Street in terms of journey times, and queuing lengths.

In terms of significance of the effect, the short-term effect on the road network is moderate to major on Chapel Street, while the temporary effect is slight and slight or moderate on the R422 Regional Road and L6002 Brittas Wood Road, respectively. With regards to DMURS standards, it is outlined the roads have sufficient width to accommodate the HV travelling to the site.

9.11.6. Operational Phase

Operational traffic will be limited to periodic maintenance works and would be negligible.

9.11.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.11.8. Cumulative Effects

Cumulative Effects are set out in Chapter 18. It is outlined as permitted developments in the vicinity are already granted, it is likely these developments are already built and / or won't have a temporal overlap. There will be no significant cumulative effects arising.

Mitigation Measures

Construction Stage

9.11.9. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP, a Construction Traffic Management Plan (CTMP) which includes a stop/go temporary traffic signals for Chapel Street, and the provision of pre and post development condition and structural surveys of transport infrastructure. Measures also include traffic management measures, use of flagman.

9.11.10. No mitigation measures are proposed for the operational phase.

Residual Impacts

9.11.11. Residual effects will include short, localised delays, and these will range from slight to imperceptible/slight. The temporary lane closure of Chapel Street (Area 2) is likely to cause a temporary, slight or moderate residual effect on traffic flow. The residual effect for the operational phase is assessed as imperceptible.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.11.12. I have examined, analysed and evaluated Chapter 6 of the EIAR, all of the associated documentation and the submission on file in respect of material assets, traffic and transport. I am satisfied that the applicants understanding of the baseline environment, by way of a desk and site survey, is comprehensive and that the key impacts in respect of likely effects on traffic and transport, as a consequence of the development have been identified. A submission has raised an issue in respect of traffic and transport which I address below.

9.11.13. At ***construction stage,*** mitigation will be addressed by way of a Construction Traffic Management Plan (CTMP), which has been prepared to address and reduce impacts on users of the local road network. I note the percentage increase of traffic on the road network at construction stage will range from low to medium, aside from a high increase (44%) on the Brittas Wood Road/L6002 which relates to its existing low AADT. The significance of effects arising on the road network from traffic generation at construction stage post mitigation are anticipated to range from slight to moderate on Chapel Street, with imperceptible to slight, and slight effects on the R422 and L6002 Brittas Wood Road, respectively, and I note the existing road network entails sufficient width to facilitate the construction traffic generated by the scheme. While I note there will be localised temporary traffic disruption at Chapel Street, traffic flow at this location will be subject to stop/go temporary traffic signalling management arrangement. In addition, it is outlined the preferred haul route will be from Tullamore via the N80 National Road (c.8.5km from the site), and local roads, and no abnormal loads are proposed.

9.11.14. Having regard to the nature and scale of the proposed development, and the temporary duration of construction works, I do not consider there is any deficiency in the network that would render it unsuitable to carry the anticipated additional load required during the construction phase of the proposed development. Subject to the implementation of mitigation measures and conditions including for a

Construction and Environmental Management Plan (CEMP) and a CTMP to include for detailed haul routes and traffic management, I am satisfied that the impacts of traffic arising on the existing network would not be significant.

9.11.15. Furthermore, it is outlined at Compound A the required junction visibility splay of 45 m is not achievable in the southwest direction from 2.4m setback or the 2.0m relaxation setback, and that at Area 3 ICW/Tullamore Road the required junction visibility splay of 160 m is also not achievable in the southwest direction from 2.4m setback/2.0m relaxation setback. It is outlined for both locations a vehicle controller / flagman may be required during works to facilitate movements in and out of these locations. Having regard to the temporary duration of the works, I consider that the proposed development would not give rise to any significant effect on the road network, subject to the implementation of the CTMP and its outlined mitigation measures, which include for the provision of a vehicle controller/flagman at these locations for the duration of works. This issue can be addressed by way of condition in any approval.

9.11.16. At ***operational stage,*** traffic will be limited to periodic maintenance works. Having regard to the nature of the proposed development, I am satisfied that that no negative effect is likely to arise at the operational stage by way of traffic or transport.

9.11.17. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant **cumulative** effects arising by way traffic and transport unlikely. Cumulative effects arising by way of traffic and transport at operational stage are not anticipated.

9.11.18. Transport Infrastructure Ireland have requested that regard is had to the provisions of Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines in the assessment and determination of the subject application. I note *Spatial Planning and National Roads Guidelines for Planning Authorities (2012)* provides for details in respect of development management and roads, including Traffic and Transport Assessment (TTA), Road Safety Audits, and to Avoiding Adverse Impacts from Existing and Future Roads. While I note the proposed development entails works within a local road and reinstatement works for same, and the temporary widening

of existing entrances, the scheme does not involve physical changes to a national road, and does not necessitate new access junctions on the national road network. This is highlighted in the applicant's response to the TII submission, which also outlines the proposal will not give rise to a significant increase in traffic volumes using a national road. Having regard to the nature and siting of the proposal, and works proposed, I consider a road safety audit is not warranted for the proposal. I also note that the preferred haul route will be from Tullamore via the N80 National Road and local roads, and no abnormal loads are proposed. I note the applicant has carried out a TTA for their identified zone of influence, that the contractor shall provide general condition and structural surveys of transport infrastructure on all routes that may be impacted before works commence and after completion, and that bridges with weight/height restrictions along haul routes shall be identified and complied with. While a TTA of the proposed development on the national road network is not outlined, having regard to the temporary duration of the construction stage, the sites location, the estimated traffic generation associated with same, TII's Traffic and Transport Assessment Guidelines PE-PDV-02045 May 2014, and that no negative effect is likely to arise at the operational stage by way of traffic or transport, I consider a TTA entailing an assessment of the proposed development on the national road network is not warranted in this instance.

Conclusion: Direct and Indirect Effects

9.11.19. I have considered the written submission in relation to traffic and transport. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to significant direct, indirect or cumulative effects on traffic and transport of the area, subject to the implementation of mitigation measures. To ensure any potential traffic and transport effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.12. **Air (Air Quality)**

Issues Raised

9.12.1. The HSE recommends that mitigation identified in the EIAR be implemented, and that the mitigation identified in the CEMP be implemented to protect public and environmental health during the construction phase.

Examination of EIAR

9.12.2. Chapter 12 of the EIAR deals with Air Quality. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes a desk-based air quality assessment. No limitations are identified and are not evident in the assessment.

Baseline

9.12.3. As part of the implementation of the Air Quality Standards Regulations 2011, four air quality zones have been defined in Ireland for air quality management. In terms of air monitoring zoning, the area of the proposal is within air quality Zone D: Rural Ireland. Receptors identified in the EIAR include humans receptors, dwellings, a school, the Slieve Bloom SPA and SAC, and protected habitats. The nearest air quality monitoring sites with historic data available are located in Emo Court, Kilkitt, Edenderry, and Longford. In 2022, long-term average concentrations for Nitrogen Dioxide measured at all locations were significantly lower than the annual average limit value. Values for Particulate Matter are well below the statutory limit value in Kilkitt and Edenderry, and below the WHO Guideline at Kilkitt but above the guideline in Edenderry. The mean concentration of Particulate Matter (PM2.5) at Longford over the period 2018-2022 is well below the statutory limit value, but above the WHO Guideline. Tables 12-12 to 12-14 set out the data for concentrations within Zone D sites.

Potential Effects

9.12.4. Do nothing

In the absence of the proposal, air quality in the area will continue to develop in line with trends in the wider area, including influences from new developments, changes in road traffic.

9.12.5. Construction Stage

The greatest potential impact on air quality is from construction dust emissions and exhaust emissions associated with vehicles and plant in the construction of the

project and in transportation to and from the site. The closest sensitive receptor to the proposal is St. Brigid's National School, with analysis taking the school and the most sensitive residential property into account. Using TII's Road Emissions Model and traffic data in assessing the impact to air quality, results show an increase in emissions during the construction phase, but this will be a short term, temporary effect, with levels remaining below the statutory limits for the protection of human health, but above WHO air quality guidelines. In terms of significance, this equates to a neutral or negligible effect for air quality using the statutory limits as the comparator. Impacts on air quality in ecologically sensitive habitats from nitrogen deposition is considered negligible.

9.12.6. Operational Stage

There will be no emissions to atmosphere during the operational phase, and there is no potential for effects to air quality.

9.12.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.12.8. Cumulative Effects

Cumulative Effects are set out in Chapter 18. It is outlined it is likely that permitted development is already built and / or won't have a temporal overlap between the construction phases, and there will be no significant cumulative effects arising.

Mitigation Measures

Construction Phase

9.12.9. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP, and a Dust Management Plan (DMP) to include details of control measures, monitoring arrangements, air quality reporting requirements. Measures to reduce dust nuisance will be implemented.

Operational Phase

9.12.10. As ambient air pollutants will remain in compliance with the ambient air quality standards and the proposal has negligible effects at modelled receptors, no

mitigation measures are required.

Residual Impacts

9.12.11. With mitigation, emissions of dust are not predicted to be significant, and there will be no residual construction phase dust impacts. With expected peak traffic construction volumes below the 10% of baseline traffic on the existing road network, effect to air quality is considered negligible. There are no predicted impacts to air quality as a result of the operational phase.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.12.12. I have examined, analysed and evaluated Chapter 12 of the EIAR, all of the associated documentation and the submission on file in respect of air. I am satisfied that the applicants understanding of the baseline environment, by way of a desk survey, is comprehensive and that the key impacts in respect of likely effects on air, as a consequence of the development have been identified. A submission has raised an issue in respect of air which I address below.

9.12.13. There is a potential negative, short-term impact on air quality from **construction stage** activity including earthworks and construction traffic. The construction phase of the proposed development is expected to take c.24 months. Mitigation measures include for the implementation of dust management measures for emissions arising which will be controlled through best practice construction methods. In relation to construction traffic impacts on air quality, modelling results show an increase in emissions during the construction phase, however, these will be short term and of temporary effect, with levels remaining below statutory limits for the protection of human health, and being of negligible effect for air quality. Impacts of the proposal on ecologically sensitive habitats by way of air quality are not anticipated. Subject to the implementation of the EIAR and CEMP mitigation measures outlined, and as recommended by the HSE, I consider that no significant impacts on air quality would arise from the proposed development at construction stage. These measures are standard best practice measures and are well tested. Having regard to the nature of the proposed development and on the basis of the information submitted, the **operational phase** will have no negative impacts on air quality.

9.12.14. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant **cumulative** effects arising by way air quality unlikely. Cumulative effects arising by way of air quality at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.12.15. I have considered the written submission in relation to population and human health. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to negative or significant direct, indirect or cumulative effects on the air quality of the area, subject to the implementation of mitigation measures. To ensure any potential air quality effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.13. Climate

Issues Raised

9.13.1. No issues have been raised in submissions.

Examination of EIAR

9.13.2. Chapter 13 of the EIAR deals with Climate. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes desk-top research. No limitations are identified and are not evident in the assessment. The climate assessment comprises two main elements, including a greenhouse gas (GHG) assessment which assesses the impact of the proposal on climate, and a climate change risk assessment (CCRA) which assesses the vulnerability of the proposal to future climate change.

Baseline

9.13.3. Meteorological data recorded at Casement, which is the nearest meteorological station to the site, includes for 30-year average meteorological data and is presented in Table 13-12. The 30-year average data for temperature (1991-2020) is detailed in Table 13-13.

Potential Effects

9.13.4. Do nothing

The Met Éireann TRANSLATE project predicts increasing average temperatures leading to increased frequency of heatwave, reduced frequency of frost and ice. Average precipitation is predicted to decrease but the number of wet days are projected to increase suggesting more intense rainfall events. In the EPAs Greenhouse Gas Emissions Projections 2022-2040 report (2024), Ireland is not on track to meet the 51% emissions reduction target by 2030.

9.13.5. Construction Stage

GHG Assessment – GHG emissions are estimated through the embodied carbon from materials used, construction activities, construction waste and transport emissions. The total estimated carbon generated during the construction phase is 426 tonnes CO_2e, with projected emissions resulting in a moderate adverse impact.

Climate Change Risk Assessment - Vulnerability analysis indicates that fluvial flooding and extreme winds represent the highest vulnerability for the construction phase, followed by wildfire, and fog. The vulnerability of works to climate change will be mitigated and the potential impact is considered to be minor adverse for the short-term construction phase.

9.13.6. Operational Stage

GHG Assessment – Sources of GHG emissions include those from maintenance, including operational energy, transport and operational waste disposal, amounting to 5.8 tonnes CO_2e a year, and the impact on climate is negligible.

Climate Change Risk Assessment - The vulnerability analysis indicates that fluvial flooding, extreme wind and fog represent the highest vulnerabilities. With design measures in place, the risk of adverse climate change impact on the proposal is outlined as low. The vulnerability of the operational phase to climate change has been mitigated and the potential impact is considered to be beneficial in the long-term.

9.13.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.13.8. Cumulative Effects

It is outlined with respect to the requirement for a cumulative assessment PE-ENV-01104 (TII, 2022a) states that 'for GHG Assessment is the global climate and impacts on the receptor from a project are not geographically constrained, the normal approach for cumulative assessment in EIA is not considered applicable.'

Mitigation Measures

Construction Phase

9.13.9. Mitigation measures at the construction stage will include: the use 50% ground granulated blast-furnace slag (GGBS) cement; All reinforcing steel employed being 85% minimum recycled steel; Aggregates being secondary; Wherever available, construction materials shall be secured from local/regional sources/sources within the State; regular maintenance of machinery.

Operational Phase

9.13.10. Mitigation measures will include prevention of on-site or delivery vehicles from leaving engines idling; ensuring all plant and machinery are maintained and inspected regularly.

Residual Impacts

9.13.11. The residual impact on climate of construction phase emissions is temporary minor adverse, not significant. The vulnerability of the works to climate change is considered to be temporary minor adverse. Operational emissions are negligible. The proposal is predicted to have a long-term beneficial impact for the area in terms of climate vulnerability.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.13.12. I have examined, analysed and evaluated Chapter 13 of the EIAR, and all of the associated documentation in respect of climate. I am satisfied that the applicants understanding of the baseline environment, by way of a desk survey, is comprehensive and that the key impacts in respect of likely effects on climate, as a consequence of the development have been identified. Issues in respect of climate are addressed below.

9.13.13. The GHG emissions for the construction phase are estimated using the TII Carbon Tool. The main source of GHG emissions at the construction phase is from the embodied carbon from the materials used in construction, which total 87% of the total estimated carbon generated (426 tonnes CO2e). Table 13-21 details the estimated GHG emissions at construction stage**.** The mitigation measures implemented at the construction phase aim to reduce GHG emissions and impacts to climate. These include for the use of low embodied carbon materials in construction, sourcing of local/regional materials, materials within the state, and the use of hydrogen generators/electrical plant. While I consider the proposed development would give rise to impacts to climate by way of GHG emissions at construction stage, this impact would be reduced by way of the mitigation measures outlined. At operational stage, GHG emissions from ongoing maintenance over the project lifetime will account to 5.8 tonnes CO_2e in a typical year. I consider these effects would also be reduced by way of mitigation measures including for plant and machinery maintenance.

9.13.14. The proposed development will give rise to impacts to climate by way of GHG emissions at construction and operational stages. However, these are not significant in a national emissions context, with 54 million tonnes of carbon dioxide equivalent (Mt CO_2eq) emitted in 2024 (EPA, 2025), and I consider that any impacts would be reduced by way of the mitigation measures outlined for the construction and operational stages.

9.13.15. In relation to the proposes schemes vulnerability to climate change, for the construction stage it is outlined the vulnerability of works to climate change will be mitigated and the potential impact is anticipated to be minor adverse for the short-term construction phase. For the operational phase, it is outlined the vulnerability analysis indicates that fluvial flooding, extreme wind, and fog represent the highest vulnerabilities. It is outlined with design measures in place, the risk of adverse climate change impact on the proposal is low. I note the scheme has been designed to withstand flood events, with mitigation in place to address the vulnerability of the operational phase to climate change. I consider that the measures employed in the design of the scheme will enable for climate resilience and mitigate against the impacts of climate change.

Conclusion: Direct and Indirect Effects

9.13.16. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. The proposed development will give rise to impacts to climate by way of GHG emissions at construction and operational stages. However, these are not significant in a national emissions context, and I am of the opinion that the proposed development would not give rise to significant direct, indirect or cumulative effects on climate, subject to the implementation of mitigation measures. To ensure any potential climate effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval. Having regard to the design of the proposed development, I concur with the applicants viewpoint that the proposal would have a beneficial impact for the area in terms of climate vulnerability.

9.14. **Land, Soil (Land, Soils, Geology, Hydrogeology)**

Issues Raised

9.14.1. Uisce Éireann have raised concerns on public drinking water source protection and infrastructure boreholes in Area 1.

Examination of EIAR

9.14.2. Chapter 10 of the EIAR deals with Land, Soils, Geology, Hydrogeology. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with agencies, a desk top study, site survey/walkover. The study area extends to a 1km buffer zone from the works area for land and soils, and to a 2km radius for groundwater. No limitations are identified and are not evident in the assessment. Impacts on landuse and landtake are outlined in Chapter 7 Population.

Baseline

9.14.3. Previous site investigations within the study area including an evaluation of groundwater resources of the Clonaslee Area (1979) are used in the baseline assessment. The topography slopes towards the Rivers Clodiagh and Gorragh from the Ross highpoint (286mOD), approx. 2km south of Area 1. Elevations across the works areas range from 100m-140m north to south. EPA's CORINE mapping shows the study area is occupied by urban fabric, complex cultivation

patterns, with forest and semi natural areas south of the village. Teagasc Soil Classification details soil types with the study area include river alluvium, urban, fine loamy drift with limestones, and coarse loamy drift with siliceous stones. GIS mapping indicates subsoils include alluvium, tills derived from limestone/sandstone, gravels derived from limestone and bedrock outcrop/subcrop, with subsoil permeability in the study area mapped as “moderate”.

9.14.4. In terms of bedrock, the majority of the study area is underlain by the Clonaslee Member, part of the Cadamstown Formation, described as thick flaggy sandstone, thin siltstone. Areas are also mapped as Lower Limestone Shale, and as the Ballysteen Formation, described as dark muddy limestone shale (GSI, 2024). Structural faults oriented south-west to north-east are mapped approx.1.4km east of Area 2. Based on GSI groundwater vulnerability and permeability mapping the depth to bedrock is expected to be at least > 8 meters below ground level (mbgl) (GSI, 2003). Depth to bedrock information from borehole drill records record a depth to bedrock of 18.3mbgl (GSI Well ref 2321SWW069) at Area 1, Brittas Woods.

9.14.5. Clonaslee Water treatment plant is adjacent to Brittas Woods, with Uisce Éireann urban wastewater treatment plant to the north of the village. In terms of contaminated land, no evidence of ground contamination has been identified within the study area.

9.14.6. The landslide susceptibility of the majority of Area 1-3 is classified as “Low” with a small portion of lands located 800m west of Area 2 classified as “Moderate” and “High”. There are 11 historic pits/quarries within 2km of the site.

9.14.7. Two groundwater bodies underlay the study area, Clonaslee West GWB and the Geashill GWB. Local groundwater flow direction is expected to flow from south to north. In terms of bedrock geology, the majority of the area is classified by the GSI as a regionally important aquifer fissured bedrock. Bedrock at Area 3 is classified as a poor aquifer bedrock, with Ballysteen Formation to the north classified as a locally important aquifer bedrock. The Clonaslee Gravel Body c.1km to the northwest is classified as locally important gravel aquifers. The majority of the study area encompassing the works is classified as moderate aquifer vulnerability. The southern portion of Area 1 (Brittas Woods) has high vulnerability. GSI

Groundwater recharge mapping indicates variable although generally high recharge rates.

9.14.8. For groundwater use, the GSI Groundwater Data Viewer records 16 no. groundwater wells and springs mapped within 2km of the proposal. None of the wells and springs recorded within 100m of the study area include private domestic wells, therefore no impact is envisaged as a result of the proposal.

9.14.9. The Public Supply Source Protection Area of the Tullamore South and Clonaslee Public Water Supply (PWS) is mapped within Area 1-Brittas Woods and Area 2-Chapel St. The source of the supply is mainly from five boreholes, 2 no. from boreholes located in Brittas Woods (Forest and Plant boreholes). Area 1 lies within the Inner Source Protection Area (SI) and Area 2 lies within the Outer Source Protection Area (SO) of the Forest and Plant boreholes. Boreholes were identified along the embankment of Area 1 and immediately south of Area 1. The Forest borehole abstracts at the western bank of the Clodiagh River while the Plant borehole, located on the grounds of the Clonaslee Treatment Plant, is on the eastern bank.

9.14.10. There is one Groundwater Dependent Terrestrial Ecosystem (GWDTE), Wet heath (code 4010) located 990m south of Area 1.

Potential Effects

9.14.11. Do nothing

In the event the proposal is not constructed, there would be no resulting impacts on the soils, geology, or hydrogeology.

9.14.12. Construction Stage

Table 10-22 sets out the estimated volumes of material required for construction. The total volume is 2,010.79 m³, entailing fill material and concrete, and this activity has a negligible effect on the geological environment.

Potential impacts with regard to embankment settlement includes settlement of the altered ground profile and slope instability during excavation and construction. Effects are considered to be direct, short-term, small-adverse.

With subsoil at a sufficient depth to provide adequate attenuation and filtration, infiltration of surface water runoff is considered to be a small adverse effect on

groundwater. There is a potential for surface water runoff to enter into the 2 boreholes of the Clonaslee PWS at Area 1, and this would result in a direct, small adverse effect on the receiving groundwater quality supplying the PWS.

Excavations ranging to a depth of 3-1.2 mbgl will generate 7,500m3 of topsoil. Loss of soil reserves is considered to be a small adverse permanent impact.

In term of aquifers, the underlying limestone bedrock is classified as a Regionally Important Aquifer, however there will be no excavation into bedrock (excavation depths will be no more than 3 mbgl). In terms of groundwater resources, given the expected depths to bedrock (>10m, 18.3mbgl,) and limited excavation depths, it is considered unlikely that the regional water table will be encountered. In all three Areas, there is potential for excavation works to encounter shallow groundwater flow paths. The water table is normally within 5m of the surface (GSI, 2004) and any lowering of the water table during excavation will be a short-term effect. The magnitude of this effect is small adverse effect on the groundwater supplying the Clonaslee PWS.

Localised accidental spillages of fuel, oils or chemicals have the potential to contaminate soils and groundwater, resulting in a short-term, small adverse effect on soils and groundwater.

The potential for encountering contaminated ground is low and the resulting impact would be considered a short-term, small adverse effect.

Instream works will be required at Area 1, and dewatering has the potential to create subsurface changes to soils and sediments. Without mitigation, river-bed excavations have the potential to cause channel bed degradation, lateral erosion of banks and deposition of eroded sediments. This effect is short-term, small adverse.

9.14.13. Operational Stage

The operational stage will include for maintenance and inspection activities, with no expected negative effect as a result of such activities.

9.14.14. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.14.15. Cumulative Effects

Cumulative Effects are set out in Chapter 18. As permitted development in the vicinity is already granted, it is likely that developments are already built and / or won't have a temporal overlap between the construction phases. There will be no significant cumulative effects arising.

Mitigation Measures

Construction Phase

9.14.16. Mitigation measures are set out in the EIAR. Measures are extensive and include: By-product importation will be subject to an Article 27 notification; Measures for topsoil reuse, soil reinstatement, and excess soil will be disposed of at a licenced waste facility; For embankment settlement, construction will include for an extended cut off ditch for stabilisation; Sediment control and groundwater protection will include: a CEMP being in place; development of a surface water management plan; stockpiling controls; silt fencing; fuel storage; use of spill kits; storage management, dewatering designed to minimize mobilisation of contaminants.

9.14.17. Mitigation measures for in-stream works include: timing of works; flow management measures to accommodate a flood event; Water management by completing excavation and construction in two halves. For the first half, water will be dammed and directed to one side of the channel using large sandbags, with excavation completed using trench boxes. A sump will be created within the excavation to enable pumping of water, which will be passed through a sedimentation system before returning to the river. The dewatering area will be small (366m²). River-bed reinstatement measures prior to trench box removal and re-diverting flows over the area will be agreed with the IFI.

9.14.18. Operational Phase

Mitigation measures proposed for the construction phase will be implemented for maintenance operations, where relevant. OPW Guidance will be adhered to for periodic maintenance and/or repair of flood defences.

Residual Impacts

9.14.19. The significance of impacts identified during construction and operational phases will be reduced to imperceptible with the implementation of mitigation measures.

Monitoring

9.14.20. Construction phase will include monitoring of sediment run off, embankment construction, waste, groundwater quality and level, excavations. In operational monitoring OPW guidance will be adhered to for ongoing inspection and monitoring of flood defences, debris trap and culvert remediation.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.14.21. I have examined, analysed and evaluated Chapter 10 of the EIAR, all of the associated documentation and the submission on file in respect of land, soil, geology, hydrogeology. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on land, soil, geology, hydrogeology, as a consequence of the development have been identified. A submission has raised an issue in respect of land, soil, geology, hydrogeology which I address below.

9.14.22. In relation to mitigation measures, a CEMP has been prepared. A range of mitigation measures are set out to safeguard groundwater quality, PWS, and for in-stream works.

9.14.23. I consider a principle hydro-hydrogeological impact associated with the scheme would include for increasing the vulnerability of underlying aquifers to pollution, due to a loss of soil/overburden, and potential pollution arising on groundwater from **construction stage** works. In relation to soil, to control soil importation, excavation and its export from the site, by-product importation will be subject to an Article 27 notification, with excess soil disposed of off-site to a licenced facility. Mitigation measures for soil loss will include for a sediment control plan which will identify actions to minimise the loss of topsoils and soils, with topsoil reused onsite where required. I further note in relation to soil contamination, measures will include testing of excavated soils and ground suspected of contamination, with any waste material being encountered removed to a suitably licensed facility.

9.14.24. I note the site is underlain by the Clonaslee West IE_SH_G_066 and Geashill IE_SH_G_103 ground waterbodies, which have ‘good’ status in the WFD Ground Waterbody status 2016-2021. Having regard to the nature of the proposed works and their siting, in the absence of mitigation, there is a potential for effects on

groundwater quality by way of infiltration of contaminated surface runoff from construction activities, which in turn could have a significant effect on groundwater quality within the boreholes supplying the Clonaslee PWS. I consider the mitigation set out would serve to mitigate these potential effects. I also note that mitigation measures include for protective fencing around boreholes and that Uisce Éireann have raised concerns on impacts public drinking water source protection and infrastructure boreholes in Area 1, and these issues are addressed in the Water section of this report.

9.14.25. While aquifer vulnerability is classified as 'Moderate', with a portion of the site (Area 1-Brittas Woods) classified as 'high' groundwater vulnerability, the proposed excavations are indicated as being limited in the context of depth to bedrock throughout the site, with depths being no more than 3 mbgl. I further note the expected depths to bedrock at Areas 1 (18.3mbgl) and 2 (>10m mbgl) within the Inner Source Protection Area and Outer Source Protection Area of Clonaslee PWS, respectively, and given the depth and extent of excavations, it is outlined it is unlikely the regional water table will be encountered at these areas or Area 3. It is further outlined any lowering of the water table at the 3 Areas during excavations would be a short term small adverse effect on groundwater supplying the PWS. Given the details submitted, and extent and depth of excavations, and expected depth to bedrock, I am satisfied that no significant effect is likely to arise, subject to the implementation mitigation measures outlined, which would serve to mitigate any potential significant effects arising on aquifers, their vulnerability, and the groundwater resource supplying the PWS. With none of the wells and springs recorded within 100m of the study area including private domestic wells, impacts on these sources of supply are not anticipated.

9.14.26. Given the design and height of the embankments with side slopes and a cut off ditch, and mitigation including compaction of materials at construction stage, significant effects in relation to ground settlement and stability are not anticipated.

9.14.27. In the absence of mitigation, I consider the instream works at Area 1 have the potential to give rise to significant effects on river bed geomorphology, channel bed degradation, and erosion and sediment deposition effects. A range of mitigation measures are set out, with the creation of a dry works area. Dewatering will occur over a small area, will be temporary, and a significant impact on ground water

levels are not expected. Mitigation will also include sediment treatments, with river-bed reinstatement measures to be agreed with the IFI. Given the construction methodology and mitigation outlined, and the short-term nature and extent of the works, I am satisfied that no significant effect is likely to arise on the river system, subject to the implementation mitigation measures.

9.14.28. I note that the construction works are temporary in nature, and I am satisfied that the mitigation measures as set out are robust and capable of being successfully implemented. The measures align with best practice and would ensure the potential for significant effects on the environment would be removed.

9.14.29. It is outlined for the **operational stage** mitigation measures proposed for the construction phase will be implemented for maintenance operations, where relevant, with OPW Guidance being adhered to. Having regard to the nature of the proposed development, I consider the operational phase will have no significant negative impacts.

9.14.30. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant **cumulative** effects arising by way of land and soils unlikely. Cumulative effects arising at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.14.31. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to negative or significant direct, indirect or cumulative effects on the land, soils of the area, subject to the implementation of mitigation measures. To ensure any potential land, soils effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.15. **Water**

Issues Raised

9.15.1. Uisce Éireann have raised concerns on the impact on public drinking water source /infrastructure boreholes in Area 1, and the risk of flooding to Uisce Éireann infrastructure in Area 1 and Area 3. IFI have highlighted the importance of water quality in the Shannon Catchment and this submission is addressed in the Biodiversity Section.

Examination of EIAR

9.15.2. Chapter 11 of the EIAR deals with Water. Supporting appendices include: Appendix 11.1: WFD Assessment - Final Report. The assessment is undertaken in accordance with government and industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, desk top research. The Zone of Influence (ZoI) consists of a 250m-wide corridor either side of the proposed boundary, with the baseline study area extending to potentially hydrologically connected points in the wider WFD sub-catchments. The flood risk impact assessment considers areas within 1km upstream and downstream of the proposal. No limitations are identified and are not evident in the assessment

Baseline

9.15.3. The proposal is located in Clonaslee, Co. Laois, in the upper reaches of the Lower Shannon Catchment (Hydrometric Area 25). Clonaslee is within the Clodiagh (Tullamore)_SC_010 subcatchment. The Clodiagh (Tullamore)_010 and the Gorragh_010 rivers pass through the study area, joining to the north, with the Clodiagh (Tullamore)_020 meeting the Brosna River at Derrynagun, Co. Offaly. Clonaslee at the base of the northern slopes of the Slieve Bloom Mountains is susceptible to flash floods. In terms of WFD status, the rivers have been assessed as “Good” and “Not at Risk” in the Third WFD Cycle (2016-2021). The assigned EPA Q-values for the rivers range from 4 to 5, suggesting the rivers are unpolluted. Groundwater abstractions in the area include the potable water supply to the town of Tullamore and a water supply to a distillery in Tullamore.

9.15.4. Wastewater Treatment Plants, Wastewater agglomerations, IPC and IEL licensed facilities are located in the surrounding area, with Clonalsee wastewater treated through an Integrated Constructed Wetland (ICW), constructed in 2011. In terms of

water dependant ecological receptors, the scheme area has hydrological connectivity to 4 no. SACs, with 5 no. SPAs within a 30km buffer area.

9.15.5. In relation to flood risk identification, the River Gorragh and River Clodiagh are maintained by the OPW as part of the River Brosna Arterial Drainage Scheme. In terms of the latest flood, the Clodiagh River burst its banks and flooded Chapel St in Clonalsee village on 21st/22nd November 2017. Reports indicated flooding occurred due to the high river levels coinciding with a breach in a masonry wall along the riverbank, with flood waters inundating properties adjacent the river. For predicted flooding, under the Southeastern CFRAM study the Clodiagh and Gorragh channels were modelled and flood extents map prepared. In the County Laois Strategic Flood Risk Assessment (SFRA), prepared to inform the CDP, much of the proposed Clonaslee scheme area have been assessed as at Flood Risk Zone A and B. The GSI predictive groundwater flood maps do not indicate a groundwater flood risk in the study area.

9.15.6. In relation to Clonalsee FRS Flood Model Predictions, flood maps were derived from the Clonaslee Flood Relief Scheme modelling. For the 1% AEP model predicted flooding in the do-nothing scenario, two informal flood defences (wall on Chapel Street, embankment upstream of the ICW access bridge) act as flood defences, however these cannot be relied upon indefinitely. In this scenario the treatment cells in the ICW WWTP are not predicted to flood. An undefended 1% AEP scenario is set out in Figure 11-15, where informal defences fail. The post scheme 1% AEP scenario prediction model in figure 11-16 presents a very similar picture to the do-nothing scenario. It is noted CFRAMS models did not include structures and embankments that were not specifically designed as flood defences.

9.15.7. Approx. 72 residential and 2 commercial properties have been identified at flood risk. The main cause of flooding is prolonged heavy rainfall in the upper Clodiagh River catchment coupled with inadequate capacity of the river channels. Blockages in the river by debris accumulated at the existing bridge and at Clonaslee has also caused past flooding.

Potential Impacts

9.15.8. Do nothing

In the absence of the proposal, the current hydrological regime would not be expected to change significantly. The hydrological baseline may change due to climatological parameters.

9.15.9. Construction Stage

In relation to water quality, construction activities can contaminate surface waters.

Short-term effects on groundwater can occur through the infiltration of surface runoff. In relation to drinking water, Area 1 includes for boreholes within 6 m of the proposed embankment footprint. Groundwater quality could be impacted through polluted surface runoff entering/flowing from the construction site into boreholes.

In terms of flood risk, there is a possibility a flood will occur during construction, and measures will need to be in place to ensure Chapel St wall does not become more vulnerable to breaching. Measures include choosing a design that does not involve removing the existing wall/any section, phasing, use of temporary flood defence measures. Construction of the debris trap will also be vulnerable to flood events, and this will be managed by weather monitoring, timing of works, management of flow through the works via gravity flow routes. In the absence of mitigation, the effect will be imperceptible.

In relation to impacts on hydromorphology, instream works will be required to facilitate construction of the debris trap in Area 1.

9.15.10. Operational Stage

In terms of water quality, a reduction in urban flooding will occur and have a positive impact on water quality. Removing debris will reduce the risk of sediment build up, and water quality degradation. No negative impacts on drinking water are expected to occur.

In relation to flood risk, positive impacts are expected, which will benefit properties, material assets. It is outlined negative effects can also arise, and the proposal is designed to eliminate potential upstream and downstream effects, and the effect will be of profound positive significance.

In terms of hydromorphology impacts, the potential for scour and erosion may increase due to increased flow velocities and flow patterns.

In terms of WFD Considerations, a WFD Compliance Report was carried out, and the assessment concludes the proposal will not cause a deterioration of status in any water body, nor will it compromise the attainment of good status where necessary. The proposal is therefore compliant with WFD Article 4(1) objectives, and advances the purpose of the WFD by contributing to mitigating flood effects as per Article 1(e).

9.15.11. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.15.12. Cumulative Effects

Cumulative Effects are set out in Chapter 18. It is outlined with mitigation, residual effects would be not significant.

Mitigation Measures

Construction Phase

9.15.13. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP with an Environmental Clerk of Works (ECoW) employed for the duration of the scheme. Mitigation will include water protection controls, timing of instream works, best practice adherence to CIRIA publications and IFI guidelines.

Operational Phase

9.15.14. An Operation and Maintenance Plan (OMP) will be prepared and include an inspection and maintenance procedure of flood defence infrastructure.

Residual Impacts

9.15.15. For water quality, during construction the residual impact is considered to be significant/moderate and temporary. For flood risk the scheme will deliver significant operational benefits, with the impact on flood risk imperceptible. Predicted impacts on drinking water resources and hydromorphology are imperceptible.

Monitoring

9.15.16. Construction Phase water quality monitoring is recommended to be undertaken upstream and downstream of the proposal. At operational phase, it is expected the

OPW will continue to monitor flows, and the EPA will continue to monitor water quality. The OMP will specify an inspection regime with protocols for preparing for and responding to flood events.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.15.17. I have examined, analysed and evaluated Chapter 11 of the EIAR, all of the associated documentation and the submissions on file in respect of water. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on water, as a consequence of the development have been identified. Submissions have raised an issue in respect of water, which I address below and in the biodiversity section.

9.15.18. The EIAR outlines construction activities can contaminate water quality via uncontrolled runoff from works, dewatering, in-stream works. In relation to mitigation measures, a CEMP will be implemented. Mitigation to safeguard water quality is set out, with best practice to include adherence to CIRIA publications and IFI guidelines.

9.15.19. Having regard to the nature of the proposed works and their siting, in the absence of mitigation, I consider there is a potential for significant effects on water quality at **construction stage** by way of contaminated surface runoff from construction activities, cementitious particle and hydrocarbon contamination, dewatering, and instream works. I consider the detailed mitigation measures set out, entailing the implementation of a CEMP and an ECoW being present onsite, would serve to mitigate these potential effects. In addition, as outlined in Section 10.16 Land, Soils of this report, mitigation for Area 1 instream works includes water management measures, a construction methodology, sediment treatment measures. It is also outlined instream works will be restricted to appropriate seasonal windows (1st July to 30th September), following consultation with IFI.

9.15.20. Uisce Éireann have raised concerns on the proposals impact on public drinking water source/infrastructure boreholes in Area 1. While there is a potential for effects on drinking water boreholes at construction stage in the absence of mitigation, I consider the application of the aforementioned measures, and the

installation of protective fencing and bunding of areas around boreholes at Area 1 would serve to mitigate potential effects. I am satisfied that these practices and measures would minimise surface water contamination arising in waters and receiving waters. The implementation of these measures can be addressed by way of condition in any approval. UE also outlined as the information in the EIAR conflicts with UE's mapping of wells at this location, which show only decommissioned/out of service wells at the WTP site, and requested information with confirmation of the active supply boreholes in the vicinity of Area 1, and the structural integrity of these and inactive boreholes at this location. The applicant in their response to submissions has outlined that the locations of the UE infrastructure mapping in the EIAR are based on confirmatory site visits and surveys. In relation to borehole integrity, it is outlined the proposal allows for the surveyed boreholes to remain in their current condition, by avoiding any interference, and prior to the commencement of ground works, asset condition surveys will be undertaken. This issue is further addressed in the Material Assets Section of this report.

9.15.21. Given the proposals site location, there is the potential for flood risk arising at construction stage. The design of the scheme will not involve the removal of the Chapel Street wall which acts as an informal flood defence, and the phasing of works will ensure the wall is not exposed for a prolonged period of time. Works at this area will be carried out during low water level periods, and temporary flood measures will apply. Mitigation will also include for checking water levels and developing an emergency response and evacuation procedure. With the implementation of these measures, the potential for flood risk at construction stage would be per the existing situation, and significant effects are unlikely.

9.15.22. There is the potential for impacts to arise on hydromorphology, given instream works are proposed at Area 1. Mitigation measures will including a sediment control system, a CEMP, and the application of erosion controls which are considered in Section 15.16 (land, soils) of this report. Given the construction methodology and mitigation outlined, and the short-term nature and extent of the works, I am satisfied that no significant effect is likely to arise on the river system, subject to the implementation of mitigation measures.

9.15.23. I note the EIAR outlines for water quality, during construction the residual impact is considered to be significant/moderate and temporary. I note that the construction works are temporary in nature, and I am satisfied that the mitigation measures as set out are robust and capable of being successfully implemented. The measures align with best practice and would ensure the potential for significant effects on the water environment would be mitigated.

9.15.24. At **operational stage**, a reduction in urban flooding will occur, and it is anticipated that this will have a positive impact on water quality. With drainage installed in the area of abstraction, no effects on drinking water are anticipated. With the implementation of design measures to limit scouring, including a roughened finish to the debris trap concrete base and application of an Operation and Maintenance Plan (OMP), significant hydro morphological effects are not anticipated to arise. With the application of the OMP, effects from the proposal are anticipated to be imperceptible/positive. On the basis of the information submitted, the limited extent of instream works proposed, and the design, mitigation and management measures outlined, I consider significant hydro morphological effects arising unlikely.

Flood Risk

9.15.25. In terms of flood risk, the site is at risk of fluvial flooding with the site falling within 1% AEP fluvial flood extent (1 in 100 chance in any given year) as outlined in CFRAMs. Having regard to The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009), the proposed development consisting of flood control infrastructure is a water compatible development, which is appropriate within flood zones A-C. The proposed development site is partially zoned within the village in the CDP, and located within Zone A and B for risk of flooding.

9.15.26. The EIAR outlines for flood risk, positive impacts are expected, as the objective is to protect communities from flooding, and this will benefit properties and material assets. It is outlined however, negative effects can also arise, as a watercourse can become more restricted in defended areas, which potentially increases the flood risk downstream due to loss of upstream flood storage and increased conveyance. Works that alter a watercourse route/its degree of culverting may increase upstream and downstream flood risk by altering the existing hydrological

regime by increasing the risk of blockages. The EIAR outlines there is no increase in flood risks to lands and properties post construction stage, with maintenance of the debris trap however being required. It is outlined the proposal is designed to eliminate potential upstream and downstream effects, and the effect will be of profound positive significance.

9.15.27. The effect of the FRS is detailed in the Flood Model Predictions submitted. The FRS will replace two informal flood defences, namely the Chapel Street Wall, and an embankment upstream of the ICW access bridge, with formal defences. A debris trap will also be installed in area 3 to prevent blockages at the bridge in Clonaslee. Given the extent and nature of the works, and the existing situation onsite, the post scheme flood model (Figure 11-16) presents a very similar picture to the do-nothing scenario (Fig.11-4 - 1% AEP model predicted flooding in present day). However, the proposal will upgrade the existing defences, which are unreliable, and ensure their integrity into the future.

9.15.28. In addition, I note the hydraulic data analysis outlined in Appendix 2 of the WFD report which outlines in assessing potential impacts on the hydraulic environment, baseline and post-scheme values for two hydraulic parameters were examined: channel velocity (m/s) and froude number (which is a descriptor of the flow environment of a river calculated as a function of depth and velocity). For Area 1 (Brittas Wood) it is outlined except for the highly localised effect at the debris trap, there are either no changes or insignificant changes between baseline and post-scheme modelled velocity and froude number at 50%AEP and 1%AEP flood events. For Areas 2 and 3, it is outlined there are insignificant differences in velocity and froude number for both flood scenarios.

9.15.29. Having regard to the details submitted, the sites location in Flood Zone A, its category as water compatible development, its flood protection measures set out, and that it has been demonstrated that the proposed development would not increase the flood risk upstream/downstream, with the FRS replicating the existing situation onsite in terms of flood defences, as evidenced in the flood prediction model mapping, I am satisfied that the proposed development is appropriate from a flood defence and flood risk perspective. This is subject to mitigation and monitoring measures including for scheme maintenance, which can be addressed by way of condition.

9.15.30. Uisce Éireann have raised concerns on the risk of flooding to infrastructure assets, including the flooding of borehole sites in Area 1, and requested the EIAR address the risk of flooding and surface water overtopping due to design underestimation, and potential impacts on drinking water sources at this location. UE also outline if flood waters were to flow over through to the existing Wastewater Treatment Plant in Area 3, this could make the plant inoperable leading to pollution of the river Clodiagh. It is requested that the proposed defence wall be amended go the full length of the ICW adjacent to the river and wrap around southern end by at least 15 meters, with the height of the wall amended to match the height or be higher than the proposed embankment.

9.15.31. In relation to the risk of flooding at Area 1, the applicant in their response to submissions outlines the proposal is designed to retain flood water levels for the 1% Annual Exceedance Probability (AEP) fluvial event, with embankments provided with 500mm freeboard i.e. the top level will be 500mm above the predicted 1% AEP flood level. It is outlined the Area 1 embankment is designed for a situation where the debris trap is substantially blocked. Furthermore, model runs were completed to assess Climate Change scenarios where peak flows were increased by 30%, and in this high-flow scenario there remained 0.23m freeboard on the embankment. It is outlined the design adequately mitigates against the risk of abstraction boreholes being compromised by floodwater, with the embankment providing flood protection to boreholes which is not present. In relation to the ICW, it is outlined the riverbank and ground levels on the ICW side of the river are sufficiently high to provide protection, and the flood embankment on the other side of the river is not increasing the flood risk to the ICW. It is outlined consultation with UÉ will be undertaken during the pre-construction design stage and the construction phase.

9.15.32. Having regard to the details submitted and the applicants response to submissions, I am satisfied that sufficient detail has been provided, and that the measures undertaken in the schemes design enable for the safeguarding of the environment, and it is also considered that the FRS will not increase flood risk in the area/upstream/downstream.

WFD Assessment

9.15.33. In terms of WFD, the Clodiagh (Tullamore)_010 and the Gorragh_010 rivers are within the study area, with the Clodiagh (Tullamore)_020 to the north of the application site. In terms of WFD status, the Clodiagh (Tullamore)_010, and Clodiagh (Tullamore)_020 are assigned as 'good' status and 'not at risk' in the WFD waterbody Status 2016-2021, while the Gorragh_010 is assigned as "'good' and 'at risk'. Two groundwater bodies underlay the study area, Clonaslee West GWB and the Geashill GWB. WFD Groundwater body status 2016-2021 is 'good' and 'not at risk' for both groundwater bodies.

9.15.34. In terms of WFD considerations, a WFD Compliance Report was carried out by RPS (October 2024) as part of the EIAR. This is supported by Appendix 1- Model Predicted Flood Extents, and Appendix 2 – Hydraulic Data Analysis. Given the submission of a WFD Assessment Report, entailing an Article 4(7) Applicability Assessment, and with the application accompanied by an EIAR, the proposal screens in for a WFD Status Impact Assessment. The WFD Report outlines the proposal includes instream works at Area 1, with modifications at Area 2 restricted to landside, and modification at Area 3 works not requiring interference with the channel/bank face.

9.15.35. In terms of the effects of modifications from the debris trap at Area 1 at the Clodiagh(Tullamore)_010, from an analysis of hydraulic modelling, it is outlined the effect is very localised - there is no post scheme change relative to baseline within approximately 10m upstream or downstream of the structure. Apart from this effect there no change to the hydraulic regime throughout the rest of Area 1, and imperceptible to no change in Areas 2 and 3. It is outlined with mitigation to ensure roughness in the scour protection at the debris trap, plus reinstatement of bed substrates, there will be no long-term significant changes to hydromorphology that could impinge on biological quality elements or supporting physico-chemical elements that define water body status. It is outlined good surface water body status will be maintained in Clodiagh (Tullamore)_010. In this case, the connected downstream waterbody Clodiagh (Tullamore)_020 is scoped out as there is no risk that its status could deteriorate or 'good' status could be prevented. However, as the Gorragh_010 receives flood water from the Clodiagh, it is scoped in. The waterbody is a High Status Objective (Biological Quality Element) for WFD purposes. It is outlined as there is no change between the baseline and post-

scheme scenarios in terms of flood overflow contribution to the lower Gorragh, there is no evidence of cause for status deterioration in the future. In terms of the GWB Clonaslee West [IE_SH_G_066], and Geashill [IE_SH_G_103], it is outlined with EIAR mitigations implemented for surface water quality protection, the residual effect will be neutral, and 'Good' status will be maintained. There will be no operational phase changes to overlying surface water quantity/quality.

9.15.36. The assessment concludes the proposal by design and mitigations implemented as prescribed in the EIAR and CEMP will not cause deterioration of status in any water body overall or at individual quality element level, is compliant with WFD Article 4(1) objectives, does not require Article 4(7) derogation, and can be authorised under the WFD. Table 3-7 includes a Summary of WFD Compliance Tests.

Table 3.7

EPA Water body (EPA Code)	Water body type	Deterioration of status?	Prevention of good status?	Does the proposed scheme ensure compliance with WFD Article 4(1) objectives for this water body?
CLODIAGH (TULLAMORE)_010 IE_SH_25C060220	River	No	No	Yes
Geashill IE_SH_G_103	Ground	No	No	Yes
Clonaslee West IE_SH_G_066	Ground	No	No	Yes
GORRAGH_010 IE_SH_25G090300	River	No	No	Yes
OVERALL WFD ASSESSMENT RECOMMENDATION		The project can technically be authorized under the WFD as it does not compromise Article 4(1) objectives.		

9.15.37. I note mitigation at Area 1 includes for bankside scour protection, which will be agreed with Inland Fisheries Ireland in advance. Taking into account the details submitted in the WFD report, including its appendices, I am of the view the proposed development, subject to the implementation of EIAR mitigation measures, including those set out to safeguard surface water, groundwater and biodiversity, complies with WFD Objectives. I conclude that on the basis of objective information, that the proposed development will not result in a risk of deterioration on any water body (rivers, lakes, groundwaters, transitional and

coastal) either qualitatively or quantitatively or on a temporary or permanent basis or otherwise jeopardise any water body in reaching its WFD objectives, and consequently can be excluded from further assessment/Article 4(7) derogation process.

9.15.38. Having regard to the above, and the nature of the proposed development, I consider the operational phase will have positive impacts, and no significant negative impacts.

9.15.39. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant cumulative effects arising on water unlikely. Cumulative effects arising at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.15.40. I have considered the written submissions in relation to water. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would give rise to significant positive effects by way of flood protection, and would not give rise to significant direct, indirect or cumulative effects on water, subject to the implementation of mitigation measures. To ensure any potential water effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.16. **Material Assets – Waste and Utilities**

Issues Raised

9.16.1. Uisce Éireann have raised concerns on the impact on public drinking water source/infrastructure boreholes; risk of flooding to Uisce Éireann infrastructure (Area 1) and (Area 3); proposals intrusion onto UÉ infrastructure (Area 3); proposals build over and diversion of UE assets. Issues in relation to flooding, public drinking water boreholes, and the ICW are addressed in the Water section of this report.

Examination of EIAR

9.16.2. Chapter 15 of the EIAR deals with Material Assets – Waste and Utilities. Supporting appendices include: Appendix 15.1: Waste Management Plan. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, commercial companies, a site survey. The Zone of Influence includes the proposal site and area extending 500m from the site boundary. The ZoI in terms of waste generation and treatment is the Eastern-Midland Waste Region. No limitations are identified and are not evident in the assessment.

Baseline

9.16.3. A Ground Penetrating Radar (GPR) survey was conducted in April 2024 to confirm services existing. Utilities are identified within/adjacent to the site footprint. Power infrastructure includes for overhead lines above Area 1 and Area 2, with an overhead line just to the north of Area 3. The water supply for Tullamore is sourced in Brittas Wood, with abstraction boreholes and raw water pipes located within the works area for the proposed embankment in Area 1. Three watermains run parallel to the wood path, with depths ranging from 0.60 m - 0.80 m. These watermains are within the ZOI of works Area 2, with the trunk watermain for Tullamore within Area 3. The foul sewer network is located within Areas 2 and 3. Telecommunication services are located along/within Areas 2 and 3. Licenced waste facilities within 30km of the proposal include integrated waste management, soil recovery, waste transfer, and landfill facilities.

Potential Effects

9.16.4. Do nothing

Should the proposal not proceed, conditions relating to material assets identified within the ZoI will continue in line with baseline trends.

9.16.5. Construction Phase

Potential impacts on utilities include interruptions and diversions of built services, obstruction to communication assets, possible damage to utility assets. Effects would be slight/moderate significance in relation to water supply, and slight and imperceptible/slight in relation to all other services. In terms of waste management,

materials will be sent to licensed facilities/recycled/recovered. Excavated materials will be reused onsite, used as a by-product, and recovered at waste facilities.

9.16.6. Operational Phase

Impacts to utilities are not anticipated. Waste hierarchy principles will be implemented to ensure the circular economy approach is supported.

9.16.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.16.8. Cumulative Effects

Cumulative Effects are set out in Chapter 18. As permitted developments in the vicinity are already granted, it is likely these developments are already built and / or won't have a temporal overlap between the construction phases. There will be no significant cumulative effects arising.

Mitigation Measures

Construction Stage

9.16.9. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP. Measures also include services being identified before works commence; enabling works programmed to maintain connections/minimise downtimes; consultation undertaken with service providers; notice given for diversions; diversion works delivered through service provider; A preliminary Waste Management Plan (WMP) being implemented.

Operational Phase

9.16.10. Impacts to utilities are not anticipated. Waste hierarchy principles shall be implemented. No mitigation measures above best practise measures are proposed.

Residual Impacts

9.16.11. Effects during construction are expected to be short term and imperceptible for utilities, with the residual effect of the operational phase predicted to have a slight positive effect. Residual effects of waste during construction and operation are expected to be imperceptible.

Monitoring

9.16.12. For construction stage monitoring, construction best practice will be followed, and daily visual checks will be carried out. Monitoring of waste will be undertaken at construction and operational stages.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.16.13. I have examined, analysed and evaluated Chapter 15 of the EIAR, all of the associated documentation and the submission on file in respect of material assets, waste and utilities. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on material assets, waste and utilities, as a consequence of the development have been identified. A submission has raised an issue in respect of material assets, waste and utilities, which I address below.

9.16.14. At **construction stage,** the EIAR outlines potential impacts on utilities include interruptions and diversions of built services, obstruction to communication assets, possible damage to utility assets. Details of materials/wastes arising from the scheme are also outlined**.** In relation to utilities, mitigation measures include for existing services being identified prior to excavation commencing, and consultation being undertaken with service providers. It is outlined diversion works shall be delivered through the appropriate service provider. A Waste Management Plan (WMP) shall also be implemented, with materials/wastes arising being sent to licensed facilities, where they are not reused onsite. Subject to the implementation of mitigation measures outlined, which can be addressed by way of condition, I am satisfied that no significant effects are likely to arise on utilities or by way of waste at the construction stage.

9.16.15. At the **operational stage,** impacts to utilities at operation stage are not anticipated, and best practise waste hierarchy principles are to be implemented. Subject to best practise measures being implemented in relation to the treatment of waste, I am satisfied that no significant effects are likely to arise at the operational stage.

9.16.16. Uisce Éireann have raised concerns in relation to the proposals impacts on public drinking water infrastructure (Area 1), and the impact of the proposal's intrusion onto UÉ infrastructure (Area 3) and settlement ponds and treatment pond no.1.

Concerns are also outlined on the proposals build over and diversion of the trunk watermain that supplies Tullamore, with no engagement sought in relation to this proposal. UE requested confirmation of active supply boreholes at Area 1 and the structural integrity of these and inactive boreholes, that the proposed temporary works be amended to not intrude onto UÉ infrastructure, and that a diversion enquiry be lodged to UE with confirmation of feasibility obtained for the proposed build over and diversions of Uisce Eireann's assets.

9.16.17. The applicant in their response to submissions has outlined the EIAR cites GSI data as a source for abstraction points in Area 1, and that the locations of the UE infrastructure mapping in the EIAR are based on confirmatory site visits and surveys. In relation to borehole integrity, it is outlined the proposal allows for the surveyed boreholes to remain in their current condition, by avoiding any interference during construction/operation. In addition, prior to the commencement of ground works, pre and post-construction asset condition surveys will be undertaken, incorporating UE abstraction points, with consultation undertaken with utility providers. The EIAR also commits to monitoring the borehole water quality prior to, during and post construction. In relation to intrusion on assets at Area 3, the applicant outlines the intention is not to extend excavation works beyond the kerb line of the access road when working adjacent to the ICW settlement ponds, with signage and fencing to be erected at the boundary between the construction work zones and the ponds. In relation to diversion enquiries, the applicant outlines the project team will engage with UE via their Connection and Developer Services department during the project lifecycle, with this approach agreed with UE during consultation.

9.16.18. Having regard to the measures outlined the EIAR and the applicant’s response to submissions, I am of the view that significant effects on material assets would not arise. The proposal will avoid interference with boreholes, and I note that protective fencing around boreholes will be in place at the construction stage. Mitigation will also include for existing services being confirmed prior to construction. I further note that the proposed FRS would also enable for the protection of boreholes in Area 1 at operational stage. Appropriate signage and fencing will be incorporated in order to safeguard assets in Area 3, and having regard to the siting of the proposal, and the employment of safe digging techniques in the vicinity of known

utilities, I consider negative/significant effects on the ICW unlikely. I also note the EIAR makes provision for consultation being undertaken with service providers, with diversion works being delivered through the appropriate service providers. I consider any proposed build over/diversions of assets can be addressed by way of consultation/diversion enquiries to relevant service providers, which would address issues in relation to the siting of the scheme in relation to water supplies. The potential for any negative effects arising would be mitigated by measures outlined in the EIAR, and these can be addressed by way of condition in the event of an approval. UE also outline the defence wall at the ICW should be stone faced in keeping with the entrance to the plant. Given its height and siting, I consider a concrete flood defence wall would be acceptable at this location from a visual perspective.

9.16.19. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant cumulative effects arising on utilities, or by way waste, unlikely. Cumulative effects arising at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.16.20. I have considered the written submission in relation to material assets. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to negative or significant direct, indirect or cumulative effects on material assets, subject to the implementation of mitigation measures. To ensure any potential effects on material assets are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.17. Biodiversity

Issues Raised

9.17.1. IFI have outlined concerns and recommendations in relation to the proposal relating to the protection of the aquatic resource and associated riparian habitat. It

is outlined the Clodiagh river is a very important salmonid river. Concerns are outlined on the lack of debris trap design, and that the loss of spawning habitat should be avoided. Recommendations include for scheme maintenance, monitoring, design and riverbed material treatments.

It is further set out the decision to not proceed with weir removal in the scheme represents a missed opportunity, given the EU 2030 Biodiversity Strategy and that weir removal will improve the WFD hydrometric status of the channel and represent a biodiversity net gain for the project. It is outlined IFI barrier assessment shows that the structures in the Brittas Wood area are high/moderate barriers to different life stages of salmonids. Issues in relation to weir removal are addressed in the planning assessment section of this report.

Examination of EIAR

9.17.2. Chapter 9 of the EIAR deals with Biodiversity. Supporting appendices include: Appendix 9.1: Valuation of IEFs, Appendix 9.2: Desk Study Results, Appendix 9.3: Photographs, Appendix 9.4 Crayfish Survey Results 2023, Appendix 9.5 Bat Roost Assessment, Appendix 9.6: Biodiversity Management and Enhancement Plan. The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, desk study, site surveys. The Zone of Influence for ecological features is set out in 9-1, with the ZoI varying for different features. Data limitations are set out in relation to habitat surveys, bat and badger data collection, ground level bat roost assessment, with limitations acknowledged and it is stated these are deemed to not affect the certainty or predictability of the assessment. Given the details submitted, I consider that the limitations set out would not prevent from the drawing of robust conclusions in my assessment.

Baseline

9.17.3. The proposal is located within Clonaslee Village, with the confluence of the Clodiagh River and Gorragh Rivers which pass through the village, c.1.5km to the north. The Clodiagh merges with the Tullamore River to the north, and joins the River Brosna southwest of Clara, which flows southwest and merges with the River Shannon near Shannon Harbour. With the exception of Brittas Wood, the primary landuse within the scheme environs is agricultural land and urban areas. Mature

trees occur along the banks of the Clodiagh River, with property/field boundaries comprising hedgerows, treelines and strips of linear scrub/woodland. An Integrated Constructed Wetland is located to the north of the village.

9.17.4. There are 20 designated European sites within a potential/theoretical ZoI. There are 8 no. NHAs/pNHAs within a potential ZoI, which include pNHAs Slieve Bloom Mountains, and Charleville Wood. The Slieve Bloom Mountains Ramsar Site (335) and the Slieve Bloom Mountains Nature Reserve are located c. 4km and 5km southwest of the proposed scheme, respectively.

Habitats and Flora

9.17.5. Habitats identified within areas surveyed for the proposal are of local importance (lower value) and include improved agricultural grassland, amenity grassland, mixed broadleaved woodland, scattered trees and parkland, hedgerow, treelines, scrub, stone walls and other stonework, buildings and artificial surfaces, eroding/upland rivers, reed and large sedge swamp. The nearest Annex I habitat is dry heath habitat c.1km southeast of the site, with alluvial forests c.14km downstream. Japanese knotweed and hybrid knotweed were recorded within Area 2.

Fauna

9.17.6. Using the NBDC Biodiversity Maps tool, the proposal area has a **bat** habitat suitability index of 33.67 for all bat species combined. In a preliminary roost assessment survey, 2 trees of 60 were considered to potentially support multiple bats (PRF-M), with 3 no. considered to potentially support individual bats (PRF-I). From inspections, a tree (16) had no suitability to support bats, and bats did not emerge from trees in emergence surveys. In surveys bat species were recorded commuting and foraging in the area. In bat activity static surveys carried out in 2021 and 2023, 6 bat species were recorded (common pipistrelle, soprano pipistrelle, Leisler's bat, Daubenton's bat, whiskered bat (Myotis mystacinus) and brown long-eared bat and two species groups (Myotis and Pipistrellus)) along the main channel of the River Clodiagh, with 2,984 passes recorded in 2023, as detailed in Tables 9-16, 9-17.

9.17.7. In **otter** surveys undertaken in 2021, otter spraints and potential resting places (couches and a holt) were recorded. No evidence of otter was observed in a 2023

survey. In a 2024 survey a single spraint was recorded within Area 1. In the field survey, evidence of badger was not found within 50 m of the proposal site. In surveys, evidence of **pine marten** was found northwest of Scarroon, with sightings of **deer** near Brittas Wood. **Mink** was also recorded on site visits. No records of **amphibians or reptiles** were made. **Invertebrates** on the NBDC records within 5km do not intersect within the proposal area.

Ornithology

9.17.8. In terms of **ornithology**, NBDC records returned a total of 96 bird species within the study area, including red-listed, amber-listed and Annex I species, including **hen harrier**. 3 species associated with river habitat were identified in surveys, including **grey wagtail, dipper** and **kingfisher**. Table 9-19 includes for incidental observations of bird species recorded in 2021-2023.

Aquatic Environment

9.17.9. In terms of WFD, the Clodiagh does not have a high-status objective under the WFD, with the River Gorragh having a high-status objective. The Clodiagh River is relatively small (c. 5-6 m width), and **Habitat** surveys outline the river has been historically modified with straightening evident. Upstream and downstream of Clonaslee bridge, riffle/glide/pool sequences are common along with boulders. It is possible the river has affinities to the upland aspect of Annex I floating river vegetation habitat (3260). Upstream of Clonaslee bridge bank height was c. 1.5 m, wetted and bankfull width was recorded at c. 5.4 m, and water depth was c. 0.15 m. At the debris trap location, substrate was quite coarse, with cobble, coarse gravel, boulder, fine gravel and sand recorded. Left bank height was 1.5 m and 1 m at the right bank. The Brittas Stream, which is culverted under a gravel path, flows into the River Clodiagh immediately downstream of the proposed debris trap. The stream was dry when surveyed in June 2024.

9.17.10. The River Clodiagh supports optimal habitat for **salmonids, lamprey, eel, crayfish.** The Brittas Stream does not support optimal habitat for these species. Dead crayfish were found in the River Clodiagh in surveys in 2021, with none observed in 2023 surveys, likely due to crayfish plague in 2021. **Macroinvertebrate** surveys undertaken recorded 16 macroinvertebrate taxa within

the river, and a Q-value score of Q4-5 (high Q-value status) was inferred based on its community structure.

Potential Effects

9.17.11. Do Nothing Scenario

The Water Action Plan 2024 will continue to be implemented to improve water quality. Flooding will continue to affect areas identified to be at risk.

9.17.12. Construction Phase

Terrestrial Ecology and Designated Sites - An assessment on effects on designated European Sites and NHA/pNHAs is outlined. An assessment of the effects of the proposal on European Sites is outlined in section 10 of my report. The proposal will result in woodland, tree and hedgerow loss, including 16 trees, and habitat loss is considered to be not significant. The effects of indirect damage to canopy and roots of trees and shrubs are considered to be significant. Accidental spillage, spread of invasive species has a potential to result in significant effects. There is a risk of downstream pollution and spread of invasive species to NHA/pNHAs.

Otter-There is a potential for effects on **otter** due to noise, vibration, human presence, lighting, habitat deterioration, impacts on the foraging resource.

Bats-Effects of habitat fragmentation on **bats** are not expected to be significant. Adverse effects on water could cause significant effects on bat species dependent on the aerial life-stage of aquatic invertebrates. The loss of 3 trees with the potential to support individual bats is unlikely to impact on local bats, given their limited ability to support roosting bats. Artificial lighting could give rise to significant effects on commuting, foraging and roosting bats.

Birds-In relation to birds, given the habitats onsite, no significant effects on **hen harrier** are anticipated. Works will not result in the loss of any **kingfisher** nesting habitat. Contaminant losses to watercourses could cause significant effects on bird species dependent on aquatic macroinvertebrates or fish. The effects of site clearance being undertaken during the breeding bird season are considered significant.

Desmoulins whorl snail - There is a risk of downstream pollution affecting this species by way of siltation/hydrocarbons.

Aquatic Ecology-Given the small extent of riparian habitat loss, significant effects on hydro morphology and aquatic fauna are not anticipated. Given the localised extent of instream works and proposal design, significant effects on instream habitat and aquatic fauna are not anticipated. It is outlined instream works could block fish migration, and there is also a potential for direct mortality of fish within temporary dry areas. There is a potential for negative effects on instream habitat and fauna and water quality deterioration due to water contamination at the works stage from siltation, concrete pouring, accidental concrete spill and hydrocarbons. In terms of hydrological regime changes, significant effects could arise on aquatic fauna if water levels dropped to low levels from dewatering activity. Construction activities could lead to the spread of invasive spices or pathogens (crayfish plague).

9.17.13. Operational Phase

Designated Sites, Otters, Bats - The reduction in urban flooding at operational phase could result in a positive effect on water quality. The reinstatement of operational phase lighting could affect bats and otter.

Hydromorphology, Habitats - Significant effects on hydraulic conditions, instream habitat and aquatic biota are not anticipated. The debris trap could lead to localised scouring of the river bed, and would result in a very minor loss of salmonid habitat. The maintenance of Brittas Stream culvert inlet and debris trap could release sediment built up resulting in water quality and habitat degradation. Maintenance activities could result in the spread of crayfish plague.

In terms of habitat fragmentation, debris accumulations at the debris trap could act as a barrier to salmonids, lamprey. Debris trap scouring could lead to the creation of migration barrier.

9.17.14. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.17.15. Cumulative Effects

Cumulative Effects are set out in Chapter 18. As permitted developments in the vicinity are already granted, it is likely these developments are already built and / or

won't have a temporal overlap between the construction phases. Mitigation measures for the proposal will address any potential effects from the scheme itself, therefore there is no likelihood for cumulative effects.

Mitigation Measures

Construction Phase

9.17.16. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP and an Ecological Clerk of Works (EcOW) will supervise works. Pre-construction surveys will be carried out for otter, bats, badger, kingfisher, breeding birds, invasive alien plant species (IAPS). An invasive alien species avoidance and management plan will also be prepared. An Environmental Emergency Response plan with a spill response will also be prepared.

9.17.17. Mitigation for terrestrial ecology and designated sites incudes: For habitat**:** root protection measures; Biodiversity Management and Enhancement Plan (BEMP); water quality protection measures; IAPS measures. For Otter: water quality protection measures; lighting design measures: For IAPS: An avoidance and management plan; For Birds**:** vegetation removal to be completed outside of breeding season; water quality protection measures; For bats: Lighting design measures, water quality protection measures; pre construction surveys; soft felling technique for trees.

9.17.18. Mitigation for aquatic ecology includes: preparation of detailed method statement for works within/adjacent watercourse; Water quality protection measures set out in Chapters 11 (water) and 10 (land, soil, hydrogeology); measures for water management, chemicals, instream works, river margin and channel reinstatement measures, debris trap and slipway design, biosecurity.

Operational Phase

9.17.19. Mitigation will include: biosecurity measures; lighting to comply with best practice guidance; accumulated debris to be removed from debris trap and culvert, debris treatments; aquatic ecology measures including consultation with IFI at design stage for enhancement measures, Brittas stream culvert design.

Monitoring

Construction phase

9.17.20. For terrestrial ecology, monitoring will be carried out by the EcOW in relation to mitigation measures integrity checks, site clearance and IAPs management. For aquatic ecology, the EcOW shall undertake water turbidity, hydrocarbon sheen, weather, water level, and mitigation measures integrity checks monitoring.

Operation phase

9.17.21. Terrestrial ecology monitoring will be undertaken on replacement planting, BMEP effectiveness, and IAPS regrowth. Aquatic ecology monitoring includes monitoring of water quality, scour and erosion (months 1 post completion), debris trap (months 1-3 post completion), following flood events.

Residual Impacts

9.17.22. Residual construction and operational phase effects are predicted to be not significant.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.17.23. I have examined, analysed and evaluated Chapter 9 of the EIAR, all of the associated documentation and the submission on file in respect of biodiversity. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on biodiversity, as a consequence of the development have been identified. A submission has raised an issue in respect of biodiversity, which I address below.

Construction Stage

Terrestrial Habitats

9.17.24. In terms of terrestrial habitats, at the **construction stage** there will be the permanent small-scale loss of mixed broadleaved woodland habitat entailing 10 trees in Area 1 Brittas Wood, with 4 trees and a length of hedgerow (30m length) removed in Area 2, with limited vegetation removal in Area 3. While I note the extent of woodland removal in Brittas wood is irreversible, given the proposed extent of the tree removal and its location, I consider significant effects by way of habitat loss and fragmentation within the woodland unlikely. Mitigation measures includes fencing of existing trees and the use of root protection areas to safeguard

existing trees/shrubs, and I further note habitat reinstatement measures set out in the Biodiversity Management and Enhancement Plan includes for replacement tree planting in Area 1, and replacement tree and hedgerow planting in Areas 2 and 3, with existing vegetation in Area 2 not being species rich. There is also a potential for woodland habitat degradation by way of pollution spillage, and the spread of invasive species from works in Area 2. Mitigation measures set out include for a CEMP with works being supervised by an EcOW, a spill response plan and an invasive alien species avoidance and management plan. Subject to the implementation of the outlined mitigation measures, I consider that significant effects on terrestrial habitats would not arise from the scheme. I note the permanent small-scale loss of habitat within Area 1 is within the Slieve Bloom Mountains SPA. European Sites are addressed in Section 10.

9.17.25. The EIAR also outlines there is a risk of habitat degradation to downstream NHA/pNHAs and alluvial forests by way of siltation/hydrocarbons entering the river and spread of invasive species. Subject to the implementation of the outlined mitigation measures including those for the protection of water quality, which are also outlined in Chapter 10 (water) and 11 (land, soils), I consider that significant effects on downstream habitats would not arise. As outlined an Invasive Alien Species Management Plan is to be prepared and this is addressed below.

Aquatic Habitat

9.17.26. In terms of aquatic habitat, the proposed debris trap and slipway in Area 1 will result in loss of riparian habitat 10 metres upstream and downstream of the debris trap, an area of 20.5 m2 and 5 trees. Reinstatement of damaged riverbanks and margins will include for erosion protection measures entailing soft and hard engineering solutions (riprap, willow spiling) for the river margins, and I note it is IFI's preference that any bank revetment or erosion protection is of soft engineering. The applicant in their response to submissions outlines erosion design will be agreed with IFI. 32 no. trees will also be removed in Area 2 to facilitate development works. Replanting is proposed at locations, and where this is not possible, it is outlined that the majority of trees are non-native species. Given the limited extent of riparian bankside works and vegetative clearance proposed, and the abundance of suitable habitat within/adjoining the river system, subject to the implementation mitigation measures including those for replanting and erosion

protection measures which can be agreed with IFI, I consider that significant effects on riparian habitats or aquatic species would not arise. These issues can be addressed by way of condition in any approval.

9.17.27. The proposed debris trap will give rise to the loss of instream habitat at Area 1. I note the extent of the habitat loss will be limited in area given the dimensions of the debris trap foundation (5.55 m x 1.75 m x 1 m (L x W x D)). The trap will include for a concrete base set 500mm below the riverbed level, with bed and bankside scour protection proposed, the design of which is stated will be discussed by the applicant with IFI. I note that the design of the debris trap and mitigation will allow for the reinstatement of riverbed material at this location, and other than at the location of the debris poles, the loss of instream habitat would be limited in extent. I note IFI have outlined that all riverbed material must be graded, cleaned and stockpiled for return to the river after works completion, and given the serious decline in salmon stocks and the loss of high-status waters throughout the catchment, any loss of spawning habitat should be avoided. The applicant in their response to submissions has noted IFIs requirements on riverbed material, and I consider this issue can be addressed by way of condition in any approval. The applicant has also outlined the timing of instream works will be limited to the period 1st July to 30th September.

9.17.28. IFI also has concerns on the lack of a detailed design for the debris trap and that it is difficult to make a full assessment of the potential impact during construction and operation. It is outlined while hydraulic analysis shows minimal impact of scour, there is no detail on the structure's efficacy. Consideration of debris trap design, and its effects on spawning habitat, is addressed under Operation Stage below.

9.17.29. Having regard to the nature of the development and the limited extent of the works, and on the basis of the information submitted, subject to the implementation of mitigation measures including those for riverbed reinstatement, replanting, and the erosion protection and debris trap design being agreed with IFI, which can be addressed by way of condition, I consider that significant effects on riparian and aquatic habitats, and aquatic species by way of works, instream works, and habitat loss, would not arise.

Water Protection

9.17.30. The EIAR also outlines there is a potential for works including instream works in Area 1 to give rise to negative effects on instream habitat and water quality deterioration due to water contamination. With the implementation of mitigation measures, and the construction methodology as outlined, significant effects are not anticipated.

9.17.31. Given the nature and siting of the works, I consider a potential impact exists for the discharge of polluting substances to the river system at Area 1 and throughout the overall site including Areas 2 and 3, which would impair water quality, habitats onsite and downstream, and impact on aquatic species. Mitigation measures to safeguard water quality in accordance with industry standards are outlined. Having regard to the construction methodologies to be employed, and the extent of instream works, and subject to the implementation of the mitigation measures outlined to protect instream habitats and water quality, I consider that risks to habitats, downstream habitats, the river systems, and water quality arising from the proposed development at construction stage would be minimised. These measures are standard and well tested.

Invasive Species, Pathogens

9.17.32. The EIAR outlines construction activities could also lead to the spread of invasive species and pathogens (crayfish plague). I note Invasive species Japanese Knotweed was recorded onsite and an Invasive Alien Species Management Plan (IASMP) is to be prepared. It is outlined the plan will include measures to avoid spreading invasive species, with a treatment plan to include in-situ chemical treatment, root barrier membranes, excavations treatment. The plan will also include guidance in relation to offsite disposal, biosecurity and good hygiene measures. In addition, it is outlined crayfish plague was present in the River Clodiagh in 2021. Mitigation measures outlined include for adherence to biosecurity protocols for avoidance of spread of pathogens, entailing toolbox talks, PPE, plant and equipment disinfection measures, and visual inspections. Having regard to the presence of invasive species onsite and that crayfish plague was present in the River Clodiagh in 2021, I consider that all PPE, plant and machinery used during the works should be disinfected prior to site arrival, and also on completion of field operations or when moving from one location or waterway to another, as detailed in the outlined measures. This issue can be addressed by way of condition in any

approval. I consider the above measures set out in the EIAR are satisfactory and accord with best practice in terms of controlling the management and spread of invasive species and pathogens.

Species

Otter

9.17.33. The EIAR outlines while no holts or couches were found in surveys, otter is present in the area. Pre-construction surveys for otters will be conducted within 150 metres of the proposal, with findings determining the requirement for a derogation licence. I consider this approach is standard practice. It is outlined there is a potential for displacement effects on otter arising from construction phase activities. With construction activities occurring during daytime hours, and otters being mostly active at night, it is outlined the main source of disturbance will be from construction phase lighting. Mitigation set out includes for the use of directional lighting to works areas, designed to prevent overspill to foraging and commuting habitat. Given the timing and temporary duration of works, and the lighting controls set out, I consider that significant effects on otter by way of construction noise and lighting activities unlikely, subject to the application of the above mitigation measures.

9.17.34. Given the limited extent of the riparian area lost in Area 1, including an area of 20 sq m, and the left and right side of the bank face 10 metres upstream and downstream of the debris trap, significant effects on otter by way of habitat loss are not anticipated. Having regard to the limited area of habitat loss and the abundance of suitable habitat in the area, I concur with this view. In addition, it is outlined while works to the left bank of the river in Area 1 would restrict otter access to this area, this would be of limited and temporary duration. As otter could commute on the right bank of the river, and given the abundance of suitable foraging habitat in the area, effects on otter commuting habitat are not considered significant. Given the extent of the works area in Area 1 and their temporary nature, and that otter would be able to commute along the right bank of the river at this location during works, where woodland habitat will be retained, I consider that significant effects on otter commuting/movement unlikely.

9.17.35. Subject to the implementation of the mitigation measures set out for the protection of water quality at construction stage, I consider the proposed development would not give rise to significant effects on otter, its habitat or foraging resource by way of water quality impacts.

Bats

9.17.36. Bat surveys have recorded a presence of bat species commuting and foraging in the area. With the ecological function of the Area 1 corridor maintained, a presence of trees opposite the works area in Area 2, and that section of linear woodland in Area 3 being removed is not expected to play a vital role as an ecological corridor in the wider landscape, significant effects on bats by way of habitat fragmentation are not anticipated. While there will be a loss of foraging habitat available for bats, having regard to the extent of habitats recorded onsite, and the sites location along and within an existing river ecological corridor, I consider that the proposed development would not give rise to any significant effects on bats foraging or commuting habitat.

9.17.37. A Bat Roost Assessment (Appendix 9.5) has been carried out, and it is outlined no confirmed bat roosts were identified within the proposal site, and that the loss of 3 trees with the potential to support individual bats is unlikely to impact on local bats, given their limited ability to support roosting bats. Mitigation measures include for preconstruction surveys of trees to be felled. A soft felling technique will be employed in the removal of trees and root protection controls will apply to a tree that could support multiple bats in the future. On the basis of the information submitted, and subject to the outlined mitigation measures, I consider significant effects on bats at construction stage unlikely.

9.17.38. It is outlined that artificial lighting could give rise to significant effects on commuting, foraging and roosting bats at construction stage. Mitigation set out includes for the use of directional lighting to works areas, designed to prevent overspill to foraging and commuting habitat. Given the timing and temporary duration of works and the lighting controls set out, I consider that significant effects on bats by way of construction activities unlikely, subject to the application of the above mitigation measures.

9.17.39. The EIAR outlines that adverse effects on water could cause significant effects on bat species dependent on the aerial life-stage of aquatic invertebrates. Subject to the implementation of the mitigation measures set out for water protection, I consider the proposed development would not give rise to significant effects on bats foraging resource by way of water quality impacts.

Birds

9.17.40. In relation to birds, the EIAR outlines removal of vegetation could result in the loss of habitat for breeding and foraging birds. It is outlined given the habitats onsite and the extent of works, no significant effects on hen harrier, dipper or grey wagtail are anticipated, and works will not result in the loss of kingfisher nesting habitat. The effects of site clearance undertaken during the breeding bird season are however considered significant. Mitigation measures set out include for pre-construction surveys for kingfisher, dipper and grey wagtail, and vegetation removal being completed outside of the bird breeding season.

9.17.41. I note the extent of vegetation removal proposed, and that dipper, grey wagtail and kingfisher were observed in surveys carried out, with kingfisher nesting habitats also located adjacent the site. I consider that the implementation of the outlined measures entailing pre-construction surveys and the timing of vegetation removal will ensure that these and other bird species are protected from harm. Having regard to the bird species and habitats recorded onsite and the abundance of suitable foraging and breeding habitat in the immediate and wider area, I consider that any short-term displacement possibly occurring during construction would not lead to any long-term impacts on bird species. I therefore consider that significant effects on birds are unlikely, subject to the application of the outlined mitigation measures during the construction phase.

9.17.42. While the EIAR outlines it is possible that hen harrier forage along the hedgerows within the vicinity of the proposal, the Slieve Bloom breeding pairs identified during the 2022 national survey of breeding hen harrier were located within upland, heather habitats and none in afforested habitats. Given the nature of the works and existing habitats onsite, significant effects on this species by way of habitat loss, degradation, fragmentation, and disturbance are not anticipated. As no Hen Harrier were recorded in the onsite surveys, and with little potential for

disturbance/displacement effects on this species arising, given they are not dependent on the habitats located within the site for foraging, I concur with this view.

9.17.43. The EIAR outlines that contaminant losses to watercourses could cause significant effects on bird species dependent on aquatic macroinvertebrates or fish. Subject to the implementation of water protection measures, I consider the proposed development would not give rise to significant effects on birds foraging resource by way of water quality impacts.

Fauna

9.17.44. The EIAR outlines while no evidence of **badger** was found in the field survey, the desk study indicates badger may be present within Brittas Wood. Mitigation measures include for pre-construction surveys being carried out for areas within 150 metres of the proposal, in accordance with NRA guidance. Mitigation will also include for the monitoring of vegetation removal by the ECoW to ensure there is no disturbance to protected species e.g. badger, stoat, hedgehog etc. Given the potential for badger species to arise within the proposal site during construction, I consider the mitigation as outlined appropriate, which can be addressed by way of condition. Having regard to the temporary nature of the works and subject to the implementation of mitigation measures and monitoring, I consider the proposed development would not give rise to significant effects on faunal species by way of disturbance/displacement at construction stage.

Aquatic Fauna

9.17.45. The EIAR outlines there is a potential for negative effects on instream habitat and aquatic fauna from water quality deterioration due to water contamination at construction stage, with the River Clodiagh supporting optimal habitat for salmonids, lamprey, eel, crayfish, with macroinvertebrate taxa recorded in surveys. No records of amphibians or reptiles were made during field surveys. I consider a potential impact exists for the discharge of polluting substances to the river during the course of works which include for instream works, which would impair water quality and impact on aquatic species, invertebrates, and the downstream Desmoulins whorl snail. Subject to the implementation of the mitigation measures set out for the protection of instream habitats and water quality at construction

stage, I consider the proposed development would not give rise to significant effects on fish, crayfish, invertebrates, Desmoulins whorl snail, amphibians/reptiles. These measures are standard and well tested.

9.17.46. The EIAR also outlines significant effects could arise on aquatic fauna if water levels dropped to low levels from dewatering activity. It is also outlined instream works could block fish migration, with a potential for fish mortality within temporary dry areas. I note mitigation measures include for an ecologist being present at dewatering, and that fish will be collected and returned to the channel, with rescue to be undertaken under the supervision of IFI. Subject to these measures being applied, I consider that risks arising to aquatic species would be minimised.

Operational Stage

Hydromorphology

9.17.47. Significant effects on hydraulic conditions, instream habitat and aquatic biota are not anticipated. Hydraulic modelling has been undertaken for the 50% AEP and 1% AEP flood scenarios, which details the debris trap effects are localised, and outside of areas within c.10 metres upstream or downstream of the structure, there will be no changes to the remainder of Area 1 and imperceptible to no change in Areas 2 and 3. It is stated in the EIAR there will be no significant changes to bed sediment mobilisation, transport or deposition as relates to macroinvertebrate and salmonid spawning/nursery habitat, river continuity, and with mitigation there will be no long-term significant changes to hydromorphology. Further discussion in relation to predicted hydraulic conditions are set out in the Water Section of this report. On the basis of the information submitted, and subject to the mitigation relating to the design of instream infrastructure, and monitoring post completion, I consider any negative effects on the instream environment would be minimised. Details of design and monitoring are set out in the following sections.

Design, Maintenance

9.17.48. As highlighted, IFI has outlined concerns on the lack of a detailed design for the debris trap, and loss of spawning habitat. It is outlined in the EIAR the debris trap could lead to scouring of the riverbed at operational stage, and to ensure no barrier to fish migration arises, analysis will be carried out on the need to extend the debris

trap foundation to form bed scour protection. It is outlined this could slightly alter localised salmonid habitat, shifting it from potential spawning /nursery habitat towards nursery/holding habitat very locally, and there will be a very minor loss of salmonid habitat (i.e., the footprint of the debris trap poles) and no significant change to the overall availability of spawning and nursery habitat. Given the details outlined, the extent of habitat loss, the implementation of mitigation measures, the final debris trap design being agreed with IFI which can be addressed by way of condition, scour protection and riverbed reinstatement measures, and post completion scour monitoring occurring, I consider significant effects arising on habitats and aquatic species at the operational stage from the debris trap unlikely.

9.17.49. IFI outlines maintenance will be a key component of the debris traps proper functioning, and a maintenance regime should be available with responsibility assigned. It is outlined the instream close season (October 1st to June 30th) will apply to this structure and no machinery can enter the river during this time for maintenance. It is further outlined post-construction monitoring should include the provision for monitoring of any increase in siltation downstream of the proposed structure. I note the EIAR outlines the maintenance of Brittas Stream culvert inlet and debris trap could release sediment built up resulting in significant effects on water quality, habitat and fauna. In the absence of mitigation, the EIAR also outlines significant effects by way of habitat fragmentation could arise by way of debris accumulations behind the debris trap, which could act as a barrier to salmonids and lamprey migration.

9.17.50. The applicant in their response to submissions highlights instream operational phase procedures and monitoring requirements, with a Standard Operating Procedure to be developed by LCC with IFI. I note EIAR mitigation measures will include for accumulated debris being removed promptly by way of operational maintenance, and with post completion monitoring occurring, together with maintenance and monitoring measures outlined by the IFI, I consider significant effects by way of sediment build up or habitat fragmentation unlikely. Mitigation measures will also include for the Brittas stream culvert being designed to ensure passage of aquatic fauna at the inlet is not hindered, the design of which is to be discussed by the applicant with IFI. Subject to the design of the culvert being

agreed with IFI, which can be addressed by way of condition, I consider negative effects arising on habitats and aquatic species unlikely.

Pathogens

9.17.51. It is outlined that maintenance activities at operational stage could result in the spread of crayfish plague/pathogens, or the reintroduction of crayfish plague to the River Clodiagh, should equipment/plant not be disinfected. Mitigation will include for adherence to biosecurity protocols for avoidance of spread of pathogens for maintenance activities. I also note that with the assumed presence of crayfish plague in the River Clodiagh, mitigation measures will include for debris from the debris trap being retained within Brittas wood/or disposed to an appropriate facility. I consider the measures set out are satisfactory and accord with best practice in terms of controlling pathogen spread. I also note that operational monitoring will also be undertaken for invasives species regrowth.

Bats

9.17.52. The EIAR outlines the reinstatement of operational phase lighting could affect bats and otter commuting/foraging along the River Clodiagh at Chapel Street. It is outlined that street lighting will comply with The Bat Conservation Trust and Institution of Lighting Professionals guidance on “Bats and Artificial Lighting at Night” (ILP, 2023), and measures will include for avoiding illumination of key habitats, and the use of appropriate luminaire specifications. I consider that the proposed development would not give rise to any significant effects on bats, otters or their foraging or commuting habitat, subject to these measures and best practice bat/wildlife friendly lighting being installed. This can be addressed by way of condition in the event of an approval.

Cumulative Effects

9.17.53. Chapter 18 includes for a cumulative assessment with other permitted developments, forestry and Arterial Drainage Maintenance Works. It is outlined as applications in the vicinity are already granted, it is likely they are already built and / or won’t have a temporal overlap between the construction phases. Subject to mitigation measures for the proposal, it is outlined there will be no significant cumulative effects. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation

measures for the proposed development at the construction stage, I consider that significant cumulative effects arising on biodiversity unlikely. Subject to the implementation of a maintenance programme, cumulative effects arising at operational stage are also considered unlikely.

Conclusion: Direct and Indirect Effects

9.17.54. I have considered the written submission in relation to biodiversity. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to significant direct, indirect or cumulative effects on biodiversity, subject to the implementation of mitigation measures. To ensure any potential biodiversity effects are minimised, as highlighted, conditions requiring mitigation can be applied to any approval.

9.18. **Cultural Heritage**

Issues Raised

9.18.1. The Department of Housing, Local Government and Heritage in its submission has recommended conditions be included in any approval, to include EIAR mitigation measures, appointment of project archaeologist, Archaeological Impact Assessment, archaeological monitoring, and an updated CEMP.

Examination of EIAR

9.18.2. Chapter 16 of the EIAR deals with **Cultural Heritage.** Associated Appendices are: Appendix 16-1: Townlands within the Study Area, Appendix 16-2: Inventory of Cultural Heritage Assets and Receptors, Appendix 16-3: Inventory of Archaeological Investigations, Appendix 16-4: Archaeological Objects Recorded, Appendix 16-5: Extracts from the Irish Folklore Commission Schools' Collection, Appendix 16-6: Wade Survey, Appendix 16-7: Geophysical Survey Report, Appendix 16-8: Conservation Report. The assessment is undertaken in accordance with government and industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, desk top study, site surveys including geophysical, wade and metal detection surveys. The study area included the proposal site and extends to 100m from the Clodiagh River. General limitations identified outline the assessment is based on the information available at

the time of writing, and potential archaeological sites identified in surveys will need targeted archaeological testing to demonstrate if they represent tenable archaeological sites, and this should be undertaken in advance of groundworks. From the details submitted, I am of the view there are no limitations which prevent the drawing of robust conclusions.

Baseline

9.18.3. There are 3 recorded monuments in the study area (cross-slabs LA002-012 (CH-003); LA002-012001- (CH-004) and LA002-012002- (CH-044). A children's burial ground (LA002-019-; CH-005) is located c.103m from the proposal, with a fortified house (LA002-011; CH-002) located in close proximity to the study area. There are no Sites and Monuments Record (SMR) within the proposal scheme, with 5 SMR sites (LA002-011; LA002-012; LA002-012001, LA002-012002 and LA002-019) within the wider 100m study area, and these are outlined in Figure 16-3. There are 5 Protected Structures (RPS 338; RPS 963; RPS 343; RPS 344; RPS 341) within the wider study area. One of the Protected Structures (RPS 338; St Manman's Church) is listed on the NIAH (Ref. 12800201). Part of the scheme is located within the Clonaslee village ACA. The urban form of the village has developed along two intersecting streets, the Main Street and Tullamore Road. The Main Street comprises a wide boulevard. The Tullamore Road at the southern end includes two-storey buildings, and beyond the church gates, one-storey buildings predominate. Figure 16-7 to Figure 16-11 show the undesignated cultural heritage receptors within the study area.

Potential Effects

9.18.4. Do nothing scenario

No significant changes to the baseline cultural heritage resource are envisaged.

9.18.5. Construction Phase

There is the potential for direct moderate significance of effects on the historic demesne of Brittas House, and the ACA including its riverside wall. There is also a potential for direct negative impacts on receptors, including protected structures St. Manman's Catholic Church, a house, lodge and front garden boundary wall, arising from unintentional/accidental damage/visual impact, and also on townland

boundaries. There is a potential for direct negative impacts resulting in a slight significance of effect on the River Clodiagh, which is considered as an Area of Archaeological Potential with unknown features of cultural heritage value. 32 anomalies identified through the geophysical survey will be directly/indirectly impacted through construction. These include areas of archaeological potential.

9.18.6. Operational Phase

No operational phase impacts have been identified.

9.18.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.18.8. Cumulative Effects

Section 16.8.2 outlines there are no predicted cumulative or potential cumulative impacts arising from the proposal and other projects. Cumulative Effects are also set out in Chapter 18. As permitted developments in the vicinity are already granted, it is likely these developments are already built and / or won't have a temporal overlap between the construction phases. With replacement planting, there will be no significant cumulative effects arising.

Mitigation Measures

Construction Phase

9.18.9. Mitigation will include for: an archaeological mitigation strategy being agreed in consultation with the NMS and the Local Authority in advance of works; Greenfield portions of the proposed scheme being subject to advance archaeological testing under licence; Archaeological monitoring will be undertaken by a suitably qualified archaeologist; The results of archaeological works will be disseminated through publications; The installation of protective barriers for protected structures, and use of appropriate materials and wall heights in ACA.

Operational Phase

9.18.10. As no operational effects have been identified, no additional operational phase mitigation is proposed.

Monitoring

9.18.11. At construction stage, the requirement for monitoring will be determined through advance works undertaken pre-construction and further mitigation may be required pending the results of advance works. In the event of advance works and cultural heritage mitigation being employed at construction phase, monitoring being required at operational phase is unlikely.

Residual Impact

9.18.12. Residual effects at construction stage are considered to range from slight, long-term, negative/neutral/positive, to not significant. No residual operational phase effects are predicted.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.18.13. I have examined, analysed and evaluated Chapter 16 of the EIAR, all of the associated documentation and the submission on file in respect of cultural heritage. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects on cultural heritage, as a consequence of the development have been identified. A submission has raised an issue in respect of cultural heritage, which I address below.

9.18.14. In relation to archaeology, as highlighted, there are no Recorded Monuments, or Sites and Monuments Record (SMR) within the proposal site, with three Recorded Monuments within the wider study area, and five SMR sites (LA002-011; LA002-012; LA002-012001, LA002-012002 and LA002-019) within 100 metres of the site. The geophysical survey submitted has identified anomalies of potential archaeological significance, which it is outlined will be directly or indirectly impacted at construction stage, and these include a potential enclosure, burnt spread/mound, ditches. The wade and metal detection survey along the Clodiagh River at Brittas and Bunastick has also identified a number of features, including a weir, footbridges and groynes.

9.18.15. The Department of Housing, Local Government and Heritage outline designed-in mitigation measures prioritising preservation by avoidance have reduced the likely significant effects of the project on cultural heritage and potential direct and indirect impacts have been identified on 59 cultural heritage receptors (see Table 16-8: Summary of Predicted Construction Effects; Table 16-9 Receptor specific mitigation measures during construction Phase), the more significant, archaeologically, of which relate to the riverside wall (CH-024), the River Clodiagh area of archaeological potential (CH-019), the site of a former bridge (CH-018) and footbridge (CH-040), and potential archaeological features identified in advance geophysical surveys, including a possible ditch, enclosing ditch, curvilinear ditch, and areas of burning. The Department outline general mitigation principles proposed include agreement, following advance archaeological test excavations, with the Department (and other stakeholders) on a final mitigation strategy, to include preservation by record; recording of impacted townland boundaries; architectural heritage surveys of vernacular buildings/structures; archaeological monitoring 'confined to areas where advance archaeological works are not feasible'; public dissemination, publication of results.

9.18.16. The Department outline the assessment of the project undertaken facilitates it to determine its likely significant effects on archaeological heritage, and whether the proposed mitigation measures would adequately allow for the avoidance, reduction/offsetting of significant effects. The Department outlines whilst it broadly concurs with the proposed mitigation measures set out in Chapter 16 of the EIAR, in order to ensure the project aligns with statutory obligations, policy and guidelines for the protection of the State's archaeological heritage, it is recommended conditions as have been outlined are attached to any approval. The applicant in their response to submissions has committed to the implementation of EIAR measures and an updated CEMP, and outlines the scheme includes for archaeological assessment, monitoring, and the engagement of archaeological services.

9.18.17. I consider the proposed development will not impact on any recorded archaeological monuments at the construction/operational stage. There are no Sites and Monuments Record (SMR) within the proposal site, with the nearest

monument LA002-010 (Structure) located c.20 metres from the site. Given the nature and scale of the scheme and its siting relative to existing monuments, I also consider that the proposed development will not give rise to visual effects on the settings of any known monuments. Any potential for adverse impacts on unknown archaeological monuments/features, or unknown underwater archaeological monuments/features would be removed subject to the implementation of EIAR mitigation measures, and compliance with conditions as outlined by the Department including for the appointment of a project archaeologist, implementation of EIAR recommendations and mitigation measures, the undertaking of an Archaeological Impact Assessment Detailed Design to include test excavations, archaeological monitoring (terrestrial, and underwater), and an updated CEMP to include cultural heritage constraints and mitigation. I consider the Departments archaeological conditions can be adapted to address relevant requirements in relation to archaeology and heritage.

9.18.18. In relation to protected structures, there are 5 (RPS 338 (NIAH 12800201) Catholic Church; RPS 963 House; RPS 343 Façade of public house; RPS 344 Façade of public house; RPS 341 Façade of greengrocer shop) within the immediate site vicinity, and the EIAR outlines there is a potential for direct negative impacts on same, by way of unintentional/accidental damage/visual impacts. The site is located 5 metres from the entrance to RPS 338, 65 metres from the Church, and is 5 metres from RPS 343 and 963. Having regard to the nature and scale of the proposed development and its separation distances from protected structures, subject to the implementation of mitigation measures, which include for the installation of protective barriers, and the use of use of appropriate materials and wall heights for the proposed defence wall structure in the Chapel Street ACA, I consider that significant effects arsing on protected structures and their settings unlikely.

9.18.19. The site including proposed developments works in Area 1 Brittas Wood is located within the historic demesne of Brittas House (RPS 432, NIAH 1280020) and it is outlined direct impacts will include instream works and associated works along the walking trail. It is also outlined a stone wall of a lodge within the proposal site/adjacent is potentially associated with Brittas House. Given the limited tree removal and the nature of the works within Area 1 Brittas Wood, with the trails

being improved and this area of the site being subject to replanting, I consider that significant effects would not arise on Brittas House demesne (RPS 432, NIAH 1280020). Subject to the implementation of protective mitigation measures, I consider that significant effects arising on existing walls within the Brittas House demesne unlikely.

9.18.20. The proposed development site forms part of the ACA and the potential for effects to arise on the ACA relate to the proposed flood defence wall along Chapel Street. Subject to the mitigation measures outlined, which include for a built heritage survey, the use of appropriate materials and wall heights, and like for like re-building, a slight, long-term, negative residual significance of effect is anticipated. I note the Conservation Report (Appendix 16.8) prepared has recommended that the existing Chapel Street walls capped projections should be replicated in the Flood Relief Scheme. A visual assessment of the proposals effects on the ACA is addressed in the Landscape section of this report, wherein it is considered there would be no significant impacts on the ACA. Subject to the outlined mitigation measures, entailing the use of appropriate materials and like for like re-building of the wall and its features, I consider the proposed development would not detract from the character of the ACA, and that significant effects on the ACA would not arise. No operational phase impacts are anticipated.

9.18.21. Having regard to the nature and scale of developments permitted in the site vicinity, and subject to the application of the outlined mitigation measures for the proposed development at the construction stage, I consider that significant **cumulative** effects arising on cultural heritage unlikely. Cumulative effects arising at operational stage are not anticipated.

Conclusion: Direct and Indirect Effects

9.18.22. I have considered the written submission in relation to cultural heritage. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to significant direct, indirect or cumulative effects on cultural heritage, subject to the implementation of mitigation measures. To ensure any potential cultural heritage

effects are minimised, as highlighted, a condition requiring mitigation can be applied to any approval.

9.19. **Interactions**

Issues Raised

9.19.1. No issues have been raised in submissions.

Examination of EIAR

9.19.2. Chapter 18 of the EIAR deals with **Interactions and Cumulative Effects.** The assessment is undertaken with line with the EIA Directive. The assessment methodology includes for the use of an interaction matrix for environmental factors. No limitations have been identified and are not evident in the assessment. From the details submitted, I am of the view there are no limitations which prevent the drawing of robust conclusions.

Baseline

9.19.3. The baselines are set out in the relevant environmental factors chapters.

Potential Impacts

9.19.4. Do nothing

The do-nothing scenarios are set out in the relevant environmental factors chapters.

9.19.5. Construction Stage

A matrix is presented in Table 18-1 identifying potential interactions between the various aspects of the environment. Interacting factors are expected to be greatest during construction, with works having the potential to impact on population and human health in the form of dust, noise emissions, potential run off into surface and ground waters, traffic interruptions, short term visual effects, and there is also a potential for biodiversity impacts. The EIAR outlines with the implementation of mitigation and monitoring measures there are no significant residual effects.

9.19.6. Operation Stage

Overall positive impacts on flood risk is anticipated as a result of the proposed scheme, which will protect communities from flooding, benefit residential and

commercial properties, public open spaces, biodiversity and the integrity of cultural heritage.

9.19.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.19.8. Cumulative Effects

The cumulative effects are are set out in the relevant environmental factors chapters.

Mitigation Measures

9.19.9. Mitigation measures are set out in the relevant environmental factors chapters.

Residual Effects

9.19.10. There are no significant residual effects.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.19.11. I have examined, analysed and evaluated Chapter 18 of the EIAR, and all of the associated documentation in respect of interactions. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site surveys set out for various environmental factors in the EIAR, is comprehensive and that the key impacts in respect of likely effects by way of interactions, as a consequence of the development have been identified. These are addressed below.

9.19.12. A matrix is presented in Table 18-1 identifying potential interactions between the various aspects of the environment. The EIAR outlines with the implementation of mitigation and monitoring measures there are no significant residual effects, with overall positive impacts on flood risk anticipated as a result of the proposed scheme.

9.19.13. Interactions are set out for population and human health and a range of environmental factors, with interactions outlined between biodiversity with land, soils, geology and hydrogeology, water, air quality, climate, noise and vibration, landscape and visual. Interactions are set out for land, soils, geology and

hydrogeology, and for traffic and transportation, with a range of environmental factors. Interactions are also set out for water, air quality, climate, noise and vibration, and cultural heritage, with environmental factors.

9.19.14. I have assessed the interactions set out and considered the key interactions between the environmental factors. Having regard to my assessment of the EIAR, the predicted effects, mitigation measures, and conditions set out, I am satisfied that significant effects can be avoided, managed and mitigated by the measures outlined for the majority of environmental factors. Having regard to the nature of the works, their limited duration, and the mitigation as set out which will serve to reduce potential significant noise effects arising on population and human health, and serve to reduce effects arising on land/property, at the construction stage, I consider that these effects would not warrant a refusal based on temporary impacts. To ensure any potential significant noise and property effects are minimised, conditions requiring mitigation measures as set out in the EIAR and CEMP can be applied, should the Commission be minded to grant permission. There is also a potential for significant effects to arise at operational stage, by way of impacts on land/property. I note these effects will be minimised by mitigation measures for the most part. A condition requiring mitigation measures as set out in the EIAR can be applied, should the Commission be minded to grant permission. The proposed development, in protecting the existing community with flood defence infrastructure at the operational stage, would have a significant positive effect on the environment.

Conclusion: Direct and Indirect Effects

9.19.15. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application and that significant adverse effects are not likely to arise, subject to the implementation of mitigation measures. The proposed development would have a significant positive effect on the environment, by way of the provision of flood defence infrastructure at operational stage.

9.20. **The Vulnerability of the proposed development to Risks of Major Accidents and/or Disasters (Risks of Major Accidents or Disasters)**

Issues Raised

9.20.1. Issues in relation to flooding have been raised in a submission. This is addressed in the water section of this report.

Examination of EIAR

9.20.2. Chapter 19 of the EIAR deals with Risks of Major Accidents and/or Disasters (Major Accidents). The assessment is undertaken in accordance with industry best practice guidelines. The assessment methodology includes consultations with statutory agencies, with no responses received. The Zone of Influence (ZOI) encompasses all the ZOI's across the various disciplines in the EIAR. No limitations are identified and are not evident in the assessment.

Baseline

9.20.3. The baselines are set out in the relevant environmental factors chapters. The consultation distance for Seveso Sites which have potential for major accident hazard under the COMAH Regulations 2015 (S.I. No. 209 of 2015), is 200m from respective Seveso Sites. The nearest Seveso Site is Synergy Health in Tullamore, over 15km from the proposal and as such, Seveso Sites are not considered further.

Potential Impacts

9.20.4. Do nothing

The do-nothing scenarios are set out in the relevant environmental factors chapters.

9.20.5. Construction Stage

There is a potential for impacts on critical utilities, infrastructure, a potential for extreme weather, flood events.

9.20.6. Operation Stage

The potential for impacts is considered to be unlikely to extremely unlikely with a low to very low impact.

9.20.7. Decommissioning

The proposal is intended to be a permanent/long-term development. I am satisfied a decommissioning project phase is not relevant.

9.20.8. Cumulative Effects

The proposal has been considered in combination with existing, permitted and proposed projects and plans set out in Chapter 18. The proposal with mitigation measures in place, will have no potential for significant in-combination or cumulative effects on the environment brought about by major accidents or natural disasters.

Mitigation Measures

9.20.9. Mitigation measures are set out in the EIAR. Measures are extensive and include for a CEMP. These include best practice measures, with monitoring measures to also apply.

Residual Effects

9.20.10. Residual effects are not significant.

Analysis, Evaluation and Assessment: Direct and Indirect Effect

9.20.11. I have examined, analysed and evaluated Chapter 19 of the EIAR, and all of the associated documentation on file in respect of the vulnerability of the proposed development to risks of major accidents and/or disasters. I am satisfied that the applicants understanding of the baseline environment, by way of desk and site survey, is comprehensive and that the key impacts in respect of likely effects by way of the vulnerability of the proposed development to risks of major accidents and/or disasters, as a consequence of the development have been identified. These are addressed below.

9.20.12. The requirements of **Article 3(2) of the Directive** include the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project concerned. Chapter 19 outlines the nearest Seveso Site is Synergy Health in Tullamore, over 15km from the proposed scheme area and as such, Seveso Sites are not considered further in the assessment. An assessment of impacts has been undertaken and it is outlined due to the nature and scale of the proposal combined with best practise measures, mitigation and monitoring measures including those in the CEMP, it is considered that the likelihood of a major accident/natural disaster occurring from or to, the proposed scheme, is very unlikely with a low risk of occurrence. In relation to

extreme weather, it is outlined the proposal will reduce the potential for future flood events in the area, and the design is adaptable to high-end future scenario predicted flood events. It is outlined there is no potential for significant in-combination or cumulative effects on the environment brought about by major accidents or natural disasters.

9.20.13. I note a flood warning action plan is to be in place prior to commencement of works, with measures to be implemented including monitoring of weather events during construction and operational phases, with the completion of works in short sections to minimise flood risk. I also note an Environmental Incident and Emergency Response Plan will be established to deal with environmental incidents or accidents, as set out in the CEMP. Given the separation distance to the nearest Seveso Site, I consider significant effects from this facility to arise on the proposal site are low. Having regard to the nature, scale and location of the proposed development and on the basis of the information submitted, I consider it is unlikely that major accidents or disasters would arise, subject to the implementation of the outlined mitigation measures.

Conclusion: Direct and Indirect Effects

9.20.14. Having regard to the foregoing and details submitted, I am satisfied that impacts identified in this section of the report have been appropriately addressed in terms of the application. I am of the opinion that the proposed development would not give rise to negative or significant direct, indirect or cumulative effects by way of major accidents and/or disasters, subject to the implementation of mitigation measures. To ensure any potential major accidents and/or disasters effects are minimised, as highlighted, conditions requiring mitigation can be applied to any approval. The proposed development would have a significant positive effect on the environment, by way of the provision of flood defence infrastructure at operational stage.

9.21. Reasoned Conclusion on the Significant Effects

9.21.1. Having regard to the examination of environmental information provided in respect of the proposed development, in particular the EIAR, and the submissions from the

prescribed bodies in the course of the application, it is considered that the main significant, direct, indirect and cumulative effects on the environment, with the implementation of proposed mitigation measures are:

Population and Human Health: The proposed development, in protecting the existing community with flood defence infrastructure at operational stage, would have a significant positive effect on population and human health, as outlined in the EIAR. There is a potential for significant effects to arise by way of noise at construction stage, as outlined in the EIAR, which will be minimised by way of a Construction Environment Management Plan (CEMP), best practice measures and mitigation measures. Impacts will be short term with no significant noise generated at operational stage. There is a potential for significant effects to arise at construction stage by way of impacts on land/property. However, I note this would be of temporary duration, which will be minimised by mitigation measures. Impacts will be short term. There is also a potential for significant effects to arise at operational stage, by way of impacts on land/property. Having regard to the mitigation as set out, which will serve to reduce effects for the most part, these environmental effects would not warrant a refusal of planning permission based on land/property impacts, and having regard to the overall benefits of the proposed development.

Water: I am of the opinion that the proposed development would give rise to significant positive effects by way of flood protection. I also consider the potential for significant effects arising on surface water, groundwater and water supplies from contamination arising at construction and operational stages will be minimised and mitigated, subject to the implementation of the measures outlined in the EIAR, CEMP, best practice measures, construction methodologies, the application of an Operation and Maintenance Plan, and by proposed conditions set out.

10.0 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

- Appropriate Assessment

10.1. **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.

10.2. **The Natura Impact Statement**

The application was accompanied by an NIS which described the proposed development, the project site and the surrounding area. The NIS is accompanied by a Stage 1 Screening Assessment which concluded that a Stage 2 Appropriate Assessment was required. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within several European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for these sites and their conservation objectives, it suggested mitigation measures, assessed in-combination effects with other plans and projects and it identified any residual effects on the European sites and their conservation objectives.

The NIS was informed by the following studies, surveys and consultations:

- A desk top study.
- A review of mapping.
- Ecological surveys of the proposal site and surroundings including, walkover surveys, habitat surveys, invasive alien plant surveys, crayfish surveys and habitat appraisals.
- Consultations with the National Parks and Wildlife Service, Inland Fisheries Ireland.

The report concluded that, subject to the implementation of the recommended mitigation measures, the proposed development, individually or in-combination with other plans and projects, would not have adverse effects on the integrity of any European site.

Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, does clearly identify the potential impacts, and does use best scientific information and knowledge. Details of mitigation measures are provided and they are summarised in Section 8 of the NIS. I am satisfied that the information is sufficient to allow for appropriate assessment of the proposed development (see further analysis below).

10.3. **Appropriate Assessment**

Appropriate Assessment Screening – Stage 1

Consideration is given to European Sites in the *AA Screening Determination - Test for Likely significant effects set out in Appendix 1.*

I consider that the proposed development consisting of a flood relief scheme is not directly connected with or necessary to the management of any European site.

Having regard to the information and submission made, 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.

These include the Slieve Bloom Mountains SPA (004160), River Shannon Callows SAC (000216), Middle Shannon Callows SPA (004096), Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and

Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon (002165), and consideration is given to these sites in the *AA Screening Determination - Test for Likely significant effects set out in Appendix 1.*

Based on my examination of the NIS report and supporting information, including the EIA, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distance and functional relationship between the proposed works and the European sites, their conservation objectives and taken in conjunction with my assessment of the subject site and the surrounding area, I would agree with the applicants screening for AA for the European Designated sites and conclude that a Stage 2 Appropriate Assessment is required for the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135) European Sites. I also consider that a Stage 2 Appropriate Assessment is required for the Lower River Shannon (002165).

The remaining European Sites in the wider area can be screened out from further assessment because of the nature and scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances and the lack of a substantive linkage between the proposed works and the European sites.

Screening Determination

Significant effects cannot be excluded

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that the proposed development alone or in combination with other plans and projects, could result in significant effects on the European Sites Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River

(Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), in view of the sites conservation objectives. Appropriate Assessment is required. This determination is based on:

-The nature and scale of the works

-The hydrological connections to the European Sites and the potential for significant effects on QI habitats, QI species, by way of pollution and deterioration of water quality, ex-situ impacts,

-potential spread of pathogen

-Potential spread of invasive species.

It is therefore determined that Appropriate Assessment (stage 2) [under Section 177AE of the Planning and Development Act 2000] of the proposed development is required.

Appropriate Assessment - Stage 2

Consideration is given to the above European designated sites in Appendix 2-*AA and AA Determination*.

Appropriate Assessment Conclusion: Integrity Test

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135),

and Lower River Shannon SAC (002165), in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of 177AE was required.

Following an examination, analysis and evaluation of the NIS and all associated material submitted, including a submission made, I consider that adverse effects on site integrity of the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), and Lower River Shannon SAC (002165), can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- Detailed assessment of construction and operational impacts.
- Effectiveness of mitigation measures proposed including supervision and monitoring and integration into CEMP ensuring transition of obligations to eventual contractor.
- Application of planning conditions to ensure application of these measures.
- The proposed development will not affect the attainment of conservation objectives for Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135) and Lower River Shannon SAC (002165).

11.0 Recommendation

I recommend that the development as proposed is approved.

On the basis of the above assessment, I recommend that the Commission 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 EIAR and NIS.

Reasons and Considerations

In performing its functions in relation to the making of its decision, the Board had regard to:

Section 15(1) of the Climate Action and Low Carbon Development Act 2015, as amended by Section 17 of the Climate Action and Low Carbon Development (Amendment) Act 2021, and the requirement to, in so far as practicable, perform its functions in a manner consistent with Climate Action Plan 2024 and Climate Action Plan 2025 and the national long term climate action strategy, national adaptation framework and approved sectoral adaptation plans set out in those Plans and in furtherance of the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

The Board also had regard to the following in coming to its decision:

- European legislation, including of particular relevance:
    (a) Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directive) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.
    (b) Directive 2011/92/EU (The EIA Directive) as amended by Directive 2014/52/EU as implemented by Article 94 and Schedule 6 (paragraphs 1 and 2) of the Planning Regulations as amended.
    (c) Directive 2000/60/EC, the Water Framework Directive and the requirement to exercise its functions in a manner which is consistent

with the provisions of the Directive and which achieves or promotes compliance with the requirements of the Directive.

(d) the EU Floods Directive (2007/60/EC),

- National and regional planning and related policy, including:

  (a) National policy with regard to the development of a flood relief scheme, particularly the NPF First Revision 2025,

  (b) The objectives and targets of the National Biodiversity Action Plan 2023-2030.

- Regional and local planning policy, including:

  (a) Regional Spatial Economic Strategy for the Eastern & Midland Region 2019-2031;

  (b) Laois County Development Plan 2021-2027.

- Other relevant national policy and guidance documents.
- The nature, scale and design of the proposed development as set out in the planning application and the pattern of development in the vicinity.
- 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 European sites.
- The Environmental Impact Assessment Report submitted
- The Natura Impact Statement submitted
- The submissions made in connection with the planning application.
- The report and the recommendation of the Inspector, including the examination, analysis and evaluation undertaken in relation to appropriate assessment and environmental impact assessment

Environmental Impact Assessment

The Commission completed an environmental impact assessment in relation to the

proposed development and concluded that, subject to the implementation of the mitigation measures proposed as set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Commission adopted the report and conclusions of the Inspector.

Reasoned Conclusion

Having regard to the examination of environmental information provided in respect of the proposed development, in particular the EIAR, and the submissions from the prescribed bodies in the course of the application, it is considered that the main significant, direct, indirect and cumulative effects on the environment, with the implementation of proposed mitigation measures are:

Population and Human Health: The proposed development, in protecting the existing community with flood defence infrastructure at operational stage, would have a significant positive effect on population and human health, as outlined in the EIAR. There is a potential for significant effects to arise by way of noise at construction stage, as outlined in the EIAR, which will be minimised by way of a Construction Environment Management Plan (CEMP), best practice measures and mitigation measures. Impacts will be short term with no significant noise generated at operational stage. There is a potential for significant effects to arise at construction stage by way of impacts on land/property. However, this would be of temporary duration, which will be minimised by mitigation measures. Impacts will be short term. There is also a potential for significant effects to arise at operational stage, by way of impacts on land/property. Having regard to the mitigation as set out, which will serve to reduce effects for the most part, these environmental effects would not warrant a refusal of planning permission based on land/property impacts, and having regard to the overall benefits of the proposed development.

Water: The proposed development would give rise to significant positive effects by way of flood protection. The potential for significant effects arising on surface water, groundwater and water supplies from contamination arising at construction and operational stages will be minimised and mitigated, subject to the implementation of the measures outlined in the EIAR, CEMP, best practice measures, construction

methodologies, the application of an Operation and Maintenance Plan, and by proposed conditions set out.

Appropriate Assessment

The Commission agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), are the only European Sites in respect of which the proposed development has the potential to have a significant effect.

The Commission considered the Natura Impact Statement and associated documentation submitted with the application for approval, the mitigation measures contained therein, the submission on file, and the Inspector's assessment. The Commission completed an appropriate assessment of the implications of the proposed development for the affected European Sites, namely the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), in view of the site's conservation objectives. The Commission considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Commission considered, in particular, the following:

i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,

ii. the mitigation measures which are included as part of the current proposal, and

iii. the conservation objectives for the European Sites.

In completing the appropriate assessment, the Commission 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 Commission 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 comply with national, regional and local planning policies including the Laois County Development Plan 2021-2027, would not be detrimental to the visual or landscape amenities of the area, would not adversely impact on the cultural, archaeological and built heritage of the area, would not interfere with traffic and pedestrian safety, and would be in the interest of the common good. 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, submitted on 11th June 2025, except as may otherwise be required in order to comply with the following conditions. Where any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

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

2. The mitigation measures and monitoring commitments identified in the Environmental Impact Assessment Report, and other plans and particulars submitted with the application shall be carried out in full except as may otherwise be required in order to comply with other conditions, and save for the mitigation measure including an application for a noise control plan. Prior to the commencement of development, a schedule of mitigation measures and monitoring commitments identified in the Environmental Impact Assessment Report, and details of a time schedule for implementation of the mitigation measures and associated monitoring, shall be prepared by the local authority and placed on file and retained as part of the public record.

   Reason: In the interest of clarity and protection of the environment during the construction and operational phases of the proposed development.

3. The mitigation and monitoring measures identified in the Natura Impact Statement submitted with the application shall be implemented in full. Prior to the commencement of development, details of a time schedule for implementation of mitigation measures and associated monitoring shall be prepared by the local authority and placed on file and retained as part of the public record.

Reason: In the interest of protecting the environment, and the protection of European Sites.

4. A suitably qualified ecologist shall be retained by the local authority to oversee the site set up and construction of the proposed development and implementation of mitigation measures relating to ecology. The ecologist shall be present during the works. Upon completion of works, an ecological report of the site works shall be prepared by the appointed ecologist to be kept on file as part of the public record.

   Reason: In the interest of nature conservation and biodiversity.

5. The following nature conservation requirements shall be complied with:

   a. Prior to the commencement of development, details of measures to protect fisheries and water quality of the river system shall be outlined and placed on file. Full regard shall be had 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, and relevant statutory agencies and the programme shall be implemented thereafter.

   b. no vegetation removal shall take place during the period of the 1st day of March to the 31st day of August (inclusive) without the written approval of the Ecological Clerk of Works. Such approval shall be placed on the public file.

   c. All pre-commencement surveys as outlined in the EIAR shall be enacted. Pre-construction otter and badger surveys by a suitability qualified ecologist shall be carried out before works commence.

   d. a pre-construction bat survey shall be carried out by a suitably qualified ecologist during the active bat season, and, any destruction of bat roosting sites or relocation of bat species shall be carried out by a suitably qualified ecologist under a Derogation Licence granted by the Minster of Housing, Local Government and Heritage.

e. Prior to the commencement of development, details of the design of the debris trap and Brittas stream culvert shall be submitted to and agreed with Inland Fisheries Ireland.

f. Prior to the commencement of development, details of erosion protection engineering measures at Area 1 shall be submitted to and agreed with Inland Fisheries Ireland.

g. All riverbed material removed at Area 1 shall be graded, cleaned and stockpiled for return to the river after works completion.

h. The Operation and Maintenance Plan shall include for monitoring of siltation downstream of the debris trap.

Details of these requirements shall be placed on the file and retained as part of the public record.

Reason: In the interests of biodiversity and nature conservation.

6. The Local Authority and any agent acting on its behalf shall ensure that all PPE, plant and machinery used during the works shall be thoroughly cleaned, washed and disinfected before delivery to the site, and also on completion of field operations or when moving from one location or waterway to another, 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 environment and European sites.

7. Prior to the commencement of development, the local authority, or any agent acting on its behalf, shall prepare in consultation with the project ecologist and relevant statutory agencies, a Construction Environmental Management Plan (CEMP), incorporating all mitigation measures indicated in the Environmental Impact Assessment Report, and Natura Impact Statement and demonstration of proposals to adhere to best practice and protocols and shall be kept on file as part of the public record. The construction of the development shall be managed in accordance with the Construction Environmental Management Plan. The CEMP shall include:

(a)Location of site and material compound (s) including areas (s) identified for the storage of construction refuse, site offices, construction parking and staff facilities, re-fuelling arrangements, security fencing and hoardings

(b)A comprehensive construction phase traffic management plan including details of the timing and routing of construction traffic to and from the construction site, associated signage and vehicle controller/flagman at Compound A and Area 3 locations

(c)measures to prevent the spillage or deposit of clay, rubble, or other debris on the public road network

(d)details of appropriate mitigation measures for noise, dust, and vibration, and monitoring of such levels

(e)Pollution control measures to prevent spills/leakage of fuels/oils

(f)water protection measures

(g)Control measures to prevent the spread of invasive species and pathogens

(h)Details of pre-commencement surveys and timing of works

(i)Specific proposals as to how the measures outlined in the CEMP will be measured and monitored for effectiveness

(j)off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil

(k)means to ensure that surface water run-off is controlled such that no deleterious levels of silt or other pollutants enter local surface water drains or watercourses;

(l)an audit list of all construction and operational mitigation measures, their timelines for implementation and responsibility for reporting.

(m)A record of daily checks that the works are being undertaken in accordance with the Construction Environmental Management Plan shall be kept for inspection by the planning authority.

The CEMP shall be placed on file prior to the commencement of development and retained as part of the public record.

Reason: In the interest of protecting the environment and European Sites, and in the interest of public safety and health.

8. Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the Planning Authority.

Reason: In order to safeguard the amenities of property.

9. The site shall be landscaped in accordance with the proposals set out in particulars including the Biodiversity Management and Enhancement Plan. Any trees or shrubs that are removed, die or become seriously damaged or diseased during the operative period as set out by this permission, shall be replaced within the next planting season by trees or shrubs of similar size and species.

Reason: In the interests of visual amenity and biodiversity.

10. Prior to the commencement of development the applicant shall enter into a connection agreement with Uisce Éireann to provide for a service connection to the public water supply and wastewater collection network.

Reason: In the interest of public health and to ensure adequate water and wastewater facilities.

11. Archaeology

1.All recommendations and mitigation measures as set out in Clonaslee Flood Relief Scheme Environmental Impact Assessment Report, Chapter 16: Cultural Heritage (Laois County Council, RPS Consulting, February 2025) shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this Order.

2.A suitably qualified and licensed archaeologist shall be appointed to oversee and advise on all aspects of the project, including detailed design, construction activities and the management of all archaeological works.

3. All site investigation works shall be subject to archaeological assessment and monitoring by a suitably qualified and licensed archaeologist. The developer shall furnish the project archaeologist with the results of all site investigation works and shall provide access to site investigation cores and physical samples for archaeological and, where warranted, geoarchaeological review. Where potential submerged palaeolandscape deposits or other anthropogenic materials are identified, where warranted, they shall be subject to geoarchaeological and palaeoenvironmental analysis and scientific dating, in agreement with the Department of Housing, Local Government and Heritage and subject to approval of Licences to Alter and Export from the National Museum of Ireland. Following the completion of all geotechnical and archaeological works and any necessary post-excavation specialist analysis, the Department shall be

furnished with a final archaeological report describing the results of the works.

4. The final detailed design for the project shall be the subject of an Archaeological Impact Assessment (AIA), to be submitted to the Department for review and approval, prior to the commencement of any construction works. The AIA report shall contain the following:

a. Results of licenced archaeological test-excavations, accompanied by a hand-held metal detection survey, of all identified areas of high archaeological potential where ground disturbances will take place, including areas of potential archaeological features identified by geophysical surveys. The archaeological test-excavations shall be carried out under a Section 26 (National Monuments Act 1930) licence from the National Monuments Service (NMS) and in accordance with an approved method statement. Licensed metal detection shall be undertaken in tandem with the test excavations and under a Detection Device consent (Section 2 1987 National Monuments Act). All test-excavations that have the potential to uncover human skeletal remains shall be undertaken in conjunction with a suitably qualified osteoarchaeologist. Licenses shall be applied for to the NMS and shall be accompanied by a detailed method statement. Note a period of 3-4 weeks should be allowed to facilitate processing and approval of the licence application and method statement.

b. A detailed Archaeological Impact Assessment that addresses all identified or potential impacts on archaeological heritage, including on archaeological objects, sites and features. The AIA shall make recommendations on measures to avoid or, where necessary, mitigate all identified potential/identified impacts and significant effects on archaeological heritage. The Developer shall be prepared to be advised by the Department in this regard or in regard to any subsequent recommendations that may issue. Mitigation shall prioritise redesign or partial redesign to facilitate full or partial preservation in situ. Mitigation may also include archaeological excavations (‘preservation by record’),

archaeological test-excavations, stabilisation/conservation works and/or archaeological monitoring, underwater archaeological inspection by means of archaeological diving, underwater archaeological surveys, or any combination of the above or any other mitigation measures as may be recommended by the Department. No construction works shall be undertaken until formal approval in writing from the Department has been received by the Developer.

5. Archaeological monitoring (terrestrial) shall be undertaken as follows:

a. The services of a suitably qualified and licensed archaeologist shall be engaged to carry out full-time archaeological monitoring of all construction activities that involve ground disturbance or demolition of historic fabric, structures or features, and of any works where materials of archaeological importance may be uncovered.

b. Archaeological monitoring shall be carried out under a Section 26 (National Monuments Act 1930) excavation licence and in accordance with an approved method statement.

c. A Finds Retrieval Strategy shall be implemented and agreed with the Department, as part of the archaeological licence application. This shall include for systematic finds retrieval and metal detection of all spoil, which shall be undertaken by an archaeologist working under a Detection Device consent (Section 2 1987 National Monuments Act). All monitoring works that have the potential to uncover human skeletal remains shall be undertaken in conjunction with a suitably qualified and experienced osteoarchaeologist. Secure finds storage that ensures the protection and conservation of wet and dry finds, including human skeletal remains, shall be provided within the construction site compound.

d. Historical and buildings archaeology investigation of all historic built structures that will be impacted upon by the development shall be undertaken as part of the monitoring programme. The works shall comprise

of buildings archaeology investigations and recording that secures an understanding of the architectural phasing of all impacted structures and features.

e. Qualified archaeologists shall be in place to ensure continuous archaeological monitoring of project works. An archaeological team shall be on standby to deal with any rescue excavation and may be augmented as required.

f. In order to ensure full communication is in place between the monitoring archaeologist(s) and the works contractor(s) at all times, a communication strategy shall be implemented that facilitates direct archaeological monitoring of all construction activities that involve ground disturbances or demolitions and of any works where materials of archaeological importance may be uncovered. Adequate notice (minimum four weeks) of all forthcoming works that require the attendance of the monitoring archaeologist(s) shall be provided by the works contractor.

g. Should suspected/verified archaeological structures, features, deposits or sites and/or archaeological objects, be identified during the course of the archaeological monitoring activities, the monitoring archaeologist shall be authorised by the Developer to suspend all construction activities on the affected area (as defined by the monitoring archaeologist). The Developer shall immediately institute a Temporary Archaeological Exclusion Zone (TAEZ) to the proposed find location and its environs (as defined by the monitoring archaeologist) and all construction activities shall immediately cease within the TAEZ in order to facilitate investigative assessment, protection and prompt notification to the Department and other statutory authorities, as required.

h. Following assessment of the newly discovered archaeological materials, the Developer shall undertake any ensuing mitigating action as is required by the Department. Mitigation shall prioritise redesign or partial redesign to facilitate full or partial preservation in situ. Mitigation may also include

archaeological excavations (‘preservation by record’), archaeological test-excavations, stabilisation/conservation works and/or archaeological monitoring, underwater archaeological inspection by means of archaeological diving, underwater archaeological surveys, or any combination of the above or any other mitigation measures as may be recommended by the Department. No construction activities shall recommence within the Temporary Archaeological Exclusion Zone until formally agreed in writing with the Department. Where ensuing mitigation is required, no archaeological works shall be undertaken until after an amended method statement that describes the mitigation strategy has been submitted, reviewed and agreed in writing by the Department. All resulting and associated archaeological costs shall be borne by the Developer.

i. The planning authority and the Department shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work/excavation required, following the completion of all archaeological works and any post-excavation analysis, scientific dating programmes, palaeoenvironmental analysis, geoarchaeological analysis, conservation of archaeological objects, as required by the Department and the National Museum of Ireland. Where significant archaeological discoveries are made, they shall be fully published in an appropriate academic format. All post excavation and publication costs shall be borne by the Developer.

6. Archaeological monitoring of instream/river-margin construction works shall be undertaken as follows:

a. The services of a suitably qualified and licensed maritime/underwater archaeologist shall be engaged to carry out full-time archaeological monitoring of all in-stream/river margin construction activities or works with the potential to impact on underwater cultural heritage. The archaeological monitoring shall be carried out under a Section 26 (National Monuments

Act 1930) excavation licence and in accordance with an approved method statement.

b. A Finds Retrieval Strategy shall be implemented and agreed with the Department, as part of the archaeological licence application.

c. Archaeological monitoring shall comply with the requirements of Condition 5(e). An archaeological dive team shall be on standby in the event that underwater archaeological inspection is required by means of archaeological diving. All dive surveys shall be licenced (Section 3 1987 National Monuments Act) and shall include handheld metal detection survey, which shall also be licenced (Section 2 1987 National Monuments Act).

d. A communication strategy shall be implemented between the monitoring archaeologist(s) and the works contractor(s)that facilitates direct archaeological monitoring of all in-stream/river margin construction activities or works with the potential to impact on underwater cultural heritage.

e. Archaeological monitoring shall comply with the requirements of condition 11 (5) (g), (h), (i).

7. The Construction Environment Management Plan (CEMP) shall be updated to include the location of any and all archaeological or underwater cultural heritage constraints relevant to the proposed development as set out in the Final Design AIA and EIAR. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or underwater cultural heritage environment during all phases of site preparation and construction activity.

8. In default of agreement on any requirements of the Department, the matter shall be referred to An Coimisiún Pleanála for determination.

Reason: To ensure the continued preservation (either *in situ* or by record) of places, caves, sites, features and other objects of archaeological interest.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

David Ryan
Senior Planning Inspector

24th November 2025

Appendix 1 - AA Screening Determination

Test for likely significant effects

Screening for Appropriate Assessment Test for likely significant effects	
Step 1: Description of the project and local site characteristics **Case File 322748**	
Brief description of project	Proposed development consisting of a Flood Relief Scheme adjacent to, and in the vicinity of the Clodiagh River, in the townlands of Brittas, Bunastick, Clonaslee, Ballynakill and Brockagh, in Co. Laois.
Brief description of development site characteristics and potential impact mechanisms	A detailed description of the proposed development is included in Section 3.0 of the Inspector Report and detailed specifications of the proposal are provided in Appendix A in the NIS and other planning documents provided by the applicant. In summary the proposed flood relief works are divided into three areas, consisting of the following: **In Area 1: Brittas Wood**, defence elements include an embankment; culvert remediation; and a debris trap consisting of a concrete base with 6 no. concrete cast poles (each c. 3 metres in height) in the channel of the Clodiagh River, and an associated access slipway with fencing and access gate. **In Area 2: Chapel Street,** defence elements include a flood wall. In **Area 3: Tullamore Road and Integrated Constructed Wetland (ICW)** defence elements include a flood wall and an embankment parallel to the Clodiagh River and Tullamore Road, west of an existing embankment. The development will also include associated and ancillary development works. The construction phase of the proposed development is expected to take 24 months. The site of Area 1 is partially located within the Slieve Bloom Mountains SPA (004160). The sites are hydrologically connected to the Charleville Wood SAC (000571), River Shannon Callows SAC (000216), Middle Shannon Callows SPA (004096). Annex I Alluvial forests are located c.12.3km downstream of the site. The AA Screening report submitted outlines there is a possibility that the Clodiagh river has affinities to the upland aspect of Annex I floating river vegetation habitat (3260). In relation to flooding, the proposed site is located within flood risk zones.
Screening report	Y
Natura Impact Statement	Y
Relevant submissions	A submission has been made by IFI. Concerns and recommendations outlined relate mainly to the protection of the

	aquatic resource and the associated riparian habitat. Concerns include debris trap impacts, habitat degradation, timing of works, maintenance.

Step 2. Identification of relevant European sites using the Source-pathway-receptor model

20 no. European sites were identified in the AA screening report as being located within a potential zone of influence of the proposed development. I note that the applicant included European sites in their screening consideration with sites as far as c.165km of the development site considered. This includes for 15 no. European Sites which include the conservation objective to maintain the favourable conservation condition of White-clawed crayfish. I have only included sites with any possible ecological connection or pathway in this screening determination. The AA screening report/NIS has not considered the European Site Lower River Shannon SAC 002165. I have included this site in my AA screening assessment.

European Site (code)	**Qualifying interests[1] Link to conservation objectives (NPWS, date)/**	**Distance from proposed development (km)**	**Ecological connections[2]**	**Consider further in screening[3] Y/N**
Slieve Bloom Mountains SPA (004160)	A082 Hen Harrier Circus cyaneus https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004160.pdf	0.0 km	Yes, the site is located within and adjacent to the SPA.	Y
Lower River Shannon SAC (002165)	1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1106 Atlantic Salmon Salmo salar (only in fresh water) 1110 Sandbanks which are slightly covered by sea water all the time 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide	110km	Yes, there is a hydrological connection to the SAC site	y

	1150 *Coastal lagoons 1160 Large shallow inlets and bays 1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1349 Bottlenose Dolphin Tursiops truncatus 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) https://www.npws.ie/protected-sites/sac/002165			
Charleville Wood SAC (000571)	1016 Desmoulin's Whorl Snail Vertigo moulinsiana 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	10km 12.3km (hydrological connection)	Yes, there is a hydrological connection to the SAC site	y

	https://www.npws.ie/sites/ default/files/protected-sites/conservation_ objectives/CO000571.pdf			
River Shannon Callows SAC (000216)	1355 Otter Lutra lutra 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) 7230 Alkaline fens 8240 Limestone pavements* 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* https://www.npws.ie/ protected-sites/sac/000216	29km	Yes there is a hydrological connection to the SAC site	y
Middle Shannon Callows SPA (004096)	A038 Whooper Swan Cygnus cygnus A050 Wigeon Anas penelope A122 Corncrake Crex crex A140 Golden Plover Pluvialis apricaria A142 Lapwing Vanellus vanellus A156 Black-tailed Godwit Limosa limosa A179 Black-headed Gull Chroicocephalus ridibundus A999 Wetlands https://www.npws.ie /sites/default/files/ protected-sites/conservation _objectives/CO004096.pdf	30km	Yes, there is a hydrological connection to the SPA site	Y

River Barrow and River Nore SAC (002162)	1016 Desmoulin's Whorl Snail Vertigo moulinsiana 1029 Freshwater Pearl Mussel Margaritifera margaritifera 1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax fallax 1106 Salmon Salmo salar 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1170 Reefs 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 1421 Killarney Fern Trichomanes speciosum 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4030 European dry heaths	2km	There is no hydrological connectivity to this site. However, there is the potential, that machinery, equipment/PPE used during the construction and operational phase of the proposed development could also be used in catchments supporting this SAC. Given the potential magnitude of the effect of the spread of crayfish plague into watercourses (risk of 100% mortality in affected populations), and the uncertainty as to whether it could occur during the construction or operational phase, the QI species White-clawed crayfish is considered to be within the potential ZoI.	y

	6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 7220 Petrifying springs with tufa formation (Cratoneurion)* 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* https://www.npws.ie /sites/default/files /protected-sites/ conservation _objectives/CO002162.pdf			
Blackwater River (Cork/Waterford) SAC (002170)	1029 Freshwater Pearl Mussel Margaritifera margaritifera 1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax 1106 Atlantic Salmon Salmo salar (only in fresh water) 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide	110km	As above	y

	1220 Perennial vegetation of stony banks 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 1421 Killarney Fern Trichomanes speciosum 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) 91J0 *Taxus baccata woods of the British Isles			
Bricklieve Mountains and Keishcorran SAC (001656)	1065 Marsh Fritillary Euphydryas aurinia 1092 White-clawed Crayfish Austropotamobius pallipes 3180 Turloughs* 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	113km	As above	y

	8120 Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)			
Glenade Lough SAC (001919)	1092 White-clawed Crayfish Austropotamobius pallipes 1833 Slender Naiad Najas flexilis 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	143km	As above	Y
Kilroosky Lough Cluster SAC (001786)	1092 White-clawed Crayfish Austropotamobius pallipes 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae* 7230 Alkaline fens	118km	As above	Y
Lough Bane and Lough Glass SAC (002120)	1092 White-clawed Crayfish Austropotamobius pallipes 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	63km	As above	y
Lough Corrib SAC (000297)	1029 Freshwater Pearl Mussel Margaritifera margaritifera 1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1106 Salmon Salmo salar 1303 Lesser Horseshoe Bat Rhinolophus hipposideros 1355 Otter Lutra lutra 1393 Slender Green Feather-moss Drepanocladus vernicosus	76km	As above	Y

	1833 Slender Naiad Najas flexilis 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7110 Active raised bogs 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae * 7220 Petrifying springs with tufa formation (Cratoneurion) * 7230 Alkaline fens			

	8240 Limestone pavements * 91A0 Old sessile oak woods with IIex and Blechnum in the British Isles 91D0 Bog woodland*			
Lough Gill SAC (001976)	1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1106 Salmon Salmo salar 1355 Otter Lutra lutra 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	127km	As above	y
Lough Lene SAC (002121)	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Austropotamobius pallipes (White-clawed Crayfish) [1092]	60km	As above	Y
Lough Owel SAC (000688)	1092 White-clawed Crayfish Austropotamobius pallipes	46km	As above	y

	3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 7140 Transition mires and quaking bogs 7230 Alkaline fens			
Lower River Suir SAC 002137	1029 Freshwater Pearl Mussel Margaritifera margaritifera 1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax fallax 1106 Salmon Salmo salar 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	55km	As above	y

	91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) * 91J0 Taxus baccata woods of the British Isles*			
River Moy SAC (002298)	1092 White-clawed Crayfish Austropotamobius pallipes 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1106 Salmon Salmo salar 1355 Otter Lutra lutra 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 7230 Alkaline fens 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* NOTE: S.I. No. 332 of 2023 includes 6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	108km	As above	y
White Lough Ben Loughs and Lough Doo SAC (001810)	1092 White-clawed Crayfish Austropotamobius pallipes 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	63km	As above	y
Lough Hoe Bog SAC (000633)	1013 Geyer's Whorl Snail Vertigo geyeri	140km	As above	y

	1092 White-clawed Crayfish Austropotamobius pallipes 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 7130 Blanket bogs (* if active bog)			
Lough Nageage SAC (002135)	1092 White-clawed Crayfish Austropotamobius pallipes	162km	As above	y

[1] Summary description / cross reference to NPWS website is acceptable at this stage in the report
[2] Based on source-pathway-receptor: Direct/ indirect/ tentative/ none, via surface water/ ground water/ air/ use of habitats by mobile species
[3]if no connections: N

NOTE: In crayfish surveys, on 11th August 2021 otter spraint with crayfish carapace remains was noted on a boulder upstream of Clonaslee bridge. During a resurvey on 17th August 2021, dead crayfish were found. An outbreak of crayfish plague in the River Clodiagh near Clonaslee was announced on 30th August 2021. No crayfish were observed during kick sampling/dedicated crayfish surveys undertaken on 24th August 2023.

NOTE: In a survey in June 2024, a single otter spraint was recorded on a boulder just upstream of the proposed debris trap within Area 1.

Step 3. Describe the likely effects of the project (if any, alone or in combination) on European Sites

The proposed development will result in direct effects on Slieve Bloom Mountains SPA (004160). In addition, given the size and scale and proximity of the proposed development to SACs and SPAs, impacts generated by the construction and operation of the development require consideration. Sources of impact and likely significant effects are detailed in the Table below.

AA Screening matrix

Site name **Qualifying interests**	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
	Impacts	**Effects**
Site 1 Slieve Bloom Mountains SPA (004160)	Direct - Works are proposed within the SPA and there will be a direct impact on the SPA. Increased human disturbance at proposed site, particularly during the construction/ installation phase	Potential loss of habitat with works proposed within SPA, tree removal proposed; Potential disturbance risks to Hen Harrier, a SCI for the SPA, which could be associated with increased noise, increased human activity at construction phase; air pollution.

	Likelihood of significant effects from proposed development (alone): N	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?N	
	Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects can be ruled out without further analysis and assessment. See Further Commentary / discussion	
	Impacts	**Effects**
Site 2 Charleville Wood SAC (000571)	Direct - No works are proposed within the SAC and there will be no direct impact on the SAC. Indirect - Release of silt and sediment during site works, release of construction related pollution including hydrocarbons to surface and ground waters Spread of invasive plant species which was recorded (Japanese Knotweed, hybrid knotweed) in the development site	Potential damage to habitats associated with inadvertent spillages of hydrocarbons and/or other chemicals during construction phase; Potential damage to the habitats of QI dependent on water quality, an impact of sufficient magnitude could undermine the sites conservation objectives Potential spread of invasive species associated with ground disturbance activities during the construction phase.
	Likelihood of significant effects from proposed development (alone): Y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment		
	Impacts	**Effects**
Site 3 River Shannon Callows SAC (000216)	Direct - No works are proposed within the SAC and there will be no direct impact on the SAC. Indirect - Release of silt and sediment during site works, release of construction related pollution including hydrocarbons to surface and ground waters	Potential damage to habitats associated with inadvertent spillages of hydrocarbons and/or other chemicals during construction phase; Potential damage to the habitats of QI dependent on water quality, an impact of sufficient magnitude could undermine the sites conservation objectives
	Likelihood of significant effects from proposed development (alone): N	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?N	
Possibility of significant effects (alone) in view of the conservation objectives of the site*		

Possibility of significant effects can be ruled out without further analysis and assessment. See Further Commentary / discussion		
	Impacts	**Effects**
Site 4 Middle Shannon Callows SPA (004096)	Direct - No works are proposed within the SPA and there will be no direct impact on the SPA. Indirect - Release of silt and sediment during site works, release of construction related pollution including hydrocarbons to surface and ground waters	Potential damage to habitats associated with inadvertent spillages of hydrocarbons and/or other chemicals during construction phase; Potential damage to the habitats of SCI dependent on water quality, an impact of sufficient magnitude could undermine the sites conservation objectives
	Likelihood of significant effects from proposed development (alone): N	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?N	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects can be ruled out without further analysis and assessment. See Further Commentary / discussion		
	Impacts	**Effects**
Site 5 River Barrow and River Nore SAC (002162)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 6 Blackwater River (Cork/Waterford) SAC (002170)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by

		way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 7 Bricklieve Mountains and Keishcorran SAC (001656)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 8 Glenade Lough SAC (001919)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**

Site 9 Kilroosky Lough Cluster SAC (001786)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 10 Lough Bane and Lough Glass SAC (002120)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 11 Lough Corrib SAC (000297)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.

	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 12 Lough Gill SAC (001976)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 13 Lough Lene SAC (002121)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 14 Lough Owel SAC (000688)	Indirect – Construction and operation activities could facilitate	Given the potential magnitude of the effect of the spread of the

	the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 15 Lower River Suir SAC (002137)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 16 River Moy SAC (002298)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	

	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 17 White Lough Ben Loughs and Lough Doo SAC (001810)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 18 Lough Hoe Bog SAC (000633)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	**Effects**
Site 19 Lough Nageage SAC (002135)	Indirect – Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected

	machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to other catchments/watercourses.	populations),and the uncertainty as to whether it could occur, there is a potential for significant effects on the QI white-clawed crayfish by way of crayfish plague pathogen spread/transfer.
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		
	Impacts	Effects
Site 20 Lower River Shannon SAC (002165)	Direct - No works are proposed within the SAC and there will be no direct impact on the SAC. Indirect - Potential impact on QI species by way of ex-situ habitat loss, habitat degradation	Potential damage to habitats associated with habitat removal, installation of instream structure (debris trap), inadvertent spillages of hydrocarbons and/or other chemicals during construction phase; Potential damage to the habitats of QI Atlantic Salmon dependent on water quality, an impact of sufficient magnitude could undermine the sites conservation objectives
	Likelihood of significant effects from proposed development (alone): y	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Possibility of significant effects (alone) in view of the conservation objectives of the site* Possibility of significant effects cannot be ruled out without further analysis and assessment.		

Further Commentary / discussion

Slieve Bloom Mountains SPA (004160)

In terms of habitat loss, the AA Screening report outlines the proposed scheme is located within the northern margins of the Slieve Bloom Mountains SPA (004160), which is designated for hen harrier, and comprises mixed broadleaved woodland. It is outlined for hen harrier habitat, the COs for the Slieve Bloom Mountains SPA relate to maintaining the extent and condition of heath and bog and associated habitats, maintaining the extent and condition of low intensity managed grasslands and associated habitats, maintaining the extent and condition of hedgerows, and achieving an even and consistent distribution of age-classes across the forest estate (NPWS 2022b). It is outlined according to the SPA Site Synopsis, much of the slopes of the SPA are afforested, and

overall coniferous plantations account for c. 60% of the site (NPWS 2015). It is outlined the proposal will result in the removal of 10 no. broadleaved species trees from within the SPA in Brittas Wood and are not associated with important hen harrier habitat within the SPA. It is further outlined the trees to be removed are located along a public walkway within Brittas wood in close proximity to the village, and that their removal with associated understorey will not result in significant effects on the conservation objectives of hen harrier within this SPA.

I note the site of the proposed works in Brittas Wood (Area 1) are within the SPA, which is designated for the SCI species Hen Harrier. I also note the attributes and targets set out in relation to the hen harrier habitats and hedgerow, as listed in the Conservation Objectives for the species, with targets including to maintain the extent and quality of this resource to support the targets relating to population size, productivity rate and spatial utilisation. Given the details submitted and the nature of the habitat loss proposed, which is not associated with the Conservation Objectives attribute habitats and their targets for hen harrier, it is considered that the proposed development will not result in significant effects to the SCI species by way of habitat loss.

In terms of disturbance arising in the SPA from noise, vibration, lighting, and human presence, the AA Screening report outlines the location of Area 1 within the SPA does not contain suitable breeding habitat for hen harrier, and all of the Slieve Bloom breeding pairs identified during the 2022 national survey of breeding hen harrier were located within upland, heather habitats and none in afforested habitats (Ruddock, et al. 2024). It is outlined the proposed work area is limited to mixed broadleaved woodland on the outskirts of the SPA, comprises a public amenity area, and that lands within 750 m of the proposal do not contain suitable breeding habitat for the SCI species. It is however outlined it is possible that hen harrier forage along the hedgerows within the vicinity of the proposal. It is stated given construction work will be isolated to the proposal site, and hen harriers prefer upland habitats for nesting and foraging, and it is considered the construction phase is unlikely to result in significant effects on hen harrier in terms of disturbance. Given the above and the abundant foraging habitat for hen harrier in the SPA, it is also outlined it is unlikely that significant disturbance effects on hen harrier will occur due to air pollution.

While it is acknowledged that hen harriers may forage along the hedgerows within the vicinity of the proposal site, given the details submitted and the nature of the habitat in works Area 1, and the location of the proposal site relative to suitable breeding habitat for the SCI species, as outlined, I consider that significant effects by way of disturbance on SCI would be unlikely. In addition, given the abundant foraging habitat for hen harrier in the SPA, I consider that significant effects by way of disturbance on SCI by way of air pollution at construction stage unlikely.

I consider the Slieve Bloom Mountains SPA (004160) can be screened out from further assessment because of the nature, scale and location of the proposed works, the nature of the habitat loss proposed, and the Conservation Objectives for hen harrier. On the basis of the information submitted, and the above, it is considered that the proposed development will not result in significant effects to the SCI species by way of habitat loss, or by way of disturbance.

River Shannon Callows SAC (000216)

The AA Screening Report outlines there is direct hydrological connectivity between the proposed site and this downstream European Site via the Clodiagh River, and considering the distance to this site, it is unlikely that significant effects on receptors within this SAC are likely to arise, and the SAC is not screened in for further assessment. The River Shannon Callows SAC (000216) can be screened out from further assessment because of the nature and scale of the proposed works, the nature of the Conservation Objectives, Qualifying Interests, the separation distances and the lack of a substantive linkage between the proposed works and the European site. I consider that the hydrological pathway from the source to the SAC which is via rivers at a significant distance of approx. 50km (nearest point is 29km), is weak given the separation distance and that dilution and dispersion of

any potential pollutants in watercourses would occur. I therefore consider that the proposed development would not be likely to have a significant effect on the SAC.

Middle Shannon Callows SPA (004096)

The AA Screening Report outlines there is direct hydrological connectivity between the proposed site and this downstream European Site via the Clodiagh River, and considering the distance to this site, it is unlikely that significant effects on receptors within this SPA are likely to arise, and the SPA is not scoped in for further assessment. The Middle Shannon Callows SPA (004096) can be screened out from further assessment because of the nature and scale of the proposed works, the nature of the Conservation Objectives, SCI, the separation distances and the lack of a substantive linkage between the proposed works and the European site. I consider that the hydrological pathway from the source to the SPA which is via rivers at a significant distance of approx. 50km (nearest point is 29km), is weak given the separation distance and that dilution and dispersion of any potential pollutants in watercourses would occur. I therefore consider that the proposed development would not be likely to have a significant effect on the SPA.

Step 4 Conclude if the proposed development could result in likely significant effects on a European site

Based on the information provided in the AA screening report, site visit, review of the conservation objectives and supporting documents, and submission made, I consider that in the absence of mitigation measures, the proposed development has the potential to result in significant effects on the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), from effects associated with proposed development including potential damage to QI habitats, and QI species by way of pollution and deterioration of water quality, ex-situ impacts, potential pathogen spread, and potential spread of invasive species. An appropriate assessment is required on the basis of the possible effects of the project 'alone'.

Screening Determination

Significant effects cannot be excluded

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that the proposed development alone or in combination with other plans and projects, could result in significant effects on the European Sites Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), in view of the sites conservation objectives. Appropriate Assessment is required. This determination is based on:

-The nature and scale of the works

-The hydrological connections to the European Sites and the potential for significant effects on QI habitats, QI species, by way of pollution and deterioration of water quality, ex-situ impacts,

-potential spread of pathogen

-Potential spread of invasive species.

It is therefore determined that Appropriate Assessment (stage 2) [under Section 177AE of the Planning and Development Act 2000] of the proposed development is required.

Appendix 2 - AA Determination

Appropriate Assessment
The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, S.177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section.
Taking account of the preceding screening determination, the following is an appropriate assessment of the implications of the proposed development in view of the relevant conservation objectives of Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), Lower River Shannon SAC (002165), based on scientific information provided by the applicant. The information relied upon includes the following: • Natura Impact Statement prepared by RPS • NPWS data • Submission made I am satisfied that the information provided is adequate to allow for Appropriate Assessment. I am satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity are included and assessed for effectiveness.
Submissions/observations A submission has been made by IFI. Concerns and recommendations outlined relate mainly to the protection of the aquatic resource and the associated riparian habitat. Concerns include debris trap impacts, habitat degradation, timing of works, maintenance.
Charleville Wood SAC (000571) **Summary of Key issues that could give rise to adverse effects (from screening stage):** **(i) Degradation of habitat by way of water quality degradation (construction stage)** **(ii) Water quality degradation (construction)** **(iii) Spread of invasive species (construction)**

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-	To restore the favourable conservation condition	Water quality degradation and/ or alteration of habitat	Implementation of CEMP

Padion, Alnion incanae, Salicion albae)*	Habitat distribution- No decline, subject to natural processes Woodland structure-Maintain diversity and extent of community types	quality would undermine conservation objectives Spread of invasive Species would negatively effect habitat	Water quality protection and management measures Environmental Emergency Response Plan Pre-construction invasive species surveys, Invasive Alien Species Avoidance and Management Plan Monitoring of construction and operational phases	
1016 Desmoulin's Whorl Snail Vertigo moulinsiana	To maintain the favourable conservation condition Distribution-No decline, subject to natural processes Density within habitat-No decline, subject to natural processes Habitat quality: water levels-Maintain at current levels, subject to natural processes	Water quality degradation and/ or alteration of habitat quality would undermine conservation objectives Spread of invasive Species would negatively effect supporting habitat of Desmoulin's Whorl Snail	Implementation of CEMP Water quality protection and management measures Environmental Emergency Response Plan Pre-construction invasive species surveys, Invasive Alien Species Avoidance and Management Plan Monitoring of construction and operational phases	
The above table is based on the documentation and information provided on the file, NPWS data, and I am satisfied that the submitted NIS and data identifies the relevant attributes and targets of the QI.				

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Degradation of habitat by way of water quality degradation (construction stage)

Good quality water is necessary to restore the favourable conservation condition of the habitat. The NIS outlines attributes of the Alluvial Woodland could be affected by the contamination of the woodland as a result of contaminants being transferred from the site downstream. It is outlined the construction stage could result in the accidental release of cement, hydrocarbons and other potentially polluting chemicals or materials into the River Clodiagh, and this could result in adverse changes in surface water quality, and a change in habitat extent along the affected section. There is a potential for hydrocarbons, suspended solids and other potentially polluting materials to enter the river /lake system during the construction stage. This could potentially impact on protected habitats, leading to degradation of habitats. Having regard to the separation distance to the SAC (c.12.3km), I

consider that the effects of dilution and dispersion would serve to reduce this potential indirect effect on the SAC QI habitat and species.

The NIS outlines the water level of Charleville Lake, and hence the degree of inundation of the alluvial forests habitat, is controlled by a sluice, as outlined in the CO document. It is outlined EPA river flow network data and historic maps indicate that the River Clodiagh does not flow into Charleville Lake, and the lake appears to be fed by a stream flowing into the lake from the east. The NIS outlines there could be connectivity between the Clodiagh River and Charleville Lake during a flood event. It is outlined it is assumed that any changes to the hydrological regime of the River Clodiagh as a result of the proposal are highly unlikely to affect the hydrological regime of Charleville Lake, and therefore are highly unlikely to affect alluvial forest dependent on inundation by the lake. Given this and the separation distance from the proposal site, no operational phase impacts on Alluvial Woodland are anticipated. Having regard to the details submitted and EPA mapping, I concur with this viewpoint.

Mitigation measures and conditions

The focus of mitigation measures proposed are at preventing ingress of pollutants and silt into surface and ground water and receiving watercourses. This is to be achieved via the application of specific mitigation measures. Detail is provided on silt controls, chemical controls, water management, instream works, vegetative clearance. Measures include:

- The implementation of a CEMP with an Ecological Clerk of works appointed for the construction of scheme
- Silt controls include there shall be no direct discharge of untreated water from works to surface water body/drainage network; use of works exclusion zone, buffer zones; use of silt fencing as per CIRIA C648; drainage of inlets on Chapel Street blocked.
- A surface water management plan will be developed; Water from excavations shall be pumped to siltbuster water treatment system; dewatering outfall pipes will be placed well downstream of works; installation of temporary interceptor drains; sediment within settlement tanks will be disposed of off-site to a waste facility;
- For Fuels/chemicals: concrete works will avoid contamination of ground and water through use of methods in accordance with industry standards (CIRIA - C532', CIRIA, 2001);
- For Instream works measures include: timing of works; establishing works exclusion zone; creation of dry area to install debris trap through river diversion to one side; Flood warning action plan being in place; monitoring of water levels; For river margin and channel reinstatement prior to removal of sandbags reinstatement of damaged riverbanks and margins will occur; engineering solutions for scour/erosion protection shall be limited; use of riprap protection; use of willow spiling; reinstatement of river substrate within the instream works area shall match the profile of the bed level on the outside of the instream works area, and at the upstream and downstream ends, with no significant step-change in lateral or longitudinal riverbed profile; the dry area must be rewetted gradually.
- For vegetation clearance adjacent watercourses stumps will be retained; root system on bank will not be disturbed;
- Environmental Emergency Response Plan
- Construction stage monitoring includes for monitoring of site clearance, mitigation measures integrity checks, turbidity, hydrocarbon sheen, weather data, water levels.

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected habitats and species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Planning conditions of the Inspectors Report.

(ii)Water quality degradation (construction)

Good quality water is necessary to maintain the favourable conservation condition of QI Desmoulin's Whorl Snail. The NIS outlines contamination of the whorl snail's habitat with silt, hydrocarbons or other chemicals used in construction could affect the attributes (distribution, occurrence and density) that define favourable conservation status of this species. It is outlined pollution of habitat supporting Desmoulin's whorl snail has the potential to result in the deterioration of the condition of the snail's habitat and also potentially result in negative effects through direct toxicity, which could result in mortality of individuals.

There is a potential for excessive levels of suspended solids, pollutants to enter the river / lake network during the construction stage. This could potentially impact on habitats and protected species. Having regard to the separation distance to the SAC (c.12.3km), I consider that the effects of dilution and dispersion would serve to reduce this potential indirect effect on the SAC QI species.

As outlined for operational phase effects on Alluvial Woodland, the hydrological regime of the habitat supporting the QI species is not anticipated to be affected by the proposal. It is outlined EPA river flow mapping does not indicate that the River Clodiagh flows into Charleville Lake, although there could be connectivity between these two waterbodies during a flood event. Given the above and the separation distance from the proposal site, no operational phase impacts on QI Desmoulin's Whorl Snail Woodland are anticipated.
Having regard to the details submitted and EPA mapping, I concur with this viewpoint.

Mitigation measures and conditions

As above (i)

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected habitats and species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Planning conditions of the Inspectors Report.

(iii) Spread of invasive species

The spread of invasive species may undermine conservation objectives for QI by way of impacts on habitat and species. Invasives may outcompete native species, negatively effecting QI habitat, and supporting habitat of QI species. The NIS outlines Japanese knotweed occurs within the proposal footprint and could spread into the SAC, resulting in a reduction in the area, distribution and size of Annex I alluvial woodland. It is outlined woodland cover, community diversity and extent, natural regeneration, indicators of local distinctiveness and vegetation composition could all be negatively affected. It is also outlined Japanese knotweed invasion could result in the loss of flora on which Desmoulin's whorl snail relies (e.g., large sedges, reeds) and could also result in too much shade and/or drying out of the snail's habitat.

Mitigation measures and conditions

Mitigation measures are set out to address potential impacts from the introduction and spread of invasive alien plant species (IAPS) upon ecological receptors. Measures include:

- A Pre-construction invasive species survey will be carried out
- An Invasive Alien Species Avoidance and Management Plan will be prepared with works supervised by EcOW. Measures will include exclusion fencing and signage being installed; treatment plan to include in-situ chemical treatment, root barrier membranes and/or excavation and disposal at a suitably

licensed facility as appropriate; guidance regarding off-site disposal and licencing, with licence required where material is contaminated in accordance SI 477; Biosecurity measures to ensure invasive species are not spread between sites; and machinery hygiene including steam cleaning machinery and disinfection of water pumps etc.

- Construction stage monitoring includes mitigation measures integrity checks
- Operational monitoring will include monitoring of regrowth of invasive alien plant species

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing the spread of invasive species. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. The NIS outlines approved and pending forestry licence applications in the River Clodiagh catchment, and future maintenance works within the Brosna Arterial Drainage Scheme channel, if undertaken concurrently with the construction phase of the proposal Proposed Scheme, could result in significant in-combination effects on the downstream European Site, Charleville Wood SAC. It is also outlined
large scale developments (e.g., reg. ref. 22361 which relates to a commercial development) may be hydrologically linked with the River Gorragh or River Clodiagh, and if the construction phase of these developments and the Proposed Scheme overlap, there is potential for in-combination effects, in the absence of mitigation. Operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Charleville Wood SAC** considered in the Appropriate Assessment. Impacts would be temporary in nature and mitigation measures are described to prevent ingress of pollutants and silt into surface and ground water and receiving watercourses. Measures are also outlined to prevent the spread of invasive species to safeguard QI. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Charleville Wood SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

River Barrow and River Nore SAC
(002162)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Spread of pathogen (construction and operation stage)				
Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**	
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the Favourable conservation condition of White-clawed crayfish Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and/or females with eggs in at least 50% of positive samples	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying	
1016 Desmoulin's Whorl Snail Vertigo moulinsiana 1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri	Not at risk	Rationale for exclusion: No viable pathway		

1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax fallax 1106 Salmon Salmo salar 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1170 Reefs 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 1421 Killarney Fern Trichomanes speciosum 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4030 European dry heaths 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 7220 Petrifying springs with tufa formation (Cratoneurion)*				

91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*				

The above table is based on the documentation and information provided on the file, and NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests/SCI.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has

demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **River Barrow and River Nore SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **River Barrow and River Nore SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Blackwater River (Cork/Waterford) SAC (002170)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition of White-clawed Crayfish Distribution- No reduction from baseline Disease- No instances of disease	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will

	Population structure: recruitment- Juveniles and/or females with eggs in at least 50% of positive samples	(operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	include visual inspections, cleaning, disinfectant treatment, drying
1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax 1106 Atlantic Salmon Salmo salar (only in fresh water) 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1220 Perennial vegetation of stony banks	Not at risk	Rationale for exclusion: No viable pathway	

1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 1421 Killarney Fern Trichomanes speciosum 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) 91J0 *Taxus baccata woods of the British Isles			
The above table is based on the documentation and information provided on the file, NPWS data, and I am satisfied that the submitted NIS and data identifies the relevant attributes and targets of the Qualifying Interests.			
Assessment of issues that could give rise to adverse effects in view of conservation objectives **(i) Spread of pathogen (construction and operation stage)** The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed			

crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Blackwater River (Cork/Waterford) SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Blackwater River (Cork/Waterford) SAC River Barrow.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Bricklieve Mountains and Keishcorran SAC (001656)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i) Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at appropriate time and methodology	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
1065 Marsh Fritillary Euphydryas aurinia 3180 Turloughs* 6210 Semi-natural dry grasslands and scrubland facies on calcareous	Not at risk	Rationale for exclusion: No viable pathway	

substrates (Festuco-Brometalia) (* important orchid sites) 6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) 8120 Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.
Findings and conclusions The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site. Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Bricklieve Mountains and Keishcorran SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented. **Reasonable scientific doubt** I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects. **Site Integrity** The proposed development will not affect the attainment of the Conservation objectives of **Bricklieve Mountains and Keishcorran SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Glenade Lough SAC (001919)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen	Biosecurity measures to include; -toolbox talk to all personnel;

	Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at appropriate time and methodology	responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	-all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
1833 Slender Naiad Najas flexilis 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	Not at risk	Rationale for exclusion: No viable pathway	

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Glenade Lough SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Glenade Lough SAC (001919).** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Kilroosky Lough Cluster SAC (001786) Summary of Key issues that could give rise to adverse effects (from screening stage): **(i)Spread of pathogen (construction and operation stage)**			
Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at appropriate time and methodology	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae*	Not at risk	Rationale for exclusion: No viable pathway	

7230 Alkaline fens			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the
proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects

arising from aspects of the proposed development can be excluded for the European site **Kilroosky Lough Cluster SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt
I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity
The proposed development will not affect the attainment of the Conservation objectives of **Kilroosky Lough Cluster SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Bane and Lough Glass SAC (002120)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To restore the favourable conservation condition Distribution- Restore presence in lake Disease- No instances of disease	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying

		pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Not at risk	Rationale for exclusion: No viable pathway	

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Bane and Lough Glass SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Lough Bane and Lough Glass SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Corrib SAC (000297)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition	Crayfish plague was confirmed in the River Clodiagh in 2021.	Biosecurity measures to include;

	Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and/or females with eggs in all occupied tributaries and occupied parts of Lough Corrib	Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	-toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1106 Salmon Salmo salar 1303 Lesser Horseshoe Bat Rhinolophus hipposideros 1355 Otter Lutra lutra 1393 Slender Green Feather-moss Drepanocladus vernicosus 1833 Slender Naiad Najas flexilis	Not at risk	Rationale for exclusion: No viable pathway	

3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7110 Active raised bogs 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae *			

7220 Petrifying springs with tufa formation (Cratoneurion) * 7230 Alkaline fens 8240 Limestone pavements * 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91D0 Bog woodland*			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects
Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions
The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Corrib SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt
I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity
The proposed development will not affect the attainment of the Conservation objectives of **Lough Corrib SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Gill SAC (001976)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed 1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the	Biosecurity measures to include; -toolbox talk to all personnel;

	Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at appropriate time and methodology	transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	-all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1106 Salmon Salmo salar 1355 Otter Lutra lutra 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	Not at risk	Rationale for exclusion: No viable pathway	

91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily

that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.
Findings and conclusions The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site. Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Gill SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented. **Reasonable scientific doubt** I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects. **Site Integrity** The proposed development will not affect the attainment of the Conservation objectives of **Lough Gill SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Lene SAC (002121)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
Austropotamobius pallipes (White-clawed Crayfish) [1092]	To restore the favourable conservation condition Distribution- Restore presence in lake Disease- No instances of disease	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;

		(constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	-disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	Not at risk	Rationale for exclusion: No viable pathway	

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;

- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Lene SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Lough Lene SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Owel SAC (000688)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and/or females with eggs should be present in all occupied 1km squares, subject to natural processes and availability of suitable habitat	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 7140 Transition mires and quaking bogs 7230 Alkaline fens	Not at risk	Rationale for exclusion: No viable pathway	
The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.			

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Owel SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt
I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity
The proposed development will not affect the attainment of the Conservation objectives of **Lough Owel SAC.** Adverse effects on site integrity can be excluded,
and no reasonable scientific doubt remains as to the absence of such effects.

Lower River Suir SAC (002137)
Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and/or females with eggs in all occupied tributaries	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying

		adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	
1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1103 Twaite Shad Alosa fallax fallax 1106 Salmon Salmo salar 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and	Not at risk	Rationale for exclusion: No viable pathway	

Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) * 91J0 Taxus baccata woods of the British Isles*			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the

proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submissions made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lower River Suir SAC,** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt
I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity
The proposed development will not affect the attainment of the Conservation objectives of **Lower River Suir SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

River Moy SAC (002298)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections,

	and/or females with eggs in all occupied tributaries	Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	cleaning, disinfectant treatment, drying
1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1106 Salmon Salmo salar 1355 Otter Lutra lutra 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 7230 Alkaline fens 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* NOTE: S.I. No. 332 of 2023 includes 6510 Lowland hay	Not at risk	Rationale for exclusion: No viable pathway	

meadows (Alopecurus pratensis, Sanguisorba officinalis)			

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the
proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **River Moy SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented. **Reasonable scientific doubt** I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects. **Site Integrity** The proposed development will not affect the attainment of the Conservation objectives of **River Moy SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

White Lough Ben Loughs and Lough Doo SAC (001810)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying

	appropriate time and methodology	of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Not at risk	Rationale for exclusion: No viable pathway	

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant

solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **White Lough Ben Loughs and Lough Doo SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **White Lough Ben Loughs and Lough Doo SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Hoe Bog SAC (000633)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**

1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No decline Disease- No instances of disease Population structure: recruitment- Juveniles and/or females with eggs should be present in all occupied 1km squares, subject to natural processes and availability of suitable habitat	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying
1013 Geyer's Whorl Snail Vertigo geyeri 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 7130 Blanket bogs (* if active bog)	Not at risk	Rationale for exclusion: No viable pathway	
The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.			
Assessment of issues that could give rise to adverse effects in view of conservation objectives **(i) Spread of pathogen (construction and operation stage)**			

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set to out prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lough Hoe Bog SAC** considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Lough Hoe Bog SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lough Nageage SAC (002135)

Summary of Key issues that could give rise to adverse effects (from screening stage):

(i)Spread of pathogen (construction and operation stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1092 White-clawed Crayfish Austropotamobius pallipes	To maintain the favourable conservation condition Distribution- No reduction from baseline Disease- No instances of disease Population structure: recruitment- Juveniles and females with eggs in at least 50% of positive samples taken at appropriate time and methodology	Crayfish plague was confirmed in the River Clodiagh in 2021. Construction and operation activities could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE (constructions stage), and machinery and personnel (operational stage) to this SAC. Given the potential magnitude of the effect of the spread of the pathogen into watercourses (risk of 100% mortality in affected populations),and the uncertainty as to whether it could occur, there is a potential for adverse effects on QI white-clawed crayfish by way of pathogen spread/transfer.	Biosecurity measures to include; -toolbox talk to all personnel; -all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site; -disinfection protocol for PPE and equipment will include visual inspections, cleaning, disinfectant treatment, drying

The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the submitted NIS and NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects in view of conservation objectives

(i) Spread of pathogen (construction and operation stage)

The NIS outlines proposed construction activities within the Clodiagh River could facilitate the transfer of the pathogen responsible for crayfish plague, via machinery, equipment, and PPE, which could also arise at operational phase, via machinery and personnel required to maintain the proposed culvert inlet on
the Brittas Stream and proposed debris trap on the Clodiagh River. It is outlined given the potential magnitude of the effect of the spread of this pathogen into watercourses (risk of 100% mortality in affected populations), and uncertainty as to whether it could occur, the proposal has the potential to affect the integrity of white-clawed crayfish within the SAC. While I note there is no hydrological connection between the proposal site and the SAC, given the potential for the pathogen spread via construction and operational activities from the site to the SAC, I concur that there is a potential for adverse effects to arise on the integrity of the SAC by way of effects on QI white-clawed crayfish, in the absence of mitigation measures.

Mitigation measures and conditions

Mitigation measures are set out to prevent the transfer of damaging pathogens. Biosecurity Measures include:

- toolbox talks to all personnel;
- all PPE, plant and equipment used on site will be fully disinfected prior to arrival on site;
- disinfection and cleaning protocol for PPE and equipment, on completion of field operation or when moving from one location or waterway to another, to include: visual inspection for invasive species material; removal of material before disinfecting; cleaning and spraying of equipment with disinfectant solution; wipe down/spray PPE, plant and equipment that has come into contact with river water; drying and disinfecting PPE, equipment

I have considered the proposed mitigation measures as outlined, and I am satisfied that the measures proposed and outlined can be implemented, supervised effectively and will be effective in preventing pathogen spread. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

The applicant determined that following the implementation of mitigation measures the
proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, and submission made, I am satisfied that adverse effects
arising from aspects of the proposed development can be excluded for the European site

Lough Nageage SAC considered in the Appropriate Assessment. Mitigation measures are described to prevent the transfer of damaging pathogens to other watercourses/lake catchments. To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented. **Reasonable scientific doubt** I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects. **Site Integrity** The proposed development will not affect the attainment of the Conservation objectives of **Lough Nageage SAC.** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Lower River Shannon SAC (002165)

Summary of Key issues that could give rise to adverse effects (from screening stage):
(i)Ex-situ impacts on QI due to degradation of habitat by way of water quality degradation (construction stage)

(ii) Ex-situ impacts on QI due to habitat loss and degradation (construction stage)

(iii) Ex-situ impacts on QI due to habitat loss and degradation (operational stage)

Qualifying Interest features likely to be affected	**Conservation Objectives Targets and attributes (summary)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION **8**
1106 Atlantic Salmon Salmo salar	To restore the favourable conservation condition Distribution-Artificial barriers block salmons' upstream migration, thereby limiting the species to lower stretches and restricting access to spawning areas. The large hyrdo-electric station at Ardnacrusha and the Parteen regulating weir present considerable obstructions to upstream passage of salmon on the	Potential impact on QI species by way of ex-situ effects, including habitat degradation and habitat removal, installation of instream structure (debris trap), water contamination, which would undermine conservation objective	Implementation of CEMP Water quality protection and management measures Environmental Emergency Response Plan Monitoring of construction and operational phases Debris trap design being discussed with IFI before finalising

	Shannon main channel. While both have fish passes installed, upstream migration of salmon is still problematical. Further weirs upstream on the Shannon also restrict access to spawning habitat. Number and distribution of redds - Salmon spawn in clean gravels. Artificial barriers are currently preventing salmon from accessing suitable spawning habitat on the Shannon main channel		Timing of works
1029 Freshwater Pearl Mussel Margaritifera margaritifera 1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri 1099 River Lamprey Lampetra fluviatilis 1110 Sandbanks which are slightly covered by sea water all the time 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1150 *Coastal lagoons 1160 Large shallow inlets and bays 1170 Reefs	Not at risk	Rationale for exclusion: Separation distance (110km)	

1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1310 Salicornia and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1349 Bottlenose Dolphin Tursiops truncatus 1355 Otter Lutra lutra 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)			
The above table is based on the documentation and information provided on the file, NPWS data. I am satisfied that the NPWS data enables for the identification of the relevant attributes and targets of the Qualifying Interests.			
Assessment of issues that could give rise to adverse effects in view of conservation objectives **(i)Degradation of habitat by way of water quality degradation (construction stage)** Good quality water is necessary to restore the favourable conservation condition of Atlantic Salmon. The SAC has not been considered in the NIS, and I note the CO documentation for the SAC outlines in relation to Distribution artificial barriers block salmons' upstream migration, thereby limiting the species to lower stretches and restricting access to spawning areas. It is outlined the large hyrdo-electric station at Ardnacrusha and the Parteen regulating			

weir present considerable obstructions to upstream passage of salmon on the Shannon main channel. It is outlined while both have fish passes installed, upstream migration of salmon is still problematical, and further weirs upstream on the Shannon also restrict access to spawning habitat.

The proposed development site is hydrologically connected to the SAC (distance 110km). While upstream migration of salmon is still problematical from the SAC, as outlined, the river system does includes fish passes and weirs. IFI outline any loss of salmon spawning habitat should be avoided at the proposed development site location. This submission indicates a presence of salmon within the Clodiagh salmonid river, located within the Shannon catchment. I note a publication related to the River Shannon Callows SAC (00021), 'A preliminary Study of the of the Upper Shannon Floodplain (2002)' on the NPWS website outlines the Annex II species, salmon (Salmo salar) are common in the study area. I further note the EIAR outlines that salmon was recorded in surveys in the River Clodiagh in 2008. Taking a precautionary approach, and on the basis of the IFI submission, I consider there is a potential for impacts on QI Atlantic Salmon species by way of ex-situ effects.

The NIS outlines the construction stage could result in the accidental release of cement, hydrocarbons and other potentially polluting chemicals or materials into the River Clodiagh, and this could result in adverse changes in surface water quality, and a change in habitat extent along the affected section. I consider this could potentially impact on QI species Atlantic Salmon.

Mitigation measures and conditions

The focus of mitigation measures proposed in the NIS are at preventing ingress of pollutants and silt into surface and ground water and receiving watercourses. This is to be achieved via the application of specific mitigation measures. Detail is provided on silt controls, chemical controls, water management, instream works, vegetative clearance. Measures include:

- The implementation of a CEMP with an Ecological Clerk of works appointed for the construction of scheme
- Silt controls include there shall be no direct discharge of untreated water from works to surface water body/drainage network; use of works exclusion zone, buffer zones; use of silt fencing as per CIRIA C648; drainage of inlets on Chapel Street blocked.
- A surface water management plan will be developed; Water from excavations shall be pumped to siltbuster water treatment system; dewatering outfall pipes will be placed well downstream of works; installation of temporary interceptor drains; sediment within settlement tanks will be disposed of off-site to a waste facility;
- For Fuels/chemicals: concrete works will avoid contamination of ground and water through use of methods in accordance with industry standards (CIRIA - C532', CIRIA, 2001);
- For Instream works measures include: timing of works; establishing works exclusion zone; creation of dry area to install debris trap through river diversion to one side; Flood warning action plan being in place; monitoring of water levels; For river margin and channel reinstatement prior to removal of sandbags reinstatement of damaged riverbanks and margins will occur; engineering solutions for scour/erosion protection shall be limited; use of riprap protection; use of willow spiling; reinstatement of river substrate within the instream works area shall match the profile of the bed level on the outside of the instream works area, and at the upstream and downstream ends, with no significant step-change in lateral or longitudinal riverbed profile; the dry area must be rewetted gradually.
- For vegetation clearance adjacent watercourses stumps will be retained; root system on bank will not be disturbed;
- Environmental Emergency Response Plan
- Construction stage monitoring includes for monitoring of site clearance, mitigation measures integrity checks, turbidity, hydrocarbon sheen, weather data, water levels.

I am satisfied that the preventative measures as outlined in the NIS which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected habitats and species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects on QI species Atlantic Salmon for the SAC can be prevented. Mitigation measures related to water quality are captured in Planning conditions of the Inspectors Report.

(ii)Habitat loss and degradation (construction stage)

Proposed instream works could potentially impact on QI species Atlantic Salmon by way of habitat loss/degradation. I note the debris trap and bed protection would result in a very minor loss of salmonid habitat (i.e., the footprint of the debris trap poles) at construction stage. As this would result in a very minor loss of salmonid habitat in the context of the overall Clodiagh river system, I consider this would not give rise to adverse effects on QI species Atlantic Salmon by way of ex-situ effects. Mitigation measures will also include for the implementation of CEMP, reinstatement of river substrate, timing of works to avoid the spawning period, and monitoring of the construction phase.

Mitigation measures and conditions

- Implementation of CEMP
- Reinstatement of the stockpiled river substrate within the instream works area
- Timing of works (Instream works must avoid the spawning period of fish in the River Clodiagh)
- Monitoring of construction phase

I am satisfied that the preventative measures as outlined in the NIS which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected habitats and species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects on QI species Atlantic Salmon for the SAC can be prevented. Mitigation measures are captured in Planning conditions of the Inspectors Report.

(iii)Habitat loss and degradation (operational stage)

In relation to the operational stage, I also note the debris trap may potentially impact on fish migration by way of barrier effects, due to excessive scouring around the debris trap poles. The debris trap could also release sediment built up resulting in water quality and habitat degradation. Mitigation measures outlined in the NIS include for the debris trap design being discussed with IFI before finalising. I consider a condition applying to any approval, providing for the final debris trap design being agreed with IFI, would ensure that adverse effects on QI species Atlantic Salmon by way of ex-situ barrier effects would not arise. In addition, I consider a condition applying to any approval, providing for an operational plan to include monitoring of siltation downstream of the debris trap, would ensure that adverse effects on QI species Atlantic Salmon by way of ex-situ effects would not arise.

Mitigation measures and conditions

- Debris trap design being discussed with IFI before finalising

I am satisfied that the preventative measures as outlined in the NIS which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected habitats and species and by arresting these pathways or reducing possible effects to a non-significant level, adverse effects on QI species Atlantic Salmon for the SAC can be prevented. Mitigation measures are captured in Planning conditions of the Inspectors Report.

In-combination effects

Projects that could act in combination with the proposed development are detailed in the NIS, and the Laois CDP is the relevant CDP. Construction or operational phase in-combination effects are not anticipated. I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily

that no significant residual effects (NIS Section 10) will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Findings and conclusions

Based on the information provided, and submission made, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European site **Lower River Shannon SAC (002165).**

The NIS mitigation measures described to prevent ingress of pollutants and silt into surface and ground water and receiving watercourses, timing of works, and monitoring of the construction phase, relating to other designated European Sites, would also apply to the **Lower River Shannon SAC (002165).** To ensure compliance and effective management of control measures all works and monitoring of same shall be carried out under the supervision of an ecologist/EcOW, with the application of a CEMP, which can be addressed by way of condition. In addition, to ensure that adverse effects on QI species Atlantic Salmon by way of ex-situ effects would not arise, the final debris trap design is to be agreed with IFI, which can also be addressed by way of condition. Furthermore, an operational plan to include monitoring of siltation downstream of the debris trap, can also be addressed by way of condition. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of **Lower River Shannon SAC (002165).** Adverse effects on site integrity can be excluded, and no reasonable scientific doubt remains as to the absence of such effects.

Appropriate Assessment Conclusion: Integrity Test

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), and Lower River Shannon SAC (002165), in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of 177AE was required.

Following an examination, analysis and evaluation of the NIS and all associated material submitted, including a submission made, I consider that adverse effects on site integrity of the Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135), and Lower River Shannon SAC (002165), can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- Detailed assessment of construction and operational impacts.
- Effectiveness of mitigation measures proposed including supervision and monitoring and integration into CEMP ensuring transition of obligations to eventual contractor.

- Application of planning conditions to ensure application of these measures.
- The proposed development will not affect the attainment of conservation objectives for Charleville Wood SAC (000571), River Barrow and River Nore SAC (002162), Blackwater River (Cork/Waterford) SAC (002170), Bricklieve Mountains and Keishcorran SAC (001656), Glenade Lough SAC (001919), Kilroosky Lough Cluster SAC (001786), Lough Bane and Lough Glass SAC (002120), Lough Corrib SAC (000297), Lough Gill SAC (001976), Lough Lene SAC (002121), Lough Owel SAC (000688), Lower River Suir SAC (002137), River Moy SAC (002298), White Lough Ben Loughs and Lough Doo SAC (001810), Lough Hoe Bog SAC (000633), Lough Nageage SAC (002135) and Lower River Shannon SAC (002165)