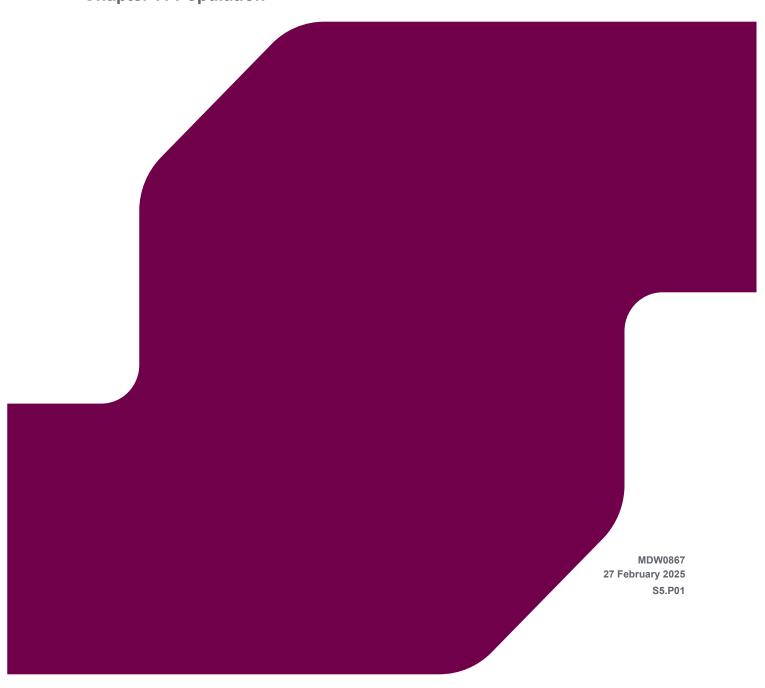


CLONASLEE FLOOD RELIEF SCHEME

Environmental Impact Assessment Report Chapter 7: Population



CHAPTER 7 - POPULATION

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| Michael Higgins | 27 February 2025 |

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Acronyms

| Term | Meaning |
|-------|--|
| CEMP | Construction Environmental Management Plan |
| CFRAM | Catchment-based Flood Risk Assessment and Management |
| СТМР | Construction Traffic Management Plan |
| CSO | Central Statistics Office |
| DAU | Development Applications Unit |
| DHLGH | Department of Housing, Local Government and Heritage |
| ED | Electoral Division |
| EIA | Environmental Impact Assessment |
| EIAR | Environmental Impact Assessment Report |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ESRI | Economic and Social Research Institute |
| FRS | Flood Relief Scheme |
| GSI | Geological Survey of Ireland |
| На | Hectare |
| IFI | Inland Fisheries Ireland |
| KM | Kilometre |
| PSA | Population Study Area |
| SA | Small Area |
| SAPS | Small Area Population Statistics |
| TE | Tailte Éireann |
| UAIA | Underwater Archaeological Impact Assessment |

7 POPULATION

7.1 Introduction

Chapter 7: **Population** of this EIAR identifies, describes and presents an assessment of the likely significant effects of the Clonaslee Flood Relief Scheme (hereafter, the Proposed Scheme) on population during both the construction and operational phases of the Proposed Scheme.

A detailed description of the project is provided in **Chapter 5**: **Project Description** of this EIAR. Please also refer to **Figure 5-1** which shows the Proposed Scheme's area, i.e., red line boundary.

Other chapters (listed below) of this EIAR are relevant to a consideration of effects on the population. All of these chapters should be read to gain a full understanding of the effects on the population:

- Chapter 6: Traffic and Transportation
- Chapter 8: Human Health
- Chapter 12: Air Quality
- Chapter 13: Climate
- Chapter 14: Noise and Vibration
- Chapter 15: Material Assets Waste & Utilities
- Chapter 17: Landscape and Visual Impact

7.2 Methodology

7.2.1 Legislation, Policy and Guidance

The impact assessment on population has followed the overall methodology and guidance relating to the Environmental Impact Assessment (EIA) process and preparation as set out in **Section 1.5 and 1.6** of **Chapter 1: Introduction** of this EIAR.

This chapter has been prepared having regard to the EIA Directive 2014/52/EU and the associated guidelines on the information to be contained in *Environmental Impact Assessment Reports* (EPA, 2022), as well as the *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (Government of Ireland, 2018).

It is noted that Article 3 of the EIA Directive 2014/52/EU effectively defines the EIA process as identifying, describing and assessing in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on a series of specified environmental factors. The first of these is 'population and human health' which replaces 'human beings' in the 2011 Directive. The term 'human health' is not defined in the EIA Directive 2014/52/EU. The effects on human health are considered in **Chapter 8: Human Health**.

The appraisal of likely significant effects on population and human beings was conducted by reviewing the current socio-economic environment in the areas close to the Proposed Scheme.

Regard has also been given to Fáilte Ireland's Guidelines for the Treatment of Tourism in an Environmental Impact Statement (Fáilte Ireland, July 2023).

In addition, a site visit was undertaken on 8 December 2023 to observe local settlement, travel patterns and identify/confirm community facilities.

7.2.2 Population Study Area

The Proposed Scheme centres on the section of the Clodiagh River that runs northwards through the village of Clonaslee. **Figure 5-1** of **Chapter 5**: **Project Description** of this EIAR shows Clonaslee, the flood risk extent as well as properties at risk.

The Population Study Area (PSA) has been defined by considering the EIAR Study Area and the Small Area Population Statistics (SAPS) published by the Census Statistics Office (CSO), specifically for Small Areas

(SAs) from the CSO Census of Population 2022. Since the boundaries of SAs do not perfectly align with the EIAR Study Area, the PSA comprises all SAs wholly or partially within a 3km buffer from the EIAR Study Area. Figure 7-1 illustrates both the EIAR Study Area and the PSA.

Available CSO statistics from the 2022 census for SAs, as well as State (i.e., Republic of Ireland), County (Laois), and Settlement (Clonaslee Village) levels, were used to obtain data regarding population and other pertinent statistics for the population EIA.

Furthermore, CSO Census of Population 2016 data was also considered when available to allow relevant comparison.

The SAs listed in Table 7-1 are included within the PSA and considered for the purpose of the population assessment.

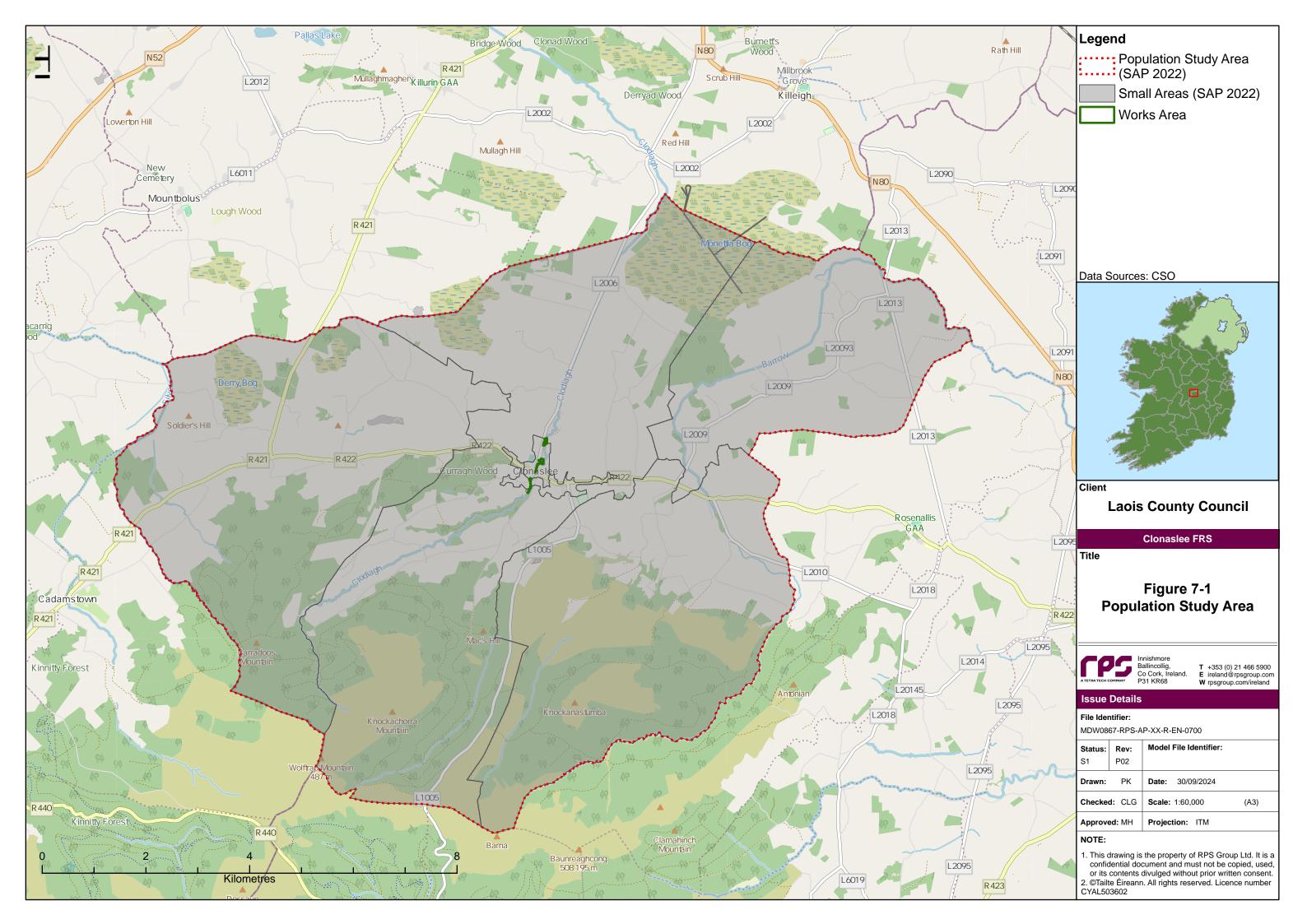
Small Areas within the PSA 2016-2022

Table 7-1: Small Areas within the PSA 2016-2022

| Small Area ID CSO of Population 2022 | Small Area ID CSO of Population 2016 |
|---|---|
| 107025001 | 107025001 |
| 107028001 | 107028001 |
| 107028002 | 107028002 |
| 107028003 | 107028003 |
| 107085001 | 107085001 |
| 107095001 | 107095001 |
| Total Area 114.7 km ² | Total Area 114.7 km² |
| Total Population 1,859 | Total Population 1,789 |

Source: Visual.cso.ie and Data.pobal.ie

It should be observed that the overall area and codes assigned to the SAs in 2022 remain unchanged compared to those allocated in 2016. However, there has been a slight alteration in the size of SA no. 107028003 from the CSO Census of Population 2016 to 2022. Nonetheless, the total area encompassed by all SAs within the PSA remains consistent between 2016 and 2022, facilitating comparative analyses in subsequent sections.



7.2.3 Sources of Information to Inform the Assessment

Baseline information with respect to the demographic and employment characteristics of the resident population within the PSA, as well as State, County and settlement level, where relevant, was sourced from:

- An Post Geodirectory.
- Central Statistics Office (CSO), Labour Force Survey Quarter 2 2023.
 - Available at: https://www.cso.ie/en/statistics/labourmarket/labourforcesurveylfs/ accessed: July 2024.
- CSO, Census Population 2022 and Census Population 2016.
 - Available online at: https://www.cso.ie/en/census/ accessed July 2024.
- Department of Housing, Local Government and Heritage (DHLGH) MyPlan.
 - Available at: https://myplan.ie/ accessed July 2024.
- Economic and Social Research Institute (ESRI) Quarterly Economic Commentary, Spring 2022.
 - Available at: https://www.esri.ie/publications/quarterly-economic-commentary-spring-2022 accessed July 2024.
- Failte Ireland, Irish Resident Travel by County 2022, May 2023.
 - Available at https://www.failteireland.ie/Research-Insights/Papers-Reports/Irish-Resident-Travel-by-County-2022.aspx?feed=Failte-Ireland accessed July 2024.
- Google Earth.
 - Available at https://earth.google.com/web/ accessed July 2024.
- Google Maps.
 - Available at https://www.google.com/maps accessed July 2024.
- Laois County Development Plan 2021-2027.
 - Available at https://laois.ie/departments/planning/review-of-laois-county-development-plan-2017-2023-2/ - accessed July 2024.
- Slieve Bloom Development Society 2024.
 - Available at https://slievebloom.ie/walking/loop-walks accessed July 2024.
- Tailte Éireann (Mapping).
 - Available at https://www.geohive.ie/ July 2024.
- Pobal Map Deprivation & Community Services Mapping.
 - Available at: https://maps.pobal.ie/ accessed July 2024.

7.2.4 Key Parameters for Assessment

The following aspects were considered in the assessment of the potential effects of the Proposed Scheme on population:

- Population Level: An evaluation of the impact that the Proposed Scheme may have on population level.
- Economic Impacts: An evaluation of the impact that the Proposed Scheme may have on economic
 development and employment.
- **Residential Amenity:** An assessment of the residential and recreational amenity considering the benefit enjoyed from physical external space, which is part of the private home including, size, noise, accessibility, enclosure and the wider natural and built environment.

- Community Facilities: An assessment of potential impacts with regard to any severance from
 community facilities, particularly those used by older people, children or other sensitive or vulnerable
 groups (this category includes relief from existing severance and new severance).
- Recreational and Tourism Facilities: An evaluation of the potential impact on recreational and tourism facilities within the Study Area was carried out.
- Transport, Connectivity and Accessibility: An evaluation of the impact on transport, connectivity and
 accessibility was carried out.
- Private Landholdings: An evaluation of the temporary or permanent footprint requirements of the Proposed Scheme that may impact landholdings, amenity, or require severance of a property.

7.2.5 Assessment Criteria and Significance

Effects can result from direct, indirect, secondary, and cumulative effects on environmental conditions. These effects can be positive, neutral or negative. The significance of an effect is based on objective evidence and subjective concerns and may be described as imperceptible, slight, moderate, significant, very significant or profound impact. Significance depends on, among other considerations, the nature of the environmental effect, the timing and duration of an effect and the probability of the occurrence of an effect. The impacts may be momentary, brief, temporary, short-term, medium-term, long-term or permanent. It usually follows that impacts of a population nature are a function of:

- The location and character of the local environment;
- The sensitivity of the local population and its capacity to absorb change;
- The nature of the environmental effect;
- The scale or extent of the effect in terms of the area or population affected;
- The duration and frequency of an effect; and
- The probability of an impact's occurrence.

Effects on population level can arise due to any impact that the Proposed Scheme may have through the protection of existing/planned residential lands and the economic impacts arising during construction and operation.

Effects on economic activity can arise due to any impact (direct or indirect) that the Proposed Scheme may have on the commercial sector during the construction or operation phase.

Effects on general residential amenity can arise due to any impact that the Proposed Scheme may have on residential quality of life, amenity or recreation due to environmental effects such as noise or visual intrusion, for which specific significance levels are identified in the respective chapters of the EIAR. An assessment of the residential and recreational amenity also considers the benefit enjoyed from physical external space which is part of the private home. The Proposed Scheme may impact on the extent, noise, accessibility and enclosure of this private space and wider recreational facilities.

Similarly, the Proposed Scheme may impact Community Facilities and Recreational and Tourism Facilities through their protection from flooding and environmental effects such as noise or visual intrusion, for which specific significance levels are identified in the respective chapters of the EIAR.

The Proposed Scheme's effects on transport, connectivity, and accessibility include severance, particularly during the construction period and during operation, and a reduction in any impacts on transport/connectivity caused by flooding events.

The assessment of potential effects on private landholdings is based on the sensitivity of properties and the effects that a loss of landholding, amenity, or severance may have on a property.

Impacts have been assessed in accordance with the significance criteria outlined in Table 7-2 with impacts resulting from increased protection from flooding events, changes in economic activity, changes in population level, changes in noise, accessibility and space or enclosure.

Table 7-2: Criteria Used in Assessment

| Impact Level | Significance Criteria - Positive | Significance Criteria - Negative | |
|------------------|---|----------------------------------|--|
| Imperceptible | No appreciable change No appreciable chan | | |
| Slight | Slight improvement | Some discernible decrease | |
| Moderate | Moderate increase | Moderate decrease | |
| Significant | Marked increase | Marked decrease | |
| Very Significant | Considerably greater | Considerably reduced | |
| Profound | Very considerably greater | Very considerably reduced | |

The assessment of potential effects that the Proposed Scheme will have in relation to landholdings is based on the sensitivity of the various properties and the effects that a loss of landholding, amenity, or severance may have on a property.

The following suite of tables (**Table 7-3** to **Table 7-6**) consider the sensitivity of the various properties and the effects that a loss of landholding, amenity, or severance may have on a property. The magnitude and significance of impacts arising from the Proposed Scheme have also been considered. These assessments are broadly based on the requirements of the EPA Guidelines (2022).

Table 7-3: Definition of Terms Relating to Environmental Sensitivity

| Sensitivity | Property |
|-------------|--|
| High | Occupied residential property |
| | Occupied commercial property |
| | Schools and hospitals/ health centres etc. |
| Medium | Unoccupied residential property |
| | Land zoned for development |
| | Public open space/ recreational space |
| | Agricultural lands |
| Low | Derelict residential property |
| | Unzoned, vacant lands |
| Very Low | Roadbed/ Road Verge |

Table 7-4: Definition of Terms Relating to Magnitude of Impact

| Magnitude of Impact | Property |
|---------------------|---|
| High | Large landtake and/or severance of the property where the use of the property cannot continue. |
| Medium | Large landtake and/or severance of the property requiring a considerable and/or permanent change in current character/ practices; use of the property can continue. |
| Low | Small to moderate landtake and/or severance. Small change in current character/ practices; use of the property can continue. |
| Very Low | Slight encroachment on the property that does not affect use of the property. No change in current character/ practices |

The definitions for significance in **Table 7-5** are as defined in the EPA Guidelines (2022) with a description of the criteria as it relates to properties.

Table 7-6 outlines the matrix used to assess the significance of the impact, taking account of the receptor's sensitivity and the magnitude of the impact. These are broad criteria, and professional judgment has been used to apply them to individual properties.

Table 7-5: Definition of Terms relating to the Significance of Effect Levels

| | Definitions | |
|------------------------|--|---|
| Significance of Impact | EPA (2022) Guidelines Definition | Property |
| Imperceptible | An effect capable of measurement but without significant consequences. | Property and curtilage are not affected by the project, only roadbed/ road verge. |
| Not Significant | An effect which causes noticeable changes in the character of the environment but without significant consequences. | Development encroaches on landholding but without significant consequences. |
| Slight | An effect which causes noticeable changes in the character of the environment without affecting its sensitivities. | Development may encroach on a boundary causing a slight inconvenience but does not require a significant change to landholding or result in any significant reduction in residential amenity. |
| | | Mitigation will overcome any impacts. |
| Moderate | An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. | Development encroaches on more than one boundary of the site and/or encroaches on over 25% of the landholding/ curtilage only and/or is likely to modestly reduce the residential amenity of the site. Mitigation measures will overcome |
| | | most impacts. |
| Significant | An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. | This impact will significantly reduce the size of the landholding by less than 40% and/or encroaches close to a sensitive building so as to substantially affect its residential amenities. |
| | | Considerable mitigation measures will be required to address impacts and not all impacts may be mitigated fully. |
| Very Significant | An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment. | This impact will significantly reduce the size of the landholding by over 40% and/or encroaches close to a sensitive building so as to significantly affect its residential amenities. |
| | | Considerable mitigation measures will be required to address impacts and not all impacts may be mitigated fully. |
| Profound | An effect which obliterates sensitive characteristics. | The acquisition of an entire landholding to facilitate the Proposed Scheme. |
| | | Demolition of an occupied residential property. |

Table 7-6: Matrix used for the Assessment of the Significance of the Impact

| | Magnitude of Impact | | | | |
|-------------------------|---------------------|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| Ę. | | Very Low | Low | Medium | High |
| Sensitivity of Receptor | Very Low | Imperceptible | Imperceptible or Not Significant | Not Significant or Slight | Slight |
| | Low | Imperceptible or Not Significant | Not Significant or Slight | Slight | Slight or Moderate |
| | Medium | Not Significant | Not Significant or Slight | Moderate or Significant | Significant or Very Significant |
| | High | Not Significant | Slight or Moderate | Significant or Very Significant | Very Significant or Profound |

7.2.6 Data Limitations

This chapter of the EIAR has been prepared based upon the best available information and in accordance with current best practice and relevant guidelines.

There were no data limitations or technical difficulties encountered in the preparation of this chapter of the EIAR.

It should be noted that the administrative boundary of Clonaslee Village (settlement level) changed between the CSO Censuses of Population in 2016 and 2022. Consequently, although statistical data for Clonaslee Village is available for 2016 and 2022, comparative analysis at the settlement level has been avoided and/or limited, considering the limitation due to the changed boundary.

7.2.7 Consultations

During the preparation of this EIAR, consultations with a number of parties were undertaken in order to ensure that environmental issues, including socio-economic, recreational and amenity issues relating to the project, were addressed. Comments and queries from stakeholders informed design and are addressed throughout this report and summarised in **Table 7-7**.

Table 7-7: List of Consultation

| Consultee | Feedback | Location where comments were addressed |
|-----------------------------|--|---|
| Fáilte Ireland | Email 05.01.2024: Issued EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects | Sections 7.4.2.5 and 7.4.3.5 |
| GSI | Email 26.02.2024: Informed that the zone of contribution of the Clonaslee Public Water Supply is within the flood relief scheme areas. The GSI recommends that groundwater-surface water interaction be considered in relation to the public supply. GSI recommend the use of the groundwater viewer to identify areas of high to extreme vulnerability. | Refer Chapter 10 Land Soil and Hydrogeology which assess the impact to Clonaslee Public Water Supply. |
| Uisce Éireann | Email response 05.01.2024: Requested any proposals by the applicant to divert or build over existing water or wastewater services shall be submitted to Uisce Éireann for written approval prior to works commencing. All works should be carried out in compliance with the Irish Water Codes of Practice and Standard Details. | Refer Chapter 5: Project Description which outlines the engagement with Uisce Éireann on diversion and enabling works. |
| Inland Fisheries Ireland | Email response 09.01.2024: Requested details on proposed works on any watercourse, any potential impacts on aquatic ecology; requested measures to prevent potential for discharge of polluting or deleterious matter | Refer Chapter 11 – Water concludes that during the operational and construction stages the project drainage design, mitigation measures |

and infrastructure will limit the risk to watercourses and the hydrological environment from flooding and runoff contamination. Therefore, any residual effects will be slight and temporary residual impact on water quality. It is therefore considered that there will be no significant impact on the recreational value enjoyed by the population of the watercourses arising from any change in water quality.

DAU - National Monuments

Email response 09.01.2024: Requested the scheme follows measures set out in Archaeology and Flood Relief Scheme: Guidelines (NMS 2023). Requested desk based and field survey measures to record a full inventory, mapping and surveys (photographic, descriptive, photogrammetric, as appropriate) of all archaeological, underwater and cultural heritage features and structures identified by field inspections, cartographic analysis, historical and archival research and prior archaeological investigations. Requested an Underwater Archaeological Impact Assessment (UAIA), and Comprehensive buildings archaeology assessments of built heritage

Refer Chapter 16 Cultural Heritage where these guidelines are applied and referenced in the assessment adopted.

7.3 Description of the Existing Environment

7.3.1 Baseline Environment

Clonaslee is a village in the north of the County Laois, situated in the foothills of the Slieve Bloom Mountains. The Clodiagh River flows northwards through the village. The Gorragh River passes to the east before its confluence with the Clodiagh River, approximately 1.5km north of the village. The village is on the R422 Mountmellick to Birr Road, c. 23km northwest of Portlaoise (County Laois) and c. 16km southwest of Tullamore (County Offaly).

The urban form of the village has developed essentially along two intersecting streets, Main Street, which is part of the R422 and Chapel Road / Tullamore Road (L2006).

Main Street has the layout of an estate village. It comprises a wide and open boulevard, with a continuous building line defining the boulevard on either side and creating a vista that terminates in the Visitor's Centre (formerly the Church of Ireland). **Figure 7-2** illustrates the core of Clonaslee Village and identifies both streets.

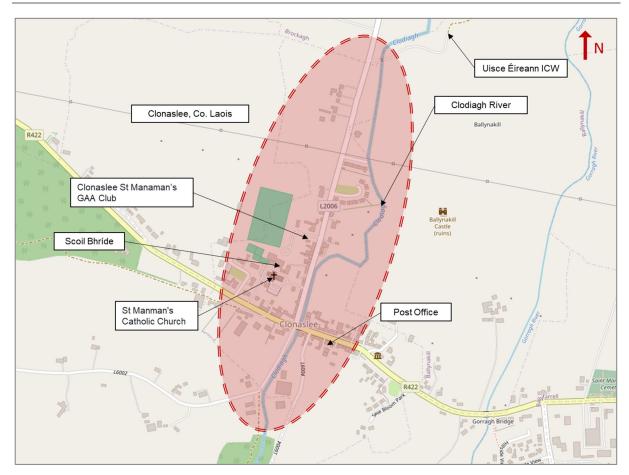


Figure 7-2: Clonaslee Village's Core (enclosed in red)

Source: RPS using Open Street Map

The PSA comprises 6 no. SAs. This is shown in **Figure 7-1** and **Table 7-1** of this chapter. In 2022, the PSA had a combined population of 1,859 persons and a total land area of 114.7 square kilometres.

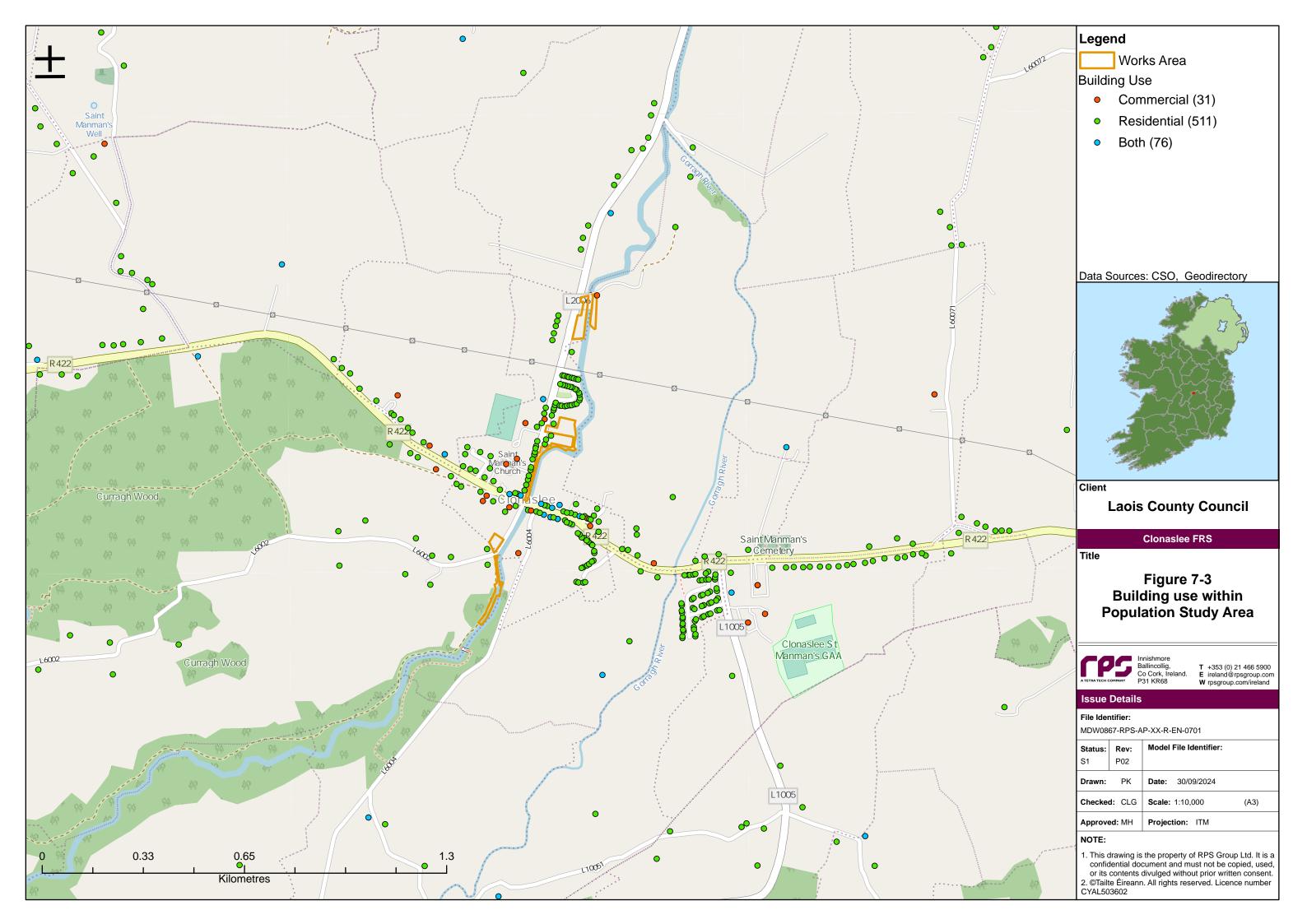
The Laois County Development Plan 2021-2027 (hereafter, the Development Plan) classifies Clonaslee as 'village' as part of the County's settlement hierarchy, with a population of 566 persons as per the CSO Census 2016. Village typology is described as 'villages that serve their local area' under County's settlement hierarchy. Further, Section 2.10.5 of the Development Plan notes that villages, such as Clonaslee:

'(...) have an important role to play in performing local residential, retailing, social and leisure functions and providing appropriate local services to a wider rural hinterland. These villages provide opportunities for future expansion/ provision of services such as community centres, local shop, pub, petrol outlet and have the potential to attract a population seeking to live in a rural environment.'.

The Slieve Bloom Mountains offers different looped walking and hiking trails and eco walks ranging from 4km to 75km. Some of the trailheads are located in Clonaslee Village and other townlands, such as Glenbarrow and Monicknew. Other amenities include the Giant's Grave and Brittas Forest and Lake. **Section 7.3.1.5** of this chapter provides details of the natural attractions within the PSA.

The property types within the PSA were identified through the An Post Geodirectory database. Residential development is generally dispersed throughout the PSA, with small clusters of residential and commercial properties concentrated within the core of the Clonaslee Village and along the two main routes, Main Street (R422) and Tullamore Road.

There is a total of 618 no. buildings within the PSA, see **Figures 7-3 and 7-4**. 511 no. of these properties are 'residential', 31 no. are 'commercial', 76 no. properties as being listed both 'commercial and residential'. As shown in **Figure 7-4**, commercial properties are mostly located along and/or adjacent the main routes within Clonaslee Village, i.e., the Main Street (R422) and the Tullamore Road.



According to information presented in **Chapter 5: Project Description** of this EIAR, it is estimated that 72 no. residential properties and 2 no. commercial properties currently at risk of flooding will be protected by the Proposed Scheme. Please see also **Figure 5-4** and **Table 5-1** of **Chapter 5: Project Description** of this EIAR.

7.3.1.1 Population Level

Table 7-8 presents population results for the State, County Laois, the PSA, and Clonaslee Village for 2016 and 2022.

Table 7-8 Population 2016-2022

| Population | State | County Laois | PSA | Clonaslee Village |
|-------------------------|-----------|---------------------|-------|-------------------|
| 2016 | 4,761,865 | 84,697 | 1,789 | 566 |
| 2022 | 5,149,139 | 91,877 | 1,859 | 608* |
| % Change (2016 to 2022) | 8% | 8% | 4% | 7% |

Source: Data.cso.ie Datasets (State and County Ref. F1003; Settlement Ref. E2052 and F1015; and SAs Ref. SAP2016T1T1ASA and SAP2022T1T1ASA)

Population Densities within the State, County Laois and PSA for 2016 and 2022 are shown in Table 7-9.

Table 7-9 Population Densities 2016-2022

| Population Density | State | County Laois* | PSA* |
|-------------------------------------|-------|---------------|------|
| 2016 (persons per km²) | 70 | 49 | 15 |
| 2022 (persons per km ²) | 73 | 53 | 16 |

Source: Data.cso.ie Datasets (State Ref. E2013 and F1011)

Table 7-10 presents the population statistics within different age cohorts from the CSO Census of Population 2016 and 2022 for the State, County Laois and the PSA.

Table 7-10 Population within Different Age Cohorts 2016-2022

| Age Cohort | State 2016 | State 2022 | County Laois 2016 | County Laois 2022 | PSA 2016 | PSA 2022 |
|---------------|---------------|---------------|----------------------|----------------------|-------------|-------------|
| 0 to 9 | 687,076 | 638,085 | 14,227 | 12,582 | 263 | 237 |
| 10 to 19 | 622,292 | 711,830 | 11,913 | 14,463 | 282 | 267 |
| 20 to 29 | 571,071 | 602,951 | 9,006 | 9,344 | 185 | 205 |
| 30 to 39 | 751,396 | 715,092 | 13,884 | 12,714 | 214 | 211 |
| 40 to 49 | 683,570 | 785,028 | 12,307 | 14,576 | 255 | 267 |
| 50 to 59 | 570,037 | 647,168 | 9,789 | 11,545 | 234 | 256 |
| 60 to 69 | 450,092 | 510,814 | 7,216 | 8,634 | 185 | 194 |
| 70+ | 426,331 | 538,171 | 6,355 | 8,019 | 171 | 222 |
| Total | 4,761,865 | 5,149,139 | 84,697 | 91,877 | 1,789 | 1,859 |

Source: Data.cso.ie Datasets (State Ref. F1002; County and SA's Ref. SAP2022T1T1ACTY and SAP2016T1T1ACTY)

7.3.1.2 Economic Activity

Table 7-11 shows the percentage of the population in the State, County Laois, and the PSA aged 15 years and over by principal economic status at the time of the CSO Census of Population 2022. There are eight

^{*}Note: From Censuses of Population 2016 and 2022 the area of Clonaslee Village increased.

^{*}Note: County Laois area is 1,719.127km2; PSA area is 114.7km2.

different statuses, including 'at work' and 'unemployed'. Statistics from the CSO Census of Population 2016 are presented in **Table 7-12**.

Table 7-11 Population Aged 15 Years and Over by Economic Status 2022

| Economic Status 2022 | State | % | Laois | % | PSA | % |
|--|-----------|------|--------|------|-------|------|
| At Work | 2,320,297 | 56% | 39,934 | 56% | 820 | 55% |
| Other | 1,640,279 | 40% | 28,363 | 40% | 621 | 42% |
| Looking after home/family | 272,318 | 7% | 5,670 | 8% | 126 | 8% |
| Looking for first regular job | 34,526 | 1% | 727 | 1% | 15 | 1% |
| Other | 27,062 | 1% | 792 | 1% | 10 | 1% |
| Retired | 657,790 | 16% | 9,705 | 14% | 237 | 16% |
| Student | 459,275 | 11% | 7,703 | 11% | 165 | 11% |
| Unable to work due to permanent sickness or disability | 189,308 | 5% | 3,766 | 5% | 68 | 5% |
| Unemployed | 176,276 | 4% | 3,172 | 4% | 48 | 3% |
| Total | 4,136,852 | 100% | 71,469 | 100% | 1,489 | 100% |

Source: Data.cso.ie Datasets (State Ref. SAP2016T8T1PROV; County Ref. SAP2016T8T1CTY; and SAs Ref. SAP2022T8T1SA)

Table 7-12 Population Aged 15 Years and Over by Economic Status 2016

| Economic Status 2016 | State | % | Laois | % | PSA | % |
|--|-----------|------|--------|------|-------|------|
| At Work | 2,006,641 | 53% | 33,541 | 53% | 674 | 49% |
| Other | 1,482,710 | 39% | 24,892 | 39% | 607 | 44% |
| Looking after home/family | 305,556 | 8% | 6,004 | 9% | 169 | 12% |
| Looking for first regular job | 31,434 | 1% | 616 | 1% | 12 | 1% |
| Other | 14,837 | 0% | 733 | 1% | 4 | 0% |
| Retired | 545,407 | 15% | 8,077 | 13% | 205 | 15% |
| Student | 427,128 | 11% | 6,492 | 10% | 149 | 11% |
| Unable to work due to permanent sickness or disability | 158,348 | 4% | 2970 | 5% | 68 | 5% |
| Unemployed | 265,962 | 7% | 5,452 | 9% | 95 | 7% |
| Total | 3,755,313 | 100% | 63,885 | 100% | 1,376 | 100% |

Source: Data.cso.ie Dataset (State Ref. SAP2022T8T1CTY; County Ref. SAP2022T8T1CT; and SAs Ref. SAP2016T8T1SA)

A list of main businesses within Clonaslee Village and the PSA is presented in **Table 7-13**. It is to be noted that businesses are all small-to-medium in size. Further details of local business are also presented in **Section 7.1.3.4**. of this chapter.

Table 7-13 Summary of Local Businesses

| Name of the Local Business | Address |
|--|--|
| Brendan Casey Tractors and Machinery Sales | Broughla, Clonaslee, Co. Laois |
| Pipefab Ltd (Stainless Steel Fabrications) | Tullamore Road, Brockagh, Clonaslee, Co. Laois |
| O'Meara Signs | Ballinahemmy, Clonaslee, Co. Laois |
| McCann Plumbing | Graigueafulla, Clonaslee, Co. Laois, R32 H5R7 |
| Dunne Peter – Livestock Breeders & Dealers | Main Street, Clonaslee, Co. Laois |
| Hogan's Hardware | Shraduff, Glebe, Clonaslee, Co. Laois |

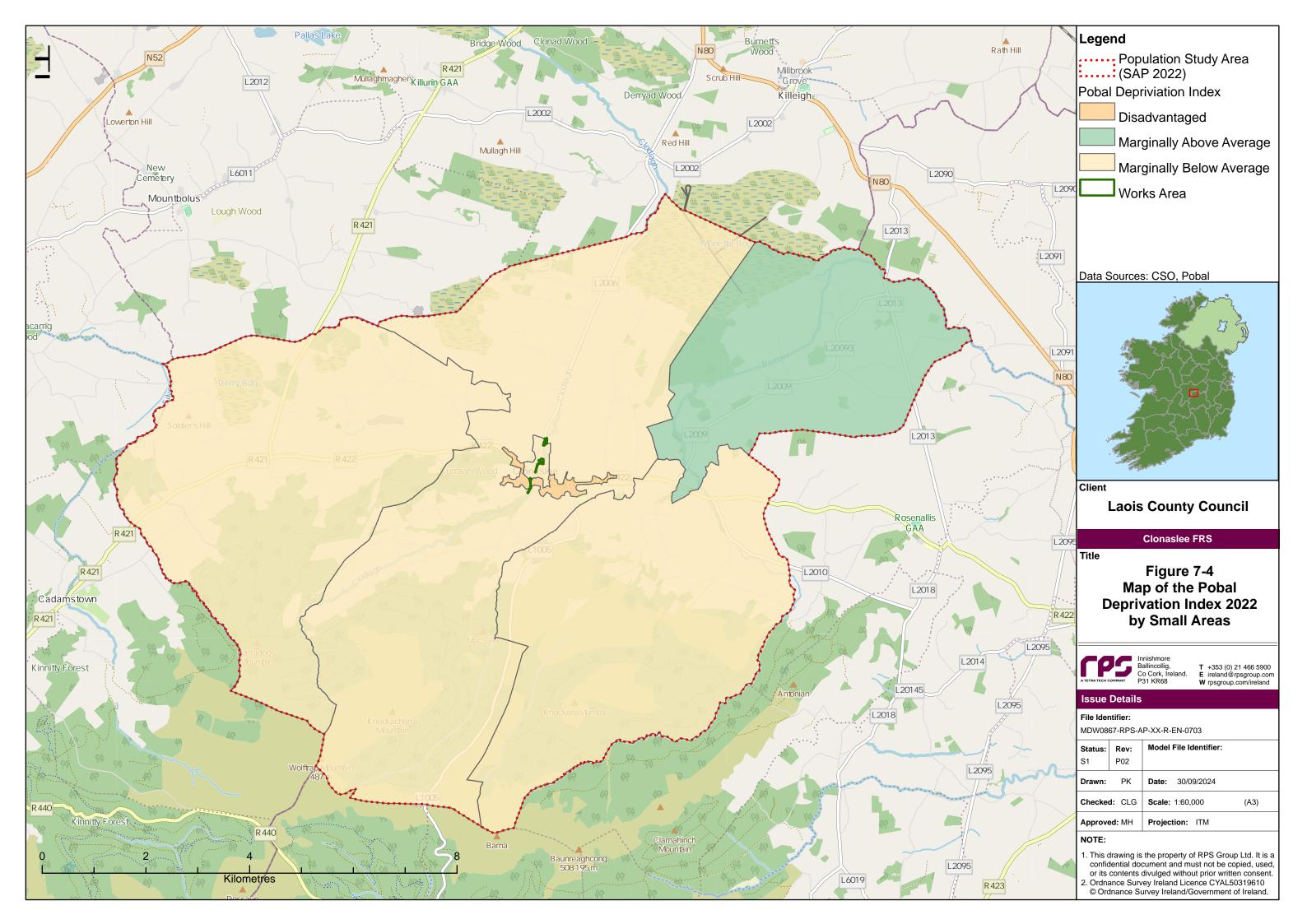
CHAPTER 7: POPULATION

| Name of the Local Business | Address |
|--|--------------------------------------|
| Morans Garage | Main Street, Clonaslee, Co. Laois |
| Peavoy's Cafe | Main Street, Clonaslee, Co. Laois |
| MACE Convenience Clonaslee | Srahduff Glebe, Clonaslee, Co. Laois |
| Carroll O'Keeffe & Co Builders Contractors | The Green, Clonaslee, Co. Laois |
| Fallon's Bar | Main Street, Clonaslee, Co. Laois |

Source: https://www.localbusinesspages.ie/area.asp?county=Laois&area=Clonaslee

The Pobal Deprivation Indices are Ireland's most widely used social gradient metric. They allow the creation of interactive maps showing the level of overall affluence and deprivations of SAs. The Pobal Deprivation Indices cover all SAs of CSO Censuses of Population from 2006 to 2022.

Figure 7-5 has been prepared using the Pobal Deprivation Index for 2022 and presents the different levels of affluence and deprivation within the PSA for 2022. The PSA contains SAs classified as marginally below average, marginally above average, and disadvantaged.



7.3.1.3 Private Landholdings

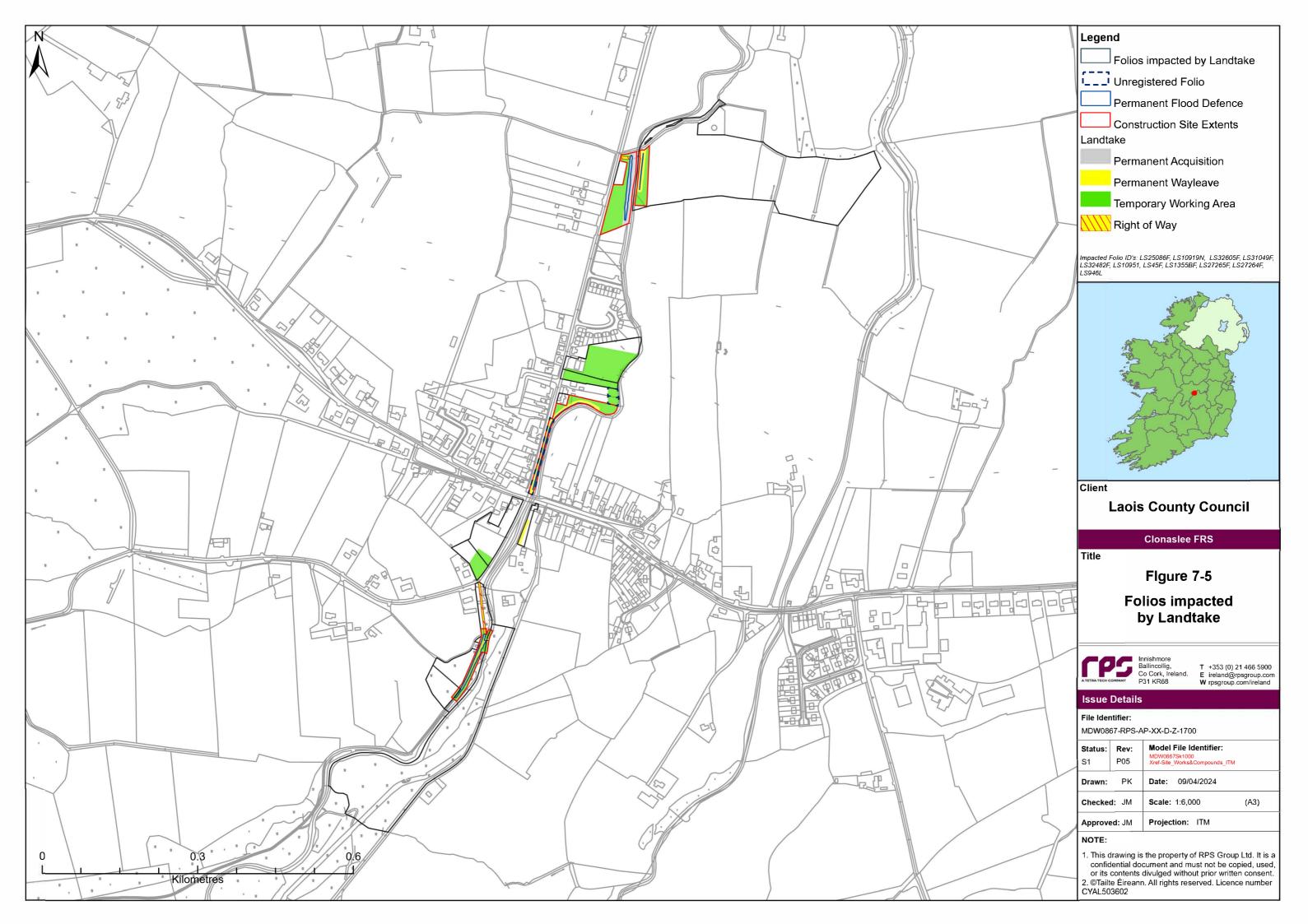
The Proposed Scheme will be constructed and/or operated on lands in public and private ownership.

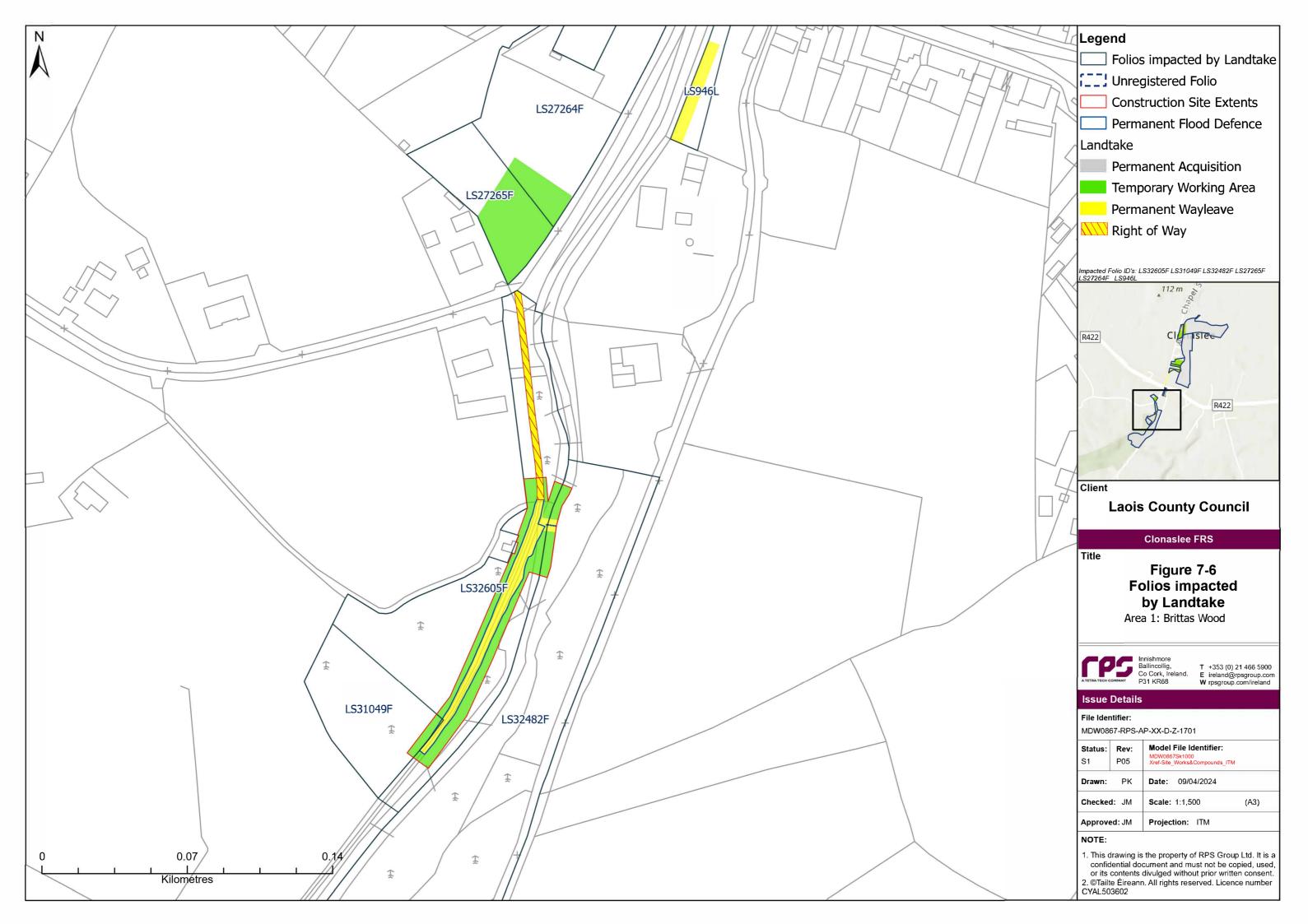
With regard to private land ownership, **Figures 7.5** to **7.8** show the land folios that are fully or partly contained within the extent of the Proposed Scheme (i.e., application boundary). These comprise the following land use categories:

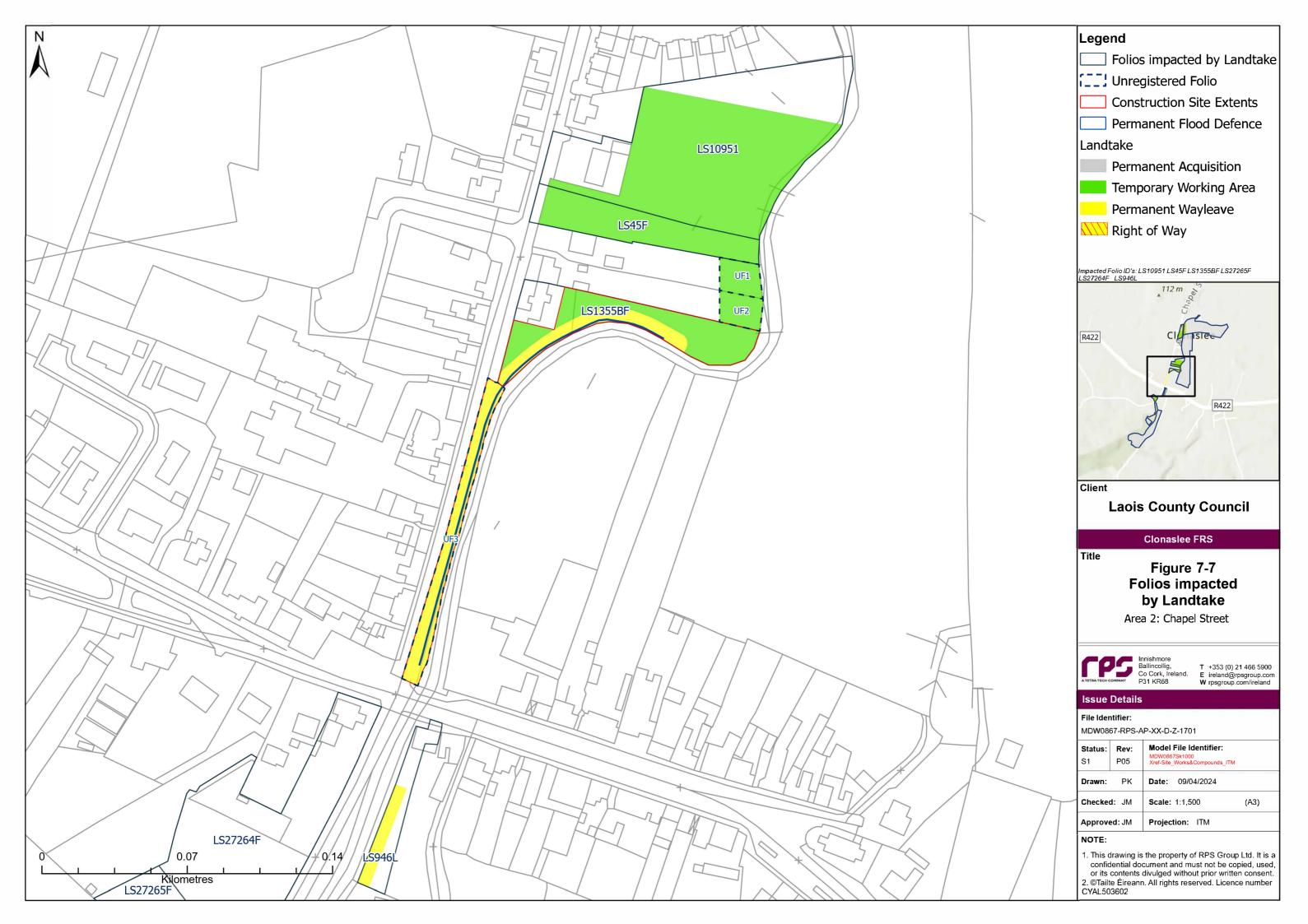
- Residential properties
- Residential/agricultural properties
- Agricultural properties
- Commercial properties

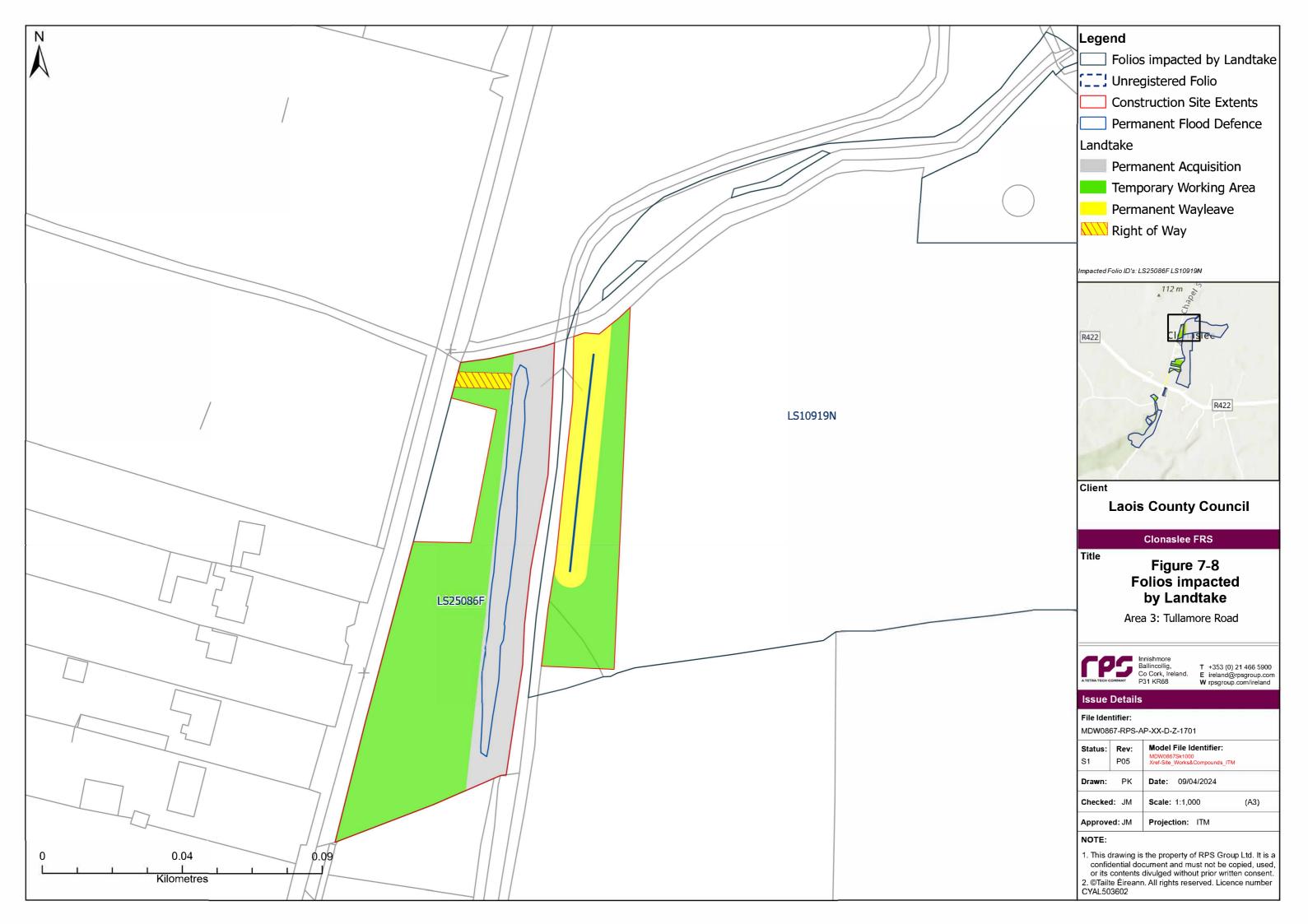
In addition to the above, portions of public roads, pathways, and sections of the river channel are also landholdings contained fully or partly within the extent of the Proposed Scheme (i.e., application boundary). However, these are under public ownership.

There are no outstanding planning permissions that yet to be activated within the extent of the Proposed Scheme (i.e., application boundary) and/or adjacent to the application boundary.









7.3.1.4 Residential Amenity

The number of households and 'Average Household Size Recorded' within the State, County Laois and the OSA as per the CSO Censuses of Population for 2016 and 2022 are shown in **Table 7-14. Table 7-15** shows the number of households and 'Persons Living in the Households' within the PSA as per the CSO Censuses of Population for 2016 and 2022.

Table 7-14: Average Household Size Recorded 2016-2022

| Area | 2016 No. Households | 2016 Avg. Size | 2022 No. Households | 2022 Avg. Size |
|--------------|------------------------|-------------------|------------------------|-------------------|
| State | 1,697,665 | 2.75 | 1,836,728 | 2.74 |
| County Laois | 28,997 | 2.87 | 31,112 | 2.90 |
| PSA | 633 | 2.83 | 653 | 2.85 |

Source: Data.cso.ie Dataset (State Ref. F2002 and F2001; County Ref. F2002 and F2001; and SAR Ref. SAP2016T5T1SA and SAP2022T5T1SA)

Table 7-15: Number of Households and Persons 2016-2022

| PSA | House/Bungalow | Apartment | Bedsitting | Caravan | Not Stated |
|-------------------|----------------|-----------|------------|---------|---------------|
| | | 2016 | | | |
| No. of Households | 621 | 2 | 0 | 5 | 5 |
| No. of Persons | 1,776 | 3 | 0 | 9 | 7 |
| | | 2022 | | | |
| No. of Households | 648 | 3 | 0 | 2 | N/A |
| No. of Persons | 1,872 | 5 | 0 | 3 | N/A |

Source: Data.cso.ie Dataset (SAs Ref. SAP2016T6T1SA and SAP2022T6T1SA)

7.3.1.5 Community Facilities

A range of community facilities serve the people of Clonaslee Village and the PSA. The list of main facilities can be seen in **Table 7-16** including primary schools, post-primary schools and childcare facilities.

Table 7-16: Educational Facilities within the Population Study Area

| Ref. | Category | Name of the Facility | Address |
|------|-----------|-----------------------------|--|
| EF1 | School | Clonaslee Vocational School | Bellair Or Cappanapinion, Clonaslee, Co. Laois |
| EF2 | School | Muire Naofa Castlecuffe | Castlecuffe, Clonaslee, Co. Laois |
| EF3 | School | Scoil Bhride | Saint Manman's Church, Clonaslee, Co. Laois |
| EF4 | Childcare | Tír Na Nóg | Old Boys School, Clonaslee, Co. Laois |

Source: Gov.ie and Tusla.ie

Table 7-17 shows the healthcare facilities which are located within the PSA.

Table 7-17: Healthcare Facilities within the Population Study Area

| Ref. Category | Name of the Facility | Address |
|----------------|-------------------------|-----------------------------------|
| HE1 Healthcare | Clonaslee Pharmacy | Main Street, Clonaslee, Co. Laois |
| HE2 Healthcare | Clonaslee Health Centre | Capparogan, Clonaslee, Co. Laois |

Source: https://www.localbusinesspages.ie/area.asp?county=Laois&area=Clonaslee and Google Maps.

Table 7-18 shows the healthcare facilities which are located within the PSA.

Table 7-18: Sports Facilities within the Population Study Area

| Ref. Cateo | gory | Name of the Facility | Address |
|------------|---------|------------------------------------|---------------------------|
| SF1 Sport | s Clubs | Clonaslee St. Manmans GAA | Fr. Kehoe Park, Co. Laois |
| SF2 Sport | s Clubs | Clonaslee Soccer and Football Club | Bellair, Co. Laois |

Source: https://www.localbusinesspages.ie/area.asp?county=Laois&area=Clonaslee and Google Maps.

Table 7-19 shows the other community facilities which are located within the PSA.

Table 7-19: Other Community Facilities within the Population Study Area

| Ref. | Category | Name of the Facility | Address |
|------|-----------|-----------------------------|---|
| OC1 | Religious | St Manman's Catholic Church | 3 The Green, Clonaslee, Co. Laois |
| OC2 | Postal | An Post Clonaslee | Main St, Clonaslee, Co. Laois |
| OC3 | Community | Clonaslee Community Centre | Parking lot, Bellair, Clonaslee, Co. Laois |
| OC4 | Financial | Clonaslee Credit Union | Church Street, Clonaslee, Co. Laois, R32 WF58 |

Source: https://www.localbusinesspages.ie/area.asp?county=Laois&area=Clonaslee and Google Maps.

Figure 7-9 illustrates the location of the community facilities detailed in the above tables within the immediate context of Clonaslee Village.

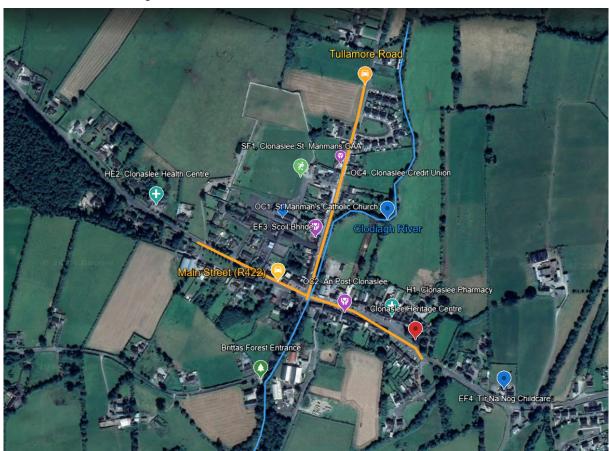


Figure 7-9: Location of Community Facilities within the immediate context of Clonaslee Village

Source: RPS using Google Maps

7.3.1.6 Recreation and Tourism Facilities

7.3.1.6.1 Brittas Forest & Lake

Brittas Forest is located on the edge of Clonaslee Village and adjoins the River Clodiagh. It holds significant cultural value owing to the presence of historic riverside structures. Attractions include Brittas Lake, Brittas Castle, and a range of walking routes. The main entrance to the Brittas Forest is located c. 180m south of the Main Street (R422) and the Tullamore Road junction.

Figure 7-10 illustrates the location of the entrance to the Brittas Forest & Lake south of Clonaslee Village.

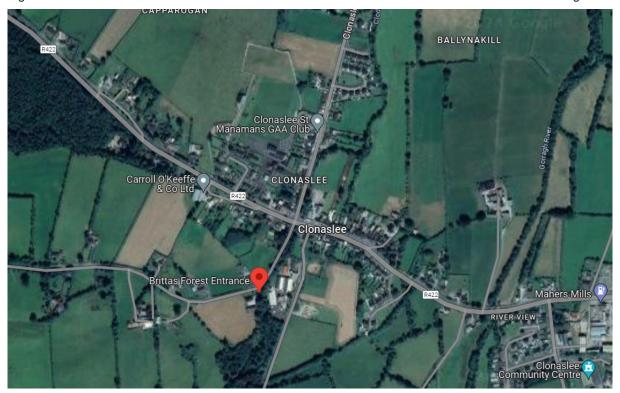


Figure 7-10: Location of Entrance to Brittas Forest & Lake and Clonaslee Heritage Centre

Source: Google Maps

7.3.1.6.2 Clonaslee Heritage Centre

The old Church of Ireland church (1814) is now a heritage centre. Figure 7-10 illustrates the location of the Clonaslee Heritage Centre.

7.3.1.6.3 Slieve Bloom Mountains

The Slieve Bloom Mountains are located c. 20 km southwest of Clonaslee. There are a number of looped walking and hiking trails and eco walks ranging from 4km to 75km, with some of the trailheads located in Clonaslee, including:

- Brittas Lake Loop (c. 6km length)
- Glendineoregan Loop (c. 11.7km length)
- Rickets Rock Loop (c. 4.5km length)

The three loops commence at the entrance of the Brittas Forest, c. 180m south of Clonaslee's the Main Street (R422) and the Tullamore Road junction. While the Brittas Lake Loop continues south through the Brittas Forest, the Glendineoregan Loop and Rickets Rock Loop travel east, passing by Clonaslee Heritage Centre before taking a south turn.

7.3.1.7 Transport, Connectivity and Accessibility

Local bus links serving Clonaslee Village include:

- Ballyfin Tullamore via Clonaslee (Thurs)
- Rosenallis Portlaoise via Mountmellick (Tues & Fri)
- Rosenallis and surrounding areas (Fri & Sun)

7.3.1.8 Principal Potential Receptors

An assessment of the principal potential receptors within the environs of the Proposed Scheme, including Population, Economic Activity, Residential Amenity, Community Facilities and Transport, Connectivity and Accessibility, is provided in the following section.

7.4 Description of the Likely Significant Effects

7.4.1 Do Nothing Scenario

If the Proposed Scheme does not proceed, there will be no construction-related impacts on the receptors identified above.

Under the Do-Nothing Scenario, flooding will likely continue to occur in Clonaslee Village and immediate adjacent areas. A direct flood risk has been estimated to affect 72 no. residential properties and 2 no. commercial properties within the Proposed Scheme's area in the event that the current protections fail. Please see **Figure 5-2** of **Chapter 5 – Project Description**, which shows details of properties at risk and benefiting areas post-implementation of the Proposed Scheme.

Flooding also has the potential to have effects on other community, social, recreational and transport facilities within and/or adjacent to the Proposed Scheme's area. It is to be expected that the severity of such flooding is likely to increase in the coming years in the Mid-Range and High-End future scenarios as detailed in **Chapter 5: Project Description**, with peak flows projected to increase by 20% and 30%, respectively.

The opportunity to create employment during the construction phase and to enhance future development and economic growth by having appropriate flood protection measures in place and consequent population growth would also be lost.

Therefore, the do-nothing scenario would have a permanent adverse effect on Clonaslee village and the immediate adjacent areas, which are within the extent of the Proposed Scheme.

7.4.2 Construction Phase

The Proposed Scheme has been divided into three areas. A summary is presented in **Table 7-20**, which should be read in conjunction with **Figure 5-3** of **Chapter 5: Project Description.**

Table 7-20: Study Area Works Areas

| Area Name | Proposed Works | |
|---|--|--|
| Area 1: Brittas Wood | EmbankmentDebris trap with access slipwayCulvert remediation | |
| Area 2: Chapel Street | Flood wall | |
| Area 3: Tullamore Rd and Integrated Constructed Wetland (ICW) | Flood wall Embankment | |

Section 5.3 and **Table 5-3** of **Chapter 5: Project Description** of this EIAR provide further information on the proposed works and details of construction works within each area.

Temporary construction compounds will be provided:

- A temporary construction compound (compound A) will support Area 1 during construction. This will be located near Brittas Wood, within an existing agricultural field.
- A temporary construction compound (compound B) will support Area 2 during construction. Works
 within Area 2 are concentrated on public roads and within a private garden. Thus, the compound will be
 located north of the works area, mostly within an agricultural field and sections of private gardens.
- Temporary construction compound B will be the main supporting compound for Area 3.
- Details of the location of the compounds are shown in Chapter 5: Project Description of this EIAR.

Site enabling works will be carried out, comprising vegetation removal, replanting, and utility diversions.

The construction activities are planned to take place during a 24-month construction campaign. The specific schedule for activities within each area of the proposed scheme will be finalised upon the appointment of a Contractor. A likely construction programme is shown in **Chapter 5 - Project Description** of this EIAR and will largely depend on the time of year that work commences.

Proposed road/lane closures and diversions required for the construction activities to be undertaken are detailed in **Chapter 6: Traffic & Transportation** and appended Traffic Management Plan. Overall, no closures will be required in Area 3. Public access to Britta's loop walk will be restricted. However, access will still be possible via existing alternative access points. Area 2 will witness intermittent periods when a full road is closed. However, the wall works within Area 2 will be completed within a single-lane closure.

7.4.2.1 Effects on Population

During the construction phase, construction workers may enjoy an increase in job opportunities linked to the needs arising from the construction of the Proposed Scheme. Construction materials may also be sourced locally. The increase in direct construction employment will also stimulate indirect and induced employment. Collectively this will have a positive impact on the local population of Clonaslee Village, as well as the immediate adjacent areas to the Proposed Scheme.

The construction phase of the Proposed Scheme will last approximately 24 months. Details of the main activities for the construction of the proposed flood relief defences and infrastructure are provided in **Chapter 5: Project Description** of this EIAR. It is estimated that the Proposed Scheme will provide direct employment for approximately c. 20-25 no. people.

During the construction phase, the construction of the Proposed Scheme will have **positive**, but not **significant**, **short-term** effects on the population.

7.4.2.2 Effects on Economic Activity

The construction phase of this project will increase economic activity in the area due to the influx of construction workers.

The demand for local businesses, including retail, leisure and accommodation services, is likely to increase, creating local economic growth. In addition to this, it is considered that the construction phase may bring indirect employment to the local services within the Proposed Scheme's area and Clonaslee Village due to the short-term increase in demand for services.

The proposed construction works will be confined to specific areas within Clonaslee Village, and therefore, it is expected that local businesses within and/or adjacent to areas where construction works, and temporary construction compounds will be placed will continue operating normally apart from short timeframes at Chapel Street when a full road closure may be required (a number of hours to facilitate delivery for example).

In this regard, the construction works will result in an increase in traffic generated by construction traffic. However, the overall effect on the road network during the construction phase is to be *slight to moderate* (see **Chapter 6: Traffic and Transportation**). A Construction Traffic Management Plan (CTMP) will be prepared by the appointed contractor which outlines measures to be implemented during the construction phase in order to reduce impacts on local communities and residents adjacent to the Proposed Scheme and more comprehensive road network.

With regard to the above, the construction of the Proposed Scheme will have a **positive**, **not significant** and **short-term** effect on economic activity during the construction phase.

7.4.2.3 Effects on Private Landholdings

7.4.2.3.1 Temporary Acquisition

For lands temporarily required for construction only, the principal construction impacts will be landtake, interruptions to property accesses (for example, where current access is temporarily restricted) or temporary loss of use of premises while works are underway.

The temporary landtake for the Proposed Scheme consists of the temporary acquisition of lands within 10 private landholdings, including 5 no. residential properties. The temporary landtake will be confined to the limited/partial temporary acquisition of lands within the identified landholdings.

7.4.2.4 Effects on Residential Amenity

The construction phase of the Proposed Scheme will have effects on residential amenities located within or adjacent to the Proposed Scheme's area and Clonaslee village.

Chapter 6: Traffic and Transportation of this EIAR outlines the likely significant traffic and transport effects arising from the proposed works during the construction phase and these are summarised as:

- Localised traffic disruption in the area due to increased construction related traffic on the haulage routes
 to the Proposed Scheme. It is currently envisaged that the preferred haul route will be to and from the
 N80 National Road to Tullamore via the L2002 and L2006 Local Roads. All routes are subject to the
 agreement of Laois County Council and alternative routes maybe considered.
- Temporary impact during construction due to ground investigation, site clearance and utility diversions works which are programmed to be less than 1 year in duration.
- Short term impact during construction of Area 2 works including retaining wall at Chapel Street. It is envisaged that the proposed wall works can be completed under a single lane closure of the southbound lane with stop/go or temporary traffic signals for the duration of the works which will be in place for the duration of the works between November 2025 and February 2027. Full road closures may be required to facilitate a delivery for example, but this will be very short duration (1 2 hours) if required and will occur outside of AM and PM peak hours.
- Temporary impact during construction of Area 3 works including embankment and retaining wall on Tullamore Road at the ICW. No closures are expected to be required in this area with two-way traffic to be maintained. Close co-ordination with Uisce Éireann Operations will be required to ensure unhindered access to the ICW.

The overall effect of traffic during the construction phase on residential amenity will be **slight to moderate**. The appointed contractor will prepare a CTMP that outlines measures to be implemented during the construction phase.

Chapter 14: Noise and Vibration of this EIAR outlines the likely significant noise effects arising from the proposed works as part of the construction phase, having regard to the construction plant, machinery and equipment.

Noise effects from construction activities at both temporary construction compounds (A and B) is predicted to be *moderate* and *significant*, respectively without mitigation. *No significant* effects predicted for construction traffic noise.

Due to the close proximity of noise sensitive locations along Chapel Steet, the predicted noise levels from all activities at the Area 2 – Chapel Street works area predicted to be *high* in magnitude, with effects ranging from *moderate* to *significant* post-mitigation.

Following implementation of construction noise mitigation efforts, some noise impacts will remain. Effect of enabling works at temporary construction compound B is predicted to be *moderate*.

Regarding predicted construction vibration impacts, **Chapter 14: Noise and Vibration** states that construction vibrations arise during piling, rock breaking and use of heavy construction equipment close to sensitive properties. It concludes that vibration associated with the Proposed Scheme and predicted effects are **not significant**.

Chapter 12: Air Quality notes that biggest impact on air quality during the construction phase is from the construction dust emissions. Overall, it is concluded that the impacts associated with construction phase

emissions represent a **short-to-medium moderate adverse** effect without mitigation. Mitigation proposed will include a number of measures to reduce dust nuisance (see **Chapter 12: Air Quality**) will bring the predicted construction dust effects to **short-term**, **localised**, **reversible**, **and not significant**.

Chapter 17: Landscape & Visual notes that direct impacts will arise in the landscape of Clonaslee Village as a result of the construction works with the proposed flood defence wall on Chapel Street, including the loss of street trees and wooded vegetation, most of which is within private gardens. Taking into account the short-term nature of the activities and the varying intensity of the works during the construction period, a **negligible to small** magnitude of **high** sensitivity resulting in a **minor** adverse and **not significant** effect.

Direct impacts will arise in the landscape of Brittas Wood as a result of the construction works associated with the proposed debris trap, slipway, fence and gate access and the construction of the embankment on a short section of the existing track. Localised tree losses will arise in the immediate vicinity of these works. These losses represent a very small proportion of the existing woodland in this area overall. Taking into account the short-term nature of the activities, a *negligible* magnitude of impact is considered to arise to Brittas Wood LLCA of high sensitivity, resulting in a *negligible to minor* adverse and *not significant* effect.

Effects associated with the construction of the Proposed Scheme and associated construction activities on residential amenities are predicted to be *adverse*, *slight and short-term*.

7.4.2.5 Effects on Community Facilities

Community facilities are expected to operate normally during the construction phase. There may be some effects on accessing existing community facilities during the construction activities associated with the construction of the Proposed Scheme, particularly those located within or adjacent to the three areas of the Proposed Scheme and associated temporary construction compounds due to the presence of machinery and plant and proposed temporary traffic diversions. Similarly, there may also be some disturbance because of noise and dust; however, measures are proposed to provide for mitigation. Further details on effects on community facilities are presented below.

Chapter 6: Traffic and Transportation of this EIAR outlines the likely significant traffic and transport effects arising from the proposed works as part of the construction phase. The overall effect on the road network during the construction phase is to be **slight to moderate**. A CTMP will be prepared by the appointed contractor which outlines measures to be implemented during the construction phase.

There are short term impacts predicted during construction of Area 2 works including retaining wall at Chapel Street resulting in short term impact on access to local School, GAA grounds, Church and residential properties along Chapel Street in terms of additional journey times and queuing lengths.

The overall effect of construction traffic on the community facilities during the construction phase is to be *slight to moderate*.

Chapter 14: Noise and Vibration of this EIAR outlines the likely significant noise effects arising from the proposed works as part of the construction phase, having regard to the construction plant, machinery and equipment.

Significant noise effects from construction activities at the temporary construction compounds A and B is predicted to be *moderate* and *significant*, respectively.

No significant noise effects are predicted from construction activities at Area 1 – Brittas Wood. **No significant** effects predicted for construction traffic noise.

Due to the close proximity of noise sensitive locations along Chapel Steet, the predicted noise levels from all activities at the Area 2 – Chapel Street works area predicted to be *high* in magnitude, with effects ranging from *moderate* to *significant* post-mitigation.

Following implementation of construction noise mitigation efforts, some noise impacts will remain. Effect of enabling works at temporary construction Compound B is predicted to be *moderate*.

Regarding predicted construction vibration impacts, **Chapter 14: Noise and Vibration** states that construction vibrations arise during piling, rock breaking and use of heavy construction equipment close to sensitive properties. It concludes that vibration associated with the Proposed Scheme and predicted effects are **not significant**.

Chapter 12: Air Quality notes that the biggest impact on air quality during the construction phase is from the construction dust emissions. Overall, it is concluded that the effects associated with construction phase

emissions represent a **short-to-medium moderate adverse** effect without mitigation. Mitigation proposed will include a number of measures to reduce dust nuisance (see **Chapter 12: Air Quality**) will bring the predicted construction dust effects to **short-term**, **localised**, **reversible**, **and not significant**.

The Proposed Scheme will have a **neutral**, **not significant**, **short-term** effect on community facilities during the construction phase.

7.4.2.6 Effects on Recreational and Tourism Facilities

Recreational and Tourism facilities are expected to operate normally during the construction phase. Thus, specific construction works, and associated activities will occur with or adjacent to the Brittas Forest & Lake and associated recreational walk loops, in connection with the Proposed Scheme construction activities at Area 1 – Brittas Wood. Construction activities is expected to require the presence of machinery, plant, and temporary traffic diversions and temporary construction compound. Similarly, there may also be some disturbance because of noise and dust; however, measures are proposed to provide for mitigation.

Chapter 6: Traffic and Transportation of this EIAR outlines the likely significant traffic and transport effects arising from the proposed works as part of the construction phase.

There is a negative temporary impact predicted during construction of Area 1 works including embankment, culvert remediation and debris trap at Brittas Wood on the L6002 local road. Public access to the Brittas Loop Trail will be restricted during the works, and signage erected at the trail head to direct people to the alternative entrance on the eastern side of the Clodiagh River.

The overall effect on the road network during the construction phase is to be *slight to moderate*. A CTMP will be prepared by the appointed contractor which outlines measures to be implemented during the construction phase.

Chapter 14: Noise and Vibration of this EIAR outlines the likely significant noise effects arising from the proposed works as part of the construction phase, having regard to the construction plant, machinery and equipment.

Significant noise effects from construction activities at each of the construction compounds (A and B) is predicted to be *moderate* and *significant*, respectively.

No significant noise effects are predicted from construction activities at Area 1 – Brittas Wood. **No significant** effects predicted for construction traffic noise.

Due to the close proximity of noise sensitive locations along Chapel Steet, the predicted noise levels from all activities at the Area 2 – Chapel Street works area predicted to be *high* in magnitude, with effects ranging from *moderate* to *significant* post-mitigation.

Following implementation of construction noise mitigation efforts, some noise impacts will remain. Effect of enabling works at construction compound B is predicted to be *moderate*.

Regarding predicted construction vibration impacts, **Chapter 14: Noise and Vibration** states that construction vibrations arise during piling, rock breaking and use of heavy construction equipment close to sensitive properties. It concludes that vibration associated with the Proposed Scheme and predicted effects are **not significant**.

Chapter 12: Air Quality notes that biggest impact on air quality during the construction phase is from the construction dust emissions. Overall, it is concluded that the effects associated with construction phase emissions represent a *short-to-medium moderate adverse* effect without mitigation. Mitigation proposed will include a number of measures to reduce dust nuisance (see Chapter 12: Air Quality) will bring the predicted construction dust effects to *short-term, localised, reversible, and not significant*.

The Proposed Scheme will have an **adverse**, **slight** and **short-term** effect during the construction phase on recreational and tourism facilities.

7.4.2.7 Effects on Transport, Connectivity and Accessibility

Chapter 6: Traffic and Transportation of this EIAR outlines the likely significant traffic and transport effects arising from the proposed works as part of the construction phase.

Across the main road network, it is considered that the scale of magnitude is low due to the low percentage. Relatively short, localised delays are likely to be encountered by motorists at the locations of proposed works

in the immediate vicinity of the road network at Area 1 and Area 3 due to construction traffic entering and exiting the works areas. Public access to the Brittas Loop walk will be restricted during works. These works will have a negative, *slight* and *short term*, *slight* effect.

The temporary lane closure of Chapel Street to facilitate the proposed construction of the retaining wall is likely to cause a *moderate* to *significant temporary* effect on the flow of traffic in the vicinity of the works.

A CTMP will be prepared by the appointed contractor which outlines measures to be implemented during the construction phase.

The Proposed Scheme will have an *adverse*, *slight, and short-term effect* on transport, connectivity, and accessibility during the construction phase.

7.4.3 Operational Phase

7.4.3.1 Effects on Population

The Development Plan classifies Clonaslee as 'village' as part of the County's settlement hierarchy, with the objective to serve the local area. In this regard, the Proposed Scheme, once operational, will positively affect Clonaslee village as it becomes less vulnerable to flood events. This increased resilience should support population growth in Clonaslee village, particularly in areas now susceptible to flood events.

There are currently 72 no. residential properties that are at direct risk of flooding from the Clodiagh River. As shown in **Figure 5-4** of **Chapter 5: Project Description**, most of the residential properties at risk are located along Clonaslee village's Tullamore Road, which is located west of the Clodiagh River. Further residential properties are located adjacent to the entrance to Brittas Forest & Lake and northeast and northwest of the Tullamore Road, which are areas that are intended to benefit from the defence flooding infrastructure part of the Proposed Scheme.

The Proposed Scheme will have a **positive**, **moderate** and **long-term** effect on the population once in operation.

7.4.3.2 Effects on Economic Activity

The Proposed Scheme will provide flood protection to 2 no. commercial and business premises within Clonaslee Village and the surrounding areas which are at risk of flood events. This will safeguard their existing operations and facilitate the growth of existing businesses. This Proposed Scheme will also promote new businesses, creating future employment and a positive impact on the local economy.

The Proposed Scheme will have a *positive, slight* and *long-term* effect on economic activity.

7.4.3.3 Effects on Private Landholdings

7.4.3.3.1 Permanent Acquisition

The Proposed Scheme will involve the permanent land take of approximately 1,900 sqm from Folio No. LS25086F in connection with works proposed as part of Area 3 (Tullamore Road and ICW). The lands are currently in agricultural use.

The landholding required for the Proposed Scheme does not have a significant effect when considered at a national or regional level. However, from a local or individual perspective, land take can be significant. This is particularly the case for very sensitive uses such as existing dwellings and commercial businesses. However, as noted, the landholding proposed to be permanently acquired is in agricultural use and of a relatively small area (less than 0.2ha).

With respect to land use, the Proposed Scheme is not considered to have a significant built footprint; the permanent loss of land use types does not include residential or commercial and it is limited to a single agricultural landholding.

Thus, the predicted impact is considered *adverse, slight* and *long-term* when considered in the context of the overall footprint of the Proposed Scheme.

7.4.3.3.2 Wayleaves & Rights of Way

The Proposed Scheme will involve the procurement of wayleaves/rights of way of approximately 4,000 sqm in connection with 8 no. landholdings.

The predicted impact is considered *adverse*, *slight* and *long-term* when considered in the context of the overall footprint of the Proposed Scheme.

7.4.3.4 Effects on Residential Amenity

Clonaslee Village will be less vulnerable to flooding during the operation phase of this project. The Proposed Scheme will provide flood protection to 72 no. existing residential units.

The Proposed Scheme will have a *positive, moderate* and *long-term* impact on residential amenities.

7.4.3.5 Effects on Community Facilities

The Proposed Scheme will protect community facilities, including St. Manman's Catholic Church, during the operational phase, meaning that the population of Clonaslee Village and the PSA can enjoy these facilities.

The Proposed Scheme will have a positive, not significant and long-term effect on community amenities.

7.4.3.6 Effects on Recreational and Tourism Facilities

During the operation of the Proposed Scheme, lands within its area and adjoining areas will be less vulnerable to flooding, which will enhance the attractiveness of Clonaslee Village as a place for tourists to visit.

Recreational and tourism facilities comprise the Brittas Forest & Lake, associated walk loops and the Clonaslee Heritage Centre, which will benefit from the protection provided by the Proposed Scheme from a potential flooding event in the future. The Proposed Scheme may encourage more intense use of existing recreational and tourism facilities within Clonaslee Village and along the Clodiagh River which would have indirect postivie effects such as increasing public exposure to biodiversity and wildlife while walking along river.

The Proposed Scheme will have a *positive*, *moderate* and *permanent* effect on recreational and tourism facilities.

7.4.3.7 Effects on Transport, Connectivity and Accessibility

Operational traffic and transport will be limited to periodic maintenance works. The occurrence of maintenance works would be rare and durations brief. In this regard, the Proposed Scheme will have a *neutral, not significant* and *brief* effect on accessibility.

It is to be noted that the Proposed Scheme will reduce flood risks on Tullamore Road, as well as sections of Chapel Street and Main Street, and thus, it will have a *positive*, *imperceptible* and *long-term* effect on transport and connectivity.

7.5 Mitigation Measures

The Proposed Scheme has been brought forward through careful and considered design and management, which are discussed in the relevant sections of the EIAR, including **Chapter 4: Consideration of Alternatives** and **Chapter 5: Project Description**.

Potential impacts on the population relate to other environmental aspects such as noise, air, and traffic. The potential impact of these aspects and the related mitigation measures are discussed within the corresponding chapters of this EIAR.

Remaining potential impacts relating to the human environment requiring mitigation are outlined in the following sections.

7.5.1 Construction Phase

Where access to private property is required during the construction phase, the following measures will be in place:

- Access to construction zones located on private property will be restricted for health and safety.
- Where necessary, suitable boundary fencing will be erected for the duration of the works. Any
 necessary permanent restoration of fences, walls, or hedges will be completed without unreasonable
 delay after works have concluded in the area.
- All lands temporarily acquired, will be re-instated to pre-construction conditions unless otherwise agreed with the landowner.
- Boundary treatment for all lands permanently acquired will be provided to mirror pre-construction conditions (if existing) unless otherwise agreed with the landowner.

7.5.2 Operational Phase

Prior notice of any maintenance access requirements (via wayleave) will be given to landowners.

Permanent acquisition of properties, if and where required, will be agreed with all stakeholders in advance of any construction works.

7.6 Residual Impacts

7.6.1 Construction Phase

During construction, there will be an increase in construction works in Clonaslee Village, which can positively affect the local businesses and the local population. Health and safety risks are a major concern for construction workers; therefore, health and safety standards will be implemented to avoid any injuries or accidents during construction.

The population of Clonaslee Village will witness disruptions during this temporary period due to traffic, air, noise, and visual amenities. These impacts will only last during the 24-month construction phase.

The residual impact during the construction phase is predicted to have **negative**, **not significant** and **shortterm** effects on population.

7.6.2 Operational Phase

This development will protect homes and businesses within the Proposed Scheme's area and Clonaslee Village from flooding events. As a result of the Proposed Scheme, the area may become more attractive for residential and business purposes. The Proposed Scheme will also protect existing amenities, recreation facilities and tourism destinations within Clonaslee Village, promoting economic activity and economic growth in the town.

The residual impact of the operational phase is predicted have a *positive, moderate* and *long-term* effects.

7.7 Monitoring

7.7.1 Construction Phase

There will be no population specific monitoring during the construction phase of the Proposed Scheme.

7.7.2 Operational Phase

When the Proposed Scheme is operational, it will be maintained as appropriate. This will ensure that the risk is minimised to the local population as the Proposed Scheme ages into the future.

7.8 Interactions and Cumulative Effects

7.8.1 Interactions

Please see Chapter 18: Interactions and Cumulative Effects for details.

7.8.2 Cumulative Effects

Please see Chapter 18: Interactions and Cumulative Effects for details.

7.8.3 Conclusions

Table 7-21 and **Table 7-22** collate all the mitigation and monitoring commitments recommended in this chapter.

Table 7-21: Summary of Likely Effects and Environmental Commitments during the Construction Phase

| Description of Impact | Significance of Effect | Controls and Mitigation Measures | Residual Effect |
|---|--|-------------------------------------|--|
| Population | Positive, not significant, and short-term. | N/A | Positive, not significant, and short-term. |
| Economic Activity | Positive, not significant, and short-term. | N/A | Positive, not significant, and short-term. |
| Residential Amenity | Adverse, slight and short- term | N/A | Adverse, slight and short- term |
| Community Facilities | Neutral, not significant, short-term | N/A | Neutral, not significant, short-term |
| Recreational and Tourism Facilities | Adverse, slight and short- term | N/A | Adverse, slight and short- term |
| Transport, Connectivity and Accessibility | Adverse, slight, and short- term | N/A | Adverse, slight, and short- term |

Table 7-22: Summary of Likely Effects and Environmental Commitments during the Operational Phase

| Description of Impact | Significance of Effect | Controls and Mitigation Measures | Residual Effect |
|---|---|----------------------------------|---|
| Population | Positive, moderate and long- term | N/A | Positive, moderate and long- term |
| Economic Activity | Positive, slight and long-term | N/A | Positive, slight and long-term |
| Residential Amenity | Positive, moderate and long- term | N/A | Positive, moderate and long- term |
| Community Facilities | Positive, not significant and long-term | N/A | Positive, not significant and long-term |
| Recreational and Tourism Facilities | Positive, moderate and long- term | N/A | Positive, moderate and long- term |
| Transport, Connectivity and Accessibility | Positive, imperceptible and long-term | N/A | Positive, imperceptible and long-term |

7.9 Chapter References

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