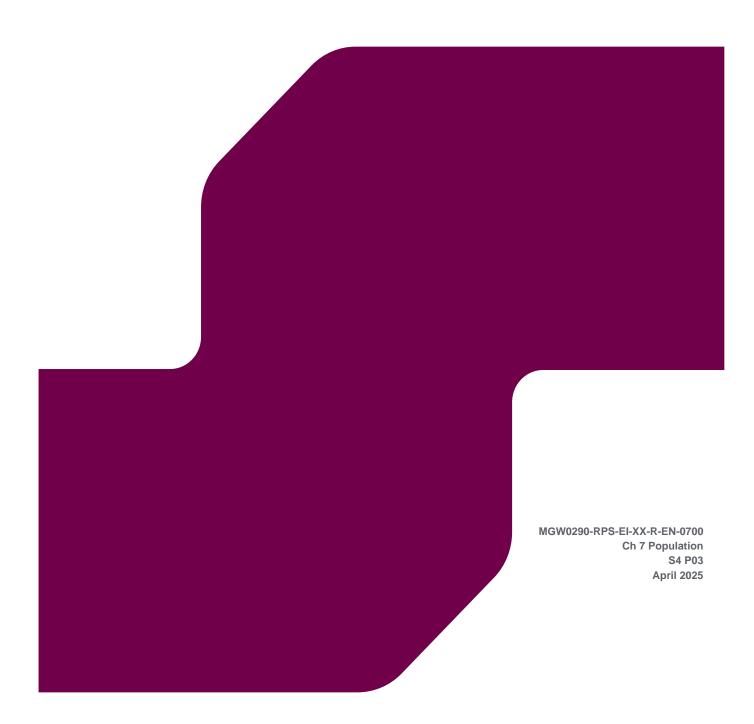


BALLINA FLOOD RELIEF SCHEME

Environmental Impact Assessment Report Chapter 7: Population



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Acronyms

Term	Meaning
CFRAM	Catchment-based Flood Risk Assessment and Management
СТМР	Construction Traffic Management Plan
CSO	Central Statistics Office
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
IFI	Inland Fisheries Ireland
OSI	Ordnance Survey Ireland
RSA	Road Safety Authority
SAP	Small Area Population

7 POPULATION

7.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) identifies, describes, and presents an assessment on the likely significant effects for the Proposed Ballina Flood Relief Scheme (FRS) (hereafter referred to as the 'Proposed Scheme') on Population during both the construction and operational phases of the development.

Other chapters (listed below) of the EIAR are relevant for consideration to understand the effects on population. All of these sections should be read in conjunction with this chapter to gain a full understanding of the effects on the population.

- Chapter 6: Traffic and Transport
- Chapter 8: Human Health
- Chapter 9: Aquatic Biodiversity
- Chapter 13: Air Quality
- Chapter 15: Noise and Vibration
- Chapter 17: Material Assets Land and Properties
- Chapter 19: Landscape and Visual

7.2 Methodology

7.2.1 Legislation, Policy and Guidance

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

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 2014 Directive 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 2014 Directive. This chapter considers population and Chapter 8 considers human health.

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

Publications that guided the preparation of this chapter are listed hereunder:

• Guidelines for the Treatment of Tourism in an EIS (Fáilte Ireland)

In addition, a site visit was undertaken on 22 December 2023 to observe local settlement and travel patterns and identify/confirm community facilities.

7.2.2 Population Study Area

The EIAR study area for the purposes of the EIA of the Proposed Scheme consists of the channel, floodplain and immediate surrounding areas of the River Moy extending along the main channel of the river, as well as the tributaries associated with the Proposed Scheme. These include Quignamanger Stream, Bunree / Behy Stream, Brusna (Glenree) River and Tullyegan Stream.

The major settlement within the study area is Ballina, which is located on the River Moy in north County Mayo. In order to obtain data regarding the population and other pertinent statistics relating to the Proposed Scheme, the study area for the population section of the EIA has been defined in terms of the relevant Small Area Population (SAPs).

The population study area was created based on the SAPs data published following the CSO 2016 Census. This population study area includes all SAPs within 5 kilometres of the proposed works.

The 2022 CSO Census SAPs boundaries differ somewhat from the previously published 2016 SAP boundaries. This difference in areas is very limited in extent, is at a rural location and is considered to have no material impact on the robustness of the population data herein reported. **Figure 7-1** shows the EIAR study area, the population study area (SAP 2016), and the Small Areas (SAP 2022).

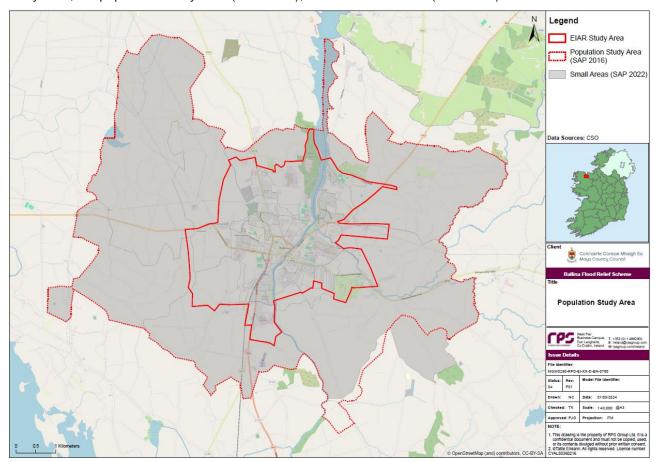


Figure 7-1: EIAR Study Area, the Population Study Area (SAP 2016), and the Small Areas (SAP 2022) for the Proposed Scheme

The SAPs that are included in the population study area are listed in **Table 7-1**. Similarly, **Table 7-2** includes the SAPs, based off the 2022 Census, included in the population study area.

Table 7-1: SAPs wholly or partly in the Population Study Area 2016 Census

Small Area	Small Area Number	Small Area	Small Area Number
1	157015002	29	157154011
2	157010001	30	157016015
3	157011001	31	157016002
4	157011005	32	157016004
5	157015001	33	157016011
6	157010001	34	157016003
7	157015005	35	157016001

Small Area	Small Area Number	Small Area	Small Area Number
8	157016019	36	157016008
9	157011003	37	157016010
10	157015003	38	157016022
11	157154009	39	157154012
12	157154003	40	157016006
13	157016007	41	157154007
14	157154010	42	157016005
15	157015008	43	157016012
16	157015011	44	157011002
17	157010004	45	157154005
18	157154001	46	157154002
19	157016016	47	157016018
20	157154004	48	157016017
21	157015009	49	157016021
22	157016013/157016014	50	157011006
23	157016020	51	157011008
24	157011010	52	157016009
25	157011007	53	157154008
26	157011011	54	157015010
27	157011009	55	157015012
28	157154006		

Table 7-2: SAPs wholly or partly in the Population Study Area 2022 Census

Small Area	Small Area Number	Small Area	Small Area Number
1	157010001	29	157016007
2	157010004	30	157016008
3	157011002	31	157016009
4	157011003/157011001/157011005	32	157016010
5	157011004/01	33	157016011
6	157011004/02	34	157016012
7	157011006	35	157016013/157016014
8	157011007	36	157016015
9	157011008	37	157016016
10	157011009	38	157016017
11	157011010	39	157016018
12	157011011	40	157016019
13	157015001	41	157016020
14	157015002	42	157016021
15	157015003	43	157016022
16	157015004	44	157154001
17	157015005	45	157154002
18	157015008/02	46	157154003
19	157015009	47	157154004
20	157015010	48	157154005

Small Area	Small Area Number	Small Area	Small Area Number
21	157015011	49	157154006
22	157015012	50	157154007
23	157016001	51	157154008
24	157016002	52	157154009
25	157016003	53	157154010
26	157016004	54	157154011
27	157016005	55	157154012
28	157016006		

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 study area 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: November 2023.
- CSO, Census 2022, Census 2016, Census 2011 and Census 2006. Available online at: https://www.cso.ie/en/census/ accessed November 2023.
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- Economic and Social Research Institute (ESRI) Quarterly Economic Commentary, Spring 2022.
 Available at: https://www.esri.ie/publications/quarterly-economic-commentary-spring-2022 accessed March 2023.
- Failte Ireland, Irish Resident Travel by County 2022, May 2023. Available at https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/Publications/domestic-trips-and-revenue-by-county-2022.pdf?ext=.pdf – accessed November 2023
- Google Earth. Available at https://earth.google.com/web/ accessed March 2023.
- Google Maps. Available at https://www.google.com/maps accessed March 2023.
- Mayo County Development Plan 2022 2028; Available at https://www.mayo.ie/planning/county-development-plans/2022-2028 accessed November 2023.
- Office of Public Works, Flood Risk Management Plan Moy & Killala Bay- accessed November 2023.
- Pobal Map Deprivation & Community Services Mapping. Available at: maps.pobal.ie/ accessed November 2023.
- Tailte Éireann (formerly Ordnance Survey Ireland). Mapping Available at https://osi.ie/ accessed March 2023.
- TUSLA Register of Early Years Services by County. Available at: https://www.tusla.ie/services/preschool-services/early-years-providers/register-of-early-years-services-by-county/ - accessed March 2023.

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 on population level.

- **Economic Effects:** An evaluation of the impact that the Proposed Scheme will 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 effects 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 population study area.
- Transport, Connectivity and Accessibility: An evaluation of the impact on connectivity and accessibility.

7.2.5 Assessment Criteria and Significance

Effects can result from direct, indirect, secondary, and cumulative effects on environmental conditions. They 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 effects may be short-term, medium-term or long-term. It usually follows that effects 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.
 - Positive / Beneficial Effects: A change which improves the quality of the environment.
 - Neutral Effects: No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
 - Negative / Adverse Effects: A change which reduces the quality of the environment.
- The scale or extent of the effect in terms of the area or population affected.
- The duration and frequency of an effect.
 - Momentary Effects
 - Brief Effects
 - Temporary Effects
 - Short-term Effects
 - Medium-term Effects
 - Long-term Effects
 - Permanent Effects
 - Reversible Effects
- The probability of an impact's occurrence.
 - Likely Effects
 - Unlikely Effects

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 effects arising during construction and operation.

Effects on economic activity can arise due to any impact that the Proposed Scheme may have in the building sector and other indirect / induced effects during construction and the safeguarding of existing and future businesses during operation.

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 external spaces which are 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 on 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 effects that the Proposed Scheme may have on connectivity and accessibility include severance particularly during the construction period and during operation a reduction in any effects on transport/connectivity caused by flooding events.

Effects have been assessed in accordance with the significance criteria outlined in **Table 7-3** with effects resulting from increased protection from flooding events, changes in economic activity, changes in population level, changes in noise, accessibility and space or enclosure.

Table 7-3: Criteria Used in Assessment

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

7.2.6 Data Limitations

Data from the most recent CSO census, undertaken in 2022, is being published on an ongoing basis. Much of the more detailed, disaggregated data has not yet been published. As such, some data referenced in this chapter dates from the 2016 Census.

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 the EIAR and summarised in **Table 7-4**.

Table 7-4: List of Consultations

Consultees	Comments and Issues Raised	Location where Comments were Addressed
Fáilte Ireland	Consider impact of Scheme on Tourism and tourism amenities, infrastructure must be considered in light of natural processes and the potential long-term impacts on the heritage value, and indeed the tourism value of the area. Provided Fáilte Ireland's updated "Guidelines on the Treatment of	Effects on heritage value are considered in Chapter 18: Cultural Heritage

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Consultees	Comments and Issues Raised	Location where Comments were Addressed
	Tourism in an Environmental Impact Assessment". It provides guidance for those conducting EIAs and compiling an EIAR, where the project involves tourism or may have an impact upon tourism. These guidelines are non-statutory and act as supplementary advice to the Environmental Protection Agency (EPA) EIAR guidelines.	Effects on tourism are considered in Section 7.4.1.5 and Section 7.4.2.5
Inland Fisheries Ireland (IFI)	The River Moy is a nationally important salmon and trout fishery attracting anglers from throughout Ireland and abroad. The significance of the River Moy as a fishery is confirmed by Ballina's official designation as the salmon capital of Ireland. Works must not negatively impact on fisheries.	considered Chapter 12:
The Heritage Council	 Consider Places for People: National Policy on Architecture, published by Department of Housing, May 2022: The FRS should embrace the recent 'cultural shift' towards quality design-led, people-focused urban areas. This can be demonstrated through envisaging all uses (private and public) and valuing urban morphology, i.e., understanding the town's unique historic form and fabric AND materiality. The project team needs to involve appropriate disciplines including urban design and conservation. 	The consideration of the urban area is addressed in Chapter 19: Landscape & Visual

7.3 Description of the Existing Environment

7.3.1 Baseline Environment

The population study area as shown in **Figure 7-1** has a population of 12,823 persons and comprises a total land area of 58.45 square kilometres.

The Mayo County Development Plan 2022-2028 classifies Ballina as a key town. A key town is defined as "regionally, strategic employment centres of significant scale that can act as regional drivers that complement and support the higher-order urban areas within the settlement hierarchy".

Ballina is the largest economic driver for the north of Mayo. The settlement of Ballina is located close to the Sligo border, and this results in the area serving as the main economic, commercial, social and educational centre for areas in the west of Sligo. Ballina is a significant urban centre in the wider region.

The River Moy is roughly 100 km in length flowing from the Ox Mountains in Co. Sligo to the sea north of Ballina. The towns of Foxford and Ballina are situated on the River Moy. The River Moy is famous for its salmon fishery and there are established fishing areas in the town. Salmon fishing is a key tourist attraction within Ballina, along with other attractions which are detailed in **Section 7.3.1.5** of this chapter.

The property types within the scheme area were identified through the An Post Geodirectory database. Residential developments are concentrated throughout all sections of the scheme area, with clusters of commercial properties mainly concentrated in the town. There are a total of 6,865 properties within the population study area, (see **Figure 7-2**). 5,787 no. of these properties are residential, 516 no. are commercial, 373 no. properties are listed as both commercial and residential, and 189 no. property uses are unknown.

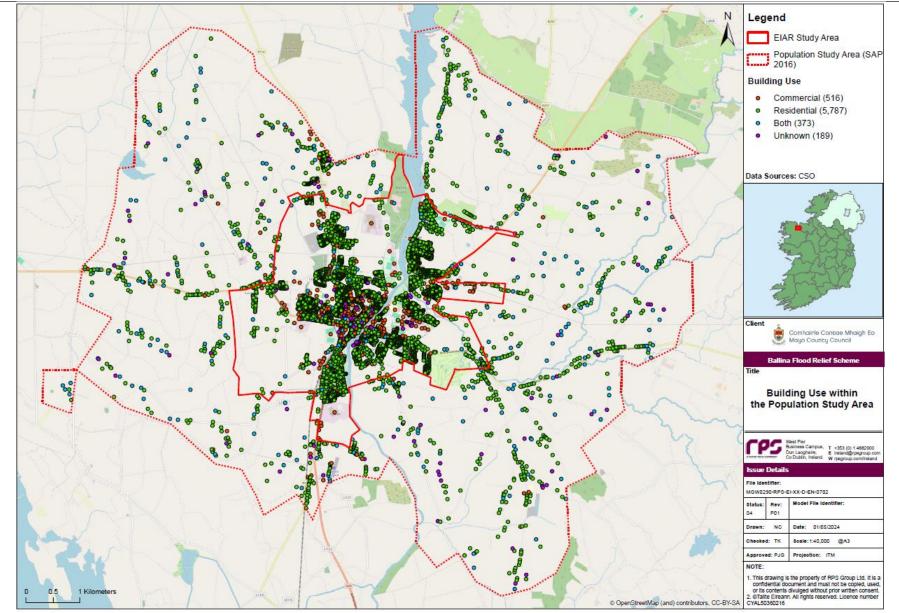


Figure 7-2: Building Use within the EIAR Study Area and Population Study Area (Property information from An Post, Geodirectory)

As identified in the **Chapter 5 Project Description**, 228 residential buildings are at risk of flooding during the design flood event (1% Fluvial and 0.5% Tidal), and 69 commercial properties are at risk. This is an increase of the number of affected properties identified in the National Catchment-based Flood Risk Assessment and Management (CFRAM) Programme due to the completion of updated Hydrological and Hydraulic Modelling for the scheme. Future climate change scenarios will also increase the number of properties at risk.

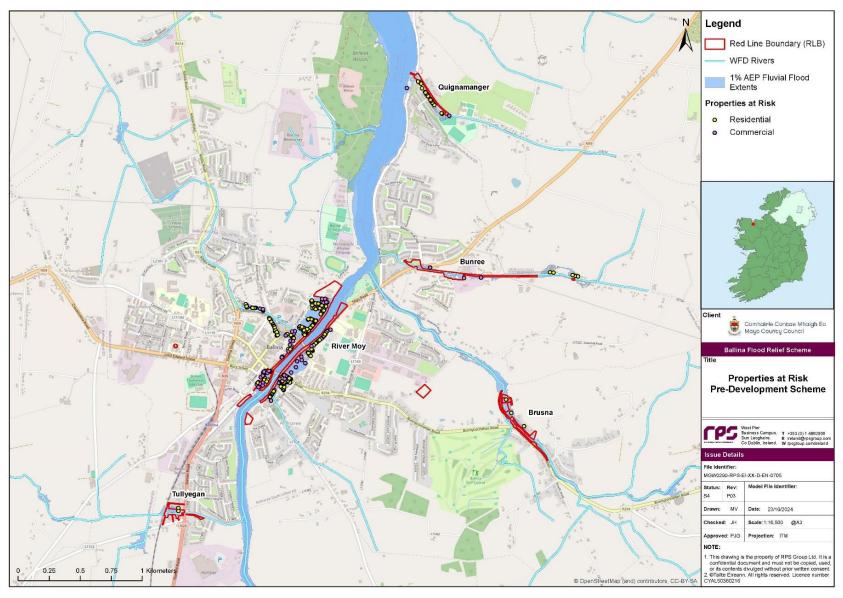


Figure 7-3: Properties at Risk Pre-Development of the Proposed Scheme

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There are five areas which are susceptible to flooding in the town centre. The five areas are as follows:

- The right bank of the River Moy between the Salmon Weir and the Upper Bridge.
- On the right bank between the Upper and Lower Bridges, with the cathedral and tourist information office at risk.
- Downstream of the Lower Bridge on the right bank, there is flooding of Clare Street.
- On the left bank around Bachelors Walk, Arbuckle Row, Rope Walk, Moy Court and Ashpool.
- On the left bank adjacent to the Salmon weir.

In addition to flood risk from the Moy a number of areas are at risk of flooding from tributaries of the River Moy including;

- Quignamanger Stream.
- Bunree/Behy Road Stream.
- Brusna River.
- Tullyegan Stream.
- Knockanelo Stream.

7.3.1.1 Population Level

Population statistics for Ireland, County Mayo, population study area, and Ballina have been obtained from the CSO census for 2011, 2016 and 2022 and these are presented in **Table 7-5**. It should be noted that the boundary for the settlement of Ballina has been amended in recent years and is now smaller than that used in the reporting of the 2011 Census results.

Table 7-5: Populations of Ireland, County Mayo, Population Study Area and the Settlement of Ballina.

Population	Ireland	County Mayo	Population Study Area	Settlement of Ballina
2011	4,588,252	130,638	12,226	11,086
2016	4,761,865	130,507	12,492	10,171
2022	5,065,514	137,231	12,823	10,409
% Change between 2011 to 2022	10%	5%	0.4%	-6.5%

Source: CSO.ie FP009

Population densities within Ireland, County Mayo, population study area and the settlement of Ballina are shown in **Table 7-6** for 2022 and 2016.

Table 7-6: Population Densities 2016/2022

	Ireland	County Mayo	Population Study Area	Settlement of Ballina
Density (persons per km²) 2016	70	(130,507/5587.53 =) 23	(12,492/58.45 =) 213	1,509
Density (persons per km²) 2022	73	(137,970/5587.53 =) (12,823/59.28 25 216		1,291

Source: CSO.ie E2013/E2014/F1011/F1013

Table 7-7 presents the figures of "Population within Different Age Groups" as defined by the CSO collected in the 2016 Census in the State, County Mayo, Ballina, and the population study area. **Table 7-8** presents the most recently available data for the above stated areas for 2022.

Table 7-7: Population within Different Age Cohorts 2016 Census Results

Area/Age	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
State	687,076	622,292	571,071	683,570	570,037	570,037	450,092	426,331
County Mayo	17,539	17,360	11,957	16,973	17,950	17,683	15,768	15,277
Ballina	1,608	1,288	1,093	1,655	1,318	1,187	1,005	1,017
Population Study Area	1,883	1,601	1,302	1,836	1,648	1,548	1,393	1,281

Source: CSO.ie F1002/SAP2016T1T1ASA

Table 7-8: Population within Different Age Cohorts 2022 Census Results

Area/Age	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+
State	638,085	711,830	602,951	715,092	785,028	647,168	510,814	538,171
State %	12.4%	13.8%	11.7%	13.9%	15.2%	12.6%	9.9%	10.5%
County Mayo	16,714	18,364	12,084	16,583	19,428	18,567	17,203	19,027
County Mayo %	12.1%	13.3%	8.8%	12.0%	14.1%	13.5%	12.5%	13.8%
Ballina	1,489	1,366	1,063	1,443	1,534	1,278	1,084	1,299
Ballina %	14.1%	12.9%	10.1%	13.7%	14.5%	12.1%	10.3%	12.3%
Population Study Area	1,731	1,698	1,236	1,657	1,830	1,589	1,446	1,636
Population Study Area %	13.5%	13.2%	9.6%	12.9%	14.3%	12.4%	11.3%	12.8%

Source: CSO.ie F1002/SAP2022T1T1ASA

7.3.1.2 Economic Activity

Table 7-9 shows the percentage of population in the state, in County Mayo and the population study area aged 15+ who are in the labour force at the time of the 2022 Census. These figures are further broken down into the percentages that were at work, unemployed, student, home duties, retired, and other. The 2016 Census data is included in **Table 7-10**.

Table 7-9: Total Population Aged 15+ Working in the Labour Force 2022

Status		State 2022	County Mayo 2022	Study Area 2022
Population aged 15+ who are in the labour force		2,528,251	63,929	5,827
% of which	At Work	91.6%	91.1%	85.1%
are:	Unemployed	8%	8.8%	14.8%
Population a labour force	aged 15+ who are not in the	1,608,601	47,679	4,342
% of which	Student	28%	22%	20%
are:	Home Duties/Assisting a Relative	28%	16%	16%
	Retired	40%	48%	47%

Status		State 2022	County Mayo 2022	Study Area 2022	
	Other	1%	14%	15%	

Source: SAP2022T8T1SA, F7010

Table 7-10: Total Population Aged 15+ Working in the Labour Force 2016

Population aged 15+ who are in the labour force		State 2016	County Mayo 2016	Study Area 2016
		2,299,349	60,030	5,677
% of which	At Work	87%	85%	81%
are:	Unemployed	12%	14%	19%
Population ag	Population aged 15+ who are not in the labour force		39,150	3,494
% of which	Student	29%	27%	25%
are:	Home Duties/Assisting a Relative	32%	21%	22%
	Retired	37%	51%	51%
	Other	1%	1%	2%

Source: SAP2016T8T1SA, F7010

There are various businesses based in the study area. Businesses with a significant number of employees include those summarised in **Table 7-11**.

Table 7-11: Summary of Local Businesses

No.	Name	Sector	Address in Ballina, Co. Mayo
1	Coca-Cola Ballina Beverages	Manufacturing	Killala Rd, Garrankeel, F26 FA37
2	Hollister ULC	Manufacturing	Foxford Rd, Rehins, F26F3X5
3	Heyco Werk Ireland Limited	Manufacturing	Bunree Rd, Abbeyhalfquarter, F26 V243
4	Charles River Laboratories	Laboratory	Carrowntreila, F26 D786
5	Telus International	Al	Emmet Street, F26 TC53

Source: https://www.localbusinesspages.ie/area.asp?county=Mayo&area=Ballina

There area also a significant number of people employed in public sector roles in Ballina, including those at Ballina District Hospital, St Muredachs College, St. Mary's Secondary School, Moyne College Secondary School and the Road Safety Authority (RSA).

A significant number of people are employed in the retail / sevices sector, larger retail employers as set out in **Table 7-12**.

Table 7-12: Summary of Larger Retail Employers

No.	Name	Address in Ballina, Co. Mayo		
1	Aldi	Burry Street, F26 F1HP		
2	2 Dunnes Stores Humber Street, Abbeyhalfquarter, F26 T8KW			
3	Homeland	Crossmolina Rd, F26 K288		

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No.	Name	Address in Ballina, Co. Mayo		
4	Lidl	Burry Street, F26K597		
5	Penneys Pearse St, Abbeyhalfquarter, F26 K250			
6	Supervalu	Bunree Road, F26 X8F2		
7	Tesco	Market Square, F26PN23		

The Pobal Deprivation Index is Ireland's most widely used social gradient metric, which scores each small area, in terms of affluence or disadvantage. Pobal use data obtained from the CSO to produce interactive GIS maps that are created based on information such as employment, age profile and education attainment. **Table 7-4** shows the location of the EIAR study area and the population study area (SAP 2022). The settlement of Ballina contains electoral division areas that are classified as marginally above average, marginally below average, and disadvantaged.

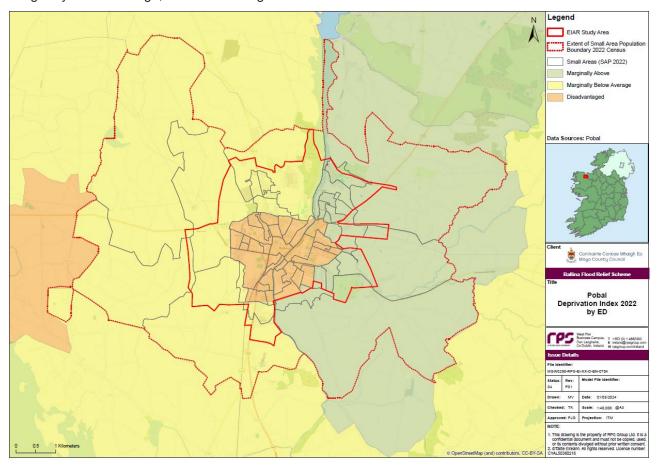


Figure 7-4: Pobal Mapping for Ballina and Environs

7.3.1.3 Residential Amenity

The number of households and "Average Household Size Recorded" within the state, County Mayo and the population study area as per the 2011, 2016 and 2022 Census Data are shown in **Table 7-13. Table 7-14** shows the number of households and "Persons Living in the Households" within the study area as per the 2016 and 2022 Census.

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Table 7-13: Average Household Size Recorded for the State, County Mayo and Population Study Area

Area	2011- No. Households	2011- Avg. Size	2016- No. Households	2016 - Avg. Size	2022- No. Households	2022 - Avg. Size
State	1,654,208	2.73	1,697,665	2.75	1,836,728	2.74
County Mayo	48,070	2.7	48,745	2.6	51,996	2.5
Population Study Area	N/A	2.60	4,664	2.60	4,708	N/A

Source: CSO.ie F2001, F2002

Table 7-14: Number of Households and Persons 2016 and 2022 SAPMAP Census Data

Population Study Area	House/Bungalow	Apartment	Bedsitting	Caravan	Not Stated
2022					
No. of Households	4,448	259	1	N/A	N/A
No. of Persons	11,642	368	1	19	174
2016					
No. of Households	4,342	259	1	5	57
No. of Persons	12,118	464	0	14	N/A

Source: CSO.ie SAP2016T6T1SA, SAP2022T6T1SA

7.3.1.4 Community Facilities

There are a wide range of community facilities serving the people of Ballina. The list of facilities are shown in **Table 7-15**, **Table 7-16**, **Table 7-17**, and **Table 7-18**. These tables include details on the community facilities, primary schools, post-primary schools and childcare facilities that are located within the population study area.

Table 7-15: Community Facilities within the Population Study Area

No.	Facilities	Address
1	Ballina Library	Pearse St, Abbeyhalfquarter, Ballina
2	Ballina Garda Station	Lord Edward St, Carrowcushlaun West, Ballina
3	Ballina Community Centre	Teeling St, Ballina
4	Ballina Men's Shed	Teeling St, Ballina
5	Ballina Post Office	Bury St, Carrowcushlaun West, Ballina
6	Permanent TBS Bank	Pearse St, Ballina
7	Bank of Ireland	Pearse St, Ballina
8	AIB Bank	Pearse St, Ballina
9	Tourist Information Office	Cathedral Road, Ballina
10	St. Michael's Church	Church Rd, Carrowcushlaun West, Ballina
11	Ballina Methodist Church	Carrowcushlaun West, Ballina
12	Ballina Presbyterian Church	Walsh St, Abbeyhalfquarter, Ballina
13	St Muredach's Cathedral	Cathedral Rd, Abbeyhalfquarter, Ballina
14	Parish Office, Pastoral Centre	Abbeyhalfquarter, Ballina
15	St Patrick's Catholic Church,	Convent Hill, Ballina

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No.	Facilities	Address
	Parish of Kilmoremoy	

Source: https://www.localbusinesspages.ie/area.asp?county=Mayo&area=Ballina

Education

Table 7-16: Primary Schools within the Population Study Area

No.	Name	Address
1	Cullens NS	Faranoo, Ballina
2	Newtownwhite Educate Together NS	Ballysakeery, Ballina
3	Boher NS	Boher, Ballina
4	Saint Michaels NS	Church Road, Ballina
5	Cormaic NFA	Killeenashask, Garranard, Ballina
6	Quignamanger NS	Creggs Road, Ballina
7	Scoil Losa	Convent Hill, Ballina
8	St. Michael's National School	Carrowcushlaun West, Ballina
9	Gaelscoil na gCeithre Maol	Market Square, Ballina
10	Saint Dymphna's School	Convent Hill, Ballina

Source: gov.ie collection primary schools 2021/2022

Table 7-17: Secondary Schools within the Population Study Area

No.	Name	Address
1	St Muredachs College	Sligo Road, Ballina
2	St. Mary's Secondary School	Convent Hill, Ballina
3	Moyne College	Cathedral Rd, Abbeyhalfquarter, Ballina

Source: gov.ie collection post primary schools 2019/2020

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

No.	Name	Address
1	Belmont Montessori School	Botharnasop, Ballina
2	The Mulberry Tree	Killala Business Park, Ballina
3	Ardnaree Community Playgroup Ltd	Shanaghy, Ballina
4	Belmont Montessori School	Botharnasop, Ballina
5	Comharchumann Nalonra Beal an Atha Teo	Greenhills Childcare Centre, Greenhills Estate, Ballina
6	Footprints Montessori and Preschool	55 Childers Hall, Behy Road, Ballina
7	Knockmore Rathduff Butterflies Community Playschool	Knockmore Resource Centre Knockmore Village, Ballina
8	Lorraine O'Malley Montessori	Church Road, Ballina

No.	Name	Address
9	Guardian Angel Montessori	22A Moyvale Lawn, Sligo Road, Ballina
10	Happy Days Early Years' Service	Unit 1 Moy Valley Units, The Quay, Ballina
11	Hunt Montessori School	Behybaun, Foxford Road, Ballina
12	Jacqueline Moyles Montessori	Church Road, Ballina
13	The Mulberry Tree (Kilmore)	Kilmoremoy, Killala Road, Ballina

Source: Tusla.ie

Healthcare

Table 7-19 shows the healthcare facilities which are located within the population study area.

Table 7-19: Healthcare Services within the Population Study Area

No.	Facilities	Address
1	Ballina Dental Practice	Kevin Barry St, Carrowcushlaun West, Ballina,
2	Ballina Medical Centre	Kevin Barry St, Ballina,
3	Ballina District Hospital	Mercy Rd, Ballina
4	Ballina Health Centre	Mercy Rd, Ballina
5	Atlantic Medical Centre	Kevin Barry St, Carrowcushlaun West, Ballina
6	Busy Street Dental	Bury St, Carrowcushlaun West, Ballina
7	Bernard Twomey Dental	Unit 4, Bury Central, Bury St, Carrowcushlaun West, Ballina
8	JBs Dental Lab	Garden St, Ballina
9	JB Denture Clinic	Tone St, Ballina
10	Westdoc Ballina	St Joseph's District Hospital, Mercy Rd, Ballina
11	Bury Street Dental	Bury St, Carrowcushlaun West, Ballina
12	Dr Miriam Grady Family Dental Practice	Unit 7, Cul Gara Teeling St, Ballina
13	Anthony Sweeney BA B. Dent.Sc	Teeling St, Ballina
14	West Coast Orthodontics	The D-Mek Centre, Diamond's Car Park, Unit 7, Ballina

7.3.1.5 Recreation and Tourism Facilities

There is a wide range of recreation and tourism facilities serving the area of Ballina. Key tourist facilities within Ballina have been listed below and in **Table 7-20**.

In 2022, Irish resident trips and spend in County Mayo amounted to 738,000 no. trips and a spend of €160m, with an average length of stay of 2.6 nights¹. In July 2023, hotel room occupancy in County Mayo was found to be 87%².

¹ https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/Publications/domestic-trips-and-revenue-by-county-2022.pdf?ext=.pdf

² https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/Publications/failte-ireland-hotel-survey-july-2023.pdf?ext=.pdf

River Moy

The River Moy is a very popular location for recreational activities. Ballina itself is a renowned area for recreational fishing. The Ballina area is regarded as one of the most successful salmon fisheries in Europe. The Moy Fishery is just over 2.5 km in length and includes a number of beats including an extremely productive beat known as the Ridge Pool.

Stand-up paddle boarding and canoeing are also popular recreational activities in Ballina. The River Moy hosts the swimming element of the Ballina triathlon. The Moy Boat Club is based at the Quay Village on the Moy Estuary.

Jackie Clarke Museum

The Jackie Clarke Museum is a popular museum of historic artefacts on Pearse Street in the centre of Ballina. The museum displays many historic maps, rare newspapers, political posters, editorial cartoons, photographs and films. The museum holds many original Irish historic items such as a 1916 letter from the commander of Kilmainham Jail, a 1910 poster which was posted around New York City advertising a talk from James Connolly, a flower cockade worn by Wolfe Tone, and an original 1916 proclamation. In 2019 the museum attracted over 40,000 visitors.

Wild Atlantic Way

The Wild Atlantic Way is Ireland's biggest tourist attraction. According to Failte Ireland³, the Wild Atlantic Way had 3.4 million overseas tourists and 5.0 million domestic tourists in 2019. The Wild Atlantic Way is approximately 2,500 km starting from Donegal and concluding in West Cork, Ballina is one of the coastal towns included on the route. Ballina Quay is included as one of the "*Discovery Points*" on the Wild Atlantic Way.

Ballina Festival (including Heritage Day)

The Ballina Salmon Festival is a weeklong event that has ran every summer for over 50 years. This festival is one of the biggest family–friendly events held in the west of Ireland. The Ballina Salmon Festival comprises of activities such as art, culture, music, street theatre, food, dance, sport, carnival and fireworks.

Belleek Castle and Museum

Belleek Castle is located c. 1.7 km to the north of Ballina town centre and was built in 1831 by Sir Arthur Francis Knox – Gore in a Neo-Gothic style. Following a variety of uses, in 1961 Marshall Doran purchased the property and restored it, opening the house as the hotel it is today. The hotel also includes a museum showing the history of the castle and its' restoration by Marshall Doran in 1961.

Tír Sáile

Tír Sáile is a sculpture trail in the north of Mayo. This is the largest sculpture trail in Ireland and originates from 1993. The trail comprises of 14 different sculptures along the north Mayo Coast.

Connacht Whiskey Company

The Connacht Whiskey Company Distillery is located in Belleek, Ballina. There have been tourist facilities developed on site and visitors can complete a tour of the distillery and be shown the whiskey making process. In 2019 the facility attracted over 6,500 visitors.

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³ https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/WAW-Tourism-Facts-FINAL.pdf?ext=.pdf

Ballina Dolmen

The Ballina Dolmen is a kist (a small stone-built coffin-like box or ossuary used to hold the bodies of the dead) located at Primrose Hill, close to the train station.

Mary Robinson Centre

The Mary Robinson Centre is located in Abbeyhalfquarter, Ballina. The facility was established at Mary Robinson's childhood home that is located along the River Moy. The Mary Robinson Centre will allow the public to gain an insight into Mary Robinson's legacy, her passion for climate change and her roles within the UN. The public will also experience an understanding of her work to drive human rights, gender equality and woman's leadership. Subject to funding, the centre is expected to open in 2024.

Table 7-20 details prominent recreational facilities which are located within the population study area.

Table 7-20: Recreational Facilities within the Population Study Area

No.	Facilities	Address
1	Ballina Golf Club	Mossgrove, Ardnaree, Ballina
2	Moy Boat Club	The Quay Ln, Quignamanger, Ballina
3	Ballina Swimming Pool	Cathedral Rd, Abbeyhalfquarter, Ballina
4	Eagles Leisure Centre	Downhill House Hotel, Downhill Rd, Knocknalyre, Ballina
5	Ballina Athletic Track	Belleek, Ballina
6	Ballina Arts Centre	Barrett St, Carrowcushlaun West, Ballina
7	Ballina Boxing Club	6 Mercy Rd, Ballina
8	Fit and Jump Ireland	Abbey Business Park, Unit12, Abbey St, Ballina
9	Ballina Sports Centre	Cathedral Rd, Abbeyhalfquarter, Ballina
10	Ballina Stephenites Gaa Club	Lord Edward St, Carrowcushlaun West, Ballina
11	Ballina Stephenites Squash Club	Lord Edward St, Carrowcushlaun West, Ballina
12	Ardnaree Sarsfields Gaa	Ardnaree, Ballina
13	Kilmoremoy, LGFA Club	Abbeyhalfquarter, Ballina
14	Ballina Rugby Football Club	Heffernan Park, Creggs Rd, Ballina
15	Ballina Town FC Soccer Club	Belleek, Ballina
16	Ballina Men's Shed	Teeling Street, Ballina,

7.3.1.6 Transport, Connectivity and Accessibility

There are six no. train services running daily between Ballina and Dublin and serving several other population centres including Roscommon, Athlone and Kildare. The Irish Rail Freight service runs from Ballina to Dublin Port and Waterford Port, Monday through Saturday. This service allows for ISO tanks, containers, mineral ores and timber products to be transported efficiently to the ports on the east coast of Ireland.

The N26 and N59 National Roads run through the town of Ballina and link the area with other major towns and cities such as Sligo, Westport and Galway. Ballina is also accessible via bus with services from Dublin running three times daily, Galway running every four hours, Belmullet running four times daily, Sligo running every four hours and Derry running once daily.

Local bus links serving Ballina also include:

- 444 Ballina Station Dromore West
- 787 Ballina Attymass
- 436 Ballina Ballycastle

458 Ballina - Enniscrone

7.3.1.7 Principal Potential Receptors

An assessment of the principal potential receptors within the environs of the Proposed Scheme including schools, residential properties, tourism facilities, recreational amenities, employment centres and transport routes is provided below.

7.3.2 Evolution of the Environment in the Absence of the Proposed Scheme

If the FRS does not proceed, then there will be no construction related effects on the receptors identified above.

Under the do-nothing scenario, it is extremely likely that flooding will continue to occur in Ballina. Flooding has the potential to affect up to 228 homes, as well as the identified businesses, health, social and community facilities, as well as recreational facilities and transport. The severity and frequency of such flooding is likely to increase in the coming years as the impacts of climate change become more severe.

Overall, the predicted impact has the potential to significantly disrupt normal life and well-being for the people of Ballina including economic activity, the functioning of local community and recreation facilities.

If the Proposed Scheme was not to proceed, the population, housing, local businesses, workers, and the community facilities in Ballina would remain in danger of a potential flood event that could possibly cause significant damage to the area. 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.

The do-nothing scenario would therefore result in a long-term adverse effect on the settlement of Ballina.

7.4 Description of the Likely Significant Effects

7.4.1 Construction Phase

Chapter 5: Project Description identifies the primary works elements. Given the nature of the proposed works there are a number of discrete works areas and access will be required to each area, complete with temporary fencing around these work areas as required.

A number of temporary construction compounds will be established. The locations of potential temporary compounds are indicated in **Chapter 5: Project Description** of this EIAR.

The following traffic management measures are outlined in the *Construction Traffic Management Plan* (CTMP) submitted with **Chapter 6: Traffic and Transport** of this EIAR.

- Bachelor's Walk is a two-way street with low traffic volumes. The proposed temporary traffic
 management to facilitate works at Bachelor's Walk will be a lane closure along the River Moy for the
 duration of the works. Bachelors Walk will temporarily be a one-way street with a temporary traffic
 diversion via Nally Street and Arbuckle Row.
- Barrett Street is a one-way street with high traffic volumes. The proposed temporary traffic management to facilitate works at Barrett Street will be a road closure along Barrett Street and a lane closure (with stop/go or temporary traffic signals) on Tolan Street for the duration of the works (four weeks). Works to be completed off-peak as traffic can build up quickly during peak hours in this area. Barrett Street will be closed temporarily to facilitate the works with a temporary traffic diversion via Tolan Street, O 'Rahilly Street and Bury Street. Parking along Barrett Street will be temporarily removed to facilitate the works. An alternative temporary parking area will be provided for the duration of the works. The road closure will commence at the junction of Water Lane and Barrett Street. Local vehicular traffic will be permitted to access the alternative temporary parking and the Ballina Manor Hotel resident carpark.
- Ridgepool Road is a one-way Street from the junction with The Brook to the Upper Bridge and is twoway traffic south of junction with The Brook. The proposed temporary traffic management to facilitate

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works at Ridgepool Road will be a road closure of the one-way section of the road with a temporary traffic diversion via The Brook, Plunkett Road and the R294 Regional Road. The two-way section of Ridgepool Road will have a lane closure along the River Moy with stop/go or temporary traffic signals for the duration of the works. Parking will be removed from along the riverside to accommodate the works.

- The N59 (Clare Street / Howley Terrace) is a two-way street with high traffic volumes. The proposed temporary traffic management to facilitate works at Clare Street / Howley Terrace will be a lane closure along the River Moy for the duration of the works. Clare Street / Howley Terrace will temporarily be a one-way street northbound with a temporary traffic diversion for southbound traffic via Bunree Road and R294 Regional Road
- Creggs Road is a two-way road. The proposed temporary traffic management to facilitate works along Creggs Road will be in two distinct sections. For the section of Creggs Road between Quay Road and Rathmeel Lawns, a section of Creggs Road will be closed with a temporary traffic diversion via Quay Road, Riverslade, Quignalecka, N59 National Road and Creggs Road.
- For the section of Creggs Road between Rathmeel Lawns and the Culvert Inlet, a section of Creggs Road will be closed with a temporary traffic diversion via Quay Road, Riverslade, Quignalecka, N59 National Road and Creggs Road as shown in Figure 6-20. Access to local properties is to be maintained along Creggs Road.
- Behy Road (L-5132 Local Road) is a two-way street. The proposed temporary traffic management to
 facilitate works at Behy Road a lane closure along a section of Behy Road with stop/go or temporary
 traffic signal operation for the duration of the works. Access to local properties is to be maintained along
 Behy Road.
- The proposed temporary traffic management to facilitate works along **Brusna** (**Glenree**) River will be in two distinct sections. For the section of the Proposed Scheme along Brusna River at Shanaghy Heights, the narrow access road will be closed for the duration of the works with a temporary access road / haul route required to maintain access to the local properties. For the section of the Proposed Scheme along the R294 Regional Road a lane closure along the Brusna River with stop/go or temporary traffic signals will be in place for the duration of the works. A potential traffic diversion for through traffic will be at Bonniconlon, northbound traffic via the L6612 Local Road and R297 Regional Road and southbound via The L1125 Local Road and N26 National Road.
- Cathedral Road is a two lane, one-way directional road with high traffic volumes. The proposed temporary traffic management to facilitate works at Cathedral Road will be a lane closure along the Moy River for the duration of the works. Parking will be removed from along the riverside to accommodate the works.
- Emmet Street is a two lane, one-way directional road with high traffic volumes. The proposed temporary traffic management to facilitate works at Emmet Street will be a lane closure along the River Moy for the duration of the works. Parking will be removed from along the riverside to accommodate the works.

Construction activities such as excavation may give rise to emissions to air or surface water, as well as increased noise and vibration. It is expected that the construction phase of the Proposed Scheme will commence in late 2025 or 2026 and take place over an estimated 36 months.

The potential effects with regards to construction traffic, noise and vibration and air quality are described in detail in **Chapters 6: Traffic and Transport, Chapter 15: Noise and Vibration, and Chapter 13: Air.**

7.4.1.1 Effects on Population

During the construction phase of this Proposed Scheme, construction workers within the area may enjoy an increase in available job opportunities. 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 effect on the local population of Ballina.

The construction phase of the Proposed Scheme will last approximately 36 months. It is estimated that the Proposed Scheme will provide direct employment for approximately 20 to 30 no. people. It is assumed that

construction will occur simultaneously across 3 to 4 different areas that are included in the Proposed Scheme.

The construction of the Proposed Scheme will have short-term slight positive effects on the population.

7.4.1.2 Effects on Economic Activity

The construction phase of this Proposed Scheme will increase economic activity in the area primarily as a result of the presence of construction workers in the area. The demand for local businesses, leisure centres and accommodation services will likely increase, thus creating local economic growth. In addition to this, it is considered that the construction phase will bring indirect employment to the local services within Ballina.

Local businesses within the population study area will continue to operate normally, notwithstanding that access and noise impacts may discourage activity. The construction works would involve temporary restrictions on traffic movements as described above and in **Chapter 6: Traffic and Transport** of this EIAR. Temporary road closures may impact businesses due to loss of parking and disruptions to the regular flow of traffic.

The construction of the Proposed Scheme will overall have a **short-term**, **imperceptible effect** on economic activity.

7.4.1.3 Effects on Residential Amenity

The construction phase of the Proposed Scheme will impact on the residential amenities in Ballina.

The construction phase will impose restrictions on road traffic as described in **Chapter 6: Traffic and Transport** and in the accompanying CTMP. The following traffic management measures as detailed in **Chapter 6: Traffic and Transport** will be in place. Access to residential properties on all roads impacted by construction works will be maintained. In some instances, lane closures with stop/go or temporary traffic signals, a one-way system or temporary area access arrangements will be imposed.

Table 6-20 of **Chapter 6: Traffic and Transportation** shows the magnitude of impact on each specific road in the Proposed Scheme. This table also depicts the significance of impact of these works on each road and this ranges from imperceptible or slight to slight.

There will be a construction phasing programme which shall reduce the impact on residential amenities. There will also be scheduled deliveries to and from the construction compounds such that traffic volumes on the surrounding road network is kept to a minimum. This will reduce construction traffic effecting residential amenity.

Chapter 15: Noise & Vibration summarises the assumed construction plant, construction phases, and likely significant effects at each of the six construction sites for the Proposed Scheme. It concluded there would be no significant effects across the Moy works area. The Brusna works area is predicted to have slight or moderate effects. Tullyegan works area was predicted to have slight to moderate effects due to noise. Behy Road was predicted that no significant effects for construction noise in this area. The Quignamanger works area indicated a slight or moderate effects due to noise. Chapter 15: Noise & Vibration states that no structures of particular sensitivity to vibration have been identified in sufficient proximity to works for building vibration damage to arise from the project.

Chapter 13: Air Quality concluded the risk of dust effects from the construction works on human health were negligible risk for Brusna (Glenree), Tullyegan, Bunree / Behy Road, Quignamanger, Site Compound 4 & 5. The Dust Emission Risk for the Moy section of the Proposed Scheme was found to be Low Risk. Chapter 13: Air Quality states that once the included dust minimisation measures outlined in Section 13.5.1 are implemented, the impact of the Proposed Scheme on air quality will be short-term, direct, negative, localised, imperceptible and not significant.

Chapter 17: Material Assets (Land and Properties) concluded that for 39 no. landowners of the 51 no. landowners impacted, the construction phase impacts were not significant. For the 16 no. residential amenity properties (residential/ public open space), the construction phase impacts ranged from slight to significant. The significant impacts were noted on residential properties where a combination of right of ways and temporary and permanent wayleaves are required. The overall effect on population is not considered to be significant.

The construction of the Proposed Scheme will overall have a **short-term**, **slight**, **negative impact** on residential amenity.

7.4.1.4 Effects on Community Facilities

Community facilities are expected to operate normally during the construction phase. There may be some effects on accessing community facilities during the construction phase of this project due to the presence of machinery and plant, and there may also be some disturbance as a result of noise, dust. Access to some public open spaces shall be restricted during construction.

The proposed temporary traffic management to facilitate works at Cathedral Road include a lane closure along the Moy River for the duration of the works. Parking will be removed from along the riverside to accommodate the works. St. Muredach's Cathedral is also located on Cathedral Road. Quignamanger National School is located on Creggs Road There are proposed traffic diversion measures on Creggs Road. Accessibility impacts due to increased journey times / lengths as a potential impact has been considered in **Chapter 6 Traffic and Transport**. It is concluded the effect will be temporary in nature and negligible to low.

Chapter 15: Noise & Vibration summarises the assumed construction plant, construction phases, and likely significant effects at each of the six construction sites for the Proposed Scheme. It concluded there would be no significant effects across the Moy works area. The Brusna works area is predicted to have slight or moderate effects. Tullyegan works area was predicted to have slight to moderate effects due to noise. Behy Road was predicted that no significant effects for construction noise in this area. The Quignamanger works area indicated a slight or moderate effects due to noise. Chapter 15: Noise & Vibration states that no structures of particular sensitivity to vibration have been identified in sufficient proximity to works for building vibration damage to arise from the project.

Chapter 13: Air Quality concluded the risk of dust effects from the construction works on human health were negligible risk for Brusna (Glenree), Tullyegan, Bunree / Behy Road, Quignamanger, Site Compound 4 & 5. The dust emission risk for the Moy section of the Proposed Scheme was found to be Low Risk. Chapter 13: Air Quality states that once the included dust minimisation measures outlined in Section 13.5.1 are implemented, the impact of the Proposed Scheme on air quality will be short-term, direct, negative, localised, imperceptible and not significant.

Chapter 17: Material Assets (Land and Properties) concluded that for eight no. community facilities properties (sports club/open space), the construction phase impacts ranged from slight to significant. The significant impacts were noted on areas of open space that would be temporarily unavailable during the construction period.

The construction of the Proposed Scheme will overall have a **short-term**, **slight**, **negative impact** on community facilities.

7.4.1.5 Effects on Recreational and Tourism Facilities

Recreational and tourism facilities are expected to operate normally during the construction phase. During the construction phase of the Proposed Scheme, there will be restrictions on the construction programme to accommodate angling activities and fishing rights on the River Moy with construction activities to take place outside of angling season in some areas. Construction near the River Moy will stop during the months of June and July to allow for fishing to take place. The overall arrangement of this is described in **Chapter 5: Project Description**. The Project Description states that existing access to the River Moy will be maintained through ramps, stiles or flood gates at existing access locations. **Figure 5-13: Public access points to the River Moy**, included in **Chapter 5: Project Description**, shows the location of these existing pedestrian and vehicle access points to the waterbodies. The impact of the Proposed Scheme on aquatic biodiversity is considered in **Chapter 9: Aquatic Biodiversity**. No significant residual construction impact is identified in this chapter.

The construction phase of the Proposed Scheme will also affect other recreational and tourism facilities due to the presence of machinery and plant, disturbance as a result of noise, dust and impact on the existing road network as outlined above and in the CTMP. Access to facilities may be impacted during the 36 months of construction, however, this will only be temporary. The effects on recreational and tourism facilities are negligible in impact. The Tourist Information Office, Ballina Swimming Pool and Ballina Sports Centre are located on Cathedral Road. There are proposed construction traffic diversions on Cathedral Road. Ballina

Arts Centre is situated on Barrett Street on which are proposed temporary traffic management measures for the Proposed Scheme. The Mary Robinson Centre is located on Emmet Street that has proposed temporary traffic management measures for the Proposed Scheme.

Chapter 15: Noise & Vibration summarises the assumed construction plant, construction phases, and likely significant effects at each of the six construction sites for the Proposed Scheme. It concluded there would be no significant effects across the Moy works area. The Brusna works area is predicted to have slight or moderate effects. Tullyegan works area was predicted to have slight to moderate effects due to noise. Behy Road was predicted that no significant effects for construction noise in this area. The Quignamanger works area indicated a slight or moderate effects due to noise. Chapter 15: Noise & Vibration states that no structures of particular sensitivity to vibration have been identified in sufficient proximity to works for building vibration damage to arise from the Proposed Scheme.

Table 6-20 of **Chapter 6: Traffic and Transportation** shows the magnitude of impact on each specific road in the Proposed Scheme. This table also depicts the significance of impact of these works on each road and this ranges from imperceptible or slight, to slight.

Chapter 13: Air concluded the risk of dust effects from the construction works on human health were negligible risk for Brusna (Glenree), Tullyegan, Bunree / Behy Road, Quignamanger, Site Compound 4 & 5. The dust emission risk for the Moy section of the Proposed Scheme was found to be low risk. Chapter 13: Air Quality states that once the included dust minimisation measures outlined in Section 13.5.1 are implemented, the impact of the Proposed Scheme on air quality will be short-term, direct, negative, localised, imperceptible and not significant.

The Proposed Scheme will have a short-term slight negative impact on recreational and tourism facilities.

7.4.1.6 Effects on Transport, Connectivity and Accessibility

During the construction phase of the Proposed Scheme, several roads within the town will be temporarily impacted as described above and in **Chapter 6 Traffic and Transportation**. There will be increased traffic on the local road network and temporary localised traffic management measures in place such as a stopand-go system in many of these temporary one-way streets. The overall impact of this is described in greater detail in **Chapter 6: Traffic and Transportation** and the associated CTMP. The temporary measures will impact negatively on the movement of people within the town.

The Proposed Scheme will have a **short-term negative moderate** impact on transport, connectivity, and accessibility.

7.4.2 Operational Phase

7.4.2.1 Effects on Population

In the *Mayo County Development Plan 2022 - 2028*, Ballina is identified as a key town, that will be supported in its growth and sustainable development. As detailed in **Chapter 12 Water**, the Proposed Scheme will provide protection for 187 no residential properties and 54 no. commercial properties in Ballina. The homes to be protected are close to the River Moy, Quignamanger, Bunree, Brusna and Tullyegan. The Proposed Scheme will positively affect Ballina as it will become less vulnerable to flood events. The increased flood resilience supports population growth in the EIAR study area and population study area, particularly in areas that are currently susceptible to flood events. The Proposed Scheme will have a **moderate**, **long term**, **positive** impact on the population.

7.4.2.2 Effects on Economic Activity

The Proposed Scheme will provide flood protection to 54 no. commercial and business premises within Ballina and the surrounding areas. This will safeguard their existing operations and facilitate the growth of existing businesses. This Proposed Scheme will also promote new businesses within Ballina, creating future employment and a positive impact on the local economy.

The Proposed Scheme will have a moderate, long term, positive impact on economic activity.

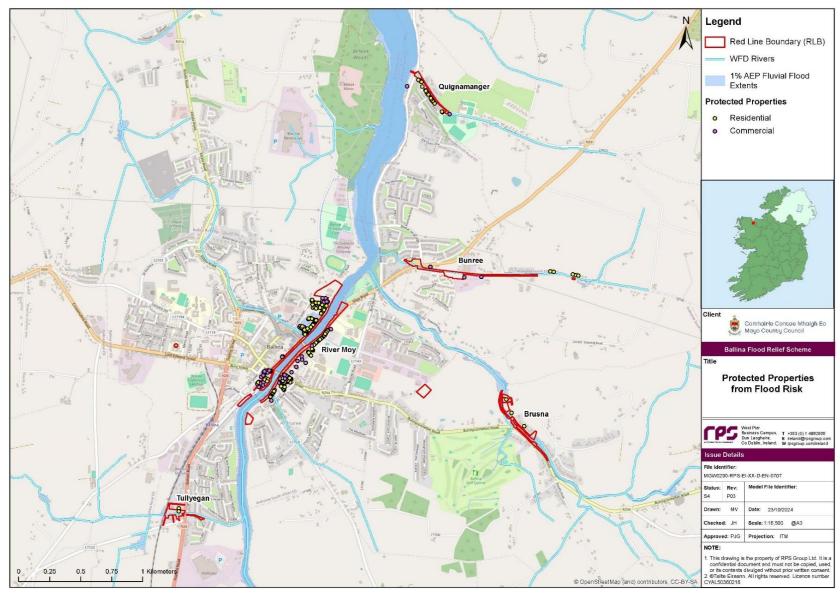


Figure 7-5: Properties Protected Post-Development of the Proposed Scheme

7.4.2.3 Effects on Residential Amenity

Ballina will be less vulnerable to flooding during the operation phase of this project. The Proposed Scheme will provide flood protection to 187 no. existing residential units.

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

7.4.2.4 Effects on Community Facilities

The Proposed Scheme will provide flood protection for community facilities in the study area. This protection from flood events will result in the use of these facilities being safeguarded into the future. Community facilities including St Muredach's Cathedral, Parish Office, Pastoral Centre, Moyne College, Footprints Montessori and Preschool and the Tourist Information Office will be protected as a result of the Proposed Scheme.

The Proposed Scheme will have a **moderate**, **long term**, **positive** impact on the community facilities.

7.4.2.5 Effects on Recreational and Tourism Facilities

During the operational phase of the Proposed Scheme, Ballina will be less vulnerable to flooding, and this will enhance the attractiveness of Ballina as a place for tourists to visit. Ballina has many tourist facilities in the town centre within the population study area. The Proposed Scheme will protect the Mary Robinson Centre, Moy Boat Club, Ballina Arts Centre, and Ballina Rugby Football Club from a potential flooding event in the future. The Proposed Scheme may encourage the development of more tourist facilities within Ballina and along the River Moy.

The impact of the Proposed Scheme on visual amenity at nine no. locations is considered in **Chapter 19: Landscape and Visual**. No significant residual impact is identified at any of these locations.

The impact of the Proposed Scheme on aquatic biodiversity is considered in **Chapter 9: Aquatic Biodiversity.** No significant residual operational impact is identified in this chapter.

The Proposed Scheme will have a **moderate**, **long term**, **positive** impact on recreational and tourism facilities.

7.4.2.6 Effects on Transport, Connectivity and Accessibility

The Proposed Scheme will increase protection of the roads surrounding the River Moy from flooding events. Roads which are susceptible to flooding during a flooding event, such as Bachelors Walk, Bunree, and Upper and Lower Bridge will be less likely to be flooded, see **Chapter 6: Traffic and Transportation** for further information.

The Proposed Scheme will have a **moderate**, **long term**, **positive** impact on transport, connectivity and accessibility.

7.5 Mitigation Measures

The Proposed Scheme has been brought forward through careful and considered design and management which is discussed in the relevant sections of the EIAR including **Chapter 4: Assessment of Alternatives** and **Chapter 5: Project Description**. Many of the potential effects on the population relate to other environmental aspects such as noise, air, and traffic and transport. The potential impact of these aspects and the related mitigation measures are discussed within the corresponding chapters of this EIAR.

7.6 Residual Impacts

7.6.1 Construction Phase

During construction, there will be an increase in construction works in Ballina, which can have a positive effect on the local businesses and the local population.

The population of Ballina will witness disruptions to their daily lives during this temporary construction period due to traffic, air, noise, and visual amenity. These impacts shall extend over the 36-month period of the construction phase.

The residual impact of the construction phase is predicted to be **negative**, **slight** and **short-term**.

7.6.2 Operational Phase

This Proposed Scheme will provide flood protection to 187 homes and 54 businesses in Ballina. As a result of the Proposed Scheme, the Ballina area may become more attractive for residential and business purposes. The Proposed Scheme will also protect existing amenities, recreation facilities and tourism destinations within Ballina, promoting economic activity and economic growth in the town.

The residual impact of the operational phase is predicted to be **positive**, the significance of the effect **moderate** and the effects **long term.**

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

Inter-relationships are the impacts and associated effects of different aspects of the Proposed Scheme on the same receptor. Interactions between Population and Human Health, Air Quality, Climate, Land Soil, Geology and Hydrogeology, Water, Noise and Vibration, Material Assets, Landscape and Visual Impact, and Cultural Heritage are discussed in **Chapter 20 Interactions and Cumulative Effects**.

The potential for cumulative effects has been considered for the construction and operation of the Proposed Scheme cumulatively with other projects. This is also discussed in **Chapter 20 Interactions and Cumulative Effects.**

7.9 Schedule of Environmental Commitments

Please see **Chapter 22 Schedule of Environmental Commitments** which sets out all the mitigation and monitoring commitments to minimise the potential impacts for human health during the construction and operational phase of the Proposed Scheme.

7.10 Chapter References

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