

Arklow Flood Relief Scheme

Planning Report



2021



OPW

Oifig na
nOibreacha Poiblí
Office of Public Works



ARUP

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1 Introduction

1.1 Introduction

Wicklow County Council (WCC), funded by the Office of Public Works (OPW), proposes to undertake engineering works along the Avoca River and surrounds to mitigate the risk of flooding in the Arklow town area in County Wicklow. The proposed works are collectively referred to as the Arklow Flood Relief Scheme.

The proposed development (proposed scheme) will be carried out partly on the foreshore by a local authority, Wicklow County Council.

Wicklow County Council has made an application for approval to An Bord Pleanála pursuant to Section 226 of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended).

Compulsory Purchase Order (CPO) documentation has also been prepared.

A foreshore lease and licence application has been submitted for approval to the Minister for Housing, Local Government and Heritage.

This planning report has been prepared by Arup on behalf of, and in conjunction with Wicklow County Council (WCC). This report sets out the planning context for the proposed Arklow Flood Relief Scheme. It identifies and considers the existing policy framework for the proposed scheme in the context of relevant international, national, regional and local planning strategy, plans and policy documents.

This report forms part of the suite of application documents for the proposed scheme.

1.2 Background and Need for Scheme

Arklow town has, for many years, experienced recurring flooding problems that have caused widespread damage to public and private property. The flood risk in Arklow may also increase in the future, due to a range of factors, including climate change, sediment transport, erosion, development within the catchment of Avoca River and its tributaries, and changes in land use and drainage.

Arklow is at risk from recurring and, having regard to current climate change predictions, potentially worsening flood events in the future. Without intervention to address fluvial and tidal flooding, Arklow faces the continued onset of a range of issues associated with flooding including.

- Damage to residential and non-residential properties, commercial buildings, agricultural lands infrastructure and utility assets
- Large financial costs relating to damage repair, as well as indirect costs such as evacuation, temporary accommodation, loss of earnings, increased travel and shopping costs and the cost of emergency services.

- Increased liabilities and premium costs for insurance in areas at risk of flooding.
- Health and safety risks associated with extreme flooding, such as increased risk of drowning or flood related injuries, and increased potential for infectious diseases (e.g. through contaminated flood water). Increased risk of flooding can also result in significant anxiety and stress for affected populations.
- The risk of recurrent flooding in Arklow influences the type and extent of development which is permitted in areas vulnerable to flood events. As the proposed FRS seeks to reduce the risk of flooding in Arklow, there is potential for increased development opportunities in the area.

Thus, there are a number of justifications surrounding the need for the proposed scheme.

A full description of the background and need for the scheme is provided in **Chapter 2, Background and Need for Scheme** in **Volume 2** and accompanying appendices in **Volume 3** of the *Environmental Impact Assessment Report (EIAR)*.

1.3 Summary Description of the Proposed Scheme

The proposed scheme is being undertaken for the purpose of preventing the periodical localised flooding of lands and properties in the Arklow town area. The proposed scheme will involve the construction of flood defences and an embankment, as well as conveyance improvements in the Avoca River; including deepening of the river channel, the introduction of new debris and gravel traps and strengthening works to the existing quay walls and Arklow Bridge.

The flood scheme has been designed to withstand a 1 in 100-year flood event from the Avoca River (fluvial) as well as 1 in 200-year tidal flood event.

Reference should be had to the full set of planning drawings accompanying the application for approval. The location of the proposed development (extracted from **Drawing No 1001** of the scheme drawings) is illustrated in **Figure 1.1**. An overview of the proposed development is illustrated in **Drawing No 1002** which is included in the planning application drawing package.

Overall, the proposed development will comprise of the following elements:

- Works at Arklow Bridge, a protected structure (RPS A26), including the underpinning of the piers and southern abutment, removal of existing concrete scour slab and lowering the floor of Arklow Bridge by approximately 1m, construction of new concrete scour slab and remedial works to bridge masonry;
- River dredging works to improve channel capacity, comprising dredging of the river channel from approximately 320m upstream of Arklow Bridge to approximately 520m downstream of Arklow Bridge, including removal of in-river sandbanks and vegetated islands north of Arklow Bridge and trimming of vegetation along the north bank between the debris trap and Arklow Bridge that lies within the river channel and below the design flood level. Occasional

future maintenance as required of the river channel by dredging, estimated to be at 10-year intervals;

- Extension into the river channel by circa 12m along an approximate 75m length of the northern river bank upstream of Arklow Bridge;
- Installation of 3 no roosting platforms for birds upstream of Arklow Bridge;
- Construction of debris and gravel traps and a permanent river access ramp on the south bank for their maintenance; Annual maintenance of the debris trap and gravel trap using a temporary in-river haul road.
- Flood defences on the south bank of the Avoca River including:
 - Demolition of existing walls and river access and provision of approximately 325m of flood defence concrete finish wall founded on sheet piles and concrete foundations, with intermittent glass panels, upstream of Arklow Bridge on River Walk from just west of St Mary's (Main Street) car park;
 - Demolition of some existing walls and river access, provision of approximately 655m of flood defence concrete finish wall founded on sheet piles and concrete foundations, with a glass panel at the former Tyrells yard slipway, and modifications to approximately 20m of existing wall downstream of Arklow Bridge, on South Quay and on the western and southern sides of the Dock in the Arklow Harbour area);
 - Construction of stormwater drainage system including 3no. pumping stations along the south bank and adjoining streets; and
 - At the Dock, in the Harbour area, installation of demountable flood barriers at two locations to allow access to the shipyard and the public slipway, which will normally be maintained in a closed position.
- Flood Defences on the north bank of the Avoca River including approximately 545m flood defence earthen embankment with adjoining maintenance track in Arklow Town Marsh close to its eastern boundary and approximately 60m sheet-piled wall with concrete cap to be constructed upstream of Arklow Bridge's north western abutment, and realignment and reforming/reinforcing both banks of the existing channel where it enters the Avoca River to the west of the Avoca Bridge. Permanent access road from Dublin Road to maintenance track.
- Removal of existing public realm at River Walk and South Quay, including demolition of the river access at the junction of River Lane and River Walk, and a disused slipway (referred to as Coal Quay) on South Quay, existing footpaths, street and decorative lighting, parking spaces and seating.
- Provision of new public realm at River Walk and South Quay, including parking spaces, footpaths, amenity/viewing area, public lighting, planters and floating pontoon. Provision of additional urban space approximately 6m into the river on South Quay immediately south of the Arklow Bridge for a length of approximately 260m and provision of additional urban space extending between approximately 0m and 6m into the river on River Walk for a length of approximately 100m.

- The proposed works include road reconstruction, road regrading, traffic calming measures, provision of a section of interconnector sewer for the Arklow Wastewater Treatment Plant (WwTP) for Irish Water, diversion of utilities, including electricity cables in Arklow Marsh, tree felling, tree trimming, tree planting, landscaping, local riverbed raising, installation of roosting platforms upstream of Arklow Bridge and all associated and ancillary works.
- Temporary works including establishing six site compounds: northeast edge of Arklow Town Marsh, on lands between the running track and Mill Road, on land between the river and the roundabout located at the junction of Arklow Bridge, Ferrybank and North Quay, on part of St Marys (Main Street) car park, on lands between the eastern end of North Quay and North Pier, and on lands between Arklow Golf Club and South Beach. River access will take place at North Quay, South Quay, River Walk and north-west of Arklow Bridge. These site compounds will operate over the duration of the works and will facilitate the construction of the scheme and archaeological examination and stockpiling of excavated and dredged material.

The proposed FRS has an extensive physical overlap along the south side of the Avoca River with the permitted Arklow WwTP Project. The elements, which overlap, are the underpinning works at the two southernmost arches of Arklow Bridge and works to construct the sheet piled foundations for the flood defence walls and a portion of the interceptor sewer along parts of River Walk and South Quay. The planning application for the proposed FRS includes the elements, referred to above, which overlap with the WwTP. The overlap with the WwTP is described in further detail in the relevant sections of the EIAR. The WwTP project was granted planning permission in 2019. A Memorandum of Understanding regarding the overlapping construction elements of the proposed FRS and WwTP has been agreed between Irish Water and the Office of Public Works (OPW). This is described in further detail in the EIAR.

The construction of the proposed FRS scheme is estimated to occur over 5 years with anticipated commencement in 2022, subject to planning approval.

A full description of the proposed scheme including drawings is provided in **Chapter 4, Description of the Proposed Scheme** and accompanying appendices in **Volumes 2 and 3** of the *Environmental Impact Assessment Report* (EIAR). The construction methodology for the proposed scheme is described in detail in **Chapter 5 Construction Methodology** and accompanying appendices in **Volumes 2 and 3** of the *Environmental Impact Assessment Report* (EIAR).

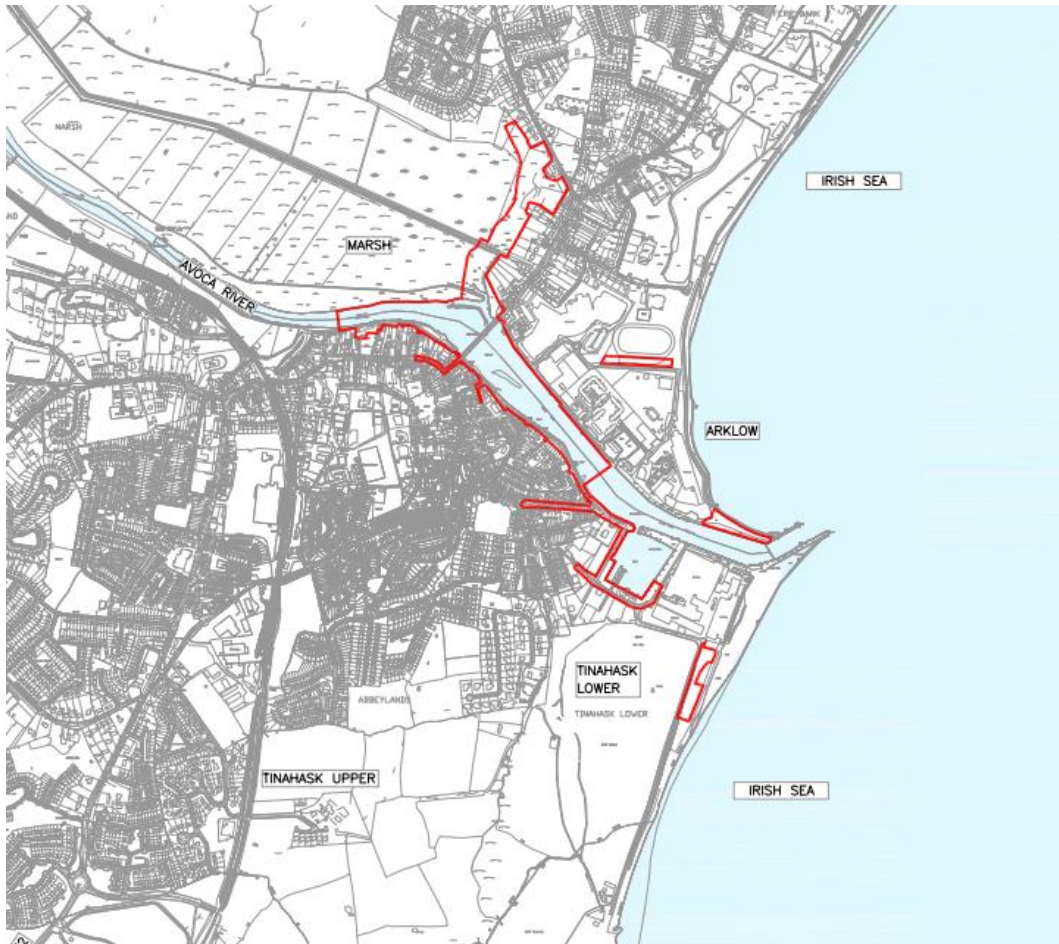


Figure 1.1 – Location of the proposed scheme (extracted from Drawing No 1001 of the scheme drawings). Not to scale

2 Application Details

2.1 Applicant's Details

Wicklow County Council is the Applicant for the proposed Arklow Flood Relief Scheme.

Wicklow County Council's address is Wicklow County Council, County Buildings, Whitegates, Wicklow Town, A67 FW96.

We would request that any An Bord Pleanála correspondence relating to this planning application be sent to the following contact address:

- John Daly, Executive Engineer, Planning, Development and Environment, Wicklow County Council, County Buildings, Whitegates, Wicklow Town, A67 FW96.

2.2 Application Fee

The prescribed fee of €30,000, for Local Authority development requiring an EIAR (Section 226 of the Planning and Development Act, 2000, as amended), has been transferred to An Bord Pleanála by electronic transfer. A copy of the payment of fees receipt is included in the planning application documentation package.

2.3 Planning Application Structure

The proposed application covers a wide range of reports and associated supporting documentation in order to assist An Bord Pleanála in its assessment of the proposed development.

The structure of the S226 application for approval generally consists of the following:

- Application Plans and Particulars (including planning drawings)
- Environmental Impact Assessment Report (EIAR) and Appendices
- Appropriate Assessment Screening/Natura Impact Statement; and
- Planning Application Report.

The design has been developed on behalf of WCC and the OPW by a multi-disciplinary design team led by Byrne Looby and their sub-consultants. Brady Shipman Martin led the design of the public realm.

The EIAR has been prepared on behalf of WCC and the OPW by a multi-disciplinary consultancy team of competent experts led by Arup with input from Byrne Looby, WCC, and specialist sub-consultants including:

- Brady Shipman Martin (BSM)

- AQUAFACT
- Courtney Deery Heritage Consultancy Ltd
- The Archaeological Diving Company Ltd (ADCO)
- Optimize
- EHA Ltd

The Appropriate Assessment Screening/Natura Impact Statement has been prepared by AQUAFACT.

3 no. hard copies of the application have been submitted to An Bord Pleanála along with 2 no. digital copies in accordance with the Planning & Development Regulations, 2001, as amended.

The necessary copies are being issued to the Planning Authority (Wicklow County Council) and Prescribed bodies.

The Planning Application consists of the following:

- Cover letter to An Bord Pleanála.
- Copy of Site Notice
- Copy of Newspaper Notices
- Application Fee - Electronic Transfer Receipt
- EIA Portal Confirmation Notice
- Copy of Letters to Prescribed Bodies
- Planning Report (this report)
- Appropriate Assessment (AA) Screening Report and Natura Impact Statement (NIS)
- Environmental Impact Assessment Report (EIAR)
- Drawings consisting of plans, sections and details of engineered flood defence structures, drainage, lighting, and public realm features.

2.4 Planning Drawings

The drawings enclosed with this application have been screened with reference to the Planning and Development Regulations, 2001, as amended and are consistent with the spirit and intent of same. The list of drawings is detailed in **Drawing No 1000 – Cover sheet**.

2.5 Public Notice

A Newspaper Notice was placed in the Wicklow People and the Independent newspapers on the 26th of May.

The Site Notices were erected on the 26th of May on a white background at the subject site.

A copy of the Site Notice and each Newspaper Notice are included in the planning application. The locations of the site notices are presented in **Drawing No 1066**.

The planning application will be available for public viewing from the **4th of June 2021** to the **23rd of July 2021**. Any submissions / observations must be made in writing to the Board no later than 5:30pm on 23rd July 2021.

A copy of application for approval, the EIAR and the NIS may be inspected free of charge, or may be purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such a copy) during public opening hours for a period of no less than 6 weeks from **4th June 2021** to **23rd July 2021** (inclusive of both dates), at the following locations:

- The Offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1, D01 V902
- Arklow Library, Main Street, Arklow, Co Wicklow, Y14 PY61
- Wicklow County Council, County Buildings, Whitegates, Wicklow Town, A67 FW96

2.6 List of Prescribed Bodies Issued with a Copy of Application

Prior to lodgement of this application to An Bord Pleanála, a copy of the application plans & particulars, including the Environmental Impact Assessment Report has been issued to the appropriate Prescribed Bodies outlined in the Regulations.

A list of the Prescribed Bodies will be issued a copy of the application are as follows:

1. Health Services Executive
2. Department of Housing, Local Government and Heritage
3. Irish Water
4. Inland Fisheries Ireland
5. Department of Agriculture, Food and the Marine
6. An Taisce
7. Office of Public Works
8. Eastern and Midlands Regional Assembly
9. The Heritage Council
10. Department of the Environment, Climate and Communications

A copy of the letter to be sent each Prescribed Body is enclosed in the planning application.

The non-prescribed bodies who will be issued with a copy of the application include:

1. Department of Transport
2. Environmental Protection Agency
3. Wicklow County Council
4. Transport Infrastructure Ireland
5. ESB Networks
6. Gas Networks Ireland
7. Arklow Municipal District (Wicklow County Council)

2.7 Pre-Planning Consultation with An Bord Pleanála

Under Section 226 of the Planning and Development Act, there is no mechanism in which to engage in pre-planning consultation with An Bord Pleanála prior to lodgement of the application.

The need for an EIAR for the proposed scheme was confirmed by An Bord Pleanála on 1 May 2018 when formal direction was provided to Wicklow County Council regarding the same (ABP ref: 300304).

2.8 EIA Portal

Information relating to the proposed development is available on the Department of Housing, Planning and Local Government's EIA Portal.

A copy of the confirmation notice from the EIA Portal, including the relevant Portal ID Number is included in the planning application documentation.

The portal can be accessed at:

<https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=d7d5a3d48f104ecbb206e7e5f84b71f1>

2.9 Website

The application plans and particulars, the EIAR and the NIS may be viewed or downloaded from the following website: <https://www.wicklow.ie/Living/Your-Council/Municipal-Districts/Arklow/FRS>.

3 Environmental Impact Assessment Report

3.1 Introduction

The EIAR has been prepared to provide information on the likely significant effects of the proposed development (proposed scheme) on the environment as per Schedule 6 of the Planning and Development Regulations 2001, as amended and as per Annex IV of the EIA Directive (2014/52/EU).

The EIAR has been prepared on behalf of WCC by a multi-disciplinary consultancy team of competent experts led by Arup with input from specialist sub-consultants.

3.1 Structure of EIAR

The EIAR has three volumes as follows:

- **Volume 1** provides the non-technical summary. This summarises the findings of the EIAR in a clear, accessible format that uses non-technical language and supporting graphics. The non-technical summary describes the proposed development, existing environment, effects and mitigation measures and relevant aspects of the EIAR in a manner that can be easily understood by the general public.
- **Volume 2** encompasses the main EIAR including introductory chapters in addition to ‘assessment’ chapters for each environmental aspect in accordance with Article IV of the EIA Directive. The front-end chapters (**Chapters 1 – 6**) describe the project context, the assessment chapters (**Chapters 7 -19**) provide a description of the relevant environmental aspects and likely significant effects and the findings of the assessments are summarised in the final chapters (**Chapters 20 and 21**); Figures are included within the body of each chapter or are cross referenced to the relevant Appendix.
- **Volume 3** provides the technical appendices and figures that support and are cross-referenced with Volume 2. Volume 3 consists of **three books** and includes relevant drawings, modelling outputs, background reports and/or supporting documents.

Reference should also be had to the full set of planning drawings accompanying the application for approval. A summary set of drawings in A3 format are included as an appendix to **Chapter 4, Description of the Proposed Scheme**, presented in **Appendix 4.1 (Flood Defence drawings)** and **Appendix 4.2 (Landscape Design and Public Realm drawings)**.

3.2 Statutory Requirement for EIA

The prescribed classes of development and thresholds that trigger a mandatory Environmental Impact Assessment (EIA) are set out in Schedule 5 of the Planning and Development Regulations, 2001, as amended.

A review of the classes of development (requiring EIA) was carried out to determine whether the proposed development falls into any of the development classes contained therein. The most relevant criterion is Class 10 of Part 2 of Schedule 5 which states:

10. Infrastructure projects

(f) (ii) *Canalisation and flood relief works, where the immediate contributing sub-catchment of the proposed works (i.e. the difference between the contributing catchments at the upper and lower extent of the works) would exceed 100 hectares or where more than 2 hectares of wetland would be affected or where the length of river channel on which works are proposed would be greater than 2 kilometres.*

In the case of the proposed scheme, the length of river channel on which works are proposed is under 2 kilometres and the contributing sub-catchment of the proposed works is less than 100 hectares. A section of Arklow Town Marsh will be impacted by the proposed scheme. Habitats have been classified in accordance with Fossitt¹ (Refer to **Chapter 10 Biodiversity** of the EIAR). Approximately 1.34 hectares of wetland at Arklow Town Marsh will be affected by the proposed scheme.

The proposed scheme is therefore below the thresholds for mandatory EIA. An examination was carried out to determine whether the proposed scheme would or would not, individually and in combination with other developments, be likely to have significant effects on the environment. Having regard to:

- the criteria set out in Schedule 7 of the Planning and Development Regulations 2001, as amended,
- the nature and scale of the development,
- the location of the development in the Avoca River and in Arklow Town Marsh pNHA,
- the works required to protected structure (RPS A26), Arklow Bridge (listed on the National Inventory of Architectural Heritage – Reference: 16322046).
- the potential for significant effects on the environment;

it was considered that the proposed development was likely to have significant effects on the environment and that the preparation and submission of an Environmental Impact Assessment Report (EIAR) was required.

The need for an EIAR was confirmed by An Bord Pleanála on 1 May 2018 when formal direction was provided to Wicklow County Council regarding the same. In its letter, An Bord Pleanála instructed Wicklow County Council to prepare an EIAR on the basis that the proposed scheme has the potential for significant effects on the environment (ABP ref: 300304).

¹ Fossitt, Julie A (2000). A Guide to Habitats in Ireland. The Heritage Council.

4 AA Screening and Natura Impact Statement

A Screening Statement for Appropriate Assessment (AA Screening) and a Natura Impact Assessment (NIS) have been prepared by AQUAFAC for the proposed Arklow Flood Relief Scheme and are included in the planning application. Specifically, these reports focus on the potential significant effects of the proposed scheme on European sites.

The screening exercise investigates the likelihood for the proposed development to have significant in situ and/ or ex situ effects on European sites within the Natura 2000 network.

The screening exercise by AQUAFAC has determined, in light of best available scientific data, that there is potential for significant ex-situ effects of the Arklow FRS development on a number of Species of Conservation Interest (SCI) species and their Special Protection Area sites (SPA). Therefore, a number of SPAs are screened in for further detailed consideration. The likelihood of significant in situ and ex situ effects on all other qualifying interest (QI) species and SCIs of European sites has been excluded (screened out).

Following a comprehensive evaluation of the potential direct, indirect and cumulative impacts on the SCIs in light of their Conservation Objectives, it has been concluded that the proposed development will not have an adverse effect on the integrity of the site or any other European site.

This NIS has examined and analysed, in light of the best scientific knowledge, with respect to those European sites within the Zone of Impact of the proposed development, the potential impact sources and pathways, how these could impact on the sites' SCI species and whether the predicted impacts would adversely affect the integrity of the European sites.

Mitigation measures are set out within the NIS and they ensure that any impacts on the Conservation Objectives of European sites will be avoided during the construction and operation of the proposed development such that there will be no risk of adverse effects on these European sites.

It has been objectively concluded by AQUAFAC, following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the proposed development and with the implementation of the mitigation measures proposed, that the proposed development does not pose a risk of adversely affecting (either directly or indirectly) the integrity any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

5 Summary of Consultations Undertaken

The nature, form and extent of the proposed development has been informed and guided by detailed pre-application consultation with members of the public, council members, local businesses, representative individuals and organisations and statutory bodies.

Extensive consultation has been undertaken with a range of stakeholders during the development of the EIAR and statutory consent application in order to:

- Provide information on the proposed scheme;
- Ascertain and understand the views of stakeholders; and
- Seek input from stakeholders on the design, construction and assessment aspects of the proposed scheme.

Consultation was undertaken over a number of years during the design development of the scheme with many stakeholders and the public including:

- An Bord Pleanála
- Department of Housing Local Government and Heritage
- Inland Fisheries Ireland
- Local Stakeholders
- Elected Members Engagement
- Consultations between Wicklow County Council, Office of Public Works and Irish Water
- Public Information Days
- EIA Scoping

A full description of the consultation undertaken is provided in **Chapter 1, Introduction** in Volume 1 of the Environmental Impact Assessment Report (EIAR).

6 Planning Policy Context

This section provides the details of the national, regional and local planning objectives and development policies which demonstrate that there is a supportive and consistent policy framework in place for the proposed scheme. This is also detailed in **Chapter 6, Planning and Policy** of the EIAR and has been included in this report for ease of reading.

6.1 EU Directives and Policy Guidance

6.1.1 EU ‘Floods Directive’

The EU Directive on the Assessment and Management of Flood Risks (2007/60/EC) (the ‘Floods’ Directive) was transposed into Irish law by the EU (Assessment and Management of Flood Risks) Regulations SI No. 122 of 2010. The Directive requires Member States to assess if all watercourses and coastlines are at risk from flooding, to map the flood extent, assets and humans at risk in these areas and to take adequate and co-ordinated measures to reduce this flood risk.

Implementation of the EU Floods Directive is being coordinated with the requirements of the EU Water Framework Directive and the current River Basin Management Plans. The Office of Public Works (OPW) is the national authority for the implementation of the Directive.

The design of the proposed scheme is a direct and coordinated measure proposed in line with the requirements of the Floods Directive as transposed into Irish law by SI No. 122 of 2010.

6.1.2 EU Water Framework Directive

The EU has developed the Water Framework Directive (WFD) which establishes a legislative framework for the protection of all waters including rivers, lakes, estuaries, coastal waters and groundwater, and their dependent wildlife and habitats. The WFD aims at improving the water environment in the EU and requires all Member States to protect and improve water quality in all waters so that they achieve good ecological status at a minimum by 2015 or, at the latest, by 2027. Specifically, the WFD aims to:

1. *“protect/enhance all waters (surface, ground and coastal waters);*
2. *achieve ‘good status’ for all waters by December 2015;*
3. *manage water bodies based on river basins (or catchments);*
4. *involve the public; and*
5. *streamline legislation”.*

The WFD applies to all waters including rivers, lakes, estuaries, coastal waters and groundwater, and their dependent wildlife/habitats under one piece of environmental legislation. It requires that management plans are prepared on a river basin basis through the specified structured method.

The River Basin Management Plans (RBMPs) have been prepared to protect and improve Ireland's water environment. They are reviewed and updated every six years. The first RBMPs covered the period 2009 to 2014 and identified the waterbodies that may not meet the environmental objectives of the WFD by 2015. The second RBMPs (for 2018 to 2021) were published in April 2018 and these set out the actions to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2027. Ireland's third RBMP is due to be published in December 2021 and it will run until 2027.

The proposed scheme is consistent with the EU Water Framework Directive in that measures to protect/enhance all waters have been incorporated into the design and construction of the scheme (see **Chapters 4 Description of the Proposed Scheme, 5 Construction Strategy, 14, Water, 15 Land and Soils and Chapter 15, Resource and Waste Management**) of the EIAR. The scheme will not prevent the RBMP objective of protecting/enhancing/restoring the River Avoca to *Good Status*. In addition, public consultation was held in relation to the proposed scheme on a number of occasions since 2014. Refer to **Chapter 1, Introduction of the EIAR** for more details.

6.1.3 2021 EU Strategy on Adaptation to Climate Change

The new EU Strategy on Adaptation to Climate Change is an integral part of the European Green Deal which sets out the pathway to adapt to the unavoidable impacts of climate change and become climate resilient by 2050. The Strategy has four principle objectives: to make adaptation smarter, swifter and more systemic, and to step up international action on adaptation to climate change.

Smarter adaptation: Adaptation actions must be informed by robust data and risk assessment tools that are available to all – from families building homes, businesses in coastal regions and farmers planning their crops. To achieve this, the strategy proposes actions that push the frontiers of knowledge on adaptation so that we can gather more and better data on climate-related risks and losses and enhance Climate-ADAPT as the European platform for adaptation knowledge.

Swifter adaptation: The effects of climate change are already being felt, and so we must adapt more quickly and comprehensively. The strategy therefore focuses on developing and rolling out adaptation solutions to help reduce climate-related risk, increase climate protection and safeguard the availability of fresh water.

More systemic adaptation: Climate change will have impacts at all levels of society and across all sectors of the economy, so adaptation actions must also be systemic. The Commission will continue to ensure climate resilience considerations are part of all relevant policy fields. It will support the further development and implementation of adaptation strategies and plans at all levels of governance with three cross-cutting priorities:

- integrating adaptation into macro-fiscal policy;
- nature-based solutions for adaptation; and
- local adaptation action.

Stepping up international action for climate resilience: The EU will increase support for international climate resilience and preparedness through the provision of resources, by prioritising action and increasing effectiveness, through the scaling up of international finance and through stronger global engagement and exchanges on adaptation.

The strategy's four objectives are underpinned by 14 actions and the steps to be taken to deliver them.

The European Climate Law proposes to commit the EU and its Member States to make continuous progress towards adaptive capacity, strengthen resilience and reduce vulnerability to climate change.

“The long-term vision is that in 2050, the EU will be a climate-resilient society, fully adapted to the unavoidable impacts of climate change. This means that by 2050, when we aim to have reached climate neutrality, we will have reinforced adaptive capacity and minimised vulnerability to climate impacts, in line with the Paris Agreement and the proposed European Climate Law.”

The flood relief design for the Arklow flood relief scheme (FRS) caters for the 1% Annual Exceedance Probability (AEP) fluvial flood event (also known as the 1 in 100-year fluvial flood event) and the 0.5% AEP coastal flood event (also known as the 1 in 200-year coastal flood event).

As noted in Section 4.3.4 of **Chapter 4 Description of the Proposed Scheme** of the EIAR, in the design of any FRS, it is important that flood mitigation measures are considered in the context of a long-term strategy which is flexible and adaptive to changes in climate and their potential impact on flood risk.

The recommended allowance for potential mid-range future climate change for fluvial flooding is a 20% increase in flood flow magnitude regardless of the return period. This is the general guidance adopted for both Ireland (OPW) and the UK (DEFRA 2006, EA 2011).

The recommended allowance for potential mid-range future climate change for coastal flooding is a 550mm mean sea level rise to the year 2100, which accounts for a 500mm increase in mean sea level and 50mm increase for isostatic land movement adjustment.

To allow for future climate change adaptability, the hard flood defences (flood defence walls and embankment) of the proposed Arklow FRS have been designed to facilitate future increases in their heights without imposing a significant impact on environmental and landscape features.

Thus, the proposed scheme provides protective infrastructure which allows for future climate change adaptability, ensuring climate resilience and compliance with the new EU Strategy on Adaptation to Climate Change.

6.2 National Policy Guidance

6.2.1 National Flood Policy

The National Flood Policy was adopted by the Government in 2004 after an inter-departmental review on how to manage flood risk most effectively and efficiently. The National Flood Policy builds on the Arterial Drainage (Amendment) Act 1995, which permits the OPW to implement localised flood relief schemes, by identifying that the OPW is the lead agency coordinating the management of flood risk in Ireland.

The National Flood Policy identifies that *‘the flooding problem cannot be eliminated but can be managed so as to minimise its impact’* and that there are *‘a considerable number of heavily populated urban centres that are currently at risk of flooding and where flood defence may be the only feasible solution’*. The National Floods Policy generally advocates for sustainable flood prevention, mitigation and protection in areas of flood risk.

The town of Arklow has, for many years, experienced recurring flooding problems that have caused widespread damage to public and private property. Arklow is at risk from recurring and, having regard to current climate change predictions, potentially worsening flood events in the future.

Without intervention, Arklow faces the continued onset of a range of issues associated with flooding including flood damages, extensive community disruption, health and safety issues and development restrictions.

The proposed scheme is consistent with the National Flood Policy as the OPW would reduce exposure to flood risk and provide appropriate flood protection and mitigation for the most vulnerable areas of Arklow Town.

6.2.2 Ireland 2040 Plan: National Planning Framework

In 2019, the Department of Housing, Planning, Community and Local Government published the Ireland 2040 Plan: National Planning Framework (NPF) which replaces the National Spatial Strategy. The NPF is a high-level document that provides the framework for future development and investment in Ireland.

The NPF is the overarching document guiding regional and local development plans. The NPF supports the provision of infrastructure, services and amenities and advocates for the delivery of ‘must have’ physical infrastructure that defines quality of life and personal wellbeing.

The proposed scheme is in accordance with the objectives of the NPF by providing physical infrastructure that would mitigate flood risk for the residents and businesses therefore improving quality of life and wellbeing in Arklow Town.

6.2.3 Draft National Marine Planning Framework

The Government published a draft of Ireland's first national framework for managing marine activities, National Marine Planning Framework (NMPF), in November 2019, which is due to be adopted by April 2021. The Draft NMPF is Ireland's first plan for more sustainable, effective management of marine activities and will inform the Government's objectives and priorities.

This will guide decision makers, users and stakeholders towards more strategic, plan-led and efficient use of marine resources, including taking the appropriate measures to allow for coastal change.

“Climate change is expected to alter patterns in storm surges, sea level rise, and floods that can all play a part in coastal change. In identifying measures in relation to proposals and coastal change, the most recent reports, strategies and policies made available by the OPW should be accounted for as well as relevant material available through local public bodies e.g. Local Authorities.”

The Draft NMPF highlights the key issues facing marine planning and the appropriate solutions including the following -

“Proposals should demonstrate that they are resilient to the effects of climate change for the lifetime of the proposal. Proposals that are likely to be at risk from climate change and do not include appropriate adaptation measures to make them resilient, should identify existing measures such as flood defences, providing resilience to any adverse impacts of climate change.”

The flood relief design for the Arklow flood relief scheme (FRS) caters for the 1% Annual Exceedance Probability (AEP) fluvial flood event (also known as the 1 in 100-year fluvial flood event) and the 0.5% AEP coastal flood event (also known as the 1 in 200-year coastal flood event). To allow for future climate change adaptability, the hard flood defences (flood defence walls and embankment) of the proposed Arklow FRS have been designed to facilitate future increases in their heights without imposing a significant impact on environmental and landscape features.

Thus, the proposed scheme is consistent with the above policy set out in the Draft NMPF as it will provide protective infrastructure which allows for future climate change adaptability, ensuring climate resilience.

The existing flood risk in Arklow affects future development and expansion in the area. The risk of recurrent flooding in Arklow influences the type and extent of development which is permitted in areas vulnerable to flood events. As the proposed FRS seeks to reduce the risk of flooding in Arklow, there is potential for increased development opportunities in the area. Thus, the proposed scheme is compliant with the above policy set out in the Draft NMPF by providing flood defence infrastructure which will allow increased development opportunities in the Arklow town area.

6.2.4 Climate Action Plan 2019 and the Climate Action and Low Carbon Development Bill 2020

The Government of Ireland's Climate Action Plan was published in 2019. It commits to achieving a net zero carbon energy systems objective for Ireland. The plan sets out a detailed sectoral roadmap to deliver a cumulative reduction in emissions.

The Climate Action Plan outlines the importance of climate adaptation in the form of flood defences.

“In this regard, early adaptation planning for the impacts of climate change makes economic sense. Figures compiled by the OPW estimate the current cost of a 1 in 10 year flood event in Limerick City at around €4 million. Under a medium emission future scenario this figure rises to €117 million. Under a high emissions future scenario this figure rises again to €358 million. These figures are even higher for 1 in 100 and 1 in 1000 year floods.”

As noted previously, in order to allow for future climate change adaptability, the hard flood defences (flood defence walls and embankment) of the proposed Arklow FRS have been designed to facilitate future increases in their heights without imposing a significant impact on environmental and landscape features. Thus, the proposed scheme meets the climate adaptation objectives of the Climate Action Plan by ensuring climate resilience and adaptability in the form of flood defences.

The Climate Action and Low Carbon Development Bill 2020 was published by government in October 2020 and updated in March 2021. The Bill sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050. The Bill provides for the preparation of Sectoral Plans which will specify policies to reduce greenhouse gas emissions for each sector.

In October 2014, the European Council reached political agreement on headline greenhouse gas emissions reduction targets in the context of the 2030 Climate and Energy Framework². An overall EU reduction of at least 40% in greenhouse gas emissions by 2030 compared to 1990 levels is to be delivered collectively by the EU.

Ireland's 2030 target is to achieve a 30% reduction of non-Emissions Trading Scheme sector emissions on 2005 levels with annual binding limits set for each year over the period 2021-2030.

The EU ETS is implemented in Ireland under S.I. 490 of 2012³ and amendments and S.I. No. 261 of 2010 and amendments. The legislative framework of the EU ETS was revised in 2018 to enable it to achieve the EU's 2030 emission reduction targets in line with the 2030 Climate and Energy Policy Framework and as part of the EU's contribution to the 2015 Paris Agreement⁴.

² European Commission, 2013. 2030 Climate & Energy Framework

³ Irish Statute Book. 2012. EC Greenhouse Gas Emissions Trading Regulations

⁴ Paris Agreement, 2015. https://ec.europa.eu/clima/policies/international/negotiations/paris_en

The estimated carbon footprint of the proposed scheme has been calculated and presented in **Chapter 19 Climate** of the EIAR. The effects on carbon emissions from the proposed scheme are considered to be slight, negative and long-term. As improvements in sustainability and recycling measures are progressed throughout the construction industry, it is expected that the embodied carbon calculated as part of this assessment can be taken as a worst case, as with time this figure will reduce.

The proposed development will also improve the following aspects: tangible and intangible flood damages, financial loss, extensive community disruption, health and safety issues and development restrictions.

Thus, the proposed scheme is in compliance with the Climate Action Plan 2019 and Climate Action and Low Carbon Development Bill 2020.

6.2.5 National Development Plan

The National Development Plan 2018 – 2027 (NDP) was published in conjunction with the NPF in February 2018. The NDP is the national plan setting out investment priorities to guide national, regional and local planning and investment decisions.

The National Development Plan is a high-level financial and budgetary framework, which sets out the framework and broad direction for investment priorities over the period 2018 to 2027. This includes expenditure commitments to secure a wide range of Strategic Investment Priorities which have been determined by the relevant Departments as central to the delivery of the NPF vision. Under the national Strategic Outcome 8: *Transition to a Low-Carbon and Climate-Resilient Society*, the NDP allocated some €940 million to Flood Defence and outlines a number of investment actions relating to flood risk management.

As outlined in the NDP, the Government is committed to the policy objective of delivering further capital works/flood relief schemes to minimise the impacts of river and coastal flooding on society through the roll-out of 29 Flood Risk Management Plans.

Investment of €350 million since 1995 has already delivered 42 major flood relief schemes around the country that are providing protection to 9,500 properties and an economic benefit to the State in damage and losses avoided estimated at €1.9 billion. €430 million has been allocated for flood mitigation initiatives over the period 2016 to 2021 to protect threatened communities from river and coastal flood risk. This funding is supporting the development and implementation of a significant existing flood relief investment programme which includes eight major flood relief schemes under construction and 26 schemes under design and at planning to protect 11,200 properties.

The proposed scheme is consistent with the objectives of the NDP through the fulfilment of a flood relief scheme to Arklow town which will minimise the impacts of river and coastal flooding in the area.

6.2.6 National Adaptation Framework (2018)

Ireland's National Adaptation Framework (NAF), Planning for a Climate Resilient Ireland, was prepared in accordance with the Climate Action and Low Carbon Development Act (S.I. No. 46 of 2015).

The NAF sets the context to ensure mitigation and adaptation are mainstreamed into local, regional and national planning and policy making, and will be reviewed every five years. Under the NAF, sectors and lead Government departments, as well as local authorities, are required to prepare statutory sectoral adaptation plans (Refer to **Section 6.3.7 below** 'Flood Risk Management Climate Change Sectoral Adaptation Plan'.)

Guidelines for preparation of these adaptation plans have been published by the Department of Communications, Climate Action & Environment Under the NAF.

6.2.7 Flood Risk Management Climate Change Sectoral Adaptation Plan

The first Climate Change Sectoral Adaptation Plan for Flood Risk Management was produced by the OPW in 2015 under the mandate of the National Climate Change Adaptation Framework (DECLG 2012). The Flood Risk Management Climate Change Sectoral Adaptation Plan has been prepared under the National Adaptation Framework (DCCAE, 2018), and updates the 2015 Plan taking into account new information available on climate change and its potential impacts, developments in flood risk management since 2015 and the Guidelines for the preparation of the Sectoral Adaptation Plans (DCCAE, 2018).

This Climate Change Sectoral Adaptation Plan for Flood Risk Management considers the impacts of climate change on flooding and flood risk, as well as on flood risk management, and identifies 21 adaptation actions needed to ensure effective and sustainable management of flood risk into the future. These actions include ongoing research and assessment of the potential impacts of climate change for flooding and flood risk, the consideration of these impacts in the development and implementation of ongoing and future flood risk management measures, and coordination with other sectors and local authorities as part of a whole of Government approach to sustainable and effective flood risk management.

The proposed Arklow FRS is in accordance with the Flood Risk Management Climate Change Sectoral Adaptation Plan as it has been designed having due regard to climate change projections. To allow for future climate change adaptability, the hard flood defences (flood defence walls and embankment) of the proposed Arklow FRS have been designed to facilitate future increases in their heights without imposing a significant impact on environmental and landscape features. As outlined in the Flood Risk Management Climate Change Sectoral Adaptation Plan, *“as flood relief schemes are based on structural works, it is more efficient to plan for adaptation at the design stage, rather than to attempt to retrofit adaptation once the scheme has been built”*.

6.2.8 Programme for Government 2020: Our Shared Future

Initially drafted in April 2020 and adopted in June, the PfG outlines plans to implement climate adaptation measures to ensure that the State helps protect people from the effects of climate change in Ireland including limiting damage. These measures will continue to build upon the National Adaptation Framework (NAF), as outlined in **Section 6.2.6** above.

“We will ensure that each Sectoral Adaptation Plan identifies the key risks faced across each sector and the approach being taken to address these risks and build climate resilience for the future. We will maintain a multi-annual investment programme in flood relief measures to protect communities.”

The proposed scheme aligns with the actions and targets set out in the PfG by providing necessary infrastructure to protect against flooding.

6.3 Regional Policy Guidance

6.3.1 Regional Planning Guidelines for the Greater Dublin Area 2010-2022

The Regional Planning Guidelines for the Greater Dublin Area 2010 - 2022 (Regional Planning Guidelines) set out the strategic policy for Dublin and the mid-east region (including Wicklow) over the twelve-year period to 2022. They provide a regional context to the National Spatial Strategy (the precursor to the National Planning Framework) and the individual development plans contained within the Greater Dublin Area (GDA).

The Regional Planning Guidelines effectively implement the National Spatial Strategy, whilst providing more detail and establishing a regional development and spatial framework that can be used to strengthen local authority development plans and other planning strategies at county, city and local level. The Regional Planning Guidelines prioritises value for money strategic state investments and a coordinated approach with Government agencies, departments and stakeholders.

“Flooding events, whether widespread or extremely localised, can cause serious damage to key infrastructure (e.g. power stations, sub-stations, communication hubs, wastewater treatment plants etc.). The cost of such disruption is significant to business, causes hardship to residents and also can place people in at risk situations.”

The Regional Planning Guidelines set out strategic policies and recommendations in relation to managing flood risk, including:

“FPI That flood risk be managed pro-actively at all stages in the planning process avoiding development in flood risk areas where possible and by reducing the risks of flooding to and from existing and future development.”

The Regional Planning Guidelines highlight the flood risk associated with growth towns in the settlement and economic hierarchy, as emerging from the Catchment Flood Risk Assessment and Management (CFRAM) studies.

Arklow is designated as a Large Growth Town II in the Hinterland Area, defined as smaller in scale (than Large Growth Towns II) but a strong active growth town, economically vibrant with high quality transport links to larger towns/city. Other strategic recommendations in the Regional Planning Guidelines of relevance include:

“PIR25 That reinforcements and new infrastructure are put in place by the key agencies, and their provision is supported in Local Authority policies, to ensure the energy needs of future population and economic expansion within designated growth areas and across the GDA can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.”

The proposed scheme complies with the strategic objectives and recommendations of the Regional Planning Guidelines regarding the need for investment in resilient infrastructure and flood protection in order to support the delivery of the economic and settlement strategies. Arklow is a key growth town in the GDA, and investment in its infrastructure is critical to realise the overall strategy for development in the region. The proposed scheme will therefore facilitate the expansion and growth envisioned in the Regional Planning Guidelines.

6.3.2 Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031

The Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031 (RSES) is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. At this strategic level it provides a framework for investment to better manage spatial planning and economic development to sustainably grow the Eastern and Midlands Region to 2031 and beyond.

The RSES is a significant evolution of regional policy making and replaces the RPGs, which provided strategic policy and recommendations at a regional level with which both county and city development plans have to be consistent in policy making.

The principal statutory purpose of the RSES is to support the implementation of Project Ireland 2040 – NPF and National Development Plan 2019-2027 and the economic policies of the Government by providing a long-term strategic planning and economic framework for the development of the Eastern and Midlands Region.

The RSES sets out the following Regional Policy Objectives with regards flooding:

RPO 7.12: Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SuDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.

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

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

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

The proposed scheme is compliant with the policy objectives of the RSES in that WCC, in conjunction with the OPW, propose to implement flood relief measures to reduce the risk of flooding in Arklow. Measures to protect environmentally sensitive sites and habitats such as the Avoca river itself and the Arklow Town Marsh pNHA have been incorporated into the design and construction of the scheme (see **Chapters 4 Description of the Proposed Scheme, 5 Construction Strategy, 10 Biodiversity, 12 Landscape and Visual, 14, Water, and 15 Land and Soils** of the EIAR).

6.3.3 Wicklow County Development Plan 2016 – 2022

The proposed development is within the administrative area of Wicklow County Council, and development is guided by the Wicklow County Development Plan 2016-2022, (WCDP).

The Wicklow County Development Plan 2016 – 2022 (County Development Plan) sets the overall strategy for planning and sustainable development within the administrative boundaries of County Wicklow. The County Development Plan provides development objectives for the area and provides key parameters that is required to be implemented through local planning policy.

The WCDP ‘Core Strategy’ and ‘Settlement Strategy’ identify Arklow town as a ‘Level 3 – Large Growth Town II’ within the hinterland area of Dublin. Level 3 settlements in County Wicklow are prioritised to accommodate a large amount of population growth, to be strong active towns that are economically vibrant with high quality transport links to larger towns/cities.

The County Development Plan recognises the importance of rivers and identifies that flooding and flood risk is an issue for the county and Arklow Town. The County Development Plan generally advocates for appropriate flood risk management, and sets out the following objectives in support of the same:

“FL1 to prepare new or update existing flood risk assessments and flood zone maps for all zoned lands within the County as part of the review process for Local Area Plans, zoning variations and Town Plans, where considered necessary.

FL2 To implement the ‘Guidelines on the Planning System and Flood Risk Management’ (DoEHLG/OPW, 2009).

*FL3 The zoning of land that has been identified as being at a high or moderate flood risk (flood zone A or B) shall be in accordance with the requirements of the Flood Risk Guidelines and in particular the 'justification test for development plans' (as set out in **Section 4.23** and Box 4.1 of the guidelines).*

FL4 Applications for new developments or significant alterations/extension to existing developments in a flood risk area shall comply with the following:

Follow the 'sequential approach' as set out in the Flood Risk Guidelines.

Flood risk assessments will be required with all planning applications proposed in areas identified as having a flood risk, to ensure that the development itself is not at risk of flooding and the development does not increase the flood risk in the relevant catchment (both up and down stream of the application site).

Where a development is proposed in an area identified as being at low or no risk of flooding, where the planning authority is of the opinion that flood risk may arise or new information has come to light that may alter the flood designation of the land, an appropriate flood risk assessment may be required to be submitted by an applicant for planning permission.

*Restrict the types of development permitted in Flood Zone A and Flood Zone B to that are 'appropriate' to each flood zone, as set out in **Table 3.2** of the guidelines for Flood Risk Management (DoEHLG/OPW, 2009).*

*Developments that are an 'inappropriate' use for a flood zone area, as set out in **Table 3.2** of the guidelines, will not be permitted, except where a proposal complies with the 'Justification Test for Development Management', as set out in Box 5.1 of the Guidelines.*

Flood Risk Assessments shall be in accordance with the requirements set out in the Guidelines.

Generally a Flood Impact Assessment will be required with all significant developments and a certificate (from a competent person stating that the development will not contribute to flooding within the relevant catchment) will be required with all small developments of areas of 1 hectare or less.

FL5 To prohibit development in river flood plains or other areas known to provide natural attenuation for floodwaters except where the development can clearly be justified with the Flood Risk Guidelines 'Justification test'.

FL6 To limit or break up large areas of hard surfacing in new developments and to require all surface car parks to integrate permeability measures such as permeable paving.

FL7 Excessive hard surfacing shall not be permitted for new, or extensions to, residential or commercial developments and all applications will be required to show that sustainable drainage techniques have been employed in the design of the development.

FL8 To require all new developments to include proposals to deal with rain and surface water collected on site and where deemed necessary, to integrate attenuation and SUDS measures.

FL9 For developments adjacent to all watercourses of a significant conveyance capacity or where it is necessary to maintain the ecological or environmental quality of the watercourse, any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/maintenance / vegetation. A minimum setback of up to 10m (or other width, as determined by the Council) will be required either side depending on the width of the watercourse and identifies that the OPW are the lead agency responsible for advising and coordinating flood risk and management initiatives.”

As outlined in Section 9.2.1 of the County Development Plan, it is the Strategy of Wicklow County Council, with regards water infrastructure and flooding, “to assist the Office of Public Works through the implementation of measures capable of managing and mitigating against the consequences of flooding in all areas.”

The WCCDP, Appendix 5, Landscape Assessment, identifies a hierarchy of 6 distinct Landscape Categories throughout the County and within those, 15 Landscape Character Areas (LCAs).

The proposed development is within Landscape Category No. 6, or Urban Area, that applies to all settlements of Level 1-6 defined in the Wicklow Settlement Hierarchy. Section 4.5.6 of the WCCDP Landscape Assessment state that ‘*In terms of landscape classification, these settlements have already been deemed suitable for development (of the type allowed by the settlement strategy and the development standards of this plan) and the impacts on the wider landscape of such development has already been deemed acceptable*’. Table 1 describes the characteristics of Urban Areas ‘*As per the provision of the County Development Plan and the provisions of any Local Area, Town or Settlement plan for each area.*’

Thus, the proposed scheme is consistent with the County Development Plan as it would mitigate against flood risk for the residents and businesses in Arklow Town and therefore support economic growth, protecting the quality of the natural environment and ensuring the provision of necessary infrastructure.

6.3.4 Wicklow County Council Climate Adaptation Strategy

This Wicklow County Council Climate Change Adaptation Strategy forms part of the National Adaptation Framework (NAF) which was published in response to the provisions of the Climate Action and Low Carbon Development Act 2015.

As the level of government closest to local communities and enterprise and as first responders in many emergencies, Wicklow County Council are uniquely placed to effect real positive change with respect to delivery of the national transition objective to a low carbon and a climate resilience future.

The local authority adaptation strategy takes on the role as the primary instrument at local level to:

- ensure a proper comprehension of the key risks and vulnerabilities of climate change bring forward the implementation of climate resilient actions in a planned and proactive manner ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of the local authority.

In accordance with the provisions of the Climate Action and Low Carbon Development Act 2015, the Adaptation Strategy was adopted by members of Wicklow County Council in 2019.

The Adaptation Strategy is based around six thematic areas that are developed further as High Levels Goals. These goals identify the desired outcomes anticipated through the effective implementation of the Adaptation Strategy. These goals are supported by specific objectives and adaptation actions to achieve their desired outcomes.

The proposed scheme will assist in enabling the delivery of the Adaptations strategy in that it is considered to be compliant with the following objectives and actions outlined in the Adaptation Strategy:

(Theme 2) Objective: *“To ensure and increase the resilience of infrastructural assets and inform investment decisions”*

Action 2.4: *“Integrate climate considerations into the design, planning and construction of multilevel developments to take account of predicted flood events.”*

6.4 Local Policy Guidance

6.4.1 Arklow & Environs Local Area Plan 2018- 2024

The County Development Plan refers to the Arklow and Environs Local Area Plan 2018-2024 (Arklow LAP) for specific objectives and policies.

The purpose of the Arklow and Environs Local Area Plan (LAP) is to put in place a land use framework that will guide the future sustainable development of the settlement of Arklow town and its environs for the 2018-2024 period.

The Arklow LAP sets out the overall development strategy for the development of Arklow and its Environs of the Plan period. The proposed scheme aligns with both the infrastructure and waterfront strategies for Arklow.

The overall infrastructure strategy for Arklow, as outlined in the LAP, sets out the council’s intention to *“assist the Office of Public Works through the implementation of measures capable of managing and mitigating against the consequences of flooding.”*

The delivery of the proposed flood relief scheme will significantly improve the impacts of recurrent flooding events which have caused widespread damage to public and private property in Arklow and will deliver increased resilience for potentially worsening flood events in the future.

Further, the overall waterfront strategy for Arklow, as outlined in the LAP, sets out the council's intention to *“facilitate the existing and future sustainable economic development of the area and associated activity, whilst allowing for expansion and improvement of amenity and recreational opportunities, for the development of a wider mix of uses including residential, retail / commercial, maritime, tourism and community uses, and providing for a high level of protection of the environment and natural assets such as the beach, river and sea.”*

Without intervention, Arklow faces the continued onset of a range of issues associated with flooding including flood damages, extensive community disruption and health and safety issues. Further, the existing flood risk in Arklow continues to influence the nature, scale and extent of development in the area. The delivery of the proposed flood relief scheme will assist the council to facilitate existing and future sustainable economic development of the area and associated activity.

With regards Arklow's Waterfront, the LAP also states that: *“the waterfront should be effectively celebrated through increased access, the design of good buildings and public spaces, and the increased usage of its shoreline and adjacent areas for leisure and cultural purposes. Public realm can have a central role to play in this process by raising the level of environmental quality in the area and creating the context for new, more appropriate seafront development in the future. To attract visitors and maximise the value that the waterfront can bring to the town, it is essential that the quality of the public realm in the waterfront area is as high as possible. At present, public spaces associated with the waterfront are relatively limited to open grass, concrete paths and roads. In addition, the historic development of Arklow has meant that relatively few buildings face onto the river and seafront, meaning that somewhat ironically, it can feel as though the sea and river is at the back of the town, rather than the front. Significant investment has been undertaken in recent years to the public realm along the quays in the form of footpath and road improvements which greatly enhance the overall appearance and recreational utility of the area. It is important to ensure that any new activities or structures are appropriately controlled / designed to further enhance the area.”*

The proposed scheme is therefore consistent with the overall development strategy of the Arklow Town and Environs LAP as it would provide the necessary infrastructure capable of managing and mitigating against the consequences of flooding, and that it will facilitate future development at the waterfront that is currently hindered by the recurring flooding issues in the area. The public realm improvements proposed as part of the FRS along River Walk and South Quay will considerably improve the quality of the public realm and will greatly enhance the overall appearance and recreational utility of the area.

The LAP indicates the development objectives which set out where land is to be developed and for what purposes (e.g. housing, shopping, employment, etc), objectives for phased development, community facilities and services, infrastructure and amenities and the protection of the built and natural environment.

The key landscape and visual objectives from the Arklow LAP includes Town Centre Objectives VP2 and VP9 which promotes better pedestrian linkages along the river, the coast and the main street; VP10 which seeks to maintain the existing bandstand and Seafarers Memorial Garden and promotes opportunity for new urban spaces, and VP11 to improve footpaths, lighting, seating and other street ‘furniture’ as funding allows, and require private development providing such features to meet the highest standards of design and siting in the town centre and waterfront zones.

The LAP includes a vision for the waterfront area to continue to sustainably develop as an active port alongside the development of its recreational potential and to encourage the redevelopment of the waterfront as a residential and mixed use extension of the existing town. The importance of connections between the town centre and waterfront is noted in order to maximise their collective asset value without compromising their historical and environmental amenity. The LAP sets out a number of objectives relating to waterfront development in Arklow, including:

“WZ3 to support existing and proposed water related and maritime activities in the Waterfront Zone including sailing, fishing, other water sports and commercial shipping activities, including the development of jetties, marinas and other support infrastructure

WZ5 To support and facilitate maritime activity and to encourage new developments that provide for an improved mix of uses including commercial, retail and residential uses and to particularly encourage tourism and leisure related developments.

Waterfront Objectives include WZ6 to require any new developments in the Waterfront Zone to meet a high standard of design that respects the unique historical, environmental, visual and recreational amenities of the area; WZ7 to support and facilitate the development of new infrastructure necessary for the continued operation and development of the harbour; WZ10 to ensure that access to the water, such as steps / slipways / river/ beaches etc are maintained and improved; and WZ12 to ensure that any development projects in and around the Arklow quays preserve and enhance any valuable structures or items of Arklow’s maritime heritage.

WZ6 To require any new developments in the Waterfront Zone to meet a high standard of design that respects the unique historical, environmental, visual and recreational amenities of the area.

WZ7 To support and facilitate the development of new infrastructure necessary for the continued operation and development of the harbour.

WZ10 To ensure that access to the water, such as steps / slipways / river/ beaches etc are maintained and improved.

WZ12 To ensure that any development projects in and around the Arklow quays preserve and enhance any valuable structures or items of Arklow's maritime heritage."

The importance of the Avoca River, its associated bridge, quays, navigation features, and riverside areas, which includes the 'Seafarers Memorial Garden' on South Quay, and the coastal waterfront to the east of Arklow are also identified as important amenity, heritage, recreational and tourism assets, which can be further improved through future enhancements.

Tourism and Recreation Objectives include TR2 to support and facilitate, in co-operation with relevant bodies and landowners, the provision of tourism amenity routes around the town; and TR6 that promotes and encourages the recreational use of the coastline and the river, and that proposals respect the natural amenity and character of the area, and listed views and prospects to and from the area. There are no designated views and prospects within Arklow town.

Heritage Objectives include HT1 to maintain the favourable conservation status of all proposed and future Natural Heritage Areas (NHAs) in the plan area in particular the Arklow Town Marsh and to support environmentally sensitive measures to enhance the understanding and enjoyment of such natural areas; HT3 to protect and enhance the character, setting and environmental quality of natural, architectural and archaeological heritage, and in particular those features of the natural landscape and built structures that contribute to its special interest.

The natural, architectural and archaeological heritage of the area shall be protected in accordance with the objectives set out in the Wicklow County Development Plan; HT4 to consolidate and safeguard the historical and architectural character of Arklow town centre through the protection of individual buildings, structures, shopfronts and elements of the public realm that are of architectural merit and/or contribute greatly to this character; and, HT9 to maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Arklow and Environs.

The key benefit of the proposed flood relief scheme will be to provide much needed flood protection to existing homes and businesses in Arklow town. This positive benefit will also extend to future developments and new infrastructure in Arklow town. Conservation engineering solutions have been incorporated throughout the design process, including the design of the quay walls and the works to Arklow bridge etc to ensure the unique maritime heritage of Arklow is respected and enhanced. Measures to protect environmentally sensitive sites and habitats such as the Avoca river itself and the Arklow Town Marsh pNHA have been incorporated into the design and construction of the scheme.

While it is acknowledged that, following construction of the proposed scheme, access to the Avoca River may be restricted at certain locations such as the public slip at the Dock, any removal or restriction of access to the river was considered integral to the design and implementation of the flood relief scheme.

It should finally be noted that the future development of the proposed scheme is also acknowledged in Chapter 9 of the LAP, *“Wicklow County Council in conjunction with the Office of Public Works are also in the process of preparing the Avoca River (Arklow) Flood Defence Scheme with proposals to construct comprehensive flood defences.”*

6.4.2 Conclusion

EU and national policy and climate adaptation plans, discussed above, identify the need to ensure resilient infrastructure in Ireland as a key requirement to facilitate further growth and expansion, including adequate protection against flooding. The proposed scheme will provide appropriate protection in Arklow, a key growth area, which will allow for economic development and further expansion in the area, as set out in local and national plans. The key benefit of the proposed flood relief scheme will be to provide much needed flood protection to existing homes and businesses in Arklow town. The public realm along River Walk and South Quay will be considerably improved. These positive benefits will also extend to future developments and new infrastructure in Arklow town.

7 Conclusion

This application seeks approval from An Bord Pleanála for the proposed Arklow Flood Relief Scheme.

Arklow town has, for many years, experienced recurring flooding problems that have caused widespread damage to public and private property that urgently needs to be addressed. The flood risk in Arklow may also increase in the future, due to a range of factors, including climate change, sediment transport, erosion, development within the catchment of Avoca River and its tributaries, and changes in land use and drainage. Without intervention to address fluvial and tidal flooding, Arklow faces the continued onset of a range of issues associated with flooding.

If approved, the flood scheme will provide flood defence measures to protect Arklow from a 1 in 100-year flood event from the Avoca River (fluvial) as well as 1 in 200-year tidal flood event. This will help support the environmental, social and economic development of Arklow.

The proposed scheme has been assessed in detail and is considered to be appropriate for its location, having regard to National, Regional and Local Planning Policy and Land Use Zoning Objectives.

In addition, the nature, form and extent of the proposed development has been informed and guided by detailed pre-application consultation with members of the public, council members, local businesses, representative individuals and organisations and statutory bodies.

The project steering group consisting of Wicklow County Council, the Office of Public Works, Byrne Looby and Arup are satisfied that the flood relief scheme now being brought forward has been the subject of rigorous assessment and consideration of all of the necessary requirements, constraints, objectives and opportunities and represents a high quality design which is the optimum solution in terms of integrated and holistic flood protection.

The Office of Public Works has confirmed funding for the project is approved in principle and set out in the spending estimates for the coming years.

For the reasons highlighted above, and as further evidenced in the planning drawings, EIAR, NIS, along with other supporting plans and particulars forming part of this application, approval is now sought from An Bord Pleanála.