

# CLONASLEE FLOOD RELIEF SCHEME

## Environmental Impact Assessment Report Chapter 18: Interactions & Cumulative Effects

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## CHAPTER 18 INTERACTIONS AND CUMULATIVE EFFECTS

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## CHAPTER 18 INTERACTIONS AND CUMULATIVE EFFECTS

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**ACRONYM**

Term	Meaning
ABP	An Bord Pleanála
CEMP	Construction Environment Management Plan
CIA	Cumulative Impact Assessment
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
FRS	Flood Relief Scheme
SHD	Strategic Housing Development
SID	Strategic Infrastructure Development
ZoI	Zone of Influence

## 18 INTERACTIONS & CUMULATIVE EFFECTS

### 18.1 Introduction

The preceding chapters of this Environmental Impact Assessment Report (EIAR) identify the potential significant environmental impacts and residual effects that may occur in terms of the factors outlined in Article 3 (1) of the EIA Directive as a result of the Proposed Scheme. Mitigation and best practice measures for the construction and operational phases are detailed in the accompanying Construction Environment Management Plan (CEMP).

Any proposed project or activity with the potential for significant environmental effects alone, may also have the potential to interact with the Proposed Scheme to give rise to significant effects. The result of interactive effects may exacerbate the magnitude of the effects or ameliorate them or have a neutral effect. The potential for these interactions is discussed in **Section 18.2.3**.

**Section 18.3.3.3** presents an analysis of the potential cumulative effects of the Proposed Scheme with other approved/proposed projects or activities, during the construction and operational/ maintenance phases. Cumulative effects result from changes that may arise from in combination effects with the Proposed Scheme and other reasonably foreseeable planned projects or activities in proximity to the Proposed Scheme.

### 18.2 Interactions

#### 18.2.1 Legislation and Guidance

Interactions are addressed within Article 3 (1) of the EIA Directive as amended by Directive 2014/52/EU which requires that *“the environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors: (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape; (e) the interaction between the factors referred to in points (a) to (d).”*

The interaction of the Proposed Scheme with respect to each environmental factor, listed in Article 3(1) of the EIA Directive, have been identified and addressed in detail within the respective chapters of this EIAR. This chapter presents an assessment of the interaction (inter-relationship) of effects between the various environmental factors.

#### 18.2.2 Methodology

##### 18.2.2.1 Interaction Matrix

A matrix is presented in **Table 18.1** below to identify potential interactions between the various aspects of the environment already assessed in this EIAR. The matrix highlights the occurrence of potential positive or negative effects during both the construction (C) and operational (O) phases. The matrix is symmetric, with each environmental component addressed in the chapters of this EIAR being placed on both axis of the matrix, and therefore, each potential interaction is identified twice. Once a potential interaction between two environmental components has been discussed, the interaction will not be discussed again in the following relevant section.

The presence of ‘√’, indicates that the Proposed Scheme results in an interaction between the two factors and will be discussed in more detail under **Section 18.2.3**. Where there is no potential for an interaction between factors, a hyphen ‘-’ is present in the cell.

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Table 18.1: Interactive Effects Summary Matrix Identifying Interactions between Factors During Construction (C), Operational and Maintenance (O) and Decommissioning (D) Phases

	Phase	Traffic and Transportation	Population	Human Health	Biodiversity	Land, Soil and Hydrogeology	Water	Air Quality	Climate	Noise and Vibration	Material Assets Waste/Utilities	Cultural Heritage	Landscape and Visual
Traffic and Transportation	C		✓	✓	-	-	✓	✓	✓	✓	✓	✓	✓
	O		-	-	-	-	-	-	-	-	-	-	-
Population	C	✓		✓	-	-	-	✓	✓	-	-	-	-
	O	-		✓	-	-	-	-	-	-	-	-	-
Human Health	C	-	-		-	✓	-	-	-	✓	-	-	-
	O	-	-		-	-	-	-	-	-	-	-	-
Biodiversity	C	-	-	-		✓	✓	✓	✓	✓	-	-	✓
	O	-	-	-		-	-	-	-	-	-	-	-
Land, Soil and Hydrogeology	C	-	-	✓	✓		✓	✓	-	-	✓	✓	-
	O	-	-	-	-		-	-	-	-	-	-	-
Water	C	✓	-	-	✓	✓		-	✓	-	-	-	-
	O	-	-	-	-	-		-	✓	-	-	-	-
Air Quality	C	✓	✓	✓	✓	✓	-		✓	-	-	✓	-
	O	-	-	-	-	-	-		-	-	-	-	-
Climate	C	✓	✓	✓	✓	-	✓	✓		-	✓	-	-
	O	-	-	-	-	-	-	-		-	-	-	-
Noise and Vibration	C	✓	-	✓	✓	-	-	-	-		-	✓	-
	O	-	-	-	-	-	-	-	-		-	-	-
Material Assets Waste/Utilities	C	✓	✓	-	-	✓	-	-	✓	-		-	-
	O	-	-	-	-	-	-	-	-	-		-	-
Cultural Heritage	C	✓	-	-	-	✓	-	✓	-	✓	-		✓
	O	-	-	-	-	-	-	-	-	-	-		-
Landscape and Visual	C	✓	-	-	✓	-	-	-	-	-	-	✓	
	O	-	-	-	-	-	-	-	-	-	-	-	

## CHAPTER 18 INTERACTIONS AND CUMULATIVE EFFECTS

### 18.2.3 Description of Interactions

#### 18.2.3.1 Traffic and Transportation

##### Traffic and Transportation with Population

The Proposed Scheme will give rise to additional traffic movements, specifically heavy goods vehicles on the local road network creating a short-term inconvenience for local road users, residents, commercial properties, and traffic flow. A local short-term lane closure is also required on Chapel Street to facilitate the construction works in Area 2. A Construction Traffic Management Plan (See **Appendix 6-2**) will be in place to minimise all disruption. With the implementation of this plan and all mitigation measures as detailed in **Chapter 20 Schedule of Environmental Commitments** and the CEMP, impacts from Traffic and Transport on Population will be imperceptible during the construction and operational phases

##### Traffic and Transportation with Human Health, Air Quality, Climate

An increased presence of vehicles in the area may give rise to an increase in dust and exhaust emissions at a local level which can have a negative impact on air quality, climate and human health. The total construction Greenhouse Gas (GHG) Emissions for the Proposed Scheme as a percentage of Ireland's 2022 GHG emissions ceiling is 0.002% and includes CO<sub>2</sub> emissions from additional traffic volumes generated, materials as well as excavations. As such, impacts on human health, air quality and climate from traffic generated by the Proposed Scheme, is imperceptible during the construction phase.

With the implementation of all mitigation measures as detailed in **Chapter 20 Schedule of Environmental Commitments** and the CEMP, dust and exhaust emissions from the additional traffic will be imperceptible. During the operational phase, traffic movements will be considerably reduced and requirements for excavations will be rare. The total operational GHG Emissions as a percentage of 2022 National GHG emissions is assessed as 0.0001%. As such, impacts from traffic on human health, air quality and climate are not foreseen during the operational phase.

##### Traffic and Transportation with Water

Construction activities within the floodplain or channel may temporarily increase flooding on the roads until new defences are implemented. However, the design of the Proposed Scheme and the construction programme during lower flow periods will reduce the potential for this to occur. As such, the potential effects of flooding onto the road network during the construction phase is not significant.

There will be a permanent positive effect on traffic and transport during the operational stage as the flood defences will prevent the flooding of roads including Chapel Street, the L2006 Tullamore Road and the L6002 local road near Brittas Wood trail walk.

##### Traffic and Transportation with Noise and Vibration

The construction phase of the Proposed Scheme will generate additional daily vehicle movements. Based on a conservative estimation, four construction crews will be operating at all times, and as such, the predicted increase in traffic flows due to construction traffic is well below 25%. This indicates a negligible noise level increase of less than 1 decibels (dB). Therefore, there are no significant effects predicted for construction traffic noise or vibration associated with the Proposed Scheme.

##### Traffic and Transportation with Material Assets: Waste and Utilities

Transportation of waste material to licensed waste facilities will contribute to additional traffic on the local road network; however, the predicted level of waste related traffic is anticipated to be small and is assessed as not significant within this EIAR. All waste materials will be transferred from site by a waste collection permit holder and delivered to an authorised waste facility i.e. a facility which holds a Certificate of Registration, Waste Facility Permit or Waste Licence. The transportation of waste materials will be imperceptible during the operation and maintenance phase.

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### Traffic and Transport with Cultural Heritage

The Proposed Scheme is likely to indirectly affect the setting of cultural heritage assets during the construction phase. There is some potential for construction traffic and vehicle movements to cause compaction of archaeological deposits or rutting in areas of soft ground, which could impact on the importance of the receptors. This will be mitigated for by way of advance works surveys and testing pre-construction and it is anticipated that the likelihood of any such impacts occurring is low. The effects are considered to be short-term and will not be applicable if archaeological resolution is undertaken in advance of construction. It is assessed that all direct impacts to cultural heritage receptors will occur during construction phase only, and there is no mitigation for operational phase activities to be undertaken.

### Traffic and Transportation with Landscape and Visual Amenity

The construction phase of the Proposed Scheme will see the short-term introduction of additional traffic into Clonaslee which may give rise to short term visual impacts to other road users, pedestrians and residents within the area. These potential visual effects during the construction phase are considered to be short term and not significant. The additional traffic volumes generated during the operational phase for infrequent maintenance works are considered an imperceptible landscape and visual impact assessment.

### 18.2.3.2 Population

#### Population with Air Quality and Human Health

The Proposed Scheme has been assessed as having a short-term, moderate impact of dust-related effects as a result of the construction phase activities without the implementation of mitigation measures. Best practice mitigation measures including developing a dust management plan are proposed for the construction phase of the Proposed Scheme. Therefore, the effect of the Proposed Scheme on air quality, and consequently, population and human health will be not significant. Interactions between population and human health and air quality during the operational phase are not foreseen.

#### Population with Climate and Human Health

The impacts of climate change include warming temperatures, changes in precipitation, and increases in the frequency or intensity of some extreme weather events. Increases in the frequency or severity of some extreme weather events, such as extreme precipitation, flooding, droughts, and storms, threaten population health. While the Proposed Scheme will not impact climate change, the effects of flooding caused by climate change can be alleviated. Therefore, the Proposed Scheme will have a localised permanent positive impact on the effects of climate change.

### 18.2.3.3 Human Health

#### Land Soil, Geology and Hydrogeology with Human Health

The Clonaslee Wellfield public water supply (PWS) scheme falls within the Scheme Area. This PWS is classified as an inner source protection area for a locally important water source. Mitigation and best practise measures will be in place to ensure any potential for contamination or accidental spillage from hydrocarbons that may have impacts on human health through surface and groundwater contamination is imperceptible. The potential for impacts from the above during the operational phase are also considered to be imperceptible.

With the implementation of the Proposed Scheme, a reduction in urban flooding, which may cause health impacts through stress and contamination, will occur. The reduction in urban flooding during the operational phase will have a positive impact on water quality and therefore have a positive impact on human health.

#### Noise and Vibrations with Human Health

Residual effects associated with the construction phase of the Proposed Scheme will range from not significant to significant in some instances. Significant effects are limited to Noise Sensitive Locations (NSL) within 25m of the construction activities at Area 2 – Chapel Street. It is anticipated that the most onerous

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predicted noise levels will be experienced at each NSL temporarily before gradually decreasing away from each receptor as the rolling nature of the works moves along the wall. Consequently, this has the potential to have a negative impact on the health of sensitive receptors in close proximity to the construction activities although the significant effects are temporary and will dissipate as the works progress.

### 18.2.3.4 Biodiversity

#### Biodiversity with Land, Soil, Geology and Hydrogeology

Any contaminants that have the potential to reach groundwater can impact surface water and thus biodiversity that relies on groundwater. Extractive activities during the construction phase of the Proposed Scheme have potential to generate suspended solids and/or mobilise contaminants in the aquifer which may support aquatic biodiversity. With the appropriate mitigation measures to prevent run-off and spillages, it is predicted that any potential interactions between biodiversity and land, soils, geology and hydrogeology during the construction phase will be imperceptible.

#### Biodiversity with Water

There is a high degree of interaction between surface water and aquatic and terrestrial biodiversity. Therefore, impacts on surface water will have associated impacts on biodiversity. Appropriate mitigation measures both during the construction and operation phases will ensure imperceptible effect on aquatic and terrestrial biodiversity.

#### Biodiversity with Air Quality

The generation of dust and vehicle emissions as a result of the Proposed Scheme has the potential to impact upon biodiversity through dust soiling, creating a short-term, negative, and imperceptible effect on biodiversity for the construction phase. No interactions between biodiversity and air quality are predicted during the operational phase.

#### Biodiversity with Climate

The physical impact of more intense storms and increased winter/spring rainfall caused by climate change will accelerate the degradation of habitats that are already compromised by unsustainable practices. While the Proposed Scheme does not impact climate change directly, it will alleviate flooding in the area which is a negative effect of climate change. Therefore, the Proposed Scheme will have a localised permanent and positive impact on biodiversity from a flood protection point of view.

#### Biodiversity with Noise and Vibration

The generation of noise and vibration from the Proposed Scheme has the potential to impact upon biodiversity through disturbance and displacement. An increase in noise and vibration across the Proposed Scheme will have associated negative, short term slight effects on biodiversity. During the operational phase, no effects from noise and vibration are anticipated.

#### Biodiversity with Landscape and Visual

The Proposed Scheme requires both temporary and permanent removal of trees and vegetation to facilitate access to, and construction/operation of, the necessary flood defences to protect properties, biodiversity, archaeology and infrastructure within the area. The impact of this on biodiversity and landscape and visual amenity is short term, negative, localised but not significant. Replacement planting is proposed for some of this vegetation loss (as well as biodiversity enhancement measures in the form of bird and bat boxes). As such, the overall impact from vegetation removal and replacement will be an imperceptible positive impact on biodiversity and minor and not significant for landscape and visual amenity.

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### 18.2.3.5 Land, Soil, Geology and Hydrogeology

#### Land, Soil, Geology and Hydrogeology with Water

Extractive activities during the construction phase of the Proposed Scheme have potential to generate suspended solids and/or mobilise contaminants and result in concrete and fuel spillages. Due to the close interaction of surface and groundwater, any contaminants that have the potential to reach groundwater can impact groundwater quality. Given the depth of overburden cover within the Study Area there is a limited degree of interconnection between groundwater and surface water. The thickness of the subsoil in the Study Area (generally >10m) will likely prevent groundwater discharging to the River. Where groundwater does discharge from depth along faults, the natural subsoil will provide adequate attenuation of contaminants. With the appropriate mitigation measures to prevent run-off and spillages, it is predicted that there will be no significant interactions between water and land, soils, geology and hydrogeology during the construction phase and will ensure the effect is imperceptible.

#### Land, Soil, Geology and Hydrogeology with Air Quality

Construction phase activities such as land clearing, excavations, stockpiling of materials etc. have the potential for interactions between air quality and land and soils in the form of dust emissions. With the appropriate mitigation measures to prevent fugitive dust emissions, it is predicted that there will be no significant interactions between air quality and land and soils during the construction phase and will ensure that the effect is negligible.

#### Land, Soil, Geology and Hydrogeology with Material Assets – Waste – Utilities

The generation of waste material during construction activities such as removal of topsoil and subsoil for excavations will have a direct and permanent impact on the quaternary environment of the study area. Waste material will be stockpiled before being transported to licenced waste disposal facility. Waste generation will have associated impacts on soil and groundwater quality from erosion and the generation of suspended solids from stockpiled material. With the implementation of the recommended mitigation measures, impacts on soil and groundwater quality from excavation and stockpiling will be negligible.

#### Land, Soil, Geology and Hydrogeology with Cultural Heritage

During construction stage, there is potential to reveal previously unknown archaeological finds and features at a sub-surface state. As part of the iterative design process, the proposed flood relief measures have taken account of any predicted impact on the recorded Cultural Heritage dataset, as well as cognisance of unrecorded features and areas of archaeological potential. Mitigation measures to address the potential archaeological sub-soil remains has been set out in line with industry best practice regarding preservation in situ / preservation by record and the potential effect to heritage assets are considered negligible.

Drawdown of the local water table and changes to the hydrogeological regime could impact negatively on cultural heritage assets which will not be directly impacted by the Proposed Scheme. This includes on areas of archaeological potential which could suffer dewatering arising from changes in hydrogeology, particularly those features adjacent to the Scheme which have been identified through geophysical survey.

Archaeological sites do not occur as an isolated unit, and factors which are at some distance from the site can be important in terms of preservation in-situ. No specific instances in this regard have been identified, however, as advance works archaeological testing is undertaken in areas which were subject to geophysical survey, features which are reliant on current groundwater levels may be revealed and appropriate mitigation will need to be devised in tandem with the relevant specialists, the NMS and statutory authorities post-consent.

### 18.2.3.6 Water

#### Water with Climate

Climate change has the potential to increase the risk of flooding in future years due to increased rainfall. The purpose of the Proposed Scheme is to provide a flood relief system to reduce the vulnerability of the area to future flood events. The Proposed Scheme has been designed to withstand flood events and incorporates

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climate change into the design, therefore the interaction between hydrology and climate change is not considered significant.

### 18.2.3.7 Air Quality

#### Air Quality with Climate

Air quality and climate have interactions due to the emissions from the burning of fossil fuels during the construction phase generating both air quality and climate impacts. Emissions of dust and CO<sub>2</sub> from construction or operational works traffic and transport, including movements from site to waste facilities are assessed within the EIAR as not significant for air quality or climate.

#### Air Quality with Cultural Heritage

There is potential for dust generated through construction activities to affect the visual appearance of built heritage receptors in the village, thus having a negative impact on the setting of these cultural heritage receptors. It is considered that these impacts will be temporary and will cease once construction works are completed. In wet weather the dust potentially lodged on these built heritage receptors will be washed from the surface, further reducing the significance of effect which is considered to be Slight and temporary.

### 18.2.3.8 Climate

#### Climate with Material Assets: Waste and Utilities

Waste management measures will be put in place during the construction phase to minimise the amount of waste entering landfill, which has higher associated embodied carbon emissions than other waste management such as recycling. The impact to climate as a result of embodied carbon in waste materials generated by the Proposed Scheme is imperceptible.

### 18.2.3.9 Noise and Vibration

#### Noise and Vibrations with Cultural Heritage

During the construction phase there is potential for vibration effects on buildings and structures. No adverse structural impacts are anticipated due to vibration from construction works across the Scheme Area. Therefore, noise and vibration will have no significant effects on cultural heritage. However, given the close proximity of some of the buildings to Area 2, a pre-construction condition survey will be carried out before any construction works commence at Area 2. A condition survey will also be carried out when all construction works are completed.

### 18.2.3.10 Cultural Heritage

#### Cultural Heritage with Landscape and Visual Amenity

Indirect negative effects on the setting of St. Manman's Church (CH-007) and the bell (CH-007.3) of St Manman's Church are assessed as not significant as the visual impact is considered to be temporary only. Impacts and effects on Clonaslee Architectural Conservation Area as a designated urban landscape, including loss of street tree planting will arise. The reinforced flood wall will be faced in stone to match that existing which will mitigate adverse effects. There are no predicted Operational Phase interactions between Cultural Heritage and Landscape and Visual.

### 18.2.3.11 Summary of Interactions

Interacting factors are expected to be greatest during the construction phase. Construction works have the potential to impact on population and human health in the form of dust and noise emissions, potential run off into surface and ground waters, traffic interruptions, short term visual effects. There is also potential for impacts on biodiversity. However, as discussed within the respective chapters of this EIAR, there are no significant residual effects with the implementation of all mitigation and monitoring measures as detailed in

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the CEMP and **Chapter 20: Schedule of Environmental Commitments**. As such, there are no potential interactions between the various disciplines that may arise which are considered significant.

Overall positive impacts on flood risk are anticipated as a result of the Proposed Scheme because the overall objective of Proposed Scheme is to protect communities from flooding. The Proposed Scheme will benefit residential and commercial properties, public open spaces, biodiversity and the integrity of archaeology and Protected Structures.

### 18.3 Cumulative Effects

#### 18.3.1 Legislation and Guidance

Cumulative effects are defined as per the EPA Guidelines (EPA, 2022) as *“the addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.”* The EIA Directive (2014/52/EU) mandates that an account is provided for *“the interaction between any of the foregoing aspects.”*

Annex IV (5)(e) of the EIA Directive as amended by Directive 2014/52/EU requires that the EIAR shall contain *“the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;”*

Furthermore, Annex IV (5) states that the EIAR shall contain: *“the description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project”.*

#### 18.3.2 Methodology

The following sections outline the process followed to identify and screen in proposed projects that are considered cumulatively alongside the Proposed Scheme. The process considers publicly available projects, as well as the potential for interactions on a conceptual, spatial and temporal basis.

##### 18.3.2.1 Cumulative Impact Assessment Stage I

The initial step of the CIA Stage I is to identify the granted and proposed projects and/or activities that may interact with the Proposed Scheme to cause a cumulative impact. These interactions may arise during the Construction or Operational Phases. Existing projects, where relevant, have been considered as part of the chapter baselines in within this EIAR.

The Zone of Influence (Zoi) established by each EIA factor is used to identify the Zoi for the CIA. This distance buffer is set by the discipline with the largest Zoi, which in this case, is the hydrological catchment within which the Proposed Scheme is located. Identified, relevant planned projects and activities occurring within this catchment are identified for the purpose of assessing CIA Stage I.

A desk study was undertaken to collect publicly available information on granted and proposed projects and/or plans within the defined Zoi using internet searches, planning databases and other available sources out to January 2025. This search was conducted using My Plan map viewer, the EIA Portal map viewer and planning application map viewer and An Bord Pleanála (ABP). The search was limited to the five-year period from the date of issue of the report. A five-year time frame dating back from January 2025 is considered to be appropriate as permissions granted more than five years ago would generally be constructed, partially constructed, or are under construction when the Proposed Scheme is implemented and are unlikely to result in cumulative effects.

A search of ABP's website and the Local Authority website was completed to identify any relevant applications including Strategic Infrastructure Development (SID) and Strategic Housing Development (SHD) applications in the past five years and within the Zoi of the Proposed Scheme.

Searches for Environmental Protection Agency (EPA) licence applications and licenced facilities (in particular those discharging to the Clodiagh River) were also undertaken. If an EPA facility planning application is listed as 'Licensed' or 'Certified', then the facility is considered to have been already constructed, it will form

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part of the baseline and not progress to the CIA stage II. Where the status of the application is listed as 'Applied', these facilities were examined further for hydrological connectivity or other pathway for cumulative impact.

Once the relevant proposed projects were collated, the list was refined based on the following:

The following types of projects were not considered:

- One-off housing, farm sheds/ buildings, house/ building extensions/ renovations.
- Projects where any appeal decision was refused.
- Planning applications with a status of 'incomplete', 'withdrawn', and 'refused', as well as those under 'retention' as it is assumed these planned projects are already constructed.
- Any EPA licence which expires before 2025 was excluded on the basis of no temporal overlap with the assumed construction programme for the Proposed Scheme.

Approximate distances to the Proposed Scheme are also provided for each project to better understand any spatial overlap.

### 18.3.2.2 Cumulative Impact Assessment Stage II

At Stage II, each of the discipline specialists carried out a screening exercise on the list of projects compiled during the Stage I. This is carried out in accordance with a set of defined screening criteria (grounds for screening in or out). In order to identify which projects should be considered in the assessment of cumulative effects (Stage III). The criteria are explained in **Table 18.2**.

**Table 18.6** provides a list of all of the planning Stage II projects and plans reviewed for each topic and the projects screening in for assessment in Stage III (See **Section 18.3.3.3**).

**Table 18.2: Screening criteria for cumulative impact assessment.**

Criteria	Criteria- explanation	Screening decision (in/out)
<b>Included as part of the topic baseline</b>	As the project has been considered as part of the relevant chapter baseline, it has already been assessed/considered and hence is not considered within the CIA.	Screened out
<b>Part of the baseline but has an ongoing impact</b>	As the project has been considered as part of the relevant chapter baseline, it has already been assessed.	Screened out
<b>Potential cumulative impact exists</b>	An effect and pathway have been identified either within the construction or operational / maintenance phase of the project that may cause a combined impact to the Proposed Scheme	Screened in
<b>Low data confidence</b>	The data provided by the project does not provide enough evidence or lacks adequate information for an assessment of cumulative effects to be completed.	Screened out
<b>No conceptual or physical effect receptor pathway</b>	No source, pathway or effect was identified between the Proposed Scheme and the project.	Screened out
<b>No temporal overlap</b>	The project is defined by a different time frame and does not overlap with the time frame of the Proposed Scheme.	Screened out

### Data confidence

In order to categorise data confidence for the purposes of this EIAR, a three-point scale was employed (**Table 18.3**). This scale aims to provide a transparent basis upon which projects and activities may be screened in or out at this step.

For the purposes of screening, projects with high or medium data confidence were automatically screened into the CIA. Projects and activities with low data confidence were screened out of the assessment. This category includes projects that may take place in the future, but have no information on how the plan or project will be executed and therefore cannot be considered within the CIA.

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Decisions upon whether to screen a project in or out at this stage were taken on a topic-by-topic basis. This allowed certain projects to be screened in for certain topics where sufficient detail is present, while the same project may be screened out for another topic.

**Table 18.3: Criteria for the Allocation of Data Confidence.**

<b>Data confidence</b>	<b>Criteria</b>
<b>High</b>	<ul style="list-style-type: none"> <li>Projects, plans and activities with an EIAR or other equivalently detailed planning document, containing sufficient topic-specific detail for an adequately detailed CIA to be undertaken on a quantitative or semi-quantitative manner.</li> <li>Peer reviewed and/or industry standard third party quantitative, semi-quantitative or qualitative data.</li> <li>Detailed project parameters for other projects being proposed by the Developer and third-party project details published in the public domain and confirmed as being accurate by the Developer.</li> </ul>
<b>Medium</b>	<ul style="list-style-type: none"> <li>Projects, plans and activities with an EIAR or other equivalently detailed planning document, containing a moderate level of detail that still allows a CIA to be undertaken on a qualitative basis.</li> <li>Third-party data supplied to or obtained by the Developer that has not been subject to peer review and cannot be quality controlled by the Developer.</li> <li>Peer reviewed and grey literature that is considered relevant, but either old, and hence potentially not as representative of the current situation, or of insufficient detail in order to accurately inform assessment in its own right.</li> </ul>
<b>Low</b>	<ul style="list-style-type: none"> <li>Projects, plans and activities with a lack of robust information and where details of implementation are scarce or likely to change before any potential consent/approval.</li> <li>Projects, plans and activities that may be developed in future, but for which no specific information is currently available.</li> </ul>

### Conceptual overlap

For a cumulative effect to occur, it must be established that there is potential to directly or indirectly affect the receptor(s) in question. In EIA terms, this is described as an impact-receptor-pathway and is hereafter referred to as a conceptual overlap. An example of a conceptual overlap can be seen where increased suspended sediment concentrations arising from a nearby project and from the Proposed Scheme (impact) affect the same population of fish (receptor). Conversely, a conceptual overlap cannot be demonstrated between activities such as the operation of surface water infrastructure and roosting bats. It is in cases such as this second example where projects are screened out at this stage.

Each project on the Stage I list has been considered on a topic-by-topic basis to evaluate the potential for conceptual overlaps to exist. Projects that clearly do not have such an overlap are screened out of the assessment. In cases where a conceptual overlap is not clear-cut, the project in question has been screened into the CIA in order to maintain the maximum design scenario approach. These projects are then further considered in the relevant topic chapters.

### Physical overlap

The ability for impacts arising from the Proposed Scheme to overlap with those from other projects has been assessed on a receptor basis for each topic. In most examples an overlap of the physical extents of the impacts arising from projects must be established for a cumulative impact to arise. For example, for a cumulative sedimentation impact or accidental spill impact to be established between the Proposed Scheme and another project, it must be established that the extent of sediment or pollutant release from both projects has the potential to overlap and may affect a receptor at a single physical place (e.g. upstream or downstream projects with sediment or pollutant release to the Clodiagh River). Exceptions to this exist for certain mobile receptors that may move between and be subject to separate physical extents of impact from two or more projects.

### Temporal overlap

In order for a cumulative effect to arise from projects, a temporal overlap of impacts arising from each must be established. Some impacts are active only during certain phases of development, such as piling noise during construction. Such a consideration is particularly important for receptors such as aquatic biodiversity,

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where the overlap of impacts during construction, such as noise from the piling activities or demolition of an existing wall, may be important. The anticipated construction periods for projects, plans and activities within the Stage I list have been obtained from their relevant planning. The details provided represent the current understanding of programmes of development though it is recognised that these programmes may be subject to change. In order to consider worst case, where information on construction timeframes is unknown or not certain, it has been assumed that construction programmes will overlap.

For the purposes of the Proposed Scheme CIA, all projects that were built and operational at the time of the Proposed Scheme data collection (field surveys etc.) have been screened out of the relevant EIA topic CIA. This is because the effects of these projects have already been captured within the Proposed Scheme site-specific surveys, and hence their effects have already been accounted for within the baseline assessment. The exclusion of built and operational projects that were in place at the time of data collection/survey in this way avoids the double counting that would occur if projects were to be included within both the baseline and the CIA. The exception to this is where projects have an ongoing impact, and this is addressed by the screening criterion 'part of the baseline but has an ongoing impact'.

### **18.3.2.3 Cumulative Impact Assessment Stage III**

The impact assessment (Stage III) considered any potential cumulative impacts of the projects screened in during Stage II.

At stage III, all topics aimed to undertake a full quantitative assessment; however, where project information was considered insufficient, a mix of qualitative and quantitative, or wholly qualitative assessment was employed.

The significance of effect for each cumulative effect is presented independently for the assessment, except where no relevant projects have been screened in.

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### 18.3.3 Cumulative Impact Assessment

#### 18.3.3.1 CIA Stage I

The list of projects screened in for assessment are provided in **Table 18.4**.

**Table 18.4: List of Plans and Projects Identified within the Zone of Influence**

Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
<b>Laois County Planning Applications</b>								
23284 (Laois County Council)	Mountmellick Credit Union Limited, Chapel Street Clonaslee	Permission	Mountmellick Credit Union Limited	Conditional	31/01/2024	04/03/2024	Retain the demolition of the existing office building and full planning permission for the construction of a new replacement office building and all associated site works.	0.02
2460216 (Laois County Council) 23284 (Laois County Council) 2460233 (Laois County Council): 2460216 (Laois County Council)	Clonaslee Credit Union, Chapel Street, Clonaslee, Co. Laois.	Retention	Mountmellick Credit Union Limited	Conditional	24/06/2024	26/07/2024	Erect new signage to the front elevation and retention of the alterations to the front elevation to that of previously granted planning reference 23/284. <b>23/284</b> retain the demolition of the existing office building and full planning permission for the construction of a new replacement office building and all associated site works.	0.02

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
20554 (Laois County Council)	Edel O'Brien, Chapel Street Clonaslee	Permission	Edel O'Brien	Conditional	10/12/2020	20/01/2021	Retain 2 rear facing pitched roof extensions (24.1 sq. m), a steel clad shed (29.7 sq. m), a change of use of a domestic garage into residential accommodation (41.9 Sq. m), the removal of a steel clad car port (19.9 sq. m) and permit to construct a single storey extension (17.3 sq. m) to the side of the existing dwelling to connect the former garage to the existing dwelling and all associated site works	0.05
19679 (Laois County Council)	12 Clodiagh Way, Clonaslee, Co. Laois	Conditional	Vincent Hanneffy and Laura Hanneffy	Conditional	08/06/2020	10/07/2020	Construct an extension to side and rear of existing dwelling house together with all ancillary services	0.51
2429 (Laois County Council)	Main Street , Clonaslee , Co. Laois	Permission	Edel O'Brien	Conditional	10/12/2020	20/01/2021	Retain 2 rear facing pitched roof extensions (24.1 sq. m), a steel clad shed (29.7 sq. m), a change of use of a domestic garage into residential accommodation (41.9 Sq. m), the removal of a steel clad car port (19.9 sq. m) and permit to construct a single storey extension	0.09

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
							(17.3 sq. m) to the side of the existing dwelling to connect the former garage to the existing dwelling and all associated site works	
2348 (Laois County Council)	Clonaslee, Co. Laois	Permission	Declan Callaghan Chairman of Clonaslee St. Manman's GAA Club	Conditional	04/04/2023	08/05/2023	1. Erect 6 no. 20m high lighting columns with 48 no 1.5KW LED Floodlights to main playing pitch; 2. 25m long x 4.9m high concrete hurling wall with 1.2m high sports fencing to the top of the wall, 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface, 2.4m high surround sports fencing and 2 no 12m high lighting columns with 2 no 1.5KW LED Floodlights; 3. 6 no 15m high lighting columns to training pitch with 18 no 1.5KW LED floodlights; 4. 24 no 6m high octagonal public lighting columns to existing walking track with 24 no Axia LED Lanterns; Construction of extension to	0.15

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
							existing car park, onto our own lands, to allow for increased parking spaces and all associated site works	
19521 (Laois County Council)	Former Clonaslee Vocational School, Clonaslee, Rosenallis, Co. Laois	Permission	John Rowney	Conditional	07/11/2019	10/12/2019	Change design from that granted with planning ref. 18/755 of the two semi-detached single storey houses in the former Clonaslee vocational school, a protected structure, reference number RPS 345, to two dormer type houses including Velux windows in the roofs and all ancillary site works and services	0.58
22361 (Laois County Council)	Bellair, Clonaslee, Co. Laois,	Permission	John Maher	Conditional	06/10/2022	08/11/2022	For retention/permission for rear extension to my existing shop/hardware store, also to retain change of use of adjoining dwelling structure to use as part of above-mentioned shop/hardware store. Application also for full permission to construct new building comprising sit down delicatessen, as	0.73

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
							well as changing rooms, shower rooms and sauna for bicycle tourists and all associated works.	
19583 (Laois County Council)	Clonaslee Vocational School , Bellair , Clonaslee	Permission	Laois Offaly ETB	Conditional	16/12/2019	27/01/2020	Construct a General Classroom with 2 no. WC's (73m <sup>2</sup> ) and a new Science Lab with Preparation area (125m <sup>2</sup> ), external access works and associated ancillary site works	0.84
2460451 (Laois County Council)	Brittas, Clonaslee, co. Laois	Permission	Edward Conroy & Yvonne Moyles	N/A	N/A	N/A	Construction of a single-storey dwelling; a new recessed residential entrance; and the provision of all other associated site excavation, infrastructural and site development works above and below ground, including a new wastewater treatment system and polishing filter.	1.26
2460087 (Laois County Council); 2460082 (Laois County C	Glebe, Clonaslee, Co. Laois	Conditional	Michael & Orla Hyland	Conditional	17/07/2024	20/08/2024	A four-bedroom split level home and a garage, new domestic entrance, effluent treatment unit, percolation area and all associated site works and drainage	1.77
2460404 (Laois County Council)	Sharaduff, Clonaslee, Co.Laois	Permission	Laura Hogan	Refused	30/08/2024	N/A	Use established access granted	1.9

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
							under Planning Reference 19/404 and construct a single dwelling house, domestic garage and treatment system with percolation area and all associated site works	
2360549 (Laois County Council)	Sharaduff , Clonaslee , Co.Laois	Permission	Laura Hogan	Incomplete Status	N/A	N/A	To use established access granted under Planning Reference 19/404 and construct a single dwelling house, domestic garage and treatment system with percolation area and all associated site works	1.90
20593 (Laois County Council)	Graigueafulla , Clonaslee , Co. Laois	Permission	Dan Maher	Conditional	08/01/2021	09/02/2021	Construct a new slatted tank with associated holding yard, a new silage slab, a new cattle crush and all ancillary site works	1.91
1986 (Laois County Council)	Cloonagh More, Clonaslee, Co. Laois	Permission	Tony Dunne & Mary Woulfe	Conditional	28/03/2019	29/04/2019	Construct a grain storage shed, a dry store and machinery shed, the demolition of existing ruins along with concrete yards and all ancillary works	2.04
19122 (Laois County Council)	Ballynahimmy, Clonaslee, Co. Laois	Permission	Louise Doheny	Conditional	09/05/2019	11/06/2019	Construct stables (agricultural buildings). These	4.10

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Application Reference	Location	Type	Applicant / Developer	Decision Type	Decision Date	Grant Date	Description of Development	Distance from the Proposed Scheme (km)
							proposed stables will be extensions to existing buildings (i) 8 no stables added to existing stables, (building 01). (ii) 8 no stables, tack room, preparation area added to existing indoor arena (building 02) and associated site works	
2460555 (Laois County Council) 2460550 (Laois County Council)	Rearyvalley, Rossenallis, Laois	Permission	Ronan Mooney and Alison Kelly	Conditional	12/12/2024	N/A	Construct a two-storey dwelling house with a single storey element, domestic garage, septic tank, percolation area, new entrance and all necessary and associated site works.	4.40
<b>An Bord Pleanála</b>								
247390	Bunastick and Clonaslee, Clonaslee, Co. Laois.	Planning Appeal	Irish Water	Grant Permission	12/01/2017	N/A	Upgrading of water treatment plant (WTP) including refurbishment of existing WTP building and ancillary structures, proposed new water treatment process building.	0.01
320243	Gorteen, Killeigh, Co. Offaly.	Planning Appeal	Katie Quinn and Mary Clear	Refuse Permission	11/12/2024	N/A	Construction of a dwelling, domestic garage and all associated site works.	4.71

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Table 18.5: EPA Licensed Waste Facilities

Registration Code	Waste Facility Name	Category	Licensed Status	License Type	Distance to the Proposed Scheme (km)
P0435	Rosderra Farms (Portlaoise)	Industry	Licensed	IEL	1.12
W0282	Derryclure Energy Limited	Industry	Licensed	IEL	9.08
W0029	Derryclure Landfill	Waste	Licensed		9.44
P0978	JMW Farms (IRL) Limited	Industry	Licensed	IEL	8.85
P0980	William Grant & Sons Irish Manufacturing Limited	Industry	Licensed	IPC	10.89
P0833	Castle Paints (Tullamore) Limited	Industry	Licensed	IPC	13.28
W0113	KMK Metals Recycling Limited	Industry	Licensed	IEL	13.91
W0104	Bord Na Móna Recycling Limited	Industry	Licensed	IEL	14.00
P0638	Zoetis Belgium S.A.	Industry	Licensed	IEL	14.16
P0412	Harvest Lodge Pigs Limited	Industry	Licensed	IEL	14.74
P0500	Bord na Mona Energy Limited Leabeg	Industry	Licensed	IPC	16.02
P0781	Kepak Kilbeggan	Industry	Licensed	IEL	21.52
P0820	Dawn Meats Ireland Unlimited Company	Industry	Licensed	IEL	23.49
P1076	KMK Metals Recycling Limited	Industry	Licensed	IEL	24.10
W0197	Mulleady's Limited (Mullingar)	Industry	Licensed	IEL	41.87
P0104	Penn Racquet Sports Co. (Ireland)	Industry	Licensed	IPPC	42.19
P1093	Soltec (Ireland) Limited	Industry	Licensed	IEL	41.19
P0139	Data Packaging Ltd.	Industry	Licensed	IEL	42.49
W0115	Soltec (Ireland) Limited	Industry	Licensed	IEL	42.58
P0845	Brosna Paints Limited	Industry	Licensed	IPC	50. 20

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## 18.3.3.2 CIA Stage II

Table 18.6: Projects screened into CIA Stage II (January 2019 to December 2024)

Application Reference	Location	Description of Development	Distance from the Proposed Scheme (km)	Traffic & Transport	Population	Human Health	Biodiversity	Land, Soil, Hydrogeology	Water	Air Quality	Climate	Noise and Vibrations	Material Assets: Waste and Utilities	Cultural Heritage	Landscape and Visual
23284	Mountmellick Credit Union Limited, Chapel Street Clonaslee	Retain the demolition of the existing office building and full planning permission for the construction of a new replacement office building and all associated site works.	0.02	✓	✓	✓	✓	✓	-	✓	-	-	✓	-	✓
20554	Edel O'Brien, Chapel Street Clonaslee	Retain 2 rear facing pitched roof extensions (24.1 sq. m), a steel clad shed (29.7 sq. m), a change of use of a domestic garage into residential accommodation (41.9 Sq. m), the removal of a steel clad car port (19.9 sq. m) and permit to construct a single storey extension (17.3 sq. m) to the side of the existing dwelling to connect the former garage to the existing dwelling and all associated site works	0.05	-	-	-	✓	✓	-	✓	-	-	✓	-	✓
2429	Main Street, Clonaslee, Co. Laois	Retain 2 rear facing pitched roof extensions (24.1 sq. m), a steel clad shed (29.7 sq. m), a change of use of a domestic garage into residential accommodation (41.9 Sq. m), the removal of a steel clad car port (19.9 sq. m) and permit to construct a single storey extension (17.3 sq. m) to the side of the existing dwelling to connect the former garage to the existing dwelling and all associated site works	0.09	✓	✓	-	✓	-	-	✓	-	-	-	-	-
19521	Former Clonaslee Vocational School, Clonaslee, Rosenallis, Co. Laois	Change design from that granted with planning ref. 18/755 of the two semi-detached single storey houses in the former Clonaslee vocational school, a protected structure, reference number RPS 345, to two dormer type houses including Velux windows in the roofs and all ancillary site works and services	0.58												

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Application Reference	Location	Description of Development	Distance from the Proposed Scheme (km)	Traffic & Transport	Population	Human Health	Biodiversity	Land, Soil, Hydrogeology	Water	Air Quality	Climate	Noise and Vibrations	Material Assets: Waste and Utilities	Cultural Heritage	Landscape and Visual
2348	Clonaslee, Co. Laois	1. Erect 6 no. 20m high lighting columns with 48 no 1.5KW LED Floodlights to main playing pitch; 2. 25m long x 4.9m high concrete hurling wall with 1.2m high sports fencing to the top of the wall, 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface, 2.4m high surround sports fencing and 2 no 12m high lighting columns with 2 no 1.5KW LED Floodlights; 3. 6 no 15m high lighting columns to training pitch with 18 no 1.5KW LED floodlights; 4. 24 no 6m high octagonal public lighting columns to existing walking track with 24 no Axia LED Lanterns; Construction of extension to existing car park, onto our own lands, to allow for increased parking spaces and all associated site works	0.15	-	-	-	✓	✓	-	✓	-	✓	✓	-	✓
22361	Bellair, Clonaslee, Co. Laois,	For retention/permission for rear extension to my existing shop/hardware store, also to retain change of use of adjoining dwelling structure to use as part of above-mentioned shop/hardware store. Application also for full permission to construct new building comprising sit down delicatessen, as well as changing rooms, shower rooms and sauna for bicycle tourists and all associated works.	0.73	-	-	✓	✓	✓	-	-	-	-	✓	-	-
19583	Clonaslee Vocational School, Bellair, Clonaslee	Construct a General Classroom with 2 no. WC's (73m <sup>2</sup> ) and a new Science Lab with Preparation area (125m <sup>2</sup> ), external access works and associated ancillary site works	0.84	-	-	✓	-	✓	-	-	-	-	✓	-	-
20593	Graigueafulia, Clonaslee, Co. Laois	Construct a new slatted tank with associated holding yard, a new silage slab, a new cattle crush and all ancillary site works	1.91	-	-	✓	✓	-	-	-	-	-	✓	-	-
1986	Cloonagh More, Clonaslee, Co. Laois	Construct a grain storage shed, a dry store and machinery shed, the demolition of existing ruins along with concrete yards and all ancillary works	2.04	-	-	-	✓	-	-	-	-	-	✓	-	-

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Application Reference	Location	Description of Development	Distance from the Proposed Scheme (km)	Traffic & Transport	Population	Human Health	Biodiversity	Land, Soil, Hydrogeology	Water	Air Quality	Climate	Noise and Vibrations	Material Assets: Waste and Utilities	Cultural Heritage	Landscape and Visual
19122	Ballynahimmy, Clonaslee, Co. Laois	Construct stables (agricultural buildings). These proposed stables will be extensions to existing buildings (i) 8 no stables added to existing stables, (building 01). (ii) 8 no stables, tack room, preparation area added to existing indoor arena (building 02) and associated site works	4.10	-	-	-	✓	-	-	-	-	-	✓	-	-
Forestry Applications				-	-	-	✓	-	-	-	-	-	-	-	-
OPW Arterial Drainage Maintenance: Brosna				-	-	-	✓	-	✓	✓	-	-	-	-	-

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## 18.3.3.3 CIA Stage II

## Traffic and Transportation

Table 18.7: Traffic and Transport: Potential Cumulative Impacts and Likely Significance

Planning Reference	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
2429 (Laois County Council)	Conditional 20/08/2024	<ul style="list-style-type: none"> <li>Construct a bus shelter</li> </ul> Retention permission to retain a concrete base.	Located c. 88 m from the Proposed Scheme area. Negligible cumulative effect, given minor nature of works (bus shelter, which includes retention of the concrete base) and urban context of the development.  As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Slight	Construction Traffic Management Plan	Imperceptible, Not Significant
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> <li>Extension to existing car park located at to the northeast section of the redline boundary.</li> </ul>	No detailed construction methodology is available at this time, but works are expected to be temporary in nature and not likely to result in significant effects due to cumulative traffic and transport with the Proposed Scheme. It is also likely these works will be completed prior to the commencement of the Proposed Scheme.  As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap.	Slight	Construction Traffic Management Plan	Imperceptible, Not Significant

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### Population

**Table 18.8: Population: Potential Cumulative Impacts and Likely Significance**

Project Code	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
2429 (Laois County Council)	Conditional 20/08/2024	<ul style="list-style-type: none"> <li>Construct a bus shelter</li> </ul> Retention permission to retain a concrete base.	Located c. 88 m from the Proposed Scheme area. Negligible cumulative effect, given minor nature of works (bus shelter, which includes retention of the concrete base) and urban context of the development.  As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Slight, temporary	No additional measures other than those outlined in out in Chapter 6 Traffic, Chapter 9 Biodiversity, Chapter 12 Air Quality, Chapter 15 Noise & Vibration	Imperceptible, Temporary. Not Significant.
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> <li>Extension to existing car park located at to the northeast section of the redline boundary</li> </ul>	Potential to impact on population through disruptions to tourism, recreation and businesses in Clonaslee.  As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Moderate, temporary	No additional measures other than those outlined in Chapter 7: Population	Slight, temporary. Not Significant

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### Human Health

**Table 18.9: Potential Cumulative Impacts and Likely Significance**

Project Code	Decision	Development Description	Potential Cumulative Impact	Effect Without Mitigation	Mitigation	Residual Effect
23284 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>	<b>Construction:</b> Air Quality Noise and Vibration As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Minor	No further mitigation above measures listed in Ch12 Air Quality and Ch14 Noise & Vibration	No change, Not Significant.
22361 (Laois County Council)	Conditional 08/11/2022	<ul style="list-style-type: none"> <li>Retention/permission for rear extension to existing shop/hardware store.</li> <li>Construct new building comprising sit down delicatessen, as well as changing rooms, shower rooms and sauna for bicycle tourists.</li> </ul>	<b>Construction:</b> Air Quality Noise and Vibration. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Minor	No further mitigation above measures listed in Ch12 Air Quality and Ch14 Noise & Vibration	No change, Not Significant
19583 (Laois County Council)	Conditional 27/01/2020	<ul style="list-style-type: none"> <li>Construct a General Classroom with 2 no. bathrooms (73sqm).</li> <li>Construction of a new Science Lab with Preparation area (125sqm).</li> </ul>	<b>Construction:</b> Air Quality Noise and Vibration As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Minor	No further mitigation above measures listed in Ch12 Air Quality and Ch14 Noise & Vibration	No change, Not Significant
20593 (Laois County Council)	Conditional 09/02/2021	<ul style="list-style-type: none"> <li>Construct a new slatted tank with associated holding yard</li> <li>Construct a new silage slab.</li> </ul>	<b>Construction:</b> Air Quality Noise and Vibration As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Minor	No further mitigation above measures listed in Ch12 Air Quality and Ch14 Noise & Vibration	No change, Not Significant

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### Biodiversity

**Table 18.10: Biodiversity: Potential Cumulative Impacts and Likely Significance**

Planning Reference	Decision	Development Description	Potential Cumulative Effects	Effect Without Mitigation	Mitigation	Residual Effect
23284 (Laois County Council)	Conditional 04/03/2024	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>	Located c. 20 m from the Proposed Scheme. Negligible cumulative effect, given minor nature of works (retention of demolition, construction of single building) and urban context of the development. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Not Significant	Relevant measures set out in Chapter 9	Not Significant
20554 (Laois County Council)	Conditional 20/01/2021	<ul style="list-style-type: none"> <li>Retain 2 rear facing pitched roof extensions (24.1 sq. m)</li> <li>a steel-clad shed (29.7 sqm)</li> <li>Change of use of a domestic garage into residential accommodation (41.9 Sq. m)</li> <li>Removal of a steel-clad car port (19.9 sq. m)</li> <li>Construct a single storey extension (17.3 sq. m) to the side of the existing dwelling.</li> </ul>	Negligible, given minor nature of works (retention, change of use and construction of extension on single dwelling) and distance from Proposed Scheme (c. 50 m). As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Not Significant	Relevant measures set out in Chapter 9	Not Significant
2429 (Laois County Council)	Conditional 20/08/2024	<ul style="list-style-type: none"> <li>Construct a bus shelter</li> <li>Retention permission to retain a concrete base.</li> </ul>	Located c. 88 m from the Proposed Scheme area. Negligible cumulative effect, given minor nature of works (bus shelter, which includes retention of the concrete base) and urban context of the development. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Not Significant	Relevant measures set out in Chapter 9	Not Significant
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> </ul>	Located 150 m from the Proposed Scheme. Potential for additional disturbance (locally) from noise, lighting and human presence particularly in Area 2 of the Proposed Scheme should the construction phase of this development and the Proposed Scheme overlap.	Potentially significant	Relevant measures set out in Chapter 9 Mitigation measures for the Proposed Scheme will address any potential effects from the scheme itself, and therefore	Not Significant

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Planning Reference	Decision	Development Description	Potential Cumulative Effects	Effect Without Mitigation	Mitigation	Residual Effect
		<ul style="list-style-type: none"> <li>Extension to existing car park located at to the northeast section of the redline boundary</li> </ul>	As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.		there is no likelihood for cumulative effects	
22361 (Laois County Council)	Conditional 08/11/2022	<ul style="list-style-type: none"> <li>Retention/permission for rear extension to existing shop/hardware store.</li> <li>Construct new building comprising sit down delicatessen, as well as changing rooms, shower rooms and sauna for bicycle tourists.</li> </ul>	<p>Located c. 730 m from the Proposed Scheme. Potential for cumulative impacts due to water quality deterioration downstream of the rivers Gorrageh and Clodiagh confluence, should this development be hydrologically linked with the River Gorrageh, and if the construction phase of this development and the Proposed Scheme overlap.</p> <p>As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.</p>	Potentially significant	Relevant measures set out in Chapter 9 Mitigation measures for the Proposed Scheme will address any potential effects from the scheme itself, and therefore there is no likelihood for cumulative effects	Not Significant
19583 (Laois County Council)	Conditional 27/01/2020	<ul style="list-style-type: none"> <li>Construct a General Classroom with 2 no. bathrooms (73sqm).</li> <li>Construction of a new Science Lab with Preparation area (125sqm).</li> </ul>	<p>Located c. 840 m from the Proposed Scheme area. Potential for cumulative impacts due to water quality deterioration downstream of the rivers Gorrageh and Clodiagh confluence, should this development be hydrologically linked with the River Gorrageh, and if the construction phase of this development and the Proposed Scheme overlap.</p> <p>As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.</p>	Potentially significant	Relevant measures set out in Chapter 9 Mitigation measures for the Proposed Scheme will address any potential effects from the scheme itself, and therefore there is no likelihood for cumulative effects	Not Significant
20593 (Laois County Council)	Conditional 09/02/2021	<ul style="list-style-type: none"> <li>Construct a new slatted tank with associated holding yard</li> <li>Construct a new silage slab.</li> </ul>	Located c. 1.9 km from the Proposed Scheme area. No likelihood of cumulative effects. The development is relatively remote from the Proposed Scheme, within a separate sub catchment, and the planning permission includes conditions in relation to compliance with Good Agricultural Practices (GAP) Regulations and the management of soiled water, slurry and silage.	Not Significant	Relevant measures set out in Chapter 9	Not Significant

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Planning Reference	Decision	Development Description	Potential Cumulative Effects	Effect Without Mitigation	Mitigation	Residual Effect
			As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.			
1986 (Laois County Council)	Conditional 29/04/2019	<ul style="list-style-type: none"> <li>Construct a grain storage shed</li> <li>Construct a dry store and machinery shed</li> <li>Demolition of existing ruins along with concrete yards.</li> </ul>	<p>Located c. 2 km from the Proposed Scheme area. No likelihood of cumulative effects. The development is relatively remote from the Proposed Scheme, and the planning permission includes conditions in relation to discharge of only clean uncontaminated water, waste management in relation to protection of water quality and compliance with GAP Regulations.</p> <p>As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.</p>	Not Significant	Relevant measures set out in Chapter 9	Not Significant
19122 (Laois County Council)	Conditional 11/06/2019	<ul style="list-style-type: none"> <li>Construct stables (agricultural buildings).</li> <li>Construct 8 stables</li> <li>Construct a tack room,</li> <li>Preparation area associated site works</li> </ul>	<p>Located c. 4 km from the Proposed Scheme. No likelihood of cumulative effects. The permitted development is remote from the Proposed Development and is located within a separate surface water sub-catchment.</p> <p>As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.</p>	Not Significant	Relevant measures set out in Chapter 9	Not Significant
OPW Arterial Drainage Maintenance Works – Brosna Arterial Drainage Scheme	N/A	Under the Arterial Drainage Acts, 1945 and 1995, construction and alteration of watercourses, bridges, weirs and embankments require the prior consent of the OPW. These legal requirements mainly serve to ensure that proposed construction and alteration projects do not increase the risk of flooding or	<p>If works occur concurrently with the Proposed Scheme, it could result in short-term disturbance of a number of species including bats, otter, fish, and deterioration of river habitat quality.</p> <p>Potential for the temporary and permanent loss of foraging and resting habitat for each of these species also.</p>	Potentially significant	Relevant measures set out in Chapter 9 Mitigation measures for the Proposed Scheme will address any potential effects from the scheme itself, and therefore there is no likelihood for cumulative effects.	Not Significant Not Significant

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Planning Reference	Decision	Development Description	Potential Cumulative Effects	Effect Without Mitigation	Mitigation	Residual Effect
		have a negative impact on drainage of land.				
Forestry	N/A	N/A	A considerable number of clear felling and thinning activities, as well as a small number of forestry roads, have been approved or are pending approval in the Clodiagh catchment. Given the extent of approved and pending forestry licence applications in the River Clodiagh catchment, and the potential for significant effects on water quality arising from the Proposed Scheme alone in the absence of mitigation, it is considered that significant in-combination effects cannot be ruled out. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Potentially significant	Relevant measures set out in Chapter 9 Mitigation measures for the Proposed Scheme will address any potential effects from the scheme itself, and therefore there is no likelihood for cumulative effects.	Not Significant

## Land, Soil, Geology and Hydrogeology

Table 18.11: Land, Soil, Geology and Hydrogeology: Potential Cumulative Impacts and Likely Significance

Project Code:	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> <li>Extension to existing car park located at to the northeast section of the redline boundary.</li> </ul>	Slight loss of soil attribute As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Imperceptible	Relevant measures set out in Chapter 10	Imperceptible, Not Significant

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Project Code:	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
20554 (Laois County Council)	Conditional 20/01/2021	<ul style="list-style-type: none"> <li>Retain 2 rear facing pitched roof extensions (24.1 sq. m)</li> <li>a steel-clad shed (29.7 sqm)</li> <li>Change of use of a domestic garage into residential accommodation (41.9 Sq. m)</li> <li>Removal of a steel-clad car port (19.9 sq. m)</li> <li>Construct a single storey extension (17.3 sq. m) to the side of the existing dwelling.</li> </ul>	Change in land use Increase demand on groundwater As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Slight adverse	Relevant measures set out in Chapter 10	Imperceptible, Not Significant
23284 (Laois County Council)	Conditional 04/03/2024	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>	None identified Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Imperceptible	Relevant measures set out in Chapter 10	Imperceptible, Not Significant
22361(Laois County Council)	Conditional 08/11/2022	<ul style="list-style-type: none"> <li>Retention/permission for rear extension to existing shop/hardware store.</li> <li>Construct new building comprising sit down delicatessen, as well as changing rooms, shower rooms and sauna for bicycle tourists.</li> </ul>	Increase in ground cover resulting in slight increase to surface runoff. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Slight adverse	Relevant measures set out in Chapter 10	Imperceptible, Not Significant
19583 (Laois County Council)	Conditional 27/01/2020	<ul style="list-style-type: none"> <li>Construct a General Classroom with 2 no. bathrooms (73sqm).</li> <li>Construction of a new Science Lab with Preparation area (125sqm).</li> </ul>	Slight loss of soil attribute. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases.	Slight adverse	Relevant measures set out in Chapter 10	Imperceptible, Not Significant

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## Water

Table 18.12: Water: Potential Cumulative Impacts and Likely Significance

Project Code	Decision	Development Description	Potential Cumulative Impact	Effect Without Mitigation	Mitigation	Residual Effects
OPW Arterial Drainage Maintenance: Brosna	N/A	Under the Arterial Drainage Acts, 1945 and 1995, construction and alteration of watercourses, bridges, weirs and embankments require the prior consent of the OPW. These legal requirements mainly serve to ensure that proposed construction and alteration projects do not increase the risk of flooding or have a negative impact on drainage of land.	If works occur concurrently with the Proposed Scheme works, it could result in short term temporary elevation of suspended solids levels and short to long term effects on morphology in the affected watercourses	Deterioration in water quality and morphological conditions.  Slight adverse	Consultation and collaboration with OPW to offset timing of construction works.  Works to adhere to OPW's environmental management guidelines for ADS works.	Imperceptible, Not Significant

## Air Quality

Table 18.13: Air Quality: Potential Cumulative Impacts and Likely Significance

Project Code	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> <li>Extension to existing car park located at to the northeast section of the redline boundary</li> </ul>	Potential cumulative dust effects if construction was to coincide with other developments with 250 m of the Proposed Development.  As this application is already granted, it is likely that this development is already	Imperceptible	No additional measures to be implemented other than those outlined in section 12.5.1 of Chapter 12 Air Quality	Imperceptible, Not Significant
20554 (Laois County Council)	Conditional 20/01/2021	<ul style="list-style-type: none"> <li>Retain 2 rear facing pitched roof extensions (24.1 sq. m)</li> <li>A steel-clad shed (29.7 sqm)</li> </ul>		Imperceptible		Imperceptible, Not Significant

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Project Code	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Residual Effects
		<ul style="list-style-type: none"> <li>Change of use of a domestic garage into residential accommodation (41.9 Sq. m)</li> <li>Removal of a steel-clad car port (19.9 sq. m)</li> <li>Construct a single storey extension (17.3 sq. m) to the side of the existing dwelling.</li> </ul>	built and / or won't have a temporal overlap between the construction phases.			
23284 (Laois County Council)	Conditional 04/03/2024	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>		Imperceptible		Imperceptible, Not Significant
2429 (Laois County Council)	Conditional 20/08/2024	<ul style="list-style-type: none"> <li>Construct a bus shelter</li> <li>Retention permission to retain a concrete base.</li> </ul>		Imperceptible		Imperceptible, Not Significant
OPW Arterial Drainage Maintenance: Brosna	N/A	Under the Arterial Drainage Acts, 1945 and 1995, construction and alteration of watercourses, bridges, weirs and embankments require the prior consent of the OPW. These legal requirements mainly serve to ensure that proposed construction and alteration projects do not increase the risk of flooding or have a negative impact on drainage of land.	Potential cumulative dust effects if construction was to coincide with other developments with 250 m of the Proposed Development.	Slight		Imperceptible, Not Significant

## Climate

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.'

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### Noise and Vibrations

**Table 18.14: Noise and Vibrations: Potential Cumulative Impacts and Likely Significance**

Project Code	Decision	Development Description	Potential Cumulative Effects	Effect Without Mitigation	Mitigation	Residual Effects
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2.X 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> <li>Extension to existing car park located at to the northeast section of the redline boundary.</li> </ul>	Cumulative construction noise impacts. As this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases	Moderate and short-term	No additional measures to be implemented other than those outlined in Section 14.5 of Chapter 14 Noise & Vibration	Slight, short-term Not Significant

### Material Assets: Waste and Utilities

**Table 18.15: Material Assets: Waste and Utilities: Potential Cumulative Impacts and Likely Significance**

Project	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Likely Residual Impacts after Mitigation
23284 (Laois County Council)	Conditional 04/03/2024	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>	No potential cumulative effects because the majority of the work is expected to be completed before the Proposed Scheme works. Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases	Slight	No additional measures to be implemented other than those outlined in Chapter 15 Material Assets Waste and Utilities	Imperceptible, Not Significant
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x</li> </ul>	No potential cumulative impacts due the nature of the scheme. Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a	Slight		Imperceptible, Not Significant

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Project	Decision	Development Description	Potential Cumulative Impact	Effect without Mitigation	Mitigation	Likely Residual Impacts after Mitigation
		25m AstroTurf playing surface; and <ul style="list-style-type: none"> <li>Extension to existing car park located at to the northeast section of the redline boundary</li> </ul>	temporal overlap between the construction phases			
22361 (Laois County Council)	Conditional 08/11/2022	<ul style="list-style-type: none"> <li>Retention/permission for rear extension to existing shop/hardware store.</li> <li>Construct new building comprising sit down delicatessen, as well as changing rooms, shower rooms and sauna for bicycle tourists.</li> </ul>	No potential cumulative impacts due to distance from Proposed Scheme. Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases	Slight		Imperceptible, Not Significant
19583 (Laois County Council)	Conditional 27/01/2020	<ul style="list-style-type: none"> <li>Construct a General Classroom with 2 no. bathrooms (73sqm).</li> <li>Construction of a new Science Lab with Preparation area (125sqm).</li> </ul>				
20593 (Laois County Council)	Conditional 09/02/2021	<ul style="list-style-type: none"> <li>Construct a new slatted tank with associated holding yard</li> <li>Construct a new silage slab.</li> </ul>	No potential cumulative impacts due to distance from Proposed Scheme.			
1986 (Laois County Council)	Conditional 29/04/2019	<ul style="list-style-type: none"> <li>Construct a grain storage shed</li> <li>Construct a dry store and machinery shed</li> <li>Demolish of existing ruins along with concrete yards.</li> </ul>	Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases	Slight		Imperceptible, Not Significant
19122 (Laois County Council)	Conditional 11/06/2019	<ul style="list-style-type: none"> <li>Construct stables (agricultural buildings).</li> <li>Construct 8 stables</li> <li>Construct a tack room,</li> <li>Preparation area associated site works</li> </ul>				

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### Cultural Heritage

Following a review of relevant planning applications located within the vicinity of the Proposed Scheme, there are no identified projects with the potential to cause cumulative effects with the Proposed Development on Cultural Heritage within Clonaslee Village.

### Landscape and Visual

**Table 18.16: Potential Landscape and Visual Cumulative Impacts and Likely Significance**

Project Code	Decision Type	Development Description	Project main sources of Cumulative Effects	Cumulative Effect Without Mitigation	Mitigation	Residual Effects on landscape and visual amenity
23284 (Laois County Council)	Conditional 04/03/2024	<ul style="list-style-type: none"> <li>Retain the demolition of the existing office building</li> <li>Construction of a new replacement office building</li> </ul>	<p>Demolition of existing office building and replacement with new building of similar size and scale.</p> <p>Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases</p>	Minor	Replacement planting proposed where agreed with relevant landowners	Negligible, Not Significant
20554 (Laois County Council)	Conditional 20/01/2021	<ul style="list-style-type: none"> <li>Retain 2 rear facing pitched roof extensions (24.1 sq. m)</li> <li>a steel-clad shed (29.7 sqm)</li> <li>Change of use of a domestic garage into residential accommodation (41.9 Sq. m)</li> <li>Removal of a steel-clad car port (19.9 sq. m)</li> <li>Construct a single storey extension (17.3 sq. m) to the side of the existing dwelling.</li> </ul>	<p>Alterations to a private dwelling</p> <p>Moreover, as this application is already granted, it is likely that this development is already built and / or won't have a temporal overlap between the construction phases</p>	Minor	Replacement planting proposed where agreed with relevant landowners	Negligible, Not Significant
2348 (Laois County Council)	Conditional 08/05/2023	<ul style="list-style-type: none"> <li>Erect 6 no. 20 m high lighting columns;</li> <li>2. 25m long x 4.9m high concrete hurling wall w 3m long x 4.9m high wing walls to include 25m x 25m AstroTurf playing surface; and</li> </ul>	<p>Proposed scheme comprising 6 Lighting, columns (20m height), concrete hurling wall topped with fence (6.1m total height) to existing sports pitch.</p> <p>Moreover, as this application is already granted, it is likely that this development is already built and / or</p>	Minor	Replacement planting proposed where agreed with relevant landowners	Negligible, Not Significant

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Project Code	Decision Type	Development Description	Project main sources of Cumulative Effects	Cumulative Effect Without Mitigation	Mitigation	Residual Effects on landscape and visual amenity
		<ul style="list-style-type: none"><li>Extension to existing car park located at to the northeast section of the redline boundary</li></ul>	won't have a temporal overlap between the construction phases			

## CHAPTER 18 INTERACTIONS AND CUMULATIVE EFFECTS

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### **CIA Stage III**

Following on from a CIA by each topic's specialist, it was identified that a total of 11 plans and projects were screened in as potentially have cumulative effects with the Proposed Scheme, however, it is likely that all planning applications will be constructed by the time the Proposed Scheme undergoes construction. This is the case as all planning applications are small in size and have already been granted permission.

### **Transboundary Effects**

There is no potential for transboundary effects.

## CHAPTER REFERENCES

EC, 1999. *Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions*, s.l.: s.n.

EPA, 2022. *Guidelines on the information to be contained in Environmental Impact Assessment Reports*, s.l.: EPA Publications.

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