



An  
Bord  
Pleanála

## Inspector's Report

**ABP-310368-21**

**ABP-310377-21**

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### Development

Arklow Flood Relief Scheme

### Location

Arklow, Co. Wicklow

### Planning Authority

Wicklow County Council

### Applicant(s)

Wicklow County Council

### Type of Application

Approval under Section 216 and 226 of the Planning & Development Act, 2000 (as amended).

### Submissions:

#### Prescribed Bodies

Inland Fisheries Ireland

Geological Survey Ireland

Transport Infrastructure Ireland

Irish Water

HSE

NPWS

An Taisce

**Public representatives**

Jennifer Whitmore, TD

Steven Matthews, TD

Councillor Peir Leonard

**Interest & business groups**

Save Maritime Arklow Group

Arklow Rowing Club

Arklow Sea Scout Centre

Arklow Marine Services

Arklow Marina Ltd.

***Local residents***

Con Nyhan (Ferrybank, Seaview  
Avenue Resident's Association)

Proinseas O'Broinn

Johnathan O'Toole

Deirdre Burke & Others

Elizabeth & Nicola Kenny

Christine McElheron

Peir Leonard

Patrick & Patricia Ivory

Cornelius Young & Others

**CPO Objectors:**

Patrick & Patricia Ivory

Proinseas O'Broinn

Crag Digital Avoca Ltd.

Estate of Malachy Mc Daniel Stone

Elizabeth & Nicola Kenny

Christine McElheron

**Date of CPO Oral Hearing**

19<sup>th</sup> & 20<sup>th</sup> January 2022 (CPO)

**Date of Site Inspection:**

19<sup>th</sup> November 2021

**Inspector:**

**Karla Mc Bride**

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## **1.0 INTRODUCTION**

### **1.1 Introduction**

Wicklow County Council proposes to implement a flood relief scheme in Arklow town under section 226 (1) of the Planning and Development Act (as amended), and to compulsorily acquire the necessary lands to implement the scheme under Section 216 of the Planning and Development Act 2000 (as amended). The proposed scheme and associated public realm works would be located along and in the vicinity of the Avoca River, and it would extend upstream and downstream of Arklow Bridge and into Arklow Town Marsh to the NW.

### **1.2 Project Background**

Wicklow County Council sought a direction from the Board as to whether or not the proposed Arklow Flood Relief Scheme, which would be undertaken to alleviate flooding in the low-lying parts of the town, would require an Environmental Impact Assessment (ABP-300304-17).

The Board determined under Article 120(3)(a) of the Planning and Development Regulations, 2001 (as amended) that due to its nature and the characteristics of the receiving environment, the proposed development is likely to have significant impacts on the environment and therefore an EIA should be carried out. The Board's decision specifically referenced the cultural and environmental sensitivities of the receiving environment in the vicinity of the proposed scheme, with particular reference to potential for changes to the hydrology of Arklow Town Marsh pNHA, works to Arklow Bridge which is a protected structure and the potential to encounter contaminated materials, as well as cumulative impacts arising from the construction of the Arklow Wastewater Treatment Plant WwTP).

This application comprises the proposed development of the Arklow Flood Relief Scheme (ABP-310368-21) and the Compulsory Purchase of the lands required to implement the scheme (ABP-310377-21).

### 1.3 Site Location and Description

The site is located in Arklow County Wicklow and the surrounding area comprises a mix of residential, commercial, industrial, community, amenity and maritime uses in addition to riparian, marsh and coastal areas. The site extends W and E along the Avoca River along the North and South Quays, both upstream and downstream of Arklow Bridge, N into Arklow Marsh and an area of backland adjacent the Dublin Road at Ferrybank, and SE along the coast at South Beach. The N and S parts of the town along the river are defined by a diverse range of buildings and structures.

**Ferrybank** is separated from the traditional main street of Arklow by the Arklow Bridge. The recently constructed Bridgewater Shopping Centre is located to the NE of the bridge on North Quay. The NW part of the site at Ferrybank, which comprises a mix of backland and marshland areas, is bound to the E by a variety of mainly 2-storey houses, commercial and community buildings along the Dublin Road, to the W by Arklow Town Marsh, and to the S by the Avoca River. The NE side of the river contains a range of modern commercial and residential developments as well as industrial and port related uses adjacent the coast. The Old Wallboard site to the E is currently being developed for an Irish Water WwTP.

**Arklow Bridge** is a wide and ancient stone arch bridge, which is widely visible and an attractive element in the expansive river views from both sides of the river. There is a small roundabout which regulates traffic at the N junction of the bridge and the E side of Ferrybank. A mixed one-way and two-way system operates at the S side of the river along South Quay, with a one-way system through the town centre.

**River Walk** extends W along the S side of the river and it transitions into a more natural area that is characterised by riparian vegetation. The environs comprise several buildings, car parking, the walkway and an amenity area. The E section close to Arklow Bridge comprises a mix of mainly 2-storey commercial and residential development, on-street car parking spaces, and a public car park which is accessed off the main street to the S. Both Arklow Town Marsh and Arklow Bridge are highly visible from River Walk and there are clear views upstream along the Avoca River.



**South Quay** extends E along the S side of the river it is made up of a mix of terraced and semi-detached two-storey mainly residential development, with industrial and marine related uses in the vicinity of the Harbour Dock. The river - land interface along South Quay is defined by a mix of quay walls of varying heights and ages, intermittent slipways, maritime bollards, an amenity area, and a green open space.

**Harbour Dock** is characterised by a mix of industrial and maritime uses, slipways and community uses (incl. Arklow Rowing Club, Sea Scouts, Seafarers Memorial Garden & Lifeboat building). There is a large development site to the immediate S of the Dock area which is the subject of a current planning application for a residential scheme, and the site of the original Arklow Pottery is located in the SE corner of the docks. Vacant industrial buildings extend S from the docks along South Beach Road to South Beach and its associated amenity car parks and the Arklow Golf Club is located to the E of the beach. Roadstone Quarry is further along the coastline to the S, and there is an existing coastal revetment along the access road.

**Avoca river** is mainly defined on both sides by solid quay walls and there are a few significant features of heritage interest at both quays. These include Tyrells Slipway to the E which is associated with an historic boatyard and the remnants of the Coal Quay to the immediate E of Arklow Bridge. There are two small docks for boats, one at either side of the river. Upstream of Arklow Bridge there is a tiny wooded island and several sandbanks within the river, and Arklow Town Marsh pNHA is visible from the bridge. The S docklands area and the river including the sandbanks to the W of the bridge attract a wide range of birds (incl. Cormorants, Gulls & Oystercatchers), and the river along South Quay is frequented by wintering waterbirds (incl. geese & swans). The Avoca River flows E to the Irish Sea and the Kilpatrick Sandhills SAC is located c.6km to the S of the river mouth, whilst the Buckroney-Brittas Dunes and Fen SAC is located c.5km to the N. The site and environs may be important for mobile species from other further afield European sites, including the Wexford Harbour and Slobbs SPA which is located to the S.

Maps and photographs in Appendix 1 describe the site in more detail.

## 1.4 Planning history

There is an extensive planning history related to the wider area and the following cases are of particular relevance.

**PA27.302556 & FS006862:** Approval & Foreshore Licence granted for the Arklow Wastewater Treatment Plant at the old Wallboard site, and interceptor sewer at Ferrybank with trunk connections along N & S Quays and works at Arklow Bridge. Memorandum of Understanding between OPW & WCC in respect of the co-ordination & sequencing of works at these locations.

### **North side/Ferrybank:**

**Reg. Ref. 201285:** PP granted for data centre at Avoca River Park (Crag Digital).

**ABP- 311778-21:** proposed data centre substation at Avoca River Park (C. Digital).

**Reg. Ref. 20426:** PP granted for a new fuel forecourt at Circle K on Dublin Road.

**Reg. Ref.15857:** PP granted for retail & residential development at N Quay.

### **South side/Harbour:**

**Reg. Ref. 211316:** current proposal for the demolition of existing structures at Arklow Harbour and removal of dry dock, new buildings to provide operational and maintenance facilities to support the operation of an offshore windfarm, along with a telecommunications mast, car parking, storage, pontoon & berthing of vessels to serve the offshore windfarm. EIAR & NIS submitted. FI sought by WCC.

**ABP-306662-20:** ABP determined that the development of onshore transmission connection infrastructure related to the Arklow Bank Wind Park offshore wind energy project is SID.

**Reg. Ref. 19750:** PP granted for new retail development on Main Street.

**Reg. Ref. 181170:** PP granted for a primary care facility at Castle Park.

**Reg. Ref. 20469:** PP granted for development of storage units at the Harbour.

**Reg. Ref.18316:** PP granted for demolition of structures at the Harbour.

**Reg. Ref. 16414:** PP granted for demolition of warehouse at the Harbour.

**Reg. Ref. 16248:** PP granted for a warehouse & distribution facility at the Harbour.

## 2.0 PROPOSED DEVELOPMENT

### 2.1 Documentation

The ***application documentation*** includes the following:

- Planning Report
- Planning Drawings
- Environmental Impact Assessment Report (EIAR)
- Appropriate Assessment Screening/Natura Impact Statement (NIS)
- CPO Maps & Schedules

The EIAR was supported by several Technical Appendices which included:

- Appendix 5.1: Construction & Environmental Management Plan
- Appendix 10: Ecological surveys (habitats & species)
- Appendix 11: Archaeological & Architectural surveys
- Appendix 12: Tree surveys & Photomontages
- Appendix 13: Site investigations & water quality assessments

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

### 2.2 Development Description

The proposed development comprises the Arklow Flood Relief Scheme, which would be undertaken to alleviate flooding which affects the low-lying areas of the town. The source of flooding is tidal flooding by way of the harbour mouth and Avoca estuary and fluvial flooding from the Avoca River. The scheme would be funded by the OPW.

The scheme would comprise a mixture of direct flood defences and conveyance measures in the river channel and would comprise the following main elements:

- Lowering of floor of Arklow Bridge (c.1m), underpinning of bridge piers and abutments, and scour protection.
- Dredging of river channel upstream and downstream of Arklow Bridge.
- Removal of in-river sandbanks & vegetated islands W of Arklow Bridge and installation of 3 x roosting platforms.
- Provision of debris traps and gravel traps upstream of Arklow Bridge.
- Extension into river channel upstream of Arklow Bridge on N side.
- Flood defence walls on the S side of Avoca River along River Walk and South Quay including:
  - Partial demolition of existing quay walls.
  - Provision of new walls with intermittent glass panels.
  - Installation of demountable flood barriers at Harbour Dock.
- Flood defence works on the N side of Avoca River including:
  - Embankment & maintenance track in Arklow Marsh (c.545m).
  - Flood defence wall upstream & NW of Arklow Bridge (c.60m).
  - Reform/reinforce both banks of existing channel where it enters the Avoca River to the W of Arklow Bridge.
  - Permanent access road from Dublin Road to maintenance track.
- Public realm works including:
  - Removal of existing public realm at River Walk & South Quay.
  - Demolition of disused slipway & river access point.
  - Provision of new public realm at River Walk & South Quay (incl. parking, footpaths, amenity area, lighting & floating pontoon).
  - Provision of additional urban space into the river at South Quay to immediate S of Arklow Bridge (c.6m x 260m).
  - Provision of additional urban space into the river at River Walk.
- Temporary construction compounds at various locations (c.6)
- Associated site works (incl. road works, tree removal & replanting, site & river access, drainage & pumping stations & utility diversion)
- Co-ordination with overlapping permitted WwTP works along South Quay (incl. bridge underpinning works & portion of interceptor sewer).
- Occasional river maintenance as required (c.10 year) and debris trap maintenance (c.1 year).

## **2.3 Environmental Impact Assessment Report (EIAR)**

The EIAR was prepared using the standard “grouped format structure”. It described the site and surrounding area and explained the background to the Flood Relief Scheme, the benefits arising and the need for the development based on an analysis of existing and predicted levels of fluvial and tidal flooding along the Avoca River. It stated that the proposed Scheme would comply with EU, national, regional and local environmental and planning policies. It provided a detailed description of the proposed Scheme, identified constraints, and described the selection process and the alternatives considered, including the “do-nothing” scenario.

The main body of the EIAR outlined the study methodologies and assessed the potential impacts on the receiving environment under the required range of headings, and it proposed mitigation measures. It identified residual and cumulative impacts and assessed interactions (incl. the WwTP & Circle K Service Station). It also included a Curricula Vita of the main contributors to the report, stated that no particular difficulties were encountered, and it had regard to the risk of major accidents or natural disasters, and to Climate Change. The EIAR was informed by several technical appendices including photomontages and a Non-Technical Summary was provided.

The EIAR concluded that the positive environmental impacts relate to human beings by providing protection from future flood events (fluvial & tidal) with associated health, economic, community and cultural benefits related to the protection of public and private property and infrastructure. It concluded that adverse environmental impacts will be minimal and mainly relate to short term disturbance during the construction phase and long-term loss of direct access to the river along South Quay. All other identified impacts will be managed by mitigation measures. It further concluded that the proposed development would comply with all relevant environmental and planning policy and objectives; it would not adversely affect amenities (incl. residential, visual & heritage), interfere with biodiversity or give rise to a traffic hazard. It finally concluded that the Scheme would be in accordance with the proper planning and sustainable development of the area and that it would have positive impacts in terms of the alleviation of fluvial and tidal flooding in Arklow.

## 2.4 Natura Impact Statement

A Stage 1 AA screening exercise was carried out for the proposed Flood Relief Scheme and a Stage 2 Natural Impact Statement was prepared.

### Stage 1 AA Screening Report

The AA Screening exercise described the site and the characteristics of the proposed development, it summarised the legislative requirements and described the AA screening methodology. It identified the European sites within (and outside) of the Zone of Influence of the proposed Scheme and concluded that the project had the potential to affect the Conservation Objectives of 13 x European Sites.

### The Natura Impact Statement Report

The NIS assessed the likely significant effects on the Conservation Objectives for the 13 x European sites which were screened in after the AA screening exercise.

SPA	SPA
The Murrough	Skerries Island
Cahore Marshes	Wexford Harbour & Slob
Poulaphouca Reservoir	Saltee Islands
Irelands Eye	Ballymacoda Bay
Tacumshin Lake	Ballycotton Bay
Lambay Island	Cork Harbour
SAC	Wicklow Mountains

The NIS described the individual elements of the project with potential to give rise to effects on these European Sites (incl. their Conservation Objectives & Special Conservation Interest species). It described any likely direct, indirect or secondary effects on the European Sites along with in-combination effects, and it assessed the significance of any effects. It identified the potential for direct and indirect effects on the European sites and their Conservation Objectives during the construction and operational phases. It concluded that the proposed development had the potential to

adversely affect several of the QI and SCI species (incl. otter & waterbirds) in relation to discharges and loss habitat in the Avoca River and at Arklow Marsh.

The NIS outlined a range of mitigation measures (incl. water quality protection measures & replacement support habitat) and assessed the likelihood of residual effects following mitigation. It also assessed the potential for cumulative effects in combination with other plans and projects in the area (incl. the WwTP). The NIS was informed by the Stage 1 AA Screening exercise, Ecological Survey reports, the relevant EIAR Chapters, and the CEMP.

The NIS objectively concluded that 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 of any European Site, either alone or in combination with other plans and projects, and there is no reasonable scientific doubt in relation to this conclusion.

### **3.0 POLICY CONTEXT**

#### **3.1 EU Policy**

##### **EU Directive on the Assessment and Management of Flood Risks (2007/60/EC)**

This Directive, which was transposed into Irish law in under SI No.122 of 2010, requires Member States to assess watercourses and coastlines at risk from flooding, to map flood extent, assets and humans at risk, and to take adequate measures to reduce this flood risk. Implementation is being co-ordinated with the EU Water Framework Directive and the current River Basin Management Plans by the OPW.

##### **EU Water Framework Directive (2000/60/EC), as amended**

This Directive established a legislative framework for the protection of all waters (incl. rivers, lakes, estuaries, coastal waters & groundwater) and their dependent wildlife and habitats. It requires Member States to protect and improve water quality

in all waters so that they achieve good ecological status by 2015 (extended to 2027). It requires the preparation and regular review of River Basin Management Plans.

### **EU Strategy on Adaption to Climate Change, 2021**

This Strategy is an integral part of the European Green Deal which seeks to address the impacts of climate change and the need to become climate resilient by 2050 by way of smarter, swifter and more systematic adaptation.

## **3.2 National Policy**

### **National Planning Framework, 2018-2040**

This plan sets out a high-level strategic plan for shaping the future growth and development to 2040. It seeks to develop a region-focused strategy to manage growth and environmentally-focused planning at a local level. It contains several National Strategic Outcomes (NSOs) which include seeking to achieve compact growth, enhanced regional accessibility, enhanced amenity and heritage, and a transition to a low-carbon and climate resilient society.

### **National Development Plan, 2021-2030**

This plan underpins the National Planning Framework 2018-2040, and it sets a framework for investment priorities which includes expenditure commitments to secure a wider range of Strategic Investment Priorities. Under Strategic Outcome 8 (Transition to a Low Carbon & Climate Resilient Society) it allocated c.E940 million to Flood Defence and outlined several investment actions relating to flood risk management.

### **National Marine Planning Framework, 2021**

This document provides for a comprehensive marine spatial planning framework. It brings together all marine-based human activities and outlines the Government's vision, objectives and marine planning policies for each marine activity. It provides for the co-ordination of appropriate measures to deal with coastal change resulting from climate change (incl. storm surges, sea level rise and floods).



### **Climate Action Plan, 2021**

This plan seeks to tackle climate breakdown and achieve net zero greenhouse gas emissions by 2050. It identifies several risks as a result of climate change including rising sea-levels, extreme weather, further pressure on water resources and food production systems, and increased chance and scale of river and coastal flooding.

### **Flood Risk Management Climate Change Sectoral Adaptation Plan, 2018**

This plan updates the previous plan by taking account of new information on climate change, its potential impacts and developments in flood risk management. It identifies 21 x actions needed to ensure effective and sustainable management of flood risk into the future.

### **National Flood Policy, 2004**

This Policy builds on the Arterial Drainage (Amendment) Act 1995, which permits the OPW to implement localised flood relief schemes to co-ordinate the management of flood risk in Ireland.

### **The Planning System and Flood Risk Management, 2009**

These Guidelines seeks to avoid inappropriate development in areas at risk of flooding and avoid new developments increasing flood risk elsewhere. They advocate a sequential approach to risk assessment and a justification test.

### **National Ports Policy, 2013**

The core objective of this document is to facilitate a competitive and effective market for maritime transport services and it introduces clear categorisation of the ports sector into Ports of National Significance (Tier 1 & 2), and Ports of Regional Significance which includes the 5 smaller State-owned commercial port companies and all other ports that handle commercial freight (incl. Arklow Dock).

## **Architectural Protection Guidelines for Planning Authorities, 2004**

These Guidelines provide a practical guide for planning authorities (and others) who must comply with Part IV of the Planning and Development Act 2000 on the protection of the architectural heritage. Section 14.2 deals specifically with bridges that are Protected Structures.

### **3.3 Regional Policy**

#### **Regional Spatial & Economic Strategy for the Eastern & Midlands 2019-2031**

The RSES supports the delivery of the programme for change set out in the National Planning Framework and the National Development Plan. It sets out a strategic vision and policy objectives for urban and rural areas, people, the economy, the environment, connectivity, amenities and utilities, and it contains a number of Regional Policy Objectives (RPOs). Arklow is also identified as a Level 3 Town which contains a Port of Regional Significance.

**RPO 7.12:** requires the preparation of Strategic Flood Risk Assessments, the avoidance of inappropriate land use zonings and development in areas at risk of flooding, and the integration of sustainable water management solutions.

**RPO 7.13:** seeks co-ordination with relevant agencies to implement the recommendations of the CFRAM programme for the management of flood risk.

**RPO 7.14:** requires local authorities to take account of and incorporate the recommendations of the FRMPs for managing and reducing flood risk.

**RPO 7.15:** deals with the enhancement of biodiversity and amenities, including where flood risk management measures are planned.

### **3.4 Local Policy**

#### **Wicklow County Development Plan 2016 to 2022**

**Core Strategy:** Arklow is a Level 3 – Large Growth Town 11

**Landscape:** Landscape Category No.6 - Urban Area - suitable for development.

**Coastal Zone:** CZ11 seeks to enhance the visual, recreational & natural amenities of the Arklow coastal area, facilitate the development & enhancement of visitor and recreational facilities, and support & facilitate the development of marine and shipping activity in Arklow, particularly the recreational use of the existing harbour.

**Flood risk Objectives:**

**Section 9.2.1** seeks to assist the OPW through the implementation of measures capable of managing & mitigating against the consequences of flooding in all areas.

**FL1:** seeks to prepare or update existing flood risk assessments.

**FL2, 3 & 4:** seek to implement the Flood Risk Guidelines.

**FL5:** seeks to prohibit development in river flood plains.

**FL6:** seeks to limit or break up large areas of hard surfacing in new developments.

**FL7:** seeks to avoid excessive areas of hard landscaping.

**FL8:** requires new developments to deal with rainwater & surface water.

**FL9:** seeks 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 (incl. hard landscaping) must be set back from the edge 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.

**Arklow & Environs Local Area Plan 2018 to 2024**

**Strategy:** Assist the OPW through the implementation of measures capable of managing & mitigating against the consequences of flooding; facilitate the sustainable development of Arklow and provide for a high level of protection of the environment and natural assets such as the beach, river and sea; and prepare the Avoca River (Arklow) Flood Defence Scheme (incl. comprehensive flood defences).

**Arklow Waterfront:** should be celebrated through increased access, the design of good buildings and public spaces, and the increased use of its shoreline and adjacent areas for leisure and cultural purposes.

**Waterfront Strategy:** seeks to facilitate existing & future sustainable economic development, whilst allowing for expansion and improvement of amenity & recreational opportunities, development of a wider mix of uses (incl. maritime, tourism & community uses), and providing for a high level of protection of the environment and natural assets (incl. the beach, river & sea).

**Zoning objectives:**

**Ferrybank:** Residential (RE), Open space (OS1&2), Community (CE), Local Shops & Services (LSS), Town Centre (TC) and Arklow Town Marsh pNHA.

**River Walk:** Town Centre (TC), Residential (RE) & Open Space (OS2).

**South Quay:** Town Centre (TC), Residential (RE), Waterfront (WZ).

**North Quay:** Waterfront (WZ).

**Acceptable uses:** Ch.11 sets out the land use zoning objectives & acceptable uses.

**Town Centre Objectives:**

**VP 2 & 9:** promote better pedestrian linkages along the river, coast & main street.

**VP10:** maintain Seafarers Memorial Garden & promote opportunities for new spaces.

**VP11:** seeks to improve footpaths, lighting, seating and other street furniture.

**Waterfront Zone Objectives:**

**WZ3:** support existing and proposed water related & maritime activities.

**WZ5:** support and encourage maritime activities.

**WZ6:** new development should meet a high standard of design that respects the unique historical, environmental, visual & recreational amenities of the area.

**WZ7:** support and facilitate the development of new harbour infrastructure.

**WZ10:** maintain and improve access to the water (incl. steps, slipways & river).

**WZ12:** development projects around the quays should preserve and enhance any valuable structures or items of Arklow's maritime heritage.

**Tourism & Recreation Objectives:**

**TR2:** support and facilitate the provision of tourism amenity routes around the town.

**TR6:** promote and encourage the recreational use of the coastline & river, proposals should respect the natural amenity & character of the area, and listed views and prospects to and from the area (*none in Arklow*).

**Heritage Objectives:**

**HT1:** maintain the favourable conservation status of p/NHAs including Arklow Marsh.

**HT3:** protect and enhance the character, setting and environmental quality of natural, architectural, archaeological heritage (incl. natural landscape & built features).

**HT4:** consolidate and safeguard the historical & architectural character of the town.

**HT7:** highlight Arklow's maritime heritage in the public realm.

**HT8:** facilitate development & enhancement of green infrastructure & connectivity.

**HT9:** maintain the conservation value of p/NHAs and protect other ecological sites.

**Recorded Monuments:** Avoca River & Arklow Town Marsh (SE) are located within Zone of Archaeological Potential for Historic Town of Arklow (RMP W1040-029).

**Area of Archaeological Potential:** South Quay (W) & River Walk.

**Protected Structures:** Arklow Bridge (A26), Masonic Hall (A29), no.58 Ferrybank (A30) & Arklow Methodist Church (A31).

**Proposed NHA:** Arklow Town Marsh.

**Wicklow County Council Climate Adaptation Strategy, 2019**

This strategy seeks 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 adaption considerations are mainstreamed into all plans and policies and integrated into all operations and functions of the local authority.

**3.5 European Site Designations**

- Kilpatrick Sandhills SAC (c.6km to S)
- Buckroney-Brittas Dunes & Fen SAC (c.5km to N)
- Several further afield SPAs (inc. Wexford Harbour, Cork Harbour & Dublin Bay sites)

## 4.0 PROJECT SUBMISSIONS

### 4.1 Prescribed Bodies

#### **Irish Water:**

- Work has commenced on the approved WwTP under PA27.302556.
- Ongoing engagement with OPW in relation to overlapping elements.
- No objections subject to standard conditions (protection of drinking & ground waters, connection agreements & protection of IW assets).

#### **HSE:**

- Specific construction noise management plan required to mitigate excessive noise, and a contingency plan for remedial action if monitoring levels indicate an exceedance of limits, before works start.
- EIA structural surveys at sensitive receptors to establish their condition & tolerance for vibration impacts should be done before works start.
- Implement a community liaison process to deal with community concerns about noise, odour, traffic etc.
- An integrated approach should be taken to surface water management in the entire catchment of the Avoca River: -
  - Protect natural flood plains & wetlands upstream of the town.
  - Implement IFI Guidelines in relation to buffer zones & SUDs features along the river and throughout the town.
- Incorporate nature-based solutions & SUDs principles in public realm, and extensive green planting will assist with surface water collection.

#### **DAU/ NPWS:**

- Avoca River is not designated nor within a designated European site.
- Both in-situ & ex-situ impacts are thoroughly examined in NIS, & mitigations are likely to address any ex-situ impacts.

#### **Annex IV species:**

- Two Annex IV species types occur (Otter & 4 x Bat species) including a bat roost at Arklow Bridge for which a Derogation Licence is required.

- Narrowing of the river channel and increasing flow may reduce bat foraging habitat (Daubenton's bat), and in-stream works will take place during the breeding season which may have a disproportionate impact on females who are likely to use the lower reaches during breeding.
- Construction phase floodlit night-time work at Arklow Bridge and operational phase floodlighting (esp. at South Quay) will prevent feeding & roosting in the vicinity, notwithstanding mitigation.
- Research indicates that standard mitigation bat tubes & boxes are not well used by the target species (Daubenton's bat).
- Recommend additional annual monitoring of bats over a 5-year period focusing on occupancy of bat tubes (usage & species determination) as well as presence of foraging bats and send results to NPWS.

***Flora Protection Order species:***

- Note mitigation measures for Moore's Horsetail at SC6 (South Beach) where dredged material will be stored (which may have a high chloride levels), survey results confirm its presence and mitigation is required.
- There has also been a recent finding of Wild clary at SC6 (Rare in Red Data List) which needs to be accounted for in works.

***Other:***

- Extreme care required in dealing with invasive species.
- Landscaping is focused on non-native tree species (maple & cherry) which do not make up for the loss of native trees & shrubs.
- Welcome the focus on pollinator friendly flowers in the planters.

***Recommendations:***

- Use native flowering trees for landscaping.
- Additional planting between streetlights & river to prevent light spillage.
- Full implementation of lighting mitigation measures.
- Lighting on Arklow bridge should only be for traffic safety, with no amenity lighting, to maintain dark conditions for roosting bats & birds.

### **Inland Fisheries Ireland:**

- Avoca River is an important salmonoid system with populations of Atlantic salmon, Sea trout & Brown trout, along with Eel & Lampreys.
- Estuaries serve as a natural linkage for migratory species transitioning from fresh to ocean waters, monitoring in 2015 classified the Avoca at “good ecological status” due to the presence of 4 x indicator species.
- Construction should comply with a site-specific CEMP, relevant legal consents & best construction practice to minimise pollution & siltation.
- All EIAR mitigation measures should be implemented, and detailed method statements are required for all of riparian works.
- Full co-ordination required with IW in relation to the WwTP overlapping works at South Quay, River Walk & Arklow Bridge.
- Construction of the in-stream temporary haul road should be with accumulated exposed gravels rather than existing inert materials.
- Construction should be subject to an Invasive Species Management Plan, and a Construction & By-Products Management Plan.
- River water quality monitoring should be undertaken for the 12 months preceding the initiation of river dredging and continue throughout the construction phase & appoint an Ecological Clerk of Works.
- Unhindered fish migration must be ensured, welcome proposal to restrict dredging to one side of the channel at any given time, and there should be no tracking of plant/machinery in the live channel.
- Detailed and agreed design for the Debris & Gravel traps required.
- Note the permanent loss of natural habitat & biodiversity as a result of the creation of an urban space at River Walk & South Quay.
- Undertake pile driving mitigation to reduce impacts on aquatic habitats (incl. soft start, vibrating hammer & bubble curtain).

### **Geological Survey Ireland:**

- Recommend use of GSI website & datasets and note their use in EIAR.
- There are no County Geological Sites in the vicinity of the Scheme.



**Transport Infrastructure Ireland:**

- No implications for the national road network.

**An Taisce:**

- Note presence of Otters in the vicinity, but lack of rigorous assessment as the site is not within or connected to an SAC for this species.
- Annex II & IV species are strictly protected, irrespective of designations
- A dedicated Otter survey should have been undertaken.
- The walkover survey was conducted in the Summer of 2020, which is less than optimal because of heavier vegetation cover, and an Otter specific survey should be carried out prior to any decision.
- The resting places & holts which currently exist should be identified and mitigated for prior to planning approval, in addition to a pre-commencement survey to determine if any new holts or resting places have been established which may require a derogation.

**4.2 Public submissions:**

The concerns raised in the public submissions are summarised below:

**Public representatives:**

***Jennifer Whitmore, TD:***

- Welcome the Flood Relief Scheme & the benefits it will bring.
- Note Arklow's maritime history, cultural & community connections to the Avoca River and its rich biodiversity, however aspects of the scheme are not sensitive to these issues.
- Excessive concrete defence walls along South Quay are unsightly and break the connection with the river.
- More glass panels are preferred as they would protect views & archaeological heritage and maintain local access to the river.

- Maintaining access to the river is essential for maritime, cultural heritage, tourism & economic reasons, and a possible future footbridge would cater for marine leisure when water quality is improved.
- Incorporate specific biodiversity improvements into the design such as floating planted islands to avoid hard engineered edges along the river.
- Consider more environmentally suitable flood relief measures such as upstream river works, river & floodplain restoration & tree planting etc.

***Steven Matthews, TD:***

- Welcome the Flood Relief Scheme & the benefits it will bring.
- Wall creates a barrier between the river & land, connectivity should be maintained for local communities and visitors, and more glass panels should be installed and public realm features provided.
- Support residents' concerns in relation to the preferred relocation of the footpath at the green space along South Quay, close to their houses, and request the Board to modify the Scheme accordingly.
- Request that an Environmental Monitoring Committee for the duration of the works be set up and include a cross section of representatives.

***Councillor Peir Leonard:***

- Adverse impacts on structural stability & value of property.
- Road layout and resultant adverse traffic, safety & health impacts.
- Adverse impacts on residential amenity and children's play area.
- Loss of valuable residential, tourist, ecological & visual amenity.
- General disturbance during construction.
- Inadequate sightlines at vehicular entrance & traffic safety.
- Provide more glass panelling for aesthetics, connectivity & views.
- Provide additional access points to the river for the local community & river safety & enable outdoor recreation & marine leisure opportunities.
- Non-compliance with planning policies & objectives (incl. new residential areas, maritime sector, quality of life, recreation & tourism, public realm, town centre linkages, maritime heritage & biodiversity).
- Opportunity to incorporate greener infrastructure into the project and alternative environmentally-friendly flood protection options.

**Interest groups:**

***Save Maritime Arklow Group:***

***Concerns:***

- Not opposed in principle to the Flood Relief Scheme.
- Note Arklow's unique connection with the river & sea, and the importance of retaining this sense of place as much as possible whilst also moving forward with new infrastructure.
- Group has actively engaged in all stages of the project, but the Scheme does not achieve benefits for the residents and wider community in economic & social terms.
- Query need for such extensive flood defence works (continuous high wall along South Quay) relative to flood risk calculations.
- Adverse impacts on residential amenity (noise, dust & odours), traffic safety (road & footpath layout at South Quay), open space, leisure & tourism & biodiversity (incl. temporary works compounds).
- Adverse impacts on visual amenity, urban landscape, Arklow Marsh, maritime character & river views as a result of the flood wall along South Quay (glass panels needed), and debris traps at River Walk.
- Loss of connectivity with the river, river access points (amenity, recreation & emergencies), green space, children's play area & trees.
- Non-compliance with planning policies & objectives in WCC Development Plan (incl. coastal zone management, open space, community development & land use planning).
- Non-compliance with planning policies & objectives in Arklow LAP (incl. heritage, open space, existing residential areas, biodiversity, maritime areas & the Waterfront Strategy).
- Unacceptable cumulative impacts on the surrounding area.

***Requested revisions:***

- Complete flood walls in glass panels, or with as many panels as possible (at least 50%) including at the following sensitive locations:
  - All laneways leading down to the river from Main Street.

- On the bend/pinch point of the river.
  - Seafarers Memorial Garden.
  - Tyrells Slipway (plus small park).
  - Insert portholes in remaining sections of wall.
  - The One Percent for Art fund could contribute to the cost of providing additional glass panels.
- Reduce height of flood defence walls along South Quay (no tolerance of above 30cm of flood design level should be permitted).
  - Redesign section of road along South Quay at the bend in the river to relocate the road layout and footpath away from the adjoining houses.
  - Scheme should offer genuine public realm & amenity improvements at the bend in the river, Tyrell's Slipway & Seafarers Memorial Garden, which should be read as pocket parks along the South Quay walk.
  - Retain trees, provide seating, interpretative signage & traffic management and permit no new car parking at South Quay.
  - Relocate south side temporary site works compounds to the site of the old pottery factory site close to South Beach (SC6).

***Arklow Rowing Club (Debbie Reid):***

- The flood wall at the S side of South Dock blocks access to a proposed industrial site, public slipway, and rowing club & lifeboat pontoons.
- The slipway & pontoon are used 7 x days per week during the summer and at weekends in the winter by the club & individual rowers, and also by the Sea Scouts and other water users (incl. fishermen & kayakers).
- Impractical for everyone to get a key from the Harbourmaster to access the slipway given that s/he is also responsible for other harbours; and opening & closing is time consuming, labour intensive and unsafe.
- Unenclosed Dock rarely overflows, and it has helped to manage flood waters along South Quay in the past, and it would make more sense to only close the barrier when there is an eminent threat of flooding.
- The slipway is the only access point where a boat can be launched to gain access to the sea between Wicklow & Courtown.

- Suggest that the road level is raised between the Scout Hall on Dock Road down to the Lifeboat Station as an alternative to the wall.

***Arklow Sea Scout Centre:***

- Group has c.200 members & maintaining access to the slipway is vital and operations are dependent on tides & water depth in the Dock.
- Demountable barrier will restrict access to the harbour and inhibit the group from running a water-based programme, it will also prevent the launch of vessels at a suitable time, and an alternative must be sought.
- River is not currently safe for small craft water activities (canoeing & rowing) because of the heavy maritime traffic downstream of Arklow Bridge (incl. fishing boats & yachts).
- The debris & gravel traps will stop activities in the safer upstream area and they should be relocated further W, this combined with the new slipway will provide for safe access to and safe use of the river.
- Lack of rescue points (4) along the river relative to the number of lifebuoys (10), all rescue points are located downstream of the bridge with none upstream close to the new public realm & 3 designated lifebuoys, and more rescue points are needed for water emergencies.

**Business groups:**

***Arklow Marine Services (Billy Tyrell):***

- Company has a long tradition of boat building in Arklow since c.1864.
- Witnessed the demise of major industries, many of which undertook dredging, and the harbour has fallen into decline since.
- Harbour has silted up with resultant adverse impacts on water depth and the size of vessel that can access it, or be built or repaired.
- Contaminants from Avoca Mines continue to enter the river and exit at Arklow pier head which adds to the cost of dredging.
- Welcome the Flood Relief Scheme & the benefits it will bring to households, the local community & businesses and tourism.

- The only way to sustain the water depth up to the Bridge is to sheet pile the remaining 2 x quayside walls, which would allow for the quay roads to be extended into the river and the provision of more pontoons.

***Arklow Marina Ltd:***

- Company operates the marine pontoons on the North Quay along the river and dredging will have a negative impact on business.
- No engagement took place, and this is incorrectly stated in EIAR.
- Serious financial impacts on seasonal business as a result of the proposed May to September works.
- Query who is responsible for the costs of removing, storing & reinstating the pontoons, and the loss of revenue during works.

***Southside residents:***

***The collective concerns raised by the residents of South Quay are summarised below (Deirdre Burke & Others, Elizabeth & Nicola Kenny Christine Mc Elheron, Peir Leonard and Patrick & Patricia Ivory):***

- Acknowledge the need for a flood relief scheme.
- Inadequate consultations with residents and stakeholders.
- Non-compliance with planning policies & objectives.
- Object to the flood wall, which is excessive, unattractive, causes severance from the riverside with limited access points, and possibly ineffective and counterproductive.
- Loss of connectivity with & access to the river along with resultant adverse impacts for local communities, leisure, tourism & river safety.
- Request additional glass panels to improve connectivity & views.
- Loss of valuable residential, tourist, leisure, ecological and visual amenity, along with open space, children's play area and trees.
- Tyrells Slipway should be retained with removable gates for wildlife & leisure access.
- Adverse safety & privacy impacts related to road widening & footpath.

- No evidence of serious tidal flooding at South Quay of Ferrybank.
- Recent developments have contributed to increased surface water run-off in the vicinity, which would be contained on the landside by the wall.
- Traffic & construction impacts on structural stability of property.
- New road layout will result in the loss of green space along South Quay, sever the connection with nearby houses and give rise to a serious traffic hazard and health and safety issues.
- Suggest a bypass to divert heavy traffic away from the town, South Quay & Ferrybank, and its only river crossing (Arklow Bridge).
- Object to temporary acquisition of open space at South Beach for storage with resultant adverse impacts on amenity & biodiversity given that other alternatives exist nearby (incl. vacant industrial sites).
- Welcome construction of the WwTP which will improve water quality in the river which in turn hosts a wide variety of wildlife and waterbirds, that will be cut off from South Quay by the flood wall.
- Consider more environmentally friendly flood relief measures such as upstream river & catchment works in the interests of biodiversity.
- Query need for the Debris Trap at River Walk, and relocate upstream.
- General construction disturbance (noise, vibration, traffic & odours)

***Cornelius Young & Others:***

- Residents of 4 x terraced houses along South Quay.
- Need to retain parking spaces in front of houses.
- Excessive hard landscaping & maintain trees opposite houses.
- Retain historic bollards to maintain connection with maritime history.
- Inconsistent retention of Quay Wall opposite houses.

**North side residents:**

***Con Nyhan (Ferrybank, Seaview Avenue Resident's Association):***

- Acknowledge the need for a flood relief scheme.
- French Shores on the inside of the embankment at Ferrybank are inadequate & will not prevent flooding on the landside, and pump stations are required as a backup measure at the outlets.
- As the lands are just above sea level, large amounts of surface water runs off from higher ground during severe storms causing flooding, which will continue in the absence of pump stations.
- Welcome tree planting along the flood embankment but would prefer species that would prevent trespass along with razor wire fencing.
- Overlap between the Flood Relief scheme and the WwTP works could result in serious flooding at Ferrybank & environs.
- Access road into the river for the bridge apron lowering works could result in serious flooding at Ferrybank during high tides & storm surges.
- Lack of consideration of coastal protection & sea encroachment at North Beach, and the seawater could extend to Ferrybank & environs.
- Lack of consideration of the proposed offshore windfarm, and storm surges up the Irish Sea from the Bay of Biscay coupled with severe SE winds will increase the risk of pluvial & fluvial flooding.
- Copy of WwTP submission attached which sets out the community's concerns in relation to flood risk.

***Johnathan O'Toole:***

***Concerns:***

- Significant construction impacts on houses & amenity at Ferrybank, and 4 x houses appear to have been omitted from the EIAR.
- Inadequate Site Notices, inaccurate application drawings & absence of topographical site surveys.
- Inadequate & incorrect representation of height, scale, & location of flood embankment (incl. levels & separation distances to houses), and query reliability of EIAR assessment of impacts on residential amenity.



- Inadequate site layout details for SC1 & relationship with houses with resultant adverse impacts on amenity and Marsh biodiversity (incl. noise, vibration, odour & light pollution, and dredge contaminants).
- Adverse impacts on residential amenity during construction & operation including loss of privacy and security, 5-year construction is not temporary, & impacts relate to noise, vibration, odour & light pollution.
- Archaeological surveys of the Marsh should have preceded the application, as any finding of interest could delay the works.
- Embankment & sheet piling will traverse utility services with no EIAR mitigation proposed.
- No justification for having the Marsh access off the Dublin Road and not the Bridgewater roundabout, and resultant impacts on heritage, amenity & surface water flows.
- Disturbance during construction work hours, including night-time work.
- Inadequate & inaccurate traffic surveys conducted during the Covid-19 Pandemic (notwithstanding adjustments), the Ferrybank area is often congested, and query the predicted 5% increase in construction traffic.
- Adverse traffic impacts relate to the new site entrance & compound off Dublin Road, the amount of dredge material to be transported to SC1 & associated vehicle movements, and reduced on-street car parking.
- Adverse impacts on air quality from dust, vehicle exhaust fumes & dredge material odours stored to rear of houses over 5-years with no oversight from odour specialists, and SC1 should be relocated.
- Inadequate assessment of visual impacts of embankment on Arklow Marsh (High Landscape Sensitivity) and properties at Ferrybank.
- Inadequate site investigations & assessment of ground conditions.
- Query extent of and need for a maintenance road along embankment & access arrangements, impacts on amenity, and query future use.
- Inadequate security details, anti-social activity & property devaluation.

***Requested revisions:***

- Provide accurate drawings which describe the spatial relationship between the embankment and houses.
- Relocate SC1.
- Provide an alternative approach to sheet piling close to houses.
- Eliminate the maintenance road from the Marsh area.
- Eliminate the Dublin Road entrance to the embankment and provide proper security gates & fencing to restrict access to the embankment.

***Project related CPO concerns:***

***The Representatives of the Estate of Malachy Mc Daniel Stone, Crag Digital, Proinseas O’Broinn and Patrick & Patricia Ivory who objected to the CPO of their lands at Ferrybank also raised the following concerns:***

- Adverse impact on agricultural & residential landholdings.
- Severance - embankment removes access to lands.
- Loss of privacy, trespass, antisocial behaviour & boundary treatment.
- Prefer a flood wall or relocated embankment with greater separation.
- Contamination impacts on pNHA & biodiversity (dredge materials).
- Hydrological impacts on the Marsh & biodiversity (embankment scale).
- Query use of SC1 for storage of dredge material & sequencing of archaeological surveys.
- No quantitative assessment of tree removal or consideration of alternative tree planting locations.
- Adverse impact on future merger of lands to rear of no.1/5/6 Ferrybank and access to lands off Bridgewater roundabout.
- Lack of consideration of alternatives.

### 4.3 Planning Authority response to submissions

The PA's response to the concerns raised by the Observers is summarised below.

***The submission comprises the following documents:***

- Response to Submissions report.
- Appendix A: Revised Drawings.
- Appendix B: Site Compound Layouts for SC1 & SC6.
- Appendix C: Ecological Survey report (Moore's Horsetail & Wild Clary).
- Appendix D: Otter survey report (2021).
- Appendix E: Correspondence with Arklow Marina.

***The following amendments are proposed:***

***Glass Panels:*** additional glass panels upstream of Arklow Bridge:

- 1 x 8m long glass panel at the junction of River Lane & River Walk.
- 2 x 3m long glass panels at the seating area along River Walk.
- 3 x long glass panels at the seating area along River Walk.

***Glass Panels:*** additional glass panels downstream of Arklow Bridge:

- 2 x 6m long panels at South Quay (Chainage 020).
- 3 x 6m long panels at South Quay (Chainage 370).

***Harbour Dock access:*** the demountable barrier at the South Dock slipway will be normally open (not normally closed) to facilitate regular access for users of the public slipway, but closed during storm events; Memorandum of Understanding to be agreed between WCC & OPW.

***Car parking:*** reduce extent of footpath widening at 1-4 South Quay (terrace) and provide a dedicated car parking area for residents (Chainage 510).

***Tree planting:*** more native species trees planted will be planted along River Walk & South Quay as part of the proposed 69 x new semi-mature trees (incl. Alder & Mountain Ash). Note that the WwTP approval already permits removal of 46 of the 61 trees to be felled, and 69 semi-mature trees will be planted.

***The following additional mitigation measures are proposed:***

***Water Quality:*** will now include the following additional monitoring measures:

- Heavy metals analysis added to monitoring regime.
- Quarterly monitoring will be undertaken at 3 x sampling points during the 12 months before upstream works commence (incl. immediately up-stream of works, Arklow Bridge & downstream of works) and at the same sampling points during construction works (incl. immediately before in-stream works commerce; immediately after the first day of in-stream works & monthly thereafter during in-stream works).
- Continuous monitoring of dissolved oxygen & temperature will be undertaken while in-stream works are in progress.

***Biodiversity:*** the scheme will now include additional measures as a result of the additional ecological surveys (2021) for the following species:

- ***Protected plant species:*** layout of SC6 at South Beach revised & temporary fencing provided to protect Moore's horsetail & Wild clary.
- ***Otter:*** as the works may disturb an otter resting place along the North Quay, a Derogation Licence will be sought from NPWS.
- ***Bats:*** additional annual monitoring will be carried out (5 years minimum) which will focus on occupancy of bat tubes and the presence of foraging bats, and the annual results will be sent to NPWS; commit to choosing lighting along the Public Realm on South Bank that follow Bat Conservation Trust guidelines (2018); investigate potential for part time lighting schemes; and the lighting on Arklow Bridge will only be for traffic safety with no amenity lighting of the stonework.
- ***Environmental Clerk of Works:*** will be appointed to oversee and monitor all environmental protection measures (incl. aquatic).

***Heritage:*** devise a Heritage Trail that provides information points of industrial & maritime heritage interest along the quays in consultation with stakeholders.

***Disturbance during construction:*** will consult with local community to determine dust monitoring locations; prepare a Construction Noise Management Plan before works commence.

**The collective response to the Observer's concerns is summarised below:**

Public Concern	Council Response
<b>Justification &amp; Alternatives</b>	<p>Concerns noted, considered &amp; clarified in relation to: - scheme design; surface water management; riparian corridor; appearance &amp; maintenance of floating roosting pontoons; location of proposed debris &amp; gravel traps; increased harbour works; cumulative impacts of flood management measures; embankment design at Arklow Marsh; and cumulative impacts of Arklow FRS &amp; WwTP.</p> <p>Scheme design (incl. embankment, walls, surface water management, various in-stream traps &amp; pontoons) is based on having a balance between the various aspects (incl. technical, environmental, social &amp; economic). Eco-friendly – catchment-based flood defence only suitable for smaller catchments.</p> <p>Cumulative impacts considered and MoU with IW &amp; OPW in relation to the approved WwTP.</p> <p><b><i>No change to EIAR conclusions.</i></b></p>
<b>Construction Compounds, Alternatives &amp; Water Quality</b>	<p>Concerns noted, considered &amp; clarified in relation to: - site compounds, proximity to works &amp; site layout details for SC1 &amp; SC6; and restrictions on access on River Walk.</p> <p>CEMP will deal with all environmental management &amp; protection issues (incl. traffic, air quality, odour, noise &amp; vibration, biodiversity, heritage, landscape, land &amp; soil &amp; water); and water quality will be monitored &amp; protected. Site layout details for SC1 &amp; SC6 provided.</p> <p><b><i>No change to EIAR conclusions.</i></b></p>
<b>Glass Panels</b>	<p>Concerns noted, considered &amp; clarified in relation to glass panels which are expensive, high maintenance &amp; prone to vandalism which renders area more vulnerable to flooding.</p> <p>Additional panels will be inserted (see above).</p> <p><b><i>No change to EIAR conclusions.</i></b></p>
<b>Inadequate River Access, Removal of Slipways &amp; Emergency Access</b>	<p>Concerns noted, considered &amp; clarified in relation to: - existing river access points (incl. River Walk slip/steps, W End of South Quay, Tyrell's Slip &amp; South Dock); River Walk; and Emergency access.</p> <p>Two slipways will be removed and replaced with an improved facility and the Dock Slip will be retained with a new normally open demountable barrier.</p> <p><b><i>Minor change to EIAR conclusions – negative effects reduced.</i></b></p>
<b>Public Realm Design, Landscaping &amp; Visual Impacts</b>	<p>Concerns noted, considered &amp; clarified in relation to: - landscaping &amp; public realm works along River Walk &amp; South Quay which will be augmented &amp; additional glass panels.</p> <p>WwTP approval already permits removal of 46 of the 61 trees; removed</p>

	<p>trees will be replaced by 69 trees &amp; more native species will be provided.</p> <p>All potential landscape impacts are fully assessed.</p> <p><b><i>No change to EIAR conclusions.</i></b></p>
<b>Traffic, Transport &amp; Car Parking</b>	<p>Concerns noted, considered &amp; clarified in relation to: - parking provision, one-way traffic, traffic speeds, footpaths, disturbance during construction &amp; by construction traffic, access to properties, traffic management at Arklow bridge &amp; in-bound construction traffic, access to work compounds &amp; the river, and baseline traffic flows.</p> <p>Pedestrian facilities (incl. footpaths &amp; crossings) will be provided, although widening is required parking will exceed demand, adequate parking is maintained with dedicated parking outside nos.1-4.</p> <p>Two-way traffic in urban areas is preferred as it reduces traffic speed, is safer for pedestrians &amp; cyclists, and improves access to properties.</p> <p>Additional footpaths will benefit pedestrian safety with no adverse effects on vehicular visibility at entrances.</p> <p>Construction traffic impacts equates to 1 vehicle/3 mins during peak hours with a slight negative impact on congestion in Arklow, this will be managed by a Construction Traffic Management Plan which will ensure that access to properties is maintained; traffic impacts at Arklow Bridge are confined to WP1 only, and separate access to the N &amp; S of the river off the M11 J20/21.</p> <p>Vehicular access to work compounds takes account of prevailing local traffic conditions, accessibility &amp; proximity to works, and the temporary nature of the compounds; no loss of amenity areas at St. Mary's Park &amp; bandstand or the running track; and construction access to SC6 at South Beach will be acceptable (layout &amp; access details provided).</p> <p>Access to the river is required from both banks &amp; access to River Access 7 is only required for 6 months, with traffic management at Arklow Bridge.</p> <p>Baseline traffic counts were recalibrated to take account of low traffic flows during the Covid-19 Lockdowns.</p> <p>Adequate road capacity &amp; parking provision for construction staff.</p> <p><b><i>No change to EIAR conclusions.</i></b></p>
<b>Biodiversity</b>	<p>Concerns noted, considered &amp; clarified in relation to: - protected species at SC6 (loss, disturbance &amp; contaminated run-off from works &amp; stockpiling of high chloride dredge material), otter survey, bats, birds, invasive species, fisheries, water quality, debris traps, biodiversity &amp; native tree species.</p> <p>SC6 will be fenced off during works, only inert estuarine material will be stockpiled &amp; examined (sands &amp; gravels) and the area will be underlaid with geotextile membrane &amp; hardcore to prevent seepage &amp; run-off; additional surveys for <b><i>Moore's horsetail &amp; Wild clary</i></b> (2021), layout &amp; entrance revised to exclude these species, 5m buffer provided and remnant species will be fenced off; &amp; control measures will minimise dust impacts.</p>

	<p>Additional surveys for <b>Otter</b> undertaken (Nov. 2021); 21 x signs of otter recorded along 9.8km of linear habitat with highest concentration along the N bank &amp; upstream of the Bridge close to the Marsh and fewer in urban area with no active or inactive holts recorded; a breeding area may be located upstream of the survey area given the level of activity recorded along the river, which includes a resting area immediately upstream of the Bridge on the N bank that would be disturbed by works, &amp; Derogation licence required.</p> <p>Disturbance to <b>Bats</b> arising from works at Arklow Bridge will impact on the Daubenton's bat roost on the W side of the S end of the bridge, a Derogation Licence to disturb the roost has been issued &amp; the mitigation measures incorporated into the EIAR; details of previous bat surveys for this Scheme &amp; WwTP provided; lighting will be designed in consultation with a licenced bat expert &amp; in line with best practice, and all mature trees will be examined prior to works; landscaping planting will mitigate any loss of terrestrial habitat with native grass &amp; tree planting at the Marsh area; additional annual monitoring will be carried out (see above) and the bridge lighting will only be for traffic safety with no amenity lighting.</p> <p>Impacts on <b>Birds</b> will arise from loss of roosting, resting &amp; foraging areas as a result of works &amp; dredging; this includes the sandbanks upstream of the Bridge (to be replaced with 3 x floating islands), and small wooded islands which will be replaced by an extension of the N bank into the river channel at the Marsh which will be planted with woodland trees; and the riverbed on the S bank will be raised to provide a refuge for birds &amp; other riparian fauna.</p> <p>Surveys details provided, no invasive species recorded &amp; an <b>Invasive Species</b> Management Plan will deal with importation concerns.</p> <p><b>Debris traps</b> upstream of the Bridge are designed to catch floating debris that could get caught in the bridge; columns will not present a hazard to mobile species (incl. birds, fish &amp; bats) because of spacing, bat tubes will be incorporated into the columns which will also be used for resting birds.</p> <p>The 61 x felled <b>trees</b> along River Walk &amp; South Quay will be replaced by 69 x semi-mature trees including more native species than originally proposed; the WwTP approval already permits the felling of 46 of the 61 trees and surveys indicate that none are classified as being in Good condition; and the Scheme provides for c.1.37ha of native woodland at the embankment.</p> <p><b>No change to EIAR conclusions.</b></p>
<p><b>Liaison Officer, Ecological Clerk of Works &amp; Monitoring Committee</b></p>	<p>Concerns noted, considered &amp; clarified in relation to: - the need for a community liaison officer, Ecological Clerk of Works &amp; Environmental Monitoring Committee.</p> <p>An Environmental Manager Officer will monitor &amp; report on the implementation of CEMP mitigation measures; an Ecological Clerk of Works will oversee &amp; monitor all measures to protect the aquatic environment; an Environmental Monitoring Committee was conditioned by ABP for the WwTP; and a communications plan will be established.</p> <p><b>No change to EIAR conclusions.</b></p>

<b>Air Quality &amp; Odours</b>	<p>Concerns noted, considered &amp; clarified in relation to: - odour &amp; dust impacts during construction, suggested relocation of SC1 to SC5 &amp; cumulative construction impacts with WwTP.</p> <p>All relevant guidelines applied to assessment of <b>odour</b> (incl. EPA) &amp; a moderate negative impact was concluded; works will be undertaken at the same time and will not last for the 5-year project lifespan; and 2 x odour specialists will monitor odours during estuarine dredging.</p> <p>Very odorous material will not be held at SC1&amp; SC2 but transported off-site for archaeological examination; very odorous inert material at SC1 will be transported to SC6; very odorous material with elevated chloride at SC1 will be transported to SC5; work vehicles will be covered to contain odours; and community engagement will be facilitated.</p> <p>No significant odour effects anticipated during construction of the WwTP therefore no potential for cumulative impacts &amp; MoU with OPW.</p> <p>In relation to <b>dust</b> impacts, the Communications Management Plan will facilitate community engagement (incl. signage, complaints register &amp; dust monitor locations); and adherence to EIAR/CEMP mitigation measures (incl. monitoring) will ensure no exceedance of dust limits.</p> <p><b>No change to EIAR conclusions.</b></p>
<b>Noise &amp; Vibration</b>	<p>Concerns noted, considered &amp; clarified in relation to: - construction noise management plan, structural surveys &amp; communications plan; noise &amp; vibration during construction (incl. nights); insufficient mitigation &amp; monitoring; and cumulative construction impacts with WwTP.</p> <p>Compliance with HSE recommendations in relation to <b>noise &amp; vibration</b> (incl. a construction noise management plan, structural surveys at sensitive receptors prior to works &amp; a community liaison process); implementation of EIAR mitigation measures; continuous monitoring at the closest sensitive receptors; and cessation of works if vibration levels are exceeded.</p> <p>Clarified that the 30m distance between the embankment works and the nearest property is to the façade &amp; not the boundary; provide a 2.4m high hoarding with a density 7kg/m2 around construction works; compliance with all relevant assessment guidance (incl. EPA); and night-time works may be required at Arklow Bridge for bridge grouting &amp; micro piling, and possibly at other times with the prior agreement.</p> <p>Detailed EIAR mitigation measures for construction noise &amp; vibration in accordance with relevant guidance &amp; specific night-time measures are proposed; continuous monitoring at closest sensitive receptors; the communications plan will facilitate community engagement with prior notification of particularly disruptive activities (incl. demolitions).</p> <p>Only limited works will take place concurrently with the WwTP, with no significant impacts anticipated in the event of an occasional overlap.</p> <p><b>No change to EIAR conclusions.</b></p>



<b>Population &amp; Human Health</b>	<p>Concerns noted, considered &amp; clarified in relation to: - health &amp; safety during construction &amp; operation; loss of electricity during works; baseline community health status; impacts on elderly persons; rodent infestations; odour impacts from dredging; dust, noise, vibration &amp; traffic impacts; impacts on quality of life, mental &amp; physical health; and loss of green space &amp; associated impacts on mental wellbeing.</p> <p><b>Health &amp; safety</b> implications addressed in the EIAR &amp; CEMP (incl. dust &amp; noise); the scheme will reduce flooding &amp; associated health risks; not possible to provide a baseline for every individual in the community; and the presence of vulnerable people was factored into the analysis (incl. elderly persons).</p> <p><b>Rodents</b> already present in the vicinity may be disturbed &amp; exposed by the earthmoving works, and the CEMP contains a rodent control plan.</p> <p>Construction <b>odours</b> may arise from dredging &amp; archaeological examination of material at site compounds after transport in covered vehicles; the existing sewerage system discharges untreated wastewater to the river with resultant odours which will cease upon completion of the WwTP; odour baseline considered with &amp; without the new WwTP; and no impacts anticipated during the operational phase.</p> <p>Dust, noise, vibration &amp; traffic impacts on <b>human health</b> are addressed extensively in the EIAR with no adverse impacts anticipated; the scheme will reduce flooding &amp; associated physical, psychological &amp; mental health risks, and improve quality of life &amp; wellbeing, notwithstanding the localised loss of green space.</p> <p><b>No change to EIAR conclusions.</b></p>
<b>Archaeological, Architectural &amp; Cultural Heritage</b>	<p>Concerns noted, considered &amp; clarified in relation to: - recognition of &amp; protection for cultural heritage; location of site compounds; timing of archaeological works along the embankment; and method statements.</p> <p>Likely significant impacts on archaeological, architectural &amp; cultural heritage addressed extensively in the EIAR. This includes detailed archaeological monitoring &amp; test excavations (incl. river dive &amp; wade surveys); and the identification &amp; assessment of cultural heritage assets (incl. maritime).</p> <p>Potential for significant, positive &amp; permanent impacts on the setting &amp; understanding of the historic maritime significance of Arklow along the new quayside through improved access, public realm upgrades &amp; heritage signage; and new maritime heritage trail proposed in consultation with relevant stakeholders.</p> <p>Works will be overseen by licenced archaeologist &amp; relevant EIAR mitigation measures will be implemented.</p> <p><b>No change to EIAR conclusions.</b></p>

<b>Material Assets</b>	<p>Concerns noted, considered &amp; clarified in relation to: - Arklow Marina &amp; floating pontoons; impact ratings of land &amp; property ownership; &amp; land take.</p> <p>Likely significant impacts on Arklow Marina addressed in the EIAR (incl. River Amenity); waterside access to river pontoon berths at North Quay will be unavailable during WP2 construction works; no proposal for works at this pontoon or to remove it during works; Marina located in the dock at North Quay will be unaffected by works &amp; full access maintained; and correspondence with owner attached (in Appendix E).</p> <p>Some proposed changes to the CPO to change the acquisition of some plots from permanent to temporary during construction.</p> <p><b>No change to EIAR conclusions.</b></p>
<b>Contravention of Development Plan &amp; Arklow LAP</b>	<p>Concerns noted, considered &amp; clarified in relation to: - Dev. Plan &amp; LAP land use zoning and policies &amp; objectives related to the Coastal Zone, Waterfront, Open Space, Heritage &amp; Recreation.</p> <p>No conflict with <b>CDP Coastal Zone objective CZ11</b> as the scheme provides for improved visual, visitor, recreational &amp; natural amenities of the area.</p> <p>No conflict with <b>LAP OS2 zone</b> (Open Space) in relation to the list of acceptable uses which also allows for developments which are not strictly open space that don't undermine the role of these areas; most of the OS2 zoned land along the S side of the river W of the Bridge is already public road or footpath, and area to E of Bridge is not zoned OS2, and some of the works are on un-zoned lands, thus the OS2 curtailments don't apply.</p> <p>No conflict with <b>LAP RE zone</b> (Residential) which protects green spaces as it is unclear if the spaces SE of the Bridge were originally designed or intended to be used for open space in the plans; and the works accord with the OS1 &amp; 2 areas to the W of the Bridge.</p> <p>No conflict with <b>Objective CD2</b> which deals with plan making process.</p> <p>No conflict with <b>CDP Objective TR39</b> (recreation &amp; marinas) as the scheme provides for improved recreational amenities &amp; the development of marine &amp; shipping activities.</p> <p>No conflict with <b>CDP Objective FL6/FL7</b> (Floods) as the scheme does not include significant new areas of hard surfacing (which characterise the surrounding quay &amp; harbour area); design of new hard surfaces &amp; drainage will integrate with the surrounding area; and extensive public realm improvements include soft landscaping. The OPW standard level of flood defence will be provided (incl. new storm drainage).</p> <p>No conflict with <b>LAP Open Space</b> designation at the Running Track as SC2 will be located on a grassed area adjacent to the track, and lands will be re-instated after the works are complete.</p> <p>No conflict with <b>LAP Objectives HT3 &amp; 4</b> (Cultural heritage) in relation to properties, River Walk &amp; views, or remove features without compensatory measures (incl. swimming areas, pontoons, trees &amp; open space); and</p>

	<p>Scheme will improve &amp; enhance existing features.</p> <p>No conflict with <b>LAP Objective HT7</b> (Marine heritage) and it will enhance existing features &amp; provide for interpretation (incl. Tyrells Slipway, bollards &amp; quay walls).</p> <p>No conflict with <b>LAP Objectives CD1 &amp; HT8</b> (Green networks) by providing access to South Quay for vulnerable users (incl. footpaths).</p> <p>No conflict with <b>LAP RE Zoning Objectives</b> (Residential) and the Scheme will protect Waterfront residential properties from flooding.</p> <p>No conflict with <b>LAP Objective TR6</b> (Coastal &amp; River recreation) as Scheme provides a high-quality public realm (incl. footpaths, landscaping, replacement &amp; new access at River Walk &amp; Fish Dock).</p> <p>No conflict with <b>LAP Waterfront Strategy Objectives</b> which deals with the Dock area and not South Quay; flood protection measures open the possibility of re-developing the South Quay &amp; Dock Area.</p> <p><b>No planning policy conflicts &amp; no change to EIAR conclusions.</b></p>
<b>Adequacy of Site Notices &amp; Drawings, Non-Compliance with Planning Regulations</b>	<p>Concerns noted, considered &amp; clarified in relation to: - the adequacy of the Site Notices &amp; drawings, and compliance with Planning Regulations.</p> <p>Satisfied that all relevant requirements have been complied with.</p> <p><b>No change to EIAR conclusions.</b></p>
<b>Adequacy of public Consultation</b>	<p>Concerns noted, considered &amp; clarified in relation to consultations.</p> <p>Development of the Scheme &amp; emerging solution have been communicated to the townspeople since 2007 &amp; their concerns have informed some of the revisions prior to lodging the application.</p>

## **5.0 COMPULSORY PURCHASE ORDER**

### **5.1 Documentation submitted**

The local authority is seeking confirmation of the Wicklow County Council Compulsory Purchase (Arklow Flood Relief Scheme) Order No. 2, which was signed and sealed on 25<sup>th</sup> day of May 2021.

The following documentation was submitted to the Board:

- Compulsory Purchase Order No.2 of 2021 (signed & sealed) x 3.
- CPO Schedule and Deposit Maps (sealed & sealed) x 3.
- Sample of CPO notification letter served on affected property owners/occupiers & lessees.
- Registered verification of post.
- CPO Newspaper Notice.
- Report of the Senior Engineer (signed & dated).
- Chief Executive's Order authorising the making of the CPO (235/2021).
- Other documents include Planning Report & EIAR non-technical summary.

Part I and II of the CPO Schedule lists 69 x individual plots (including subplots) that will be permanently and temporarily affected during construction works. No Public or Private Rights of Way are proposed to be extinguished. No Private Fishing Rights are proposed to be Temporarily Extinguished. Deposit maps illustrate lands to be permanently and temporarily acquired. The lands described in the schedule are lands other than land consisting of a house or houses unfit for human habitation and not capable of being rendered fit for human habitation at reasonable expense.

### **5.2 Case for CPO**

- Facilitate the implementation of the Arklow Flood Relief Scheme.
- Provide flood relief measures along the Avoca River and estuary to alleviate flooding up to the 1% Annual Exceedance Probability fluvial event and the 0.5% Annual Exceedance Probability coastal flood event.
- Protect residential & non-residential properties from flooding & damage.

- Protect infrastructural utility services from flood damage.
- Improve health & safety in flood risk areas by reducing stress & anxiety.
- Reduce flood related disruption & disturbance (incl. evacuation & traffic).
- Reduce risk of environmental pollution (incl. runoff of hydrocarbons).
- Provide basis for maintenance of Avoca River to manage future flood risk.
- Facilitate improved public realm amenities.
- Comply with European, national, regional & local plans & policy.
- Give effect and facilitate the implementation of the above plans & policy.
- Accord with proper planning and sustainable development of the area.

### 5.3 Objections to CPO

The affected plots are owned by several landowners. Nine written objections were received by the Board in relation to the Compulsory Purchase Order, two of which were withdrawn during the course of the oral hearing.

The main concerns of the Objectors are summarised below:

Plot no.	Location	Name	Concerns
101	Ticknock	Patrick & Patricia Ivory	<ul style="list-style-type: none"> <li>• Excessive land take.</li> <li>• Temporary acquisition preferred.</li> <li>• Require proper boundary treatment.</li> <li>• Building a house on adjacent lands.</li> <li>• Other concerns in relation to <b>Project &amp; EIAR</b> (incl. traffic, drainage, damage to property, disturbance, glass panels, car parking &amp; river access).</li> </ul>
102b, 103 & 104	Ferrybank	Proinseas O Broinn	<ul style="list-style-type: none"> <li>• Adverse impact on landholding.</li> <li>• Severance - embankment removes link between house &amp; lands.</li> <li>• No access to lands to W of embankment.</li> <li>• Prefer a flood wall or relocated embankment</li> <li>• Prefer temporary &amp; not permanent of land.</li> <li>• Use of SC1.</li> <li>• No quantitative assessment of tree removal or consideration of alternative locations.</li> </ul>

			<ul style="list-style-type: none"> <li>Other concerns in relation to the <b>Project &amp; EIAR</b> (incl. high chloride &amp; hazardous content of materials &amp; hydrological impacts on marsh).</li> </ul>
<b>107a, b, c</b>	Avoca River Park	Graeme McWilliams & Crag Digital Avoca Ltd.	<ul style="list-style-type: none"> <li>Retain right of way &amp; access to lands to W.</li> </ul>
<b>109</b>	Ferrybank	Estate of Malachy McDaniel Stone	<ul style="list-style-type: none"> <li>Excessive &amp; unnecessary permanent land take at no.1.</li> <li>Adverse impact on plans to merge no.1 with lands to rear of nos. 5/6.</li> <li>Lack of consideration of alternatives (incl. part temporary acquisition).</li> <li>No works proposed on part of lands to NE of flood defence wall.</li> <li>Suggest a Wayleave agreement to enable the works and future access for maintenance, as an alternative.</li> </ul>
<b>120g</b>	South Quay	Elizabeth & Nicola Kenny	<ul style="list-style-type: none"> <li>Query ownership of plot.</li> <li>Original sole occupiers since 1959.</li> <li>Maintained plot with no input from WCC.</li> <li>Driveway across plot installed with no interference from WCC.</li> <li>Adverse safety &amp; privacy impacts related to road widening &amp; proximity of footpath.</li> <li>Other concerns in relation to the <b>Project &amp; EIAR</b> (incl. traffic impacts on property, amenity, road safety &amp; health; loss of valuable residential, tourist, ecological &amp; visual amenity; loss of trees; severance from riverside; surface water run-off; poor quality design &amp; loss of views; and non-compliance with planning policies).</li> </ul>
<b>120h</b>	South Quay	Christine McElheron	<ul style="list-style-type: none"> <li>Query ownership of plot.</li> <li>Maintained plot with no input from WCC.</li> <li>Driveway across plot installed with no interference from WCC.</li> <li>Adverse safety &amp; privacy impacts related to road widening &amp; footpath.</li> <li>Other concerns in relation to the <b>Project &amp; EIAR</b> (incl. as for plot 120g above, plus severance from riverside amenity, recreation &amp; emergency access).</li> </ul>
<b>120k</b>	South Quay	Cllr. Peir Leonard	<ul style="list-style-type: none"> <li>Lack of community engagement &amp; justification for land take.</li> <li>Other concerns in relation to the <b>Project &amp; EIAR</b></li> </ul>

			(incl. as for plots 120g&h above, plus inadequate sightlines; insufficient access points to the river & need for softer eco-friendly engineering options).
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#### 5.4 Response to CPO submissions

The concerns raised by the Objector were addressed by the Council in a written submission received by the Board on the 17<sup>th</sup> day of January 2021, which was circulated to the Objectors, and again at the CPO Oral Hearing. The Council's written response submission to the Objectors is summarised below.

Plot no.	Location	Name	WCC Response
101	Ticknock	Patrick & Patricia Ivory	<ul style="list-style-type: none"> <li>CPO amended from permanent to temporary on marsh side of flood embankment.</li> </ul>
102b, 103 & 104	Ferrybank	Proinseas O Broinn	<ul style="list-style-type: none"> <li>CPO amended from permanent to temporary on marsh side of flood embankment.</li> <li>Access can be provided via a right of way.</li> <li>Flood embankment preferable to wall on environmental &amp; visual grounds.</li> <li>SC1 is proximate to dredging at Arklow Bridge.</li> </ul>
107a, b, c	Avoca River Park	Graeme McWilliams & Crag Digital Avoca Ltd.	<ul style="list-style-type: none"> <li>No amendments to CPO Plot.</li> <li>No right of way extinguished (clarity required).</li> <li>Access can be provided.</li> </ul>
109	Ferrybank	Estate of Malachy McDaniel Stone	<ul style="list-style-type: none"> <li>No amendments to CPO Plot</li> </ul>
120g	South Quay	Elizabeth & Nicola Kenny	<ul style="list-style-type: none"> <li>No amendments to CPO Plot.</li> </ul>
120h	South Quay	Christine McElheron	<ul style="list-style-type: none"> <li>No amendments to CPO Plot.</li> </ul>
120k	South Quay	Cllr. Peir Leonard	<ul style="list-style-type: none"> <li>No amendments to CPO Plot.</li> </ul>

## **6.0 CPO ORAL HEARING**

### **6.1 Introduction**

The oral hearing opened on Wednesday 19<sup>th</sup> January 2021 and it closed on Thursday 20<sup>th</sup> January. The hearing lasted for 2 days and it took place virtually in the Board's offices. The oral hearing dealt with the CPO application (ABP-310377-21). A digital recording of the proceedings and copies of written submissions are attached to the file, as is a copy of the Inspector's Opening Statement which may not have been recorded due to technical difficulties.

### **6.2 CPO Oral Hearing Proceedings**

The following sections provide a brief summary of the hearing and any information received over and above that contained in the application documentation.

#### **6.2.1 Wicklow County Council**

Wicklow County Council was requested to make a brief opening submission to the hearing describing the nature and extent of the proposed Flood Relief Scheme, the justification for the CPO, the benefits that would occur as a consequence of the CPO, and the enabling planning policy context for the project. The Council was then requested to respond to the main issues raised by the Objectors in relation to the compulsory purchase of the lands required to implement the Scheme. Members of the Technical Team were present to answer questions by the objectors.

The Wicklow County Council and Technical Team (who participated in the hearing) comprised the following:

- Carol O'Farrell, Barrister - introductions and context.
- Mark Deveraux, Engineer (WCC) - overview of scheme.
- SORCHA WALSH, Senior Planner (WCC) – planning policy context.
- Kieran Thornton, Director (Byrne Looby & Partners Ltd.) - response to CPO objections.



- Sinead Whyte, Engineer (ARUP).
- Thomas Burns, Landscape Planner (BSM).
- Brendan O'Connor, Ecologist (AQUAFACT).
- James Forde, Ecologist (AQUAFACT).
- Lisa Courtney, Archaeologist (Courtney Deery Heritage).

**Carol O'Farrell** (Barrister) itemised the following amendments / modifications to the CPO Schedule Part 2, and accompanying Maps:

- **Plot 101:** partial change from permanent to temporary acquisition.
- **Plot 103:** partial change from permanent to temporary acquisition.
- **Plot 124d:** partial change from permanent to temporary acquisition.
- **Plot 125:** change from permanent to temporary acquisition.

Ms. O'Farrell clarified that CPO powers do not extend to lands owned by the State or the local authority.

**Mark Deveraux** – provided an overview of flood relief scheme and the justification for the works, and he itemised some small amendments to the scheme (incl. additional glass panels, localised relocation of the defence wall at South Quay, additional car parking spaces at South Quay, installation of a demountable flood barrier and ramp at the Harbour Dock, along with some minor changes to the road layout in the Dock area).

**Sorcha Walsh** – provided an overview of the enabling planning policies and objectives for the scheme contained in the County Development Plan and Arklow Local Area Plan, which seek to protect against flood events and regenerate the area.

**Kieran Thornton** – responded to the concerns raised by the CPO objectors in relation to the affected CPO plots. He explained that WCC preferred a flood embankment at Arklow Town Marsh to a flood wall for reasons related to environmental sustainability, visual amenity, and endurance, and that a flood wall was preferred along the South Quay for endurance and maintenance reasons.

He clarified that the acquisition of some of the CPO Plots would be amended from permanent to temporary and that access to lands owned on the W side of the flood embankment could be accommodated by a variety of means. He explained the justification for the road and footpath layout along South Quay in terms of pedestrian and traffic safety, and the need for a ramp at the Harbour Dock to allow for continued access to the Harbour by vehicles. He explained the rationale for the acquisition of lands to accommodate Site Compounds, and in particular SC1 which would be archaeologically examined and then used to store, examine and monitor dredge material for the nearby Arklow Bridge. He confirmed that the green space at Plot 120 (a to n) is owned by the Council and that access to the houses will be retained.

### **6.2.2 Objectors submissions**

Objectors were requested to provide a brief summary of their main concerns and they were given the opportunity to ask questions of the Council in relation to the proposed land acquisitions. The main points raised by the Objectors in their written submissions are summarised in the table contained in section 5.3 above. Any further elaboration and clarification of concerns raised, or any queries in relation to amendments to the CPO Plots as proposed by the Council in response to concerns raised are summarised below.

**Patrick Ivory** (Plot 101): reiterated the concerns raised in his written submission. He raised further concerns in relation to the extent of the land take & access.

**Bernard Kavanagh (Engineer)** on behalf of Proinseas O Broinn (Plots 102b, 103 & 104): reiterated the concerns raised in the written submission. He raised further concerns in relation to the extent of the land take, severance and access, preference for flood wall, impact of embankment on Arklow Tow Marsh pNHA, biodiversity, hydrology, pollution, visual amenity & carbon footprint, impact of SC1 on cultural heritage, structural stability, and non-compliance with policy.

**Owen Hickey (Solicitor)** on behalf of Estate of Malachy McDaniel Stone (Plot 109): reiterated the concerns raised in his written submission. He noted the presence of residentially zoned lands to the NW. He raised further concerns in relation to the

extent of the permanent land take, access to adjacent lands and resultant adverse impacts on future development potential of client's lands, the previous provision of a spur to client's lands off the Bridgewater roundabout, and the timing of the CPO with respect to his client's purchase of lands to rear of nos. 5 & 6 Ferrybank. He suggested other means for securing access to the embankment, and requested that a small section identified for compensatory tree planting be swapped with other lands owned by his client to ensure that access is maintained to their lands.

**Nicola Kenny, (Plot 120g):** reiterated the concerns raised in the written submission. She raised further concerns is relation to the loss of the green space, the location of the footpath, the traffic layout (single lane preferred), future flood wall maintenance, surface water drainage, responsibility for property maintenance and insurance cover (during & after works), and the need for a community liaison officer.

**Christine McElheron (Plot 120h):** reiterated the concerns raised in the written submission and provided a visual description of the green space and its value to residents (incl. children), the local community and tourists. She raised further concerns is relation to the loss of the green space, the location of the footpath (relocation preferred), traffic safety and layout (single lane & calming measures preferred), visual impact, loss of river views and access to the river (incl. safety aspects), vehicular access to property, and the lack of consideration of more environmentally friendly flood relief alternatives.

**Cllr. Peir Leonard (Plot 120k):** reiterated the concerns raised in the written submission and outlined her background in community engagement. She raised further concerns is relation to access to green spaces, the river and the harbour, visual impacts of the flood defence wall, and vehicular access/sightlines. She also welcomed the additional glass panels.

### **6.2.3 Response to Objectors concerns**

The Council was requested to provide a response to the concerns raised and questions asked by the CPO Plot owners/occupants. The main aspects of the Council's response to the Objector's written submissions are summarised in the

table contained in section 5.4 above. Any further elaboration and clarification of concerns raised, or further amendments to the CPO Plots are summarised below.

**Patrick Ivory (Plot 101):** WCC clarified that maintenance access was required for the full length of the embankment, that the lands to the E would be protected from flooding, and that an access to lands on the W side could be provided.

**Bernard Kavanagh (Engineer)** on behalf of Proinseas O Broinn (Plots 102b, 103 & 104): WCC clarified the status of the pNHA and planning policy context; outlined the reasons why a flood embankment is preferable to a wall (incl. stability, effectiveness, durability, biodiversity, visual, management of groundwater flows & maintenance of natural connection between the river and marsh); clarified that the mainly inert dredged material will be tested, monitored and segregated; and that the temporarily acquired lands to the W will be re-instated; and confirmed that the lands at SC1 will be subject to archaeological testing prior to receiving dredged material from the river.

**Owen Hickey (Solicitor)** on behalf of Estate of Malachy McDaniel Stone (Plot 109): WCC noted the presence of spur off the Bridgewater roundabout to the Stone Estate lands; confirmed that the Land Registry search was conducted before the Stone Estate acquired lands at nos. 5 & 6; and clarified that access was required for the flood defence works, future maintenance and landscaping only. After further consideration WCC confirmed that the suggested swap of landscaped areas (which would allow for continued access to the Stone lands off the roundabout) could not be accommodated, as the area suggested for relocation formed part of the EIAR landscape mitigation measures.

**Nicola Kenny, Christine McElheron & Cllr. Peir Leonard** (Plots 120 g, h & k): WCC clarified the planning policy context; outlined the reasons why a flood wall is preferable to glass panels (incl. maintenance, damage & effectiveness); confirmed that issues related to dust, noise, vibration, air quality & surface water are addressed in the EIAR; outlined the reasons for the footpath location (incl. safety, continuity of levels & universal access); confirmed that the purpose of the Scheme is too protect against flooding (fluvial & tidal) and that the scale of the upstream catchment is too large for more eco-friendly alternatives to work effectively; confirmed that emergency

access to the river will be maintained and additional glass panels will protect river views and connectivity; clarified that traffic along this section of South Quay has always been 2-way, the road layout is designed in accordance with DMURS, and entrance sightlines will be retained; and noted that properties will be surveyed before & after the works, insurance certificates can be provided, and a community liaison officer will be appointed. WCC also described the MoU with Irish Water in respect of concurrent works along South Quay required for the connection to the new WwTP.

#### **6.2.4 Cross questioning**

The CPO Objectors were afforded the opportunity to question the Council at the end of their submissions and the ensuing debate is available on the digital record of the proceedings. The general areas of concern related to extent of the land take, permanent versus temporary acquisition, access to severed lands, along with general planning policy, environmental, ecological, residential amenity, traffic impact, river safety and visual concerns.

Although several other points were discussed and/or clarified at this stage, no significant new issues arose, and any salient points of interest will be referred to in the relevant parts of the CPO assessment below.

#### **6.2.5 Closing submissions**

Mr Kavanagh made a closing submission on behalf of **Mr Proinseas O' Broinn** (Plot nos. 102b, 103 & 104) and reiterated Mr. O'Broinn's concerns in relation to the extent of the land take, severance, access, preference for a flood wall, the use & acquisition of lands for SC1, and general planning policy, environmental and ecological concerns. Ms. O'Farrell BL made a closing statement on behalf of **Wicklow County Council** (the applicant) and requested the Board to approve the proposed CPO of the lands identified in the CPO Schedule and Maps which are required to implement the Arklow Flood Relief Scheme, subject to the amendments / modifications agreed during the course of the oral hearing.

### 6.2.6 Closure of oral hearing

The Inspector formally closed the oral hearing on Thursday 20<sup>th</sup> January 2021.

### 6.2.7 CPO Modifications

**Wicklow County Council** subsequently provided written confirmation, in a letter dated 20<sup>th</sup> January 2022, of the proposed modifications to the CPO Schedule and Maps which are set out below:

1. **Plot 101:** Part of the lands in Plot No.101 on the marsh side of the proposed Embankment (in the ownership or reputed ownership of Patrick & Patricia Ivory) to be acquired on a temporary basis only, identified as Plot No.101T comprising 0.1789ha (0.4423acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.
2. **Plot 103:** Part of the lands in Plot No.103 on the marsh side of the proposed Embankment (in the ownership or reputed ownership of Proinseas O Broinn) to be acquired on a temporary basis only, identified as Plot No.103T comprising 0.5595ha (0.13825acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.
3. **Plot 124d:** The area of Plot No.124d (which lands are owned by Wicklow County Council and leased to Arklow Slipway Ltd.) to be permanently acquired is to be decreased from 0.2385ha (0.589 acres) to 0.0233ha (0.0576 acres).
4. **Plot 124d:** The remainder of Plot No.124d to be acquired on a temporary basis only, identified as Plot No. 124dT comprising 0.2152ha (0.5318 acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.
5. **Plot 125:** Plot No.125 (in the ownership or reputed ownership of Roadstone Limited) to be acquired on a temporary basis only, identified as Plot No.125T and be listed in Part 11 of the CPO Schedule.

WCC stated, further, given that compulsory powers do not extend to lands owned by the State and parts of the lands affected by the proposed Scheme are foreshore lands owned by the State, the Board is being requested by WCC, if minded to approve the CPO, only to so do insofar as it affects lands not in the ownership of the State or of Wicklow County Council. As no objection were made to the Council's request for modifications, the Board is requested to accept same.

A follow up letter from WCC dated 9<sup>th</sup> February 2022, the Council stated that Section 227 of the Planning and Development Act 2000 expressly confirms that the powers of a local authority to compulsorily acquire land under the enactments specified in section 214(1) extend to that part of the foreshore that adjoins the functional area of the local authority concerned. Accordingly, WCC request that if the Board is minded to approve the CPO, that it does so only insofar as it affects lands not in the ownership of Wicklow County Council.

## 7.0 PLANNING ASSESSMENT

***This section should be read in conjunction with Section 8.0 (EIA) and Section 9.0 (AA) of this report.***

The main issues arising in this case are:

1. Principle of development
2. Visual amenity
3. Residential & town amenity
4. Traffic & movement
5. Biodiversity & water quality
6. Cultural heritage
7. Drainage & flood risk
8. Other issues

**Section 8** deals with Environmental Impact Assessment

**Section 9** deals with Appropriate Assessment

**Section 10** deals with the Compulsory Purchase Order



## **7.1 Principle of development**

### **7.1.1 EU, national and regional policy compliance:**

The proposed development would be compatible in principle with EU, national and regional land use, planning, environmental and climate change policy as set out in the documents summarised in sections 3.1 to 3.3 above. It would address the issues identified in these documents in relation to climate change, rising sea levels, storm surges and flood risk (incl. the EU Strategy on Adaption to Climate Change, 2021, the Climate Action Plan, 2021 & the National Marine Planning Framework, 2021). It would also contribute to achieving the objectives of the EU Water Framework Directive, as amended, in relation the protection and improvement of water quality and the achievement of good ecological status by 2027.

The Scheme would be compatible with the policies and objectives contained in the National Planning Framework and National Development Plan in relation to transitioning to a climate resilient society (incl. Strategic Outcome 8 of the NDP); the National Marine Planning Framework, 2021 in relation to the co-ordination of measures to deal with coastal change resulting from climate change as the Scheme would require the combined input of the OPW and WCC; and the Flood Risk Management Climate Change Sectoral Adaptation Plan, 2018 which identifies the actions needed to ensure effective and sustainable management of flood risk into the future. It could also factor into the sequential approach to flood risk assessments and justification tests for future development proposals as advocated in the Planning System and Flood Risk Management, 2009.

The Scheme would be compatible with the strategic vision and policy objectives contained the Regional Spatial & Economic Strategy for the Eastern and Midlands, 2019 in relation to the management and reduction of flood risk (incl. RPO 7.12 to RPO 7.15), and it notes that Arklow Port is a port of Regional Significance, as designated in the National Ports Policy, 2013.

### 7.1.2 Local policy compliance:

The proposed development would be compatible in principle with the Core Strategy and relevant strategic policy objectives in the Wicklow County Development Plan, 2016 to 2022 (as varied), and the various local policies and objectives of the Arklow and Environs Local Area Plan 2018 to 2024, as summarised in section 3.4 above.

#### **Wicklow County Development Plan:**

In relation to **strategic policy objectives**, the Core Strategy has designated Arklow as a Level 3 (Large Growth Town 11) and the Landscape Categorisation identifies the area as being suitable for development (LC No.6-Urban Area). Having regard to the purpose, nature and scale of the proposed development, I am satisfied the Flood Relief Scheme would be compatible with and enhance the town's Level 3 status by reducing the risk of flooding and resultant adverse impacts on the town's future growth prospects. It would also be compatible with the town's urban landscape categorisation.

The **Coastal Zone objectives** for Arklow (Cell 11) seek to enhance the visual, recreational and natural amenities of the coastal area, facilitate the development and enhancement of visitor and recreational facilities, and support and facilitate the development of marine and shipping activity in Arklow, particularly the recreational use of the existing harbour. Several of the Observers (incl. Cllr. Leonard & Save Arklow Maritime Group) raised concerns in relation to the Scheme's incompatibility with the Development Plan Coastal Zone objectives. The concerns are noted as is the Council's response to them (as summarised in sections 4.2 & 4.3 above). The proposed development would comprise the installation of a flood defence wall along River Walk, South Quay and Harbour Dock which would protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding. The installation of demountable barriers in the defence wall at existing slipways (incl. Harbour Dock) and the provision of pontoons (incl. River Walk) would maintain and enhance commercial and recreational access to the river and dock water. The associated public realm works would provide for a continuous landscaped riverside walk along River Walk and South Quay with intermittent resting, viewing

and interpretative areas along the waterfront, which would contribute to the visitor and recreational offer of the area. I am therefore satisfied that the Scheme would be compatible with the Coastal Zone objectives for Arklow.

The Observers also raised concerns in relation to the temporary loss of a coastal amenity area at South Beach which would be used as a works compound for the storage and examination of inert dredge material (SC6). However, I am satisfied that the loss would not be permanent, that the EIAR mitigation measures would ensure the protection of coastal habitats and species, and that the lands would be re-instated after the works are completed (refer below for a more detailed planning & environmental assessment of the Scheme).

Several of the Observers (incl. Cllr. Leonard, Save Arklow Maritime Group and the South Quay residents) also raised concerns in relation to the Scheme's incompatibility with Development Plan **flood risk objectives** which are set out under FL1 to FL9 of the Plan (as summarised in sections 4.2 & 3.3 above). The Observer's concerns are noted as is the Council's response to them. As previously stated, the purpose of the proposed Scheme is to protect properties (incl. residential & commercial), infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. The Scheme would comprise new drainage arrangements (incl. pump stations) to manage surface water runoff from within the surrounding existing hard surfaced areas. I am therefore satisfied that the Scheme would be compatible with the Development Plan flood risk objectives (refer below for a more detailed planning & environmental assessment).

### **Arklow and Environs LAP:**

In relation to the **overall strategy** for Arklow Town and its waterfront, it is noted that the strategy seeks to assist the OPW through the implementation of measures capable of managing and mitigating against the consequences of flooding, facilitate the sustainable development of Arklow and provide for a high level of protection of the environment and natural assets such as the beach, river and sea, and prepare

the Avoca River (Arklow) Flood Defence Scheme (incl. comprehensive flood defences). The LAP also states that the Waterfront should be celebrated through increased access, the design of good buildings and public spaces, and the increased use of its shoreline and adjacent areas for leisure and cultural purposes, and that it seeks to facilitate sustainable economic development, whilst allowing for expansion and improvement of amenity and recreational opportunities, development of a wider mix of uses (incl. maritime, tourism & community uses), and providing for a high level of protection of the environment and natural assets (incl. the beach, river & sea).

As previously stated, the purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. The installation of demountable barriers in the defence wall at existing slipways and the provision of pontoons would maintain and enhance commercial and recreational access. The associated public realm works would provide for a continuous landscaped riverside walk along the south side of the river which would contribute to the tourism, visitor and recreational offer of the area. I am therefore satisfied that the Scheme would be compatible with the overall Strategy for Arklow and its Waterfront.

In relation to the **land use zoning objectives** contained in the current LAP, the proposed development would mainly occupy urban lands which are in a variety of uses and are covered by a range of zoning objectives, which are summarised in section 3.3 above (incl. residential, open space, community, local shops, town centre & waterfront) as well as traversing the E section of Arklow Town Marsh pNHA. Several of the Observers (incl. Cllr. Leonard, Save Arklow Maritime Group, South Quay residents & Mr. O’Broinn) raised concerns in relation to the Scheme’s incompatibility with and contravention of a plethora of LAP policies objectives (incl. residential, visual, environmental, biodiversity, open space, recreation & waterfront). The Observer’s concerns are noted (and summarised in detail in section 4.2 above) as is the Council’s response to them (as summarised in section 4.3).

The Council’s response submission also clarified that OS zoned lands at the Arklow running track and St. Mary’s Church are not included in the temporary works, and that the OS zoned lands at River Walk are already occupied by roads, footpaths and car parking. It also confirmed that the open space at South Quay (CPO Plot 120) that

will be acquired for road widening and a footpath does not lie within an OS zone, and that there is no evidence of its designation as open space in the plans for the area.

Ch.11 of the LAP also describes the context of the land use zoning objectives and the range of uses that are acceptable within these zones. I am satisfied that there is nothing in this section of the LAP that would preclude the development and operation of the Arklow Flood Relief Scheme on the grounds of it being incompatible with or in contravention of any planning policies and objectives. As previously stated, the purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. I am therefore satisfied that the Scheme, would be compatible with and not contravene the policies and objectives contained in the Arklow & Environs LAP.

In relation to the **waterfront objectives** contained in the current LAP, the S section of the Scheme would extend along the Avoca River upstream and downstream of Arklow Bridge as far E as Harbour Dock, along River Walk and South Quay. This area, which is characterised by a variety of maritime uses (incl. commercial & recreational), is covered by several waterfront objectives which are summarised in section 3.3 above. The objectives seek to support and encourage water related and maritime activities and new harbour infrastructure (WZ3, WZ5 & WZ7), maintain and improve access to the water (WZ10) and protect maritime heritage (WZ12). Several of the Observers (incl. Cllr. Leonard & Save Arklow Maritime Group) raised concerns in relation to the Scheme's incompatibility with the LAP waterfront objectives. The Observer's concerns are noted (and summarised in section 4.2 above) as is the Council's response to them (as summarised in section 4.3). The purpose of the flood protection Scheme has been previously stated and I am satisfied that the proposed development would be compatible with the relevant LAP waterfront objectives.

In relation to **other objectives** contained in the current LAP (incl. residential amenity, roads & traffic, the environment, biodiversity, tourism and cultural heritage), the extent to which the practical elements of the Flood Relief Scheme would interact with these objectives will be addressed in the following sections of this report.

### **7.1.3 Need and justification:**

The Council states that the need and justification for the Arklow Flood Relief Scheme is based on its analysis of future flood risk and the need to provide flood relief measures along the Avoca River and estuary to alleviate flooding up to the 1% Annual Exceedance Probability fluvial event and the 0.5% Annual Exceedance Probability coastal flood event. The Council states that the Scheme will protect properties (incl. residential & non-residential) and infrastructural utility services from flood damage, improve health and safety in flood risk areas, reduce flood related disruption and disturbance (incl. evacuation & traffic diversions), and provide a basis for maintaining the river to manage future flood risk. It further states that the Scheme provides the opportunity to facilitate improved public realm amenities in the area. I am therefore satisfied that the Council has demonstrated the need and justification for the Scheme.

### **7.1.4 Conclusion:**

Having regard to the foregoing, I am satisfied that the proposed development would comply with all relevant EU, national, regional and local policies, land use zoning objectives, and planning policies and objectives for the area, and that the need and justification for the project has been clearly demonstrated. The proposed Arklow Flood Relief Scheme would therefore be acceptable in principle, and compatible with the proper planning and sustainable development of the area.

## **7.2 Visual amenity:**

### **Site context:**

The site is located in Arklow Town and the surrounding area comprises a mix of residential, commercial, industrial, community, amenity and maritime uses in addition to riparian, marsh and coastal areas. The site extends W and E along the Avoca River at the North and South Quays, both upstream and downstream of Arklow Bridge, and NW into Arklow Marsh and an area of backland adjacent to the Dublin Road at Ferrybank. The N and S parts of the town are defined by a diverse range of buildings and structures along Dublin Road, the Quays and at Harbour Dock.

The proposed linear Scheme would occupy several distinct areas which are described in detail in Section 1.3 above (incl. Ferrybank, Arklow Bridge, River Walk, South Quay & Harbour Dock). The Avoca River is not covered by any sensitive heritage designations or protected views. Arklow Bridge is a Protected Structure and Arklow Town Marsh is a proposed NHA. There are several Protected Structures (incl. the Masonic Hall, Methodist Church & no. 58 Ferrybank) along Dublin Road and heritage features (incl. quay walls, bollards & slipways) along South Quay. Sections of South Quay and River Walk also lie within an Area of Archaeological Potential.

### **Project elements:**

A detailed description of the main project elements is provided in Section 2.2 above (incl. flood defence embankment & walls, riverside walkway & public realm works). Several temporary construction compounds would be located at various locations around the town, N and S of the river (SC1 to SC6). The northside flood defence works at Ferrybank would comprise a short section of flood defence wall extending NW from Arklow Bridge into Arklow Marsh over a relatively short distance, and then an earthen flood defence embankment which would extend N for c.545m along the E boundary of the Marsh and W of the properties at Ferrybank and Dublin Road.

This would include the following main elements: -

- The ***northside flood defence embankment*** would be c.545m long, c.14.5m wide, and up to c.3.75m high, with the width and height tapering down substantially in the final section to the N relative to the surrounding higher ground levels. It would be set back from the rear boundaries of the adjacent properties by between c.10m and 100m, and from their rear elevations by between c.30m and 120m, landscaped with native species trees and shrubs, and paralleled by a c.4m wide linear maintenance track. The flood defence wall to the NW of the bridge would be c.60m long.
- The ***south side flood defence wall*** would extend along River Walk, South Quay (c.1.15km) and around the E and S sides of Harbour Dock. The wall would be mainly c.1.2m high (relative to the proposed walkway

but higher relative to the road in places), it would be constructed in polished and capped concrete with intermittent glass panels. Sections of the Scheme along South Quay would extend into the river (c.6m x 260m) to accommodate the permitted WwTP works and the proposed drainage arrangements, and the resultant space would provide for an amenity area. A significant number of riverside trees would be removed and replaced.

- The landscaped walkway would extend along the flood defence wall and it would be interspersed with amenity areas at River Walk and South Quay.
- The c.3.5m high and c. 1.6m wide debris traps would traverse the Avoca River c.300m upstream of Arklow Bridge.

### **Environmental Impact Assessment Report:**

**ElAR chapter 12** dealt with Landscape and Visual Impacts, Appendix 12 contained Tree Surveys and Photomontages and the application was accompanied by a Landscape/Townscape and Visual Impact Assessment. The minor amendments to the scheme as per the Council's response to the Observers submissions resulted in a minor change to the ElAR conclusion of short-term moderate to significant adverse visual impacts, to moderate short-term adverse impacts, with no change to the conclusion of moderate and positive visual impacts in the of long term.

### **Assessment:**

#### ***Ferrybank:***

Several of the Observers (incl. Mr. O'Broinn, Mr. & Ms. Ivory & Mr. O'Toole) raised concerns in relation to the visual impact of the proposed flood defence embankment with respect to its height, scale and extent relative to the Arklow Town Marsh pNHA and adjacent residential properties at Ferrybank and Dublin Road. The Observer's concerns are noted (and summarised in s.4.2 above) as is the Council's response to them (as summarised in s.4.3). The Council stated that an embankment was preferred at this location based on the availability of space, marsh hydrology (incl. ground & surface water management), and aesthetics and biodiversity relative to the marsh.



The proposed short section of wall and the longer earthen embankment would be located almost entirely to the rear of the properties at Ferrybank and Dublin Road and to the NW of Arklow Bridge, and they would not be highly visible from the public domain. Although the short section of wall between the bridge and the marsh and the S end of the embankment would be visible from River Walk on the S side of the river, any adverse visual impacts would reduce over time as the proposed native species landscaping along the river matures. The rear boundaries of the adjacent properties to the E of the embankment at Ferrybank and Dublin Road are mainly defined by trees and hedgerows, with intermittent views W across the marsh. The embankment, which would be set back between c.10m and 100m from their rear boundaries and c.30m and 120m from their rear elevations, would be visible, however the resultant adverse visual impacts would reduce over time as the proposed native species landscaping along the embankment matures. The embankment would become more ecologically and visually integrated with the marsh over time. I am satisfied that the Scheme would not have a significant long term adverse visual impact at Ferrybank.

***Arklow Bridge:***

Arklow Bridge is a Protected Structure which comprises a 19 x arch stone bridge that dates from the mid-18<sup>th</sup> Century, it occupies a prominent position along the river Avoca, and it connects the N and S sides of the town. The proposed Scheme would not comprise any works to the bridge that would be visible from the public domain. The proposed flood defence walls and public realm works at River Walk and South Quay would not detract from the character and setting of this structure, or have an adverse impact on views of the bridge or the visual amenity of the surrounding area.

***River Walk & South Quay:***

Several of the Observers (incl. Cllr. Leonard, Save Arklow Maritime Group, South Quay residents & NPWS) raised concerns in relation to the visual impact of the proposed flood defence wall with respect to its height, scale, extent, use of materials and under provision of glass panels, relative to its waterfront location at River Walk and South Quay. The Observers had concerns in relation to interference with views along the Avoca River and of Arklow Bridge, and the loss of visual connectivity with

the river. They also had concerns in relation to the public realm works, loss of an open space at South Quay (CPO Plot 120), and landscaping, including the loss of trees and the type of replacement species proposed. The Observer's concerns are noted (and summarised in section 4.2 above) as is the Council's response to them (as summarised in section 4.3).

The Council's response included the provision of additional glass panels along River Walk and South Quay (as described in section 4.3 above) which is a welcome addition in terms of visual amenity and improved connectivity. The Council had concerns about the extent of the glass panelling requested by the Observers, which have been prone to vandalism in other similar urban based flood defence schemes, and the resultant impact on the effectiveness of the schemes in protecting against flood events whilst awaiting repair. I would concur with these concerns. As previously stated, the main purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. I am satisfied that a reasonable compromise has been achieved which balances the need for the Scheme with the aesthetics of the area and visual amenity.

The Council's response also noted that the Scheme would provide for more trees to be planted than felled along River Walk and South Quay (69 v 61 trees), that the removal of many of the ear-marked trees has already been approved by way of the permitted WwTP which provides for the installation of related infrastructure along South Quay (incl. 46 of the 61 trees), and that more semi-mature native tree species would now be planted along the walkway (incl. Alder & Mountain Ash).

In relation to the other concerns raised by the Observers: - it is noted that there are no designated protected views along the river; the flood defence wall along River Walk and South Quay will be paralleled by a partially elevated continuous walkway along the river with intermittent resting, viewing and interpretative areas; sections of the original quay walls and maritime bollards will be retained; and Tyrells Slipway will be restored and defined by glass panels. The partial loss of open space in front of the South Quay houses (CPO Plot 120) resulting from localised alterations to the

road layout will be compensated by a new footpath parallel to the front garden walls and a new landscaped open space area located opposite and adjacent to the river.

***Harbour Dock:***

The Harbour Dock area is characterised by a working harbour and associated slipways, industrial and commercial uses. The Seafarers Memorial Garden is located to the SW of the dock and the vacant former industrial site along the S side of the dock is the subject of a proposed residential development. The c.1.2m high flood defence wall, which would continue along South Quay and around the W and S sides of the docks, would not have an adverse impact on the visual amenities of the area, or the character and setting of the Seafarers Memorial Garden.

***Avoca river:***

Several of the Observers (incl. South Quay residents) raised concerns in relation to the visual impact of the proposed debris traps and floating islands in the Avoca River upstream of Arklow Bridge. The W section of the river is defined to the N by riparian vegetation and Arklow Marsh, to the SE by existing buildings, walkways and car parking, and to the SW by riparian vegetation which extends westward along the river. The proposed debris traps (c.13) would be located c.300m upstream of Arklow Bridge and they would prevent debris (incl. tree branches) from getting caught in the arches which would affect the flow of water under the bridge with a resultant flood risk increase. The structures would be c.4m high relative to the regular flow level in the river and c.1.6m wide, with a c.3.4m separation between each column, and they would be highly visible from along River Walk and Arklow Bridge. The proposed artificial islands would replace the natural in-stream sandbanks to the immediate W of the bridge, they would be anchored to the river bed and enable the free flow of water under the arches. As previously stated, the main purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. I am satisfied that a reasonable compromise has been achieved which balances the need for the Scheme (inc. debris traps & floating islands) with the aesthetics of the area and visual amenity.

**Conclusion:**

Having regard to the foregoing, I am satisfied that the proposed development would not have a significant adverse impact on the visual amenities of the surrounding area in the long term. I am also satisfied that the public realm elements of the Scheme (incl. the continuous walkway, viewing areas, landscaping & additional glass panels) would make a positive contribution to the urban and riverside landscape, and they would help mitigate any localised moderately adverse visual impacts along South Quay. The moderately adverse visual impacts associated with the flood defence embankment at Ferrybank would reduce over time as the native species landscaping matures. Although the flood defence walls and debris traps will always be visible from the public domain, I am satisfied that a reasonable balance has been struck between the flood protection measures and the visual amenities of the area.

**7.3 Residential & town amenity:****Site context:**

Refer to sections 1.3 and 7.2 above for a detailed description of the site and environs. More specifically, the site of the proposed flood defence embankment at Arklow Marsh is bound to the E by mainly 2-storey residential and commercial properties along Ferrybank and Dublin Road. River Walk is mainly characterised by commercial properties (inc. pubs & cafes), car parks & riverside amenity areas. Most of the properties located along South Quay adjacent to the proposed flood defence wall and public realm works are mainly 2-storey, and some have long front gardens (incl. at CPO Plot 120). There are very few residential properties at the Harbour Dock given the predominantly industrial and commercial character of this area.

**Project elements:**

Refer to sections 2.2 and 7.2 above for a detailed description of the project. The main elements of the Scheme comprise a flood defence embankment at Ferrybank, and a flood defence wall at River Walk, South Quay and Harbour Dock, along with a riverside walkway, public realm works and landscaping, and several temporary construction compounds located at various locations around the town (SC1 to SC6).

## **Environmental Impact Assessment Report:**

**ElAR chapters 7, 8, 9, 12 & 16** contained sections that dealt with potential impacts on residential amenity (incl. Traffic & Transport, Air Quality & Odour, Noise & Vibration, Landscape & Visual, and Population & Human Health). Appendix 2.1 contained the Memorandum of Understanding (MoU) with IW and OPW, Appendix 5.1 contained a Construction and Environmental Management Plan (CEMP), Appendix 12.1 contained Photomontages, and Appendix 15.2 contained a Dredge Material Management Study. The minor amendments to the scheme as per the Council's response to the Observers submissions resulted in no change to the ElAR conclusion of short-term adverse impacts during construction, with no change to the conclusion of no significant impacts in the of long-term operational phase.

## **Planning assessment:**

### ***Ferrybank:***

Several of the Observers (incl. Mr. O'Broinn, Mr. O'Toole, Mr. Nyhan and Mr. & Ms. Ivory) raised concerns in relation to the impact of the proposed flood defence embankment on the residential amenities of properties at Ferrybank and Dublin Road (incl. visual intrusion, overlooking, loss of privacy, trespass, access & severance). The Observer's concerns are noted (and summarised in s.4.2 above) as is the Councils response to them (as summarised in s.4.3), which includes proposals to deal with land severance and access. The potential adverse impacts on residential amenity during the construction phase are addressed below (Construction works).

The lands rise up from S to N away from the Avoca River and height of the c.3.75m embankment would reduce accordingly relative to the site levels. It would be located to the rear of the Dublin Road properties, the rear boundaries of which are mainly defined by trees and hedgerows. The embankment would be set back between c.10 and c.100m from their boundaries and between c.30m and c.120m from their rear elevations. Any resultant adverse visual, overlooking or loss of privacy impacts would reduce over time as the proposed native species landscaping along the embankment matures, and also having regard to the substantial separation distances. The Council has indicated that concerns in relation to access to severed

lands on the W side of the embankment could be addressed via accommodation measures. I am satisfied that the Scheme would not have a significant long term adverse impacts on residential amenity at Ferrybank.

***South Quay:***

Several of the Observers (incl. Ms. Whitmore TD, Mr. Mathews TD, Cllr. Leonard, Save Arklow Maritime Group & South Quay residents) raised concerns in relation to the impact of the flood defence works on the residential amenities of properties at South Quay. The Observers had concerns in relation to the partial loss of an open space and children's play area) at South Quay and the proximity of the new footpath to their properties (CPO Plot 120), traffic safety, car parking, inadequate drainage and flood risk, general disturbance and loss of visual connectivity to the river. The Observer's concerns are noted (summarised in s.4.2 above) as is the Council's response to them (summarised in s.4.3), which included minor amendments to the footpath/open space layout, additional glass panels and dedicated some car parking spaces.

The potential adverse impacts on residential amenity during the construction phase are addressed below (Construction works).

The proposed development would not adversely affect the residential amenities of properties in the vicinity during the operational phase by way of overlooking, loss of privacy or noise disturbance because of the design and layout of the flood defence wall and associated public realm works and landscaping, which would not be visually obtrusive. The proposed footpath, which would be located parallel to the front garden boundary of the houses at South Quay (CPO Plot 120), and it would be set back in excess c.20m from the front facades of these houses with no adverse impacts on residential amenity predicted (incl. overlooking or loss of privacy), and the proposed footpath would provide for enhanced pedestrian safety and universal access along South Quay. Although the flood defence walls will always be visible from the public domain, I am satisfied that a reasonable balance has been struck between the need to provide flood protection measures along South Quay and the visual and residential amenities of the area. The surface drainage arrangements would ensure that the Scheme would not give rise to flooding on the land side of the flood defence wall, or pose a flood risk to adjacent residential properties along South Quay.

Overall, the public realm elements of the Scheme (incl. the riverside walkway, viewing areas, landscaping & additional glass panels) would make a positive contribution to riverside amenity, and they would help mitigate any localised moderately adverse impacts on residential amenity along South Quay resulting from the partial loss of open space. I am satisfied that the Scheme would not have a significant long-term adverse impact on residential amenity at South Quay.

***Construction works:***

Several of the Observers (incl. Cllr. Leonard, Save Arklow Maritime Group, South Quay residents, Mr. O'Broinn, Mr. O'Toole & Mr. Nyhan) raised concerns in relation to adverse impacts on residential amenity during the construction phase of the proposed development on its own and in combination with the permitted WwTP project (incl. noise, vibration, dust, dredge odours, traffic & general disturbance). The Observer's concerns are noted (and summarised in s.4.2 above) as is the Councils response to them (as summarised in s.4.3).

The entire construction phase would take c.5 years to complete. The works associated with the various project elements have the potential to affect the town and its environs in addition to the direct works at Ferrybank, River Walk, South Quay and Harbour Dock (incl. general disturbance & traffic diversions). The construction phase would be subdivided into 5 x Work Packages and the works at South Quay and Ferrybank would not continue for the entire 5 years. WP4 for River Walk and South Quay would take c.23 months to complete (incl. c.11 months at South Quay), whilst WP5 at Ferrybank would take c.6 months. Furthermore, a Memorandum of Understanding (WCC, IW & OPW) has been agreed to coordinate the combined infrastructure works for the proposed Scheme and the permitted WwTP project along South Quay so as to minimise disturbance to local residents. Notwithstanding this, some of the other works would take place over a more prolonged period of time, and the Site Compounds would be used for the duration of works, with resultant impacts on residential amenity (incl. general disturbance & traffic diversions).

The construction phase works will undoubtedly give rise to general disturbance in Arklow town, the specific project locations and at the site compounds. However, I am satisfied that the EIAR and CEMP mitigation measures, adherence to best

construction practices and the implementation of several further measures proposed by the council (incl. on-going monitoring for noise, vibration, dust & odours, a construction traffic management plan, and the appointment of an Environmental Manager Officer & Community Liaison Officer) would serve to manage any adverse impacts on amenity (incl. town centre & residential) during the construction phase (incl. noise, vibration, dust, dredge odour, traffic & general disturbance).

As previously stated, the main purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges. The construction works would undoubtedly have localised adverse impacts on residential amenity at Ferrybank and South Quay, and the surrounding areas at various stages. However, I am satisfied that all potential adverse impacts have been identified and that they would be monitored, managed and minimised by the mitigation measures. The Scheme would not have a significant long term adverse impacts on residential amenity and it would have positive benefits for the community.

Other related concerns raised by the Observers and issues related to traffic safety, surface water drainage and land acquisition with respect to the Scheme are addressed below in Section 7.4 (Traffic & Movement), Section 7.7 (Drainage & Flood Risk), Section 8.4 (EIA-Traffic & Movement) and Section 10.0 (CPO).

### **Conclusion:**

Having regard to the foregoing, I am satisfied that the mitigation measures would manage any adverse impacts on residential amenity during the construction phase (incl. noise, vibration, dust, dredge odour, traffic & general disturbance). The Memorandum of Understanding with Irish Water would coordinate the combined infrastructure works for the Scheme and the WwTP along South Quay. The proposed development would not have a significant long term adverse impact on amenity during the operational phase. Furthermore, the Scheme would have positive benefits in relation to flood prevention and property protection, and the public amenity areas would help mitigate any localised moderately adverse impacts along South Quay. I am satisfied that a reasonable balance has been struck between the provision of flood protection measures and the protection of residential amenity.



## **7.4 Traffic and Movement**

### **Site context:**

Refer to sections 1.3 and 7.2 above for a detailed description of the site and environs. More specifically, vehicular access to the construction works would be off the M11 at Junctions 20 and 21 and along the R772 (N & S), and then via the local urban road network which serves the town centre and provides access to the Quays along the Avoca River and the various areas to the N and S of the river. The surrounding road network is characterised by a mix of one-way (incl. through the town centre) and two-way carriageways (incl. along Dublin Road & North Quay), whilst South Quay carries both one and two-way traffic intermittently from Arklow Bridge to Harbour Dock. Based on the information provided by the Council and from my assessment of the site and environs, the busiest areas comprise Dublin Road, Bridgewater roundabout, Arklow Bridge and the town centre. North and South Quay are relatively quiet, although heavy vehicles travel along South Quay to and from Harbour Dock and Roadstone Quarry to the SE.

### **Project description:**

Refer to section 2.2 and 7.2 above for a detailed description of the project. More specifically the Scheme would not comprise any significant infrastructural road works (other than some minor road widening at South Quay and the provision of a pedestrian walkway along River Walk and South Quay) however the construction works would comprise several elements that have the potential to affect traffic movements. The construction works would be subdivided into c.5 distinct x Work Packages, vehicles would utilise the M11 to the E of Arklow, and access to the proposed works on the N and S of the town would be via Junction 20 and Junction 21 respectively. Local access to various Work Packages and Site Compounds would be via the local road network and Arklow Bridge. The volume of additional traffic generated by construction works at each of the Work Package and Site Compounds locations would be relative to the level of activity at each location associated with the particular works (incl. site deliveries, removal of materials & staff vehicles).

## **Environmental Impact Assessment Report:**

**EIAR chapter 7** dealt with Traffic and Transport Impacts, Appendix 5.1 contained a Construction and Environmental Management Plan (CEMP), and traffic count surveys were undertaken to help describe baseline traffic conditions. The minor amendments to the scheme as per the Council's response to the Observers submissions resulted in no change to the EIAR conclusion of short-term slight to moderate adverse traffic impacts during construction, with no change to the conclusion of no significant impacts in the of long-term operational phase.

### **Planning assessment:**

Several of the Observers (incl. Cllr. Leonard, Save Arklow Maritime Group, South Quay residents, Mr. O'Toole & Mr. Young) raised concerns in relation to potential traffic impacts at Arklow Town and environs in general, and at Ferrybank, Bridgewater, Arklow Bridge and South Quay in particular (incl. traffic disruption, diversions, generation, safety & general disturbance). The Observers also queried the reliability of the traffic surveys which were undertaken during Covid 19 Lockdowns, the baseline data and subsequent traffic impact predictions. The Observer's concerns are noted (and summarised in s.4.2 above) as is the Councils response to them (as summarised in s.4.3).

The proposed development would take c.5 years to complete and the construction works would be split into 5 x distinct Work Packages. Access to the WPs would be off the M11 at Junction 20(N) and Junction 21(S), and via the local urban road network, and access between the Work Packages and Site Compound (SCs) would be via the local road network and Arklow Bridge. The EIAR predicts that construction activities at WP2 & WP5 (river channel dredging & flood embankment at Ferrybank) will generate a temporary increase of c.670 passenger car units/day, with peak hour traffic increases of c.75 units/hr during the morning and evening peak periods.

Construction of the Scheme is predicted to increase traffic flows on the wider road network (incl. Ferrybank, Arklow Bridge & Main Street) by less than 5% during peak hours and less than 3% on an all-day basis. Access to the Site Compounds (incl.

along North & South Quay) is expected to increase traffic flows by between c.10% and 18% during the peak and by between 5% and 10% on an all-day basis. Slight negative traffic impacts are predicted on the wider road network along with a slight increase in traffic congestion in the town centre, particularly when works are taking place on Arklow Bridge, and some localised restrictions and inconvenience will occur at individual Work Package areas during all construction stages.

The traffic survey results were recalibrated to take account of low volumes during Covid-19 Level 2 restrictions. Although the resultant traffic impact predictions may not be entirely representative given the unusual circumstances, I am satisfied that the survey effort and subsequent analysis was sufficiently robust in terms of identifying and predicting potential impacts.

The construction phase works will undoubtedly give rise to traffic disruption and diversions, and general disturbance in Arklow town and environs in the vicinity of and along the approach roads to the specific Work Package locations and Site Compounds. However, the full implementation of the EIAR and CEMP mitigation measures (incl. preparation of a Construction Traffic Management Plan, Communications Management Plan, Mobility Management Plan & Work Package Traffic Management Plans) along with several further measures proposed by the Council (incl. appointment of an Environmental Manager Officer & Community Liaison Officer, and on-going monitoring for noise, vibration & dust), and adherence to best construction practices, would serve to manage and minimise any adverse traffic impacts (incl. disruption & diversions) within the town and environs during the construction phase. The implementation of these measures and adherence to best construction practice would also ensure that construction related traffic would not give rise to a traffic hazard or endanger the safety of other road users. It is noted that some of the works at Arklow Bridge will take place at night with minimal traffic impacts anticipated.

The Scheme would not have any significant long term adverse traffic impacts on the local road network. The provision of a continuous pedestrian walkway along South Quay and raised platforms at the realigned section of South Quay Road would have positive benefits for the local community and visitors in terms of ensuring pedestrian

safety and enabling universal access. I am also satisfied that the partial loss of the open space at South Quay (CPO Plot 120) to a road a re-alignment and pedestrian footpath would not give rise to a traffic hazard for vehicles exiting the driveways.

### **Conclusions:**

Having regard to the foregoing, I am satisfied that the mitigation measures would manage adverse traffic impacts during the construction phase (incl. traffic disruption & diversions and general disturbance). The MoU with the OPW would coordinate any combined works for the proposed Scheme and the WwTP project along South Quay. The proposed development would not have a significant long term adverse impact on traffic and movement during the operational phase, and it would provide for a safer pedestrian environment along South Quay. I am satisfied that a reasonable balance has been struck between the provision of flood protection measures and the management of traffic impacts during the construction phase.

## **7.5 Biodiversity & water quality**

### **Site context:**

Refer to sections 1.3 and 7.2 above for a general description of the site and environs. More specifically, the proposed linear Scheme would occupy several distinct habitat types (with constituent species) that are mainly characterised by wetlands at Arklow Town Marsh, riparian along the Avoca River, urban lands along River Walk, South Quay and Harbour Dock, and coastal lands at South Beach. The various habitats support a wide variety of terrestrial and aquatic animal and plant life. This includes wintering waterbirds birds and breeding passerines, foraging bats and commuting otters at Arklow Marsh and along the Avoca River. Despite the historic contamination of the river, the watercourse supports several species of migratory fish (incl. Salmon & Lampreys) along with freshwater and marine macroinvertebrates. Arklow Bridge provides suitable roosting habitat for bats (incl. Daubenton's bat) and it supports several plant species of Bryophytes. There are two protected plant species present in the South Beach amenity area (Moore's horsetail & Wild clary).

**Project description:**

Refer to sections 2.2 and 7.2 above for a detailed description of the project. More specifically, the proposed works would comprise several elements that have the potential to affect biodiversity and water quality. This would include the construction and/or use of the following main elements: -

- Flood defence wall & embankment at Arklow Town Marsh pNHA.
- Flood defence walls & public realm works along/into the Avoca River (S).
- Underpinning works at Arklow Bridge within Avoca River.
- In-stream roosting platforms and debris & gravel traps within Avoca River.
- Avoca River dredging (to increase channel depth).
- Temporary compounds for dredge storage (Arklow Marsh & South Beach).
- On-going & periodic in-stream maintenance within Avoca River.

**Environmental Impact Assessment Report:**

***EIAR chapter 10, 13, and 14*** dealt with potential impacts on Biodiversity, Land, Soil, and Water. The associated Biodiversity Appendices contain a habitat survey for Moore's horsetail (10.1), Bat Surveys (10.2 & 10.3), Aquatic Ecology Survey (10.4) and Bryophyte Survey for Arklow Bridge (10.7). Appendix 13.1E contains a Marsh Hydrology report and Appendix 14.1 contains a Baseline Water Quality report. The EIAR was informed by a variety of desk top and site surveys which were undertaken for the proposed Scheme and the permitted WwTP between 2016 and 2020 (incl. terrestrial habitats & plant species, birds, bats, otter, fish, freshwater & marine macroinvertebrates, water quality & invasive species). The council's response to the Observer's submissions included additional ecological surveys for Otter, Moore's horsetail and Wild clary (2021). The minor amendments to the Scheme as per the Council's response to the submissions resulted in no change to the EIAR conclusion of no significant adverse impacts during the construction operational phases.

### **Planning assessment:**

Several of the Observers (incl. NPWS, IFI, HSE, An Taisce, Cllr. Leonard, Save Arklow Maritime Group, Mr. O'Broinn & South Quay residents) raised concerns in relation to the impact of the proposed development on ecology and biodiversity (incl. otters, birds, bats & fisheries), hydrology and water quality. The concerns related to potential impacts on Arklow Town Marsh (biodiversity, hydrology & contamination), Arklow Bridge and environs (bats & otter), Avoca River (otter, birds, bats & fish), River Walk and South Quay (birds & bats), and South Beach (protected plant species & contamination). The Observer's concerns are noted (and summarised in s.4.2 above) as is the Council's response to them (as summarised in s.4.3). The council's response included additional ecological surveys (incl. otter & protected flora), it confirmed that sensitive sites would be examined prior to the works commencing and underlaid with protective membranes to prevent seepage of contaminated materials to ground water, areas occupied by protected floral species would be excluded and buffered from the works, and that a NPWS Derogation Licences would be sought for any removal of otter holts or bat roosts.

### **Protected sites**

The proposed development would not be located within or proximate to any European sites. However, the site and environs (incl. Avoca River & Arklow Town Marsh) may be of importance to mobile species from several further afield sites (incl. Wexford Harbour & Cork Harbour SPAs). Issues related to potential adverse effects on European sites (incl. their Conservation Objectives and QI habitats & species and SCI species) are addressed in Section 9.0 of this report (Appropriate Assessment). Arklow Town Marsh is a proposed NHA and issues related to potential impacts on biodiversity and marsh hydrology will be assessed below.

### **Habitats & Species**

#### ***Wetland areas:***

Arklow Town Marsh pNHA comprises an extensive wetland area that is hydrologically connected to the Avoca River to the S via drainage channels, and it is characterised by a mix of Wetland habitats with Woodland along the river. The flood

defence embankment would be located in the E section of the marsh to the rear of the houses at Ferrybank and Dublin Road. This section is defined by Reed and tall sedge swamps (FS1) to the N and S, with Improved agricultural grassland (GA1) / Wetland (GS4) in the middle section, and a Woodland (WL2) strip along the river in the vicinity of the proposed flood defence wall to the NW of Arklow Bridge. The invasive species *Rhododendron* extends W along across the site of the embankment and into the Marsh.

The proposed linear earthen embankment would be c.545m long, c.14.5m wide and up to 3.75m high and its construction would result in the permanent loss of wetland and agricultural habitats at this location. Although the embankment would be landscaped with native species trees and shrubs, the affected wetland habitats could not be replaced because of the increased height above the ground water levels which are essential to the maintenance of wetland habitats. However, having regard to the small scale of the embankment works relative to the overall size of the Arklow Town Marsh, its peripheral location and proximity to the urban area at Ferrybank, and to the predominance of mainly Improved agricultural grassland habitat within the embankment footprint, I am satisfied that there would be no significant adverse impacts on biodiversity in terms of habitat and species loss, or habitat fragmentation.

The concerns raised in relation to marsh hydrology are addressed in detail in section 7.7 below. Having regard to the design and scale of the earthen embankment relative to its surface area at ground and below ground levels, the structure would offer a sustainable level of resilience to surface water surges whilst not interfering with the natural flow of ground water between the marsh and river.

The proposed c.60m long flood defence wall to the NW of Arklow Bridge and river bank reinforcement works would also result in the permanent loss of Woodland and Wetland habitats in the vicinity of the river, however the loss of woodland would be compensated by additional native species tree planting elsewhere within the site. I am satisfied that the loss of Reed and tall sedge swamps habitat would be minuscule relative to the overall size of the marsh and the area occupied by this habitat.

The concerns raised by the Estate of Malachy Mc Daniel Stone in relation to the negative effect that a section of the replacement tree planting in this area would have on the access to their lands at the rear of nos.1, 5 and 6 Ferrybank and the future development potential are noted (Refer to Section 10 – CPO for more details). The recently constructed Bridgewater shopping centre and associated roundabout junction at Arklow Bridge (S), Dublin Road (N) and North Quay (E) also contains a spur to the W in the vicinity of the gated access to lands located to the rear of the Ferrybank properties. I am satisfied that the presence of this W spur off the Bridgewater roundabout indicates an intention to provide future access to the lands located to the rear of the Observer's property. The extent of the proposed replanting and permanent land take at this location could be amended accordingly to ensure that future access is maintained after the works are complete. This could be addressed by way of a planning condition in the event that the Board concur with this recommendation.

The marsh provides a habitat for several breeding and foraging bird species (incl. wintering waterbirds & passerines) along with roosting and foraging opportunities for bats (incl. Common & Soprano Pipistrelle, Leisler's & Daubenton's bats). Several of the bird species and all of the bat species also frequent and interact with the Avoca River. There is a commuting route for Otters along the river embankment, including a holt that was recorded close to Arklow Bridge in the most recent Otter survey (2021). The construction phase works would undoubtedly cause a localised disturbance to animal species (incl. birds, bats, otter, badger & other animals) in the surrounding area. However, having regard to the small spatial scale of the works relative to the overall size of the marsh and the peripheral location adjacent to the urban area at Ferrybank, along with the short-term duration of the works, I am satisfied that there would be no significant adverse impacts in terms of habitat loss or displacement. The birds and bat species would gradually habituate to the presence of the landscaped embankment in the long term.

Notwithstanding this conclusion, a NPWS Derogation Licence may be required for the removal of an Otter holt along the river bank in the vicinity of the flood defence wall, however I am also satisfied that there would be no significant adverse impacts following the completion of the replacement woodland landscaping.



Sections of the marsh (NE & SE) would also be used as temporary site compounds for the storage and examination of river dredge material (SC1 & SC3) within areas that are not characterised by sensitive habitats (incl. Improved agricultural grassland & recolonising bare ground). This material could have a high chloride content given the river's estuarine location, and it may be contaminated given its downstream location from Avoca Mines. However, subject to the full implementation of the EIAR mitigation measures (incl. the general prevention of contaminated runoff from sediments, contaminants & accidental spills run-off), adherence to best construction practice and compliance with all relevant guidelines, I am satisfied that the proposed temporary site compounds would not give rise to groundwater contamination within Arklow Marsh, or result in a permanent loss of habitat.

***Riverine & Riparian areas:***

The Avoca River extends W from the Vale of Avoca to the Irish Sea at Arklow over a distance of c.35km, it drains a catchment of 650sq.km, and the Arklow Marsh pNHA designation extends into the river. The riverine habitat upstream of Arklow Bridge is categorised as Tidal river (SW2) whilst the downstream habitat is categorised as Estuary (MH4). The N riparian embankment upstream of the bridge at Arklow Town Marsh is mainly defined by Wet grassland habitat (GS4), whilst the remaining embankments traverse urban lands.

Water quality in Avoca River has been seriously adversely affected over time by acidic contaminants from Avoca Mines and untreated urban sewerage. The WFD status of the Avoca River Estuary was classified as "Good" in 2015 for several species of migratory fish (incl. Salmon & Lampreys), however, the overall WFD status of the Avoca Estuary as "Moderate", and the ERBD classified the status of the Avoca River as "Poor". The river is also at risk of not achieving Good Status.

The small wooded islands and gravel beds upstream of Arklow Bridge are utilised by a variety of waterbirds (incl. gulls, oystercatchers & cormorants), as is the estuarine section to the E and at the river mouth and docks area. The river is foraged by several bat species (incl. Common & Soprano Pipistrelle, Leisler's & Daubenton's bats), and the N riparian embankment provides suitable habitat for commuting,

foraging and resting Otters. The use of Avoca River by many of these species is interconnected with Arklow Town Marsh pNHA as described above.

The proposed in-stream works would comprise a suite of measures to improve the carrying capacity of the Avoca River upstream and downstream of Arklow Bridge. The works would include lowering the floor of Arklow Bridge by c.1m and underpinning the bridge piers and abutments, and dredging the river channel upstream (c.320m) and downstream (c.520m) of the bridge. They would include removing in-river sandbanks and vegetated islands NW of Arklow Bridge, the installation of 3 x roosting platforms and the provision of upstream debris and gravel traps. The works would include the construction of new flood defence walls along the river in NW section at Arklow Town Marsh and the S section at River Walk and South Quay, along with a small encroachment of public realm works into the river channel. They would also include temporary river access tracks and an in-stream haul road, and the affected areas would be reinstated after the works are complete.

The proposed dredging and bridge underpinning works along with the removal of sandbanks and islands, and the installation of foundations for the debris and gravel traps would result in the permanent loss of river bed habitats and their constituent macroinvertebrate species within the tidal and estuarine sections of the river. It is noted that the range of macroinvertebrate species is not very varied as a result of the historic contamination in the river. The Avoca River does not contain suitable feeding or breeding habitat for fish, however the works within the subdivided river channel would ensure that fish migration is not hindered as the works would take place on one side only at any given time. No significant adverse impacts on fisheries are anticipated. The dredging and related works, along with the construction of the flood defence walls (incl. pile driving) could also give rise to the release of fine sediments and historic contaminants into the watercourse along with general noise disturbance, with resultant adverse impacts on water quality, habitats and species. The EIAR contains a comprehensive range of construction phase mitigation measures which would protect water quality and minimise construction phase impacts on biodiversity (incl. timing & seasonality of works, measures to prevent release of sediments & contaminants into the water & control of accidental spills).

It is noted that IFI had no objections to the proposed Scheme subject to compliance with relevant mitigation measures, legislation and guidelines. It requested that the in-stream temporary haul road should be made with accumulated exposed gravels and there should be no tracking of plant or machinery in the live channel. It requested that river water quality monitoring should be undertaken for the 12 x months preceding the initiation of dredging and continue throughout the construction phase. It also requested the preparation of detailed method statements for all riparian works and an agreed detailed design for the debris and gavel traps. It recommended that pile driving mitigation should also be undertaken to reduce impacts on aquatic species (incl. soft start, vibrating hammer & bubble curtain). Many of the concerns raised IFI are addressed in the EIAR and the Council's response submission, however any outstanding requests and recommendations could be addressed by way of a planning condition.

Avoca River provides a habitat for a substantial number of waterbird species (incl. many wintering species) along with foraging opportunities for bats (incl. Common & Soprano Pipistrelle, Leisler's & Daubenton's bats). Several species of waterbird frequent the sandbanks and small wooded islands upstream of Arklow Bridge, and Daubenton's bats has been recorded roosting in the arches under Arklow Bridge. Several of the bird species and all of the bat species frequent and interact with the Arklow Town Marsh, and there is a commuting route for Otters along the N river embankment (refer above).

The construction phase removal of the sandbanks and wooded islands would undoubtedly cause a localised disturbance to birds and bats in the surrounding area, and birds would be temporarily displaced from these locations. However, the 3 x roosting platforms and the column like debris traps located upstream of Arklow Bridge would provide a satisfactory replacement habitat for birds in the long term. The native species tree planting along the NW section of the river adjacent to the Marsh and along the S side of the river at River Walk and South Quay would provide resting and foraging opportunities for birds and bats. The installation of bat boxes and tubes at Arklow Bridge, the Debris Traps and along the flood defence walls could provide roosting opportunities for bats, although their likely effectiveness and

uptake was queried by NPWS. I am satisfied that there would be no significant adverse impacts on bird and bat species in terms of habitat loss or displacement and that the various species would return to the area when the works are complete, and gradually habituate to the presence of the roosting platforms and debris and gravel traps in the long term.

Subject to the full implementation of the aforementioned mitigation measures, adherence to best construction practice, and compliance with all relevant legislation and guidelines to minimise pollution and siltation, and the attachment of conditions to address the outstanding IFI concerns (incl. pile driving noise) and NPWS concerns (incl. monitoring the uptake of bat boxes & tubes), I am satisfied that the Scheme would not have a significant adverse impact on riverine and riparian biodiversity.

***Riparian urban areas:***

The 19 x arches of the mid-18<sup>th</sup> Century Arklow Bridge provides a suitable habitat for roosting bats (incl. Daubenton's bat) and the stone structure is occupied by a wide variety of Bryophyte plant species (Incl. mosses but not liverworts). The riparian environs and existing trees along South Quay also provide foraging opportunities for birds and bats. The built-up areas along River Walk, South Quay and Harbour Dock comprise urban habitats, however the low quay walls and slipways allow several species of wintering waterbirds to exit the river, and move around the area.

The proposed underpinning works at Arklow Bridge would undoubtedly disturb resting and roosting bats during the construction phase works, and an NPWS Derogation Licence should be sought for the removal of any bat roosts. The construction of the flood defence walls along with the removal of existing trees would also cause a disturbance to bats and birds, as a result of construction phase noise (incl. pile driving), and loss of nesting, resting and foraging opportunities.

The proposed development would provide for the installation of bat boxes and tubes at the arches under Arklow Bridge, the Debris Traps and along the flood defence walls which could provide potential roosting opportunities for bats. NPWS had no objection to the proposed development but queried the likely effectiveness of the

installations and their level of uptake, with specific regard to the observed behavioural traits of Daubenton's bat. It recommended that uptake and use of the bat boxes and tubes is subject to on-going monitoring after the works are complete. The NPWS also raised concerns in relation to the impact of artificial lighting on bats at Arklow Bridge during the construction and operational phase. The Council confirmed that appropriate measures would be put in place to manage light spill during night time works and that the bridge would only be lit for traffic safety with no overspill predicted.

The proposed native species replacement tree planting and box planters along the land side of the flood defence walls would make a positive contribution to biodiversity and provide resting and foraging opportunities for birds and bats. However, having regard to the height and extent of the proposed flood defence wall relative to the existing situation and the closure of the open slipways, it is likely that several of the wintering waterbirds that exit the river along South Quay would not continue to do, which would have a minor localised adverse impact on biodiversity in the long term.

The concerns raised by the IFI in relation to adverse noise impacts on aquatic species during the construction of the flood defence walls and in particular pile driving is addressed above, and could be addressed by way of a planning condition. The recommended soft start and ramping up of machinery would also benefit bird and bat species along the river during the works.

The proposed works Arklow Bridge would not have any significant adverse impacts on the Bryophyte communities that occupy the structure, the site surveys indicate that that none of the species present are of conservation interest, and Bryophyte cover will be retained if possible.

Subject to the full implementation of the aforementioned mitigation measures, adherence to best construction practice, and compliance with all relevant legislation and guidelines, and the attachment of conditions (incl. managing pile driving noise and light spill, and monitoring uptake of bat boxes), I am satisfied that the Scheme would not have a significant adverse impact on urban biodiversity.

### **Protected plant species:**

The public amenity area at South Beach is characterised by Amenity grassland (GA2) habitat over sand dunes and 2 x protected plant species have recorded within the vicinity (Moore's horsetail & Wild clary). This area would be used as a temporary compound (SC6) for the stockpiling and archaeological examination of river dredge material. The proposed storage of dredge material could have an adverse impact on the protected plant species and coastal habitats (incl. loss of species, contaminated run-off from the high chloride dredge material & dust).

The Council has confirmed that the site boundary has been amended to exclude the areas occupied by Moore's horsetail and Wild clary, a 5m buffer will be provided and the compound will be fenced off during the works. Only inert estuarine material will be stockpiled and examined (incl. sands & gravels) and the area will be underlaid with geotextile membrane and hardcore to prevent seepage and run-off, which will also serve to protect the nearby coastal habitats. Any stray or remnant species will be fenced off, and control measures will minimise dust impacts on these species.

Subject to the full implementation of the additional mitigation measures, adherence to best construction practice, and compliance with all relevant legislation and guidelines, I am satisfied that the Scheme would not have a significant adverse impact on coastal biodiversity or the 2 x protected plant species at South Beach.

### **Other species:**

Several other animal species have been recorded within or close to the project area in the desk top and site surveys, or are expected to be present based on the availability of suitable habitat (incl. Common frog, Newt, Badger, Red & Grey squirrel, Pine martin, Fox, Wood mouse & Pygmy shrew). There are desktop records of Badger in the N section of Arklow Town Marsh, and the EIAR mitigations measures would protect this species during the construction works with no long terms adverse impacts anticipated. A single sighting of Common seal was recorded in the outer estuary and ongoing marine mammal monitoring is required under the terms and conditions of the permitted WwTP.

**Invasive plant species:**

Several species of invasive species have been recorded within or proximate to the project area (incl. Rhododendron, Buddleia & Himalayan balsam) including at Ferrybank and River Walk, and the CEMP contains a Management Plan to prevent the spread of Invasive Species.

**Conclusions:**

Having regard to the foregoing, I am satisfied that the mitigation measures would manage any adverse impacts on biodiversity and water quality during the construction phase. The proposed flood defence embankment at Arklow Town Marsh would not have a significantly adverse impact on marsh hydrology or its connection with the Avoca River, having regard to the scale and design of the proposed earthen structure, and in particular the below ground elements which would not unduly interfere with groundwater flows. Implementation of construction phase mitigation measures, adherence to best construction practice and compliance with all relevant guidelines for in-stream works would protect water quality and aquatic species at Arklow Town Marsh and within the Avoca River. Site management measures at South Beach would protect the protected plant species.

The Scheme would not have a significant long term adverse impact on biodiversity or water quality during the operational phase. It would provide for bat boxes and tubes, and associated monitoring of uptake at Arklow Bridge and along the Avoca River. The floating platforms, which would replace the sandbanks upstream of Arklow Bridge, would provide in-stream resting areas for birds and along with the upstream debris traps. The planters along the south side flood defence wall at South Quay and the amended landscaping (incl. more native species trees) would make a positive contribution to biodiversity by providing foraging and resting opportunities for birds and bats.

I am therefore satisfied that a reasonable balance has been struck between the provision of flood protection measures and the management of predicted impacts on biodiversity and water quality at Arklow Town Marsh, within and along the Avoca River, and at South Beach.

## **7.6 Cultural Heritage**

### **Site context:**

Refer to sections 1.3 and 7.2 above for a general description of the site and environs. More specifically, the proposed linear Scheme would occupy several distinct areas which are described in detail in Section 1.3 above (incl. Arklow Town Marsh, Ferrybank, Arklow Bridge, River Walk, South Quay & Harbour Dock). The Avoca River and the SE tip of Arklow Marsh are located within the Zone of Archaeological Potential for the Historic Town of Arklow (RMP W1040-029) which includes the N bank of the river and the S edge of the Marsh as far E as the R772 - Bridgewater roundabout at Ferrybank. Arklow Bridge is a Protected Structure and listed in the NIAH which dates from the mid-18<sup>th</sup> Century and occupies the site of an earlier river crossing. There are several other Protected Structures (incl. the Masonic Hall, Methodist Church & no. 58 Ferrybank) along Dublin Road, and several maritime heritage features (incl. quay walls, bollards & slipways) along South Quay. River Walk and South Quay (W) also lie within the LAP Area of Archaeological Potential.

### **Project description:**

Refer to sections 2.2 and 7.2 above for a detailed description of the project. More specifically, the proposed works would comprise several elements that have the potential to affect cultural heritage. This would include the following main elements: -

- Excavation works associated with the flood embankment at Arklow Town Marsh on lands which lie within the RM Zone of Archaeological Potential.
- Works at River Walk and South Quay (W) which lie within an LAP Area of Archaeological Potential.
- Works for the flood defence walls at South Quay which are defined by historic quay walls, bollards & slipways, and proximate to Arklow Bridge.
- Extensive river dredging and in-stream works (inc. debris & gravel traps).
- Underpinning works at Arklow Bridge which is a protected structure.
- The use of several areas for temporary site compounds on lands which may be of archaeological interest (incl. SC1 at Arklow Town Marsh).



## **Environmental Impact Assessment Report:**

**EIAR chapter 11** dealt with Archaeology, Cultural and Architectural Heritage impacts. Appendix 11.2 & 11.3 contains Inventories, Appendix 11.5 contains an Archaeological Impact Assessment Report (Town Marsh & Ferrybank), Appendix 11.6 contains an Underwater Archaeological Impact Assessment (Avoca River), Appendices 11.7 & 8 contains Arklow Bridge site investigations & structural survey reports, and Appendix 11.9 contains Test Excavations.

The historic development of the town was described (incl. Prehistoric, Pre-Viking, Viking, and the subsequent development of Arklow to the N & S of the river), along with the role of the Avoca River in the historic development of the maritime town. The EIAR contains a list of archaeological investigations undertaken since c.1998 in and around the town, and within the Zone of Archaeological Potential for the Historic Town of Arklow (RMP W1040-029), where the evidence of a 13<sup>th</sup> Century Cistercian Abbey and Graveyard were uncovered along with Anglo-Norman artefacts. It referred to several underwater features of interest along the Avoca River extending from upstream of Arklow Bridge to South Beach (incl. a wooden vessel & stray ship timbers), and it acknowledged the possible presence of previously unrecorded artefacts in the riverbed. It described the various surveys of Arklow Bridge (incl. structural condition & stability surveys) and the site investigations undertaken at the main project elements, site compounds and river access points.

The minor amendments to the scheme as per the Council's response to the Observers submissions resulted in no change to the EIAR conclusion of negative, moderate, significant permanent adverse impacts on below ground and underwater archaeology during construction, and no significant adverse impacts on architectural and cultural heritage during construction, with no change to the conclusion of no significant impacts on cultural heritage in the long-term operational phase.

### **Planning assessment:**

Several of the Observers (incl. Ms. Whitmore TD, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr. O'Broinn & Mr. O'Toole) raised concerns in relation to the impact of the proposed development on archaeological, architectural

and cultural heritage relative to the Arklow Town Marsh, Arklow Bridge, and along and within the Avoca River. The Observer's concerns are noted (and summarised in s.4.2 above) as is the Council's response to them (as summarised in s.4.3). The council confirmed that sensitive sites (incl. at Site Compounds) would be examined prior to the works commencing, and that it would engage with relevant stakeholders with a view to providing a maritime heritage interpretative trail along the Avoca River.

### ***Archaeology:***

The NW section of the Scheme at Arklow Town Marsh and Ferrybank would lie within the Zone of Archaeological Potential for the Historic Town of Arklow (RMP W1040-029), the SW section of the Scheme would lie within an LAP designated Area of Archaeological Potential at River Walk and South Quay (W) and it is possible that the surrounding lands may contain as yet undiscovered artefacts (incl. at South Beach). The lands occupied by the main project elements, temporary construction compounds and river access points would be overseen by a Project Archaeologist, subjected to archaeological pre-testing and on-going monitoring, and the river dredge material would be archaeologically examined under Licence at the Site Compounds. All findings would be recorded. The proposed site preparation and dredging works would undoubtedly result in the unavoidable permanent loss of archaeological materials along the route (incl. Marsh & River). A condition should be attached to reaffirm that the groundworks are pre-tested and monitored during the construction phase and that any discoveries are recorded and preserved by record.

### ***Cultural Heritage:***

Arklow Bridge is a designated Protected Structure which dates from the mid-18<sup>th</sup> Century and it may occupy the site of an older river crossing. It is proposed to deepen the river channel and underpin the bridge arches so as to enhance the flow capacity of the river. It is also proposed to install a combination of drainage infrastructure related to the permitted WwTP and the proposed Scheme, and also public realm works in the vicinity of the SE corner of the bridge. The various EIAR structural and conservation surveys confirm that the bridge is stable and capable of withstanding the proposed works without the risk of collapse or damage to the structure. I am satisfied that, subject to the implementation of the EIAR mitigation

measures, which include the appointment of a Conservation Architect to oversee the works, ongoing vibration monitoring and traffic management plans, the proposed works would not have an adverse impact on the character and setting of the bridge.

There are several other Recorded Monuments, Protected Structures and features of heritage interest located at Ferrybank and along Dublin Road, however, having regard to the scale and layout of the project and the separation distances, I am satisfied that the Scheme would not adversely affect the character and setting of any other heritage features in the vicinity.

There are several features of maritime heritage interest located along River Walk, South Quay and at Harbour Dock (incl. quay walls, bollards & slipways) which would be affected during the construction phase of the works. However, I am satisfied that the proposed development would not have a significant adverse impact on these heritage features. The Scheme would also have a positive effect on maritime heritage (incl. the retention of quay walls & bollards, the restoration of Tyrrells's Slipway, and the future maritime heritage interpretative trail).

### **Conclusions:**

Having regard to the foregoing, although the proposed ground and river dredging works would have a permanent adverse impact on archaeology, I am satisfied that the mitigation measures (incl. appointment of a Project Archaeologist, and archaeological pre-testing, monitoring, examination & recording) would help manage the impacts on archaeological heritage during the construction phase. I am also satisfied that the mitigation measures (incl. appointment of a Conservation Architect, vibration monitoring & traffic management) would manage any adverse short-term impacts on Arklow Bridge during the construction phase. The proposed development would not have a significant long term adverse impact on cultural heritage during the operational phase, and it would provide for the interpretation of maritime heritage along South Quay. I am satisfied that a reasonable balance has been struck between the provision of flood protection measures and the treatment of cultural heritage during the construction and operational phases.

## **7.7 Drainage and Flood Risk**

### **Site context:**

Refer to sections 1.3 and 7.2 above for a general description of the site and environs. More specifically, the proposed linear Scheme would occupy several distinct areas that are characterised by a mix of greenfield marshland and brownfield urban, industrial, commercial and residential lands along with the Avoca River (incl. Arklow Marsh, Ferrybank, River Walk, South Quays & Harbour Dock).

### **Project description:**

Refer to sections 2.2 and 7.2 above for a detailed description of the Scheme. More specifically, the proposed development would mainly comprise the installation of the flood defence wall and embankment at Arklow Marsh and Ferrybank, and flood defence walls at River Walk, South Quay and Harbour Dock, along with associated drainage arrangements and pumping stations, and river dredging to increase channel depth and enhance flow capacity. The Council states that the need and justification for the Scheme is based on its analysis of future flood risk and the need to provide flood relief measures along the Avoca River and estuary to alleviate flooding up to the 1% Annual Exceedance Probability fluvial event and the 0.5% Annual Exceedance Probability coastal flood event.

### **Environmental Impact Assessment Report:**

***EIAR chapters 2, 3, 4 and 5*** dealt with the need for the scheme, the alternatives considered, the design of the main flood defence elements, and the construction strategy, and Appendices 2.1 and 5.1 contain a copy of the MoU and CEMP. The minor amendments to the scheme as per the Council's response to the Observers submissions resulted in no change to the EIAR or the design of the project.

### **Planning assessment:**

Several of the Observers (incl. Irish Water, HSE, Ms. Whitmore TD, Cllr. Leonard, Save Arklow Maritime Group, South Quay residents, Mr. O'Broinn, Mr. O'Toole & Mr. Nyhan) raised concerns in relation to several issues including the impact of the

proposed embankment on marsh hydrology and the increased risk of fluvial, tidal and coastal flooding at Ferrybank, and the impact of the proposed flood walls on surface water drainage and the increased risk of flooding on the land side of the flood wall at South Quay. They also raised concerns in relation to the lack of consideration of more environmentally friendly catchment-based flood defence measures, the need to integrate SUDs principles into the public realm areas, and non-compliance with the Flood Risk Guidelines. They queried the accuracy of the flood risk predictions and the resultant height of the flood defence wall relative to the calculations. The Observer's concerns are noted (and summarised in s.4.2 above) as is the Council's response to them (as summarised in s.4.3).

The Council stated that a **flood defence embankment** was the preferred option at Arklow Marsh / Ferrybank based on the availability of space, marsh hydrology (incl. ground & surface water flows) and engineering principles, as well as aesthetics and biodiversity relative to the marsh habitat. The design and scale of the proposed embankment relative to its surface area at ground and below ground levels would offer a greater level of resilience to surface water surges whilst not interfering with the natural flow of ground water between the marsh and river. The below ground foundations for a flood defence wall at this location would require more extensive excavations to a greater depth in order to achieve a similar level of surge resilience (and avoid collapsing) with resultant adverse impacts on ground water flows in the marsh. I am therefore satisfied that the proposed embankment at this location would provide the most environmentally sustainable solution to the predicted flood risks posed in the surrounding area by fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges, whilst maintaining natural groundwater flows in the marsh area.

The Council stated that a **flood defence wall** was the preferred option along River Walk and South Quay based on the un-availability of space within the urban location, and that the proposed surface water drainage arrangements (incl. pumping stations) would ensure that flooding would not occur on the land side of the defence wall. As previously stated, the main purpose of the Scheme is to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges,

and not to exacerbate flooding. I am satisfied that a reasonable compromise has been achieved which balances the need for the Scheme with the aesthetics and amenities of the area. The specific concerns raised by Save Arklow Maritime Group are noted in relation to the accuracy of the Council's flood risk predictions relative to the resultant height of the flood defence wall. Given the lack of certainty in relation to the exact extent and spatial distribution of global sea level rises going forward into the future, I am satisfied that the Council's conservative approach to predicting flood risk, which errs on the side of caution, has informed a robust and climate change resilient flood defence Scheme which will protect River Walk, South Quay and environs from future fluvial and tidal flooding. I am also satisfied that the Scheme would be in accordance with the proper planning and sustainable development of the area.

In relation to the **other concerns** raised by the Observers, it is noted that more environmentally friendly nature and catchment-based flood defence solutions tend to be more effective within small catchments which do not have multiple landowners and a complexity of uses; the design of the Scheme has integrated SUDs principles into the public realm areas; and the Planning and Flood Risk Guidelines (incl. sequential and justification tests) do not apply to flood defence works. However, it is likely that the completed flood defence Scheme would form part of any future flood risk prediction model for proposed new developments in the surrounding area.

In relation to **construction practicalities**, all excavation and construction work, including the management of surface and ground water should be carried out in accordance with best construction practices, and I am satisfied that none of the works would exacerbate any existing drainage difficulties. All drainage concerns should be addressed in the final Construction and Environmental Management (CEMP) and surface water and drainage management plans. The proposed drainage arrangements should comply with all relevant regulations, requirements and guidelines (incl. IFI Guidelines for in-stream works). The concerns raised by Irish Water in relation to the permitted WwTP infrastructure are noted as are the terms and conditions of the MoU with IW and OPW, and the standard condition in relation water services should be attached.

## **Conclusions:**

Having regard to the foregoing, I am satisfied that the various elements of the Flood Relief Scheme would have positive benefits in relation to flood prevention and property protection. The proposed landscaped embankment and public amenity areas would help mitigate any localised moderately adverse impacts at Ferrybank, River Walk and South Quay. I also am satisfied that a reasonable balance has been struck between the risks posed by future fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges and the provision of flood protection measures. The Memorandum of Understanding with Irish Water would coordinate the overlapping infrastructure works for the Scheme and the WwTP.

## **7.8 Other issues**

***Separate consents:*** Section 4.5 of the EIAR provides an overview of the relevant consents, licences authorisations and permits that will be required in addition to the consent for the proposed development from An Bord Pleanála (incl. Foreshore, National Monuments & NPWS Derogation Licences, OPW Section 50 Consent, and EPA Waste Permits).

***Operation of Scheme:*** Section 4.6 of the EIAR describes the likely operational maintenance and monitoring activities of relevance to the Scheme (incl. stormwater drainage system, debris & gravel trap maintenance, channel maintenance, riverbank maintenance & landscape & public realm maintenance).

***Decommissioning:*** Section 4.7 of the EIAR notes that the Scheme will be a key strategic asset in the protection of Arklow Town from flooding, and that it will have minimum 50-year design life which will not be decommissioned in the foreseeable future.

## **8.0 ENVIRONMENTAL IMPACT ASSESSMENT**

### **8.1 Introduction**

This section of the report deals with the potential environmental impacts of the proposed development during the construction and operational phases of the Arklow Flood Relief Scheme.

***This section should be read in conjunction with Section 7.0 (Planning Assessment) and Section 9.0 (Appropriate Assessment of this report.***

### **8.2 Compliance legislative requirements**

Directive 2011/92/EU was amended by Directive 2014/52/EU. Wicklow County Council has submitted an Environmental Impact Assessment Report (EIAR) which is presented in a 'grouped format' comprising the following:

- Non-Technical Summary
- Main Statement
- Technical Appendices
- Photomontages

It is submitted by the applicant that the EIAR has also been prepared in accordance with the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 that came into effect on 1<sup>st</sup> September 2018, and which the Board will be aware, transposed Directive 2014/52/EU into Irish planning law. As is required under Article 3(1) of the EIA Directive 2011/92/EU amended by Directive 2014/52/EU, the EIAR identifies, describes and assesses in an appropriate manner, the direct and indirect significant effects of the project on the following environmental factors: (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape and it equally considers the interaction between the factors referred to in points (a) to (d).



I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality, and that the information contained in the EIAR and supplementary information provided by the applicant, adequately identifies and describes the direct, indirect and cumulative effects of the proposed development on the environment and complies with the requirements of Directive 2011/92/EU as amended by Directive 2014/52/EU.

I am satisfied that the information contained in the EIAR complies with article 94 of the Planning and Development Regulations 2000, as amended, and the provisions of Article 5 of the EIA Directive 2014.

I have carried out an examination of the information presented by the applicant, including the EIAR, and the submissions made during the course of the application. A summary of the results of the submissions made by the prescribed bodies has been set out in Section 4.1 of this report.

The EIAR describes the proposed development, including information on the receiving environment, the site, and the project size and design. A description of the main alternatives studied by the applicant is provided and the reasons for the preferred choice. The impact of the proposed development was assessed under all the relevant headings with respect to population and human health; noise, air and climate; biodiversity; landscape; land, geology and soils; hydrology and hydrogeology; roads and traffic; material assets and cultural heritage; interactions of impacts; and the suggested mitigation measures are clearly set out within each chapter and also summarised Chapter 20.

The content and scope of the EIAR is in compliance with Planning Regulations. No likely long term significant adverse impacts were identified following mitigation.

### **8.3 Consideration of Reasonable Alternatives**

The consideration of reasonable alternatives was considered in EIAR Section 3.0. This section considered the “Do-Nothing” alternative as well several other measures (incl. Catchment management, upstream storage & flood storage at Arklow Town Marsh) which were evaluated against a range of technical, economic, social and environmental criterion. The various alternatives were discounted as they would not

fully achieve the Council's objective of protecting properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges.

## **8.11 Likely Significant Effects**

Section 7.0 of this report identifies, describes and assesses the main planning and environmental issues arising from the proposed development and it should be considered in conjunction with the following environmental impact assessment (EIA).

The EIA identifies and summarises the likely significant effects of the proposed development on the environment with respect to several key receptors in the receiving environment. It identifies the main mitigation measures and any residual impacts following the implementation of these measures together with the planning conditions recommended in section 7.0 of this report, and it reaches a conclusion with respect to each of the receptors. It assesses cumulative impacts, identifies interactions between the receptors, and considers the risks associated with major accidents and/or disasters. The EIA reaches a Reasoned Conclusion.

For ease of reference the EIA is presented in a tabular format with respect to:

- Population and Human Health
- Air and Climate
- Landscape
- Biodiversity
- Land soil and water
- Material assets
- Cultural heritage

## Population and human health

**EIAR** sections 7, 8, 9, 12, 16, 18 & 19 and associated Technical Appendices dealt with: - traffic & transportation; air quality & odour; noise & vibration; landscape & visual impact; population & human health; major accidents & disasters; and climate. The EIAR described the receiving environment and identified potential impacts on human beings, human health, local amenities and health & safety. The EIAR did not predict any significant adverse impacts on human beings, population or human health as a result of dust emissions, changes to air quality, dredge odours, noise & vibration, visual intrusion, traffic movements during the construction & operational phases, or climate change effects, subject to implementation of mitigation measures which mainly relate to the management of the construction phase works and associated traffic movements. The EIAR noted that positive impacts would result from the flood protection measures (incl. health, safety & wellbeing).

<b><i>Submissions</i></b>	<b><i>Concerns raised</i></b>
HSE, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr O'Broinn, Mr O'Toole & Mr Nylan	Construction impacts (noise, vibration, dust dredge odours & traffic). Visual impacts (flood wall & river severance) Loss of trees & open space
<b><i>Potential impacts</i></b>	<b><i>Assessment &amp; mitigation measures</i></b>
<p>Potential for the following impacts on human beings during the construction and operational phases of the proposed FRS.</p> <p><b><i>Residential amenity:</i></b> potential minor localised impacts on residential amenity during the construction phase.</p>	<p>There are several houses located to E of the proposed flood defence embankment at Ferrybank, and to the S of the proposed flood defence walls at South Quay, and the surrounding lands are characterised by a mix of residential, commercial &amp; community uses.</p> <p>Refer to section 7.3 of this report for detailed analysis of residential impacts which concluded that there would be minor disturbance during the construction phase, but no significant adverse effects on amenity by way overshadowing,</p>





<p><b>Health &amp; safety:</b> Potential for adverse impacts on health &amp; safety from on-site accidents and traffic accidents during the construction phase.</p>	<p>a continuous footpath along the S side of the river would have positive benefits for pedestrian safety as would the proposed traffic calming measures along South Quay in the vicinity of the realigned section of roadway. The Scheme would have a positive local impact on population and human health.</p> <p>On-site accident concerns would be addressed by way of compliance with all relevant health and safety legislation.</p> <p>As above for positive impacts on road safety and air quality.</p>
<p><b>Residual Effects:</b> There will be some increase in noise, dust, vibration, odour &amp; traffic emissions during the construction phase, however predicted levels would mainly lie within guidance limit values and would be subject to on-going monitoring. Residual impacts are not predicted to be significant subject to the implementation of mitigation measures &amp; any suggested conditions.</p>	
<p><b>Cumulative Impacts:</b> Construction phases impacts could occur in combination with the Arklow WwTP however the MoU would server to co-ordinate the works in order to minimise disruption to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank &amp; South Quay). No significant cumulative impacts predicted during the operational phase.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to population &amp; human health, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	

<b>Air and Climate</b>	
<p><b>EIAR</b> sections 7, 8, &amp; 19 and associated Technical Appendices dealt with traffic &amp; transportation, air quality &amp; odour, and climate. The EIAR described the receiving environment and identified potential impacts on air quality and climate. The EIAR did not predict any significant adverse impacts on air and climate as a result of dust, odours, emissions or traffic movements during the construction and operational phases, subject to implementation of mitigation measures.</p>	
<b>Submissions</b>	<b>Concerns raised</b>
HSE, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr O'Broinn & Mr O'Toole & Mr Nylan	<p>Construction phase impacts</p> <p>Dust &amp; dredge odours</p> <p>Traffic emissions.</p>
<b>Potential impacts</b>	<b>Assessment &amp; mitigation measures</b>
<p><b>Dust &amp; odours:</b> Potential short term localised impacts on air quality resulting from dust emissions (incl. construction works &amp; traffic) and odour emissions from river dredging (incl. the transport of materials to site compounds for examination), during the construction phase.</p> <p><b>Traffic emissions:</b> Potential localised impacts on air quality (incl. particulate matter &amp; NO<sub>2</sub>) resulting from increased traffic volumes during construction phase.</p>	<p>Refer to section 7.3 &amp; 7.4 of this report for a detailed analysis of construction phase dust &amp; odour impacts which concluded that there would be no significant adverse effects. This would be subject to compliance with the EIAR mitigation measures (incl. ongoing odour &amp; dust monitoring) and the management of dredge materials, compliance with best construction practices and adherence to the final CEMP. The Scheme would not have any significant long-term effects during the operational phase.</p> <p>Refer to section 7.3 &amp; 7.4 of this report for a detailed analysis of movement &amp; traffic impacts. The national, regional &amp; local road network has sufficient capacity to assimilate the redistributed and additional traffic volumes</p>

<p><b>Climate:</b> Potential for impacts on achievement of flood protection objectives (EU, National, Regional &amp; Local).</p>	<p>associated with the construction phase.</p> <p>The proposed development would not have any significant effects on air quality during the construction phase subject to compliance with the EIAR mitigation measures, compliance with best construction practices and adherence to an agreed CEMP which should contain a Traffic Management Plan. The Scheme would not have any significant long-term effects during the operational phase.</p> <p>The proposed Scheme serve to protect properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges.</p>
<p><b>Residual Effects:</b> There will be some increase in dust, odours &amp; traffic related emissions during the construction phase however predicted levels would mainly lie with guidance limit values. Residual impacts are not predicted to be significant subject to the implementation of mitigation measures &amp; any suggested conditions.</p>	
<p><b>Cumulative Impacts:</b> Construction phases impacts could occur in combination with the Arklow WwTP however the MoU would co-ordinate the works in order to minimise disturbance to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank &amp; South Quay). No significant cumulative impacts predicted during the operational phase.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to air &amp; climate, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	



<b>Landscape and Visual</b>	
<p><b>EIAR</b> section 12 and associated Technical Appendices and Photomontages assessed landscape and visual effects. Baseline conditions and landscape character were described and several viewpoints were selected in the surrounding urban and riparian landscape, heritage areas and local road network. The EIAR did not predict any significant adverse impacts on landscape and views during the construction &amp; operational phases.</p>	
<b>Submissions</b>	<b>Concerns raised</b>
<p>Ms Whitmore TD, Mr Matthews TD, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr Young &amp; Mr O'Toole, Mr Nyhan &amp; Mr. O'Broinn.</p>	<p>Height of walls &amp; use of concrete. Height &amp; design of embankment. Severance with river. Relationship to Arklow Bridge &amp; Marsh. Loss of maritime heritage, trees &amp; open space.</p>
<b>Potential impacts</b>	<b>Assessment &amp; mitigation measures</b>
<p>There is potential for the following visual impacts on the landscape during the construction and operational phases of the FRS.</p> <p><b>Sensitive receptors:</b> potential for adverse visual impacts on sensitive receptors (incl. Arklow Town Marsh, Avoca River &amp; Arklow Bridge).</p>	<p>Refer to section 7.2 of this report for a detailed analysis of visual impacts which concluded that there would be no significant adverse effects.</p> <p>Intermittent views of the proposed flood embankment at Ferrybank from the public domain at River Walk (S), Dublin Road (E) and Arklow Bridge (SE) would not have a significantly adverse impact on visual amenity. The native species landscaping of the embankment would help integrate it visually with the adjacent Arklow Town Marsh to the W.</p> <p>Sections of the proposed flood wall along Riverbank &amp; South Quay would have a minor localised adverse impact on visual amenity along the S side of Avoca River and views towards Arklow Bridge would be intermittingly</p>

<p><b>Protected Structures &amp; heritage features:</b> potential for adverse visual impacts during the operational phase.</p> <p><b>Residential amenity:</b> Potential for minor localised visual impacts on nearby houses during the operational phase.</p>	<p>interrupted. On balance, the flood defence walls (which would be improved by the additional glass panels) would not be visually obtrusive or overbearing having regard to its linear nature, the scale &amp; design of the main elements (incl. the additional glass panels), the public realm works on the S side of the river and the native species landscaping.</p> <p>The underpinning works at Arklow Bridge would not affect the character and setting of the structure. The public realm works in the vicinity of the bridge would not have any significant adverse visual impacts. There would be no adverse effects on the character or setting of any other Protected Structures or any other heritage features in the surrounding area, having regard to the separation distance with the Scheme.</p> <p>Refer to section 7.2 &amp; 7.3 of this report for a detailed analysis of visual impacts on residential amenity, which concluded that there would be some minor visual impacts on residential amenity along South Quay but no significant adverse effects overall.</p>
<p><b>Residual Effects:</b> Impacts predicted to be minor.</p>	
<p><b>Cumulative Impacts:</b> None predicted.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to landscape &amp; visual amenity, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	

## Biodiversity

**EIAR** sections 10, 13 & 14 and associated Technical Appendices dealt with: - biodiversity, land & soil and water. Desk top studies & field surveys were undertaken, and an AA Screening report & NIS was prepared. The EIAR described the receiving environment as mainly comprising: - wetlands at Arklow Town Marsh with agricultural lands and an urban area to the E; the tidal & estuarine riparian river corridor along the Avoca River with urban areas to the N and S; and a coastal amenity area to the SE at South Beach. It noted the presence of several land uses zones along the linear footprint of the Scheme (incl. residential, commercial, community, industrial & open space). It noted that although the lands are not covered by or directly connected to any designated European sites, they may be of value to mobile species from other further afield sites. It noted that Arklow Town Marsh is a pNHA, the use of the Avoca River & environs by protected animal species (incl. otters, birds & bats), and it recorded the presence of 2 x protected plant species at South Beach (Moore's' horsetail & Wild clary). The EIAR did not predict any significant adverse impacts on biodiversity during the construction and operational phases, subject to the implementation of mitigation measures to protect ground & surface water quality, and sensitive habitats and species from loss and disturbance.

<b><i>Submissions</i></b>	<b><i>Concerns raised</i></b>
NPWS, IFI, HSE & An Taisce, Ms Whitmore TD, Mr Matthews TD, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr Young, Mr O'Toole, Mr Nyhan & Mr. O'Broinn.	Arklow Town Marsh pNHA. Biodiversity & wetland habitats. Otter, birds, bats, fish & other species. Protected flora species. Water quality & fisheries. Loss of trees.
<b><i>Potential impacts</i></b>	<b><i>Assessment &amp; mitigation measures</i></b>
There no European sites in the vicinity although Arklow Town Marsh is a pNHA. The lands mainly comprise a mix of wetland, woodland, riverine, riparian, coastal & urban habitats. Several	Refer to section 7.5 of this report for detailed analysis of potential impacts on biodiversity (incl. habitats & species) which concluded that there would be no significant adverse impacts (following mitigation).

species of mammal (incl. otter, birds & bats) utilise the Marsh area and Avoca River. There is an otter holt on the NW side of the river and badger is likely to frequent the N section of the Marsh. Several species of wintering waterbird frequent the river and Daubenton's bat has been recorded roosting under Arklow Bridge. Several species of fish are known to migrate along the river (incl. Salmon & Lampreys). Two protected plant species have been recorded at South Beach (Moore's horsetail & Wild clary). Arklow Bridge supports several Bryophyte species mosses but no liverworts).

There is potential for the following impacts on Biodiversity during the construction & operational phases.

**European sites:** Direct & indirect connections to sensitive sites.

The proposed Scheme would not be located within, adjacent or close to any European sites. However, the area could be of value to mobile species from other further afield sites (incl. Wexford & Cork Harbour SPAs) and there may be an aquatic connection to some coastal European sites to the N & S of the estuary. Refer to Section 9.0 of this report (AA) which concluded that there would be no adverse effects on any European sites, their

<p><b>Habitats:</b> Potential for permanent localised loss of or alteration to terrestrial habitats (incl. wetlands, woodlands, hedgerow, riparian, drainage ditches &amp; scrub) during the construction phase, along with loss of aquatic riverbed habitats (incl. tidal &amp; estuarine) as a result of the river dredging.</p>	<p>Conservation objectives or QI/SCI species during the construction or operational phases.</p> <p>Construction of the flood defence embankment in the E section of Arklow Town Marsh pNHA at Ferrybank would result in the loss of a small section of Wetland habitat (incl. Reed and tall sedge swamps). However, this impact would be minor relative to the overall scale of the Marsh and the area occupied by these habitats.</p> <p>The short section of flood defence wall to the NW of Arklow Bridge would result in the loss of riparian habitat which would be miniscule relative to the overall size of the Marsh. The loss of trees would be compensated for by additional tree planting in the surrounding area.</p> <p>Several other habitats (incl. hedgerows, channels, ditches &amp; shrub) would be permanently lost or altered but given their lack of sensitivity, and the proposal to plant native trees along embankment and riverside, the long-term impact would not be significant.</p> <p>The dredging would result in the permanent loss of riverbed habitat (tidal &amp; estuarine). However, the riverbed does not support a wide variety of macroinvertebrates having regard to the historic level of contamination from Avoca Mines and untreated urban sewerage discharges. The long-term impact of dredging on aquatic habitats would not be significant and could be positive.</p>
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**Flora:** Potential for permanent localised loss of species during construction phase.

Construction of the embankment at Arklow Town Marsh would result in the localised loss of several constituent flora species (incl. reeds & rush) for the affected wetland habitats. However, this impact would be minor relative to the overall scale of the Marsh and the extensive area occupied by the wetland habitats and species, with no long-term adverse impacts anticipated.

Two flora protection species (Moore's horsetail & Wild clary) were recorded at the public amenity area at South Beach which would be used as a temporary construction compound (SC6) for the stockpiling and examination of river dredge material. However, these species would be fenced off and excluded from the works, ground & surface water would be protected from seepage, and only inert material would be stockpiled. No adverse impacts are anticipated.

Arklow Bridge is populated by several common Bryophyte species, which mainly comprise mosses but no liverworts, with no long-term adverse impacts anticipated.

Several non-designated plant species would be permanently lost but given their lack of sensitivity and the proposal to plant native species tree and hedgerow species on the flood defence embankment & walls, the overall long-term impact would not be significant.

<p><b>Fauna:</b> Potential for disturbance to several terrestrial animal species during the construction &amp; operational phases.</p>	<p>Several species of animal would be disturbed during the construction phase (incl. otter, badger, birds &amp; bats) as a result of the site clearance and construction works, including the removal of in-stream sandbanks and small wooded islands.</p> <p>There is evidence of commuting <b>Otter</b> along the Avoca River and within Arklow Town Marsh. Recent surveys indicate the presence of a holt to the NW of Arklow Bridge on the N side of the river within the vicinity of the works, and an NPWS Derogation licence will be required for its removal. Notwithstanding the disturbance during the construction phase, otter will eventually return and habituate to activity in the during the operational phase, with no long-term adverse impacts anticipated.</p> <p>Several species of <b>bird</b> (incl. wintering waterbirds &amp; passerines) frequent Arklow Town Marsh, Avoca River and environs. The floating roosting platforms and tall debris traps upstream of Arklow Bridge would have positive benefits for birds (and bats). However, vegetation clearance should take place outside of the bird nesting season, or the early arrival season for wintering waterbirds. The native species tree planting along the N side embankment and S side walls would provide resting, nesting and foraging opportunities for birds (and bats). Most species will eventually return and habituate in the long</p>
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<p><b>Aquatic species:</b> Potential for loss, disturbance or damage to fish species during the construction phase resulting from in-stream works (incl. bridge underpinning &amp; river dredging); deterioration in water quality (incl. sedimentation, contamination, spillages &amp; runoff), and construction noise at defence walls (incl. pile driving).</p>	<p>term during the operational phase, with no adverse impacts anticipated.</p> <p>Foraging and commuting <b>bats</b> could be adversely affected by vegetation clearance during the construction phase and artificial lighting during both phases, and particularly along Arklow Bridge where there was evidence of roosting and nesting activity. EIAR mitigation measures include pre-construction bat surveys and the minimal artificial lighting by way of a lighting plan during both the construction and operational phases. NPWS concerns in relation to the uptake of the bat boxes and tubes would be addressed by way of the recommended monitoring condition. Most species will eventually return and habituate in the long term during the operational phase, with no adverse impacts anticipated.</p> <p>The Avoca River drains directly to the Irish Sea. The river does not contain a wide variety of tidal or estuarine <b>macroinvertebrates</b>, or good breeding or spawning habitat for <b>fish</b> because of the historic contamination levels from Avoca Mines and untreated urban sewerage discharges. However, the river does provide a migratory route for several fish species (incl. Atlantic salmon, Lampreys, Brown trout &amp; European eel).</p> <p>Implementation of the EIAR mitigation measures for in-stream works and surface water drainage</p>
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	<p>arrangements, the reinstalment of river access points, along with adherence to best construction practices and an agreed CEMP, would protect water quality (incl. aquatic species &amp; fisheries) during the construction phase.</p> <p>Fish migration would be relatively unhindered as the proposed subdivision of the channel during in-stream works would maintain river flow. IFI concerns in relation to construction and plie driving noise would be addressed by way of the recommended planning condition.</p> <p>The proposed Scheme would not have any significant long-term adverse effects on aquatic species during the operational phase.</p>
<p><b>Residual Effects:</b> Impacts predicted to be minor subject to implementation of mitigation measures and any recommended planning conditions.</p>	
<p><b>Cumulative Impacts:</b> Construction phases impacts could occur in combination with the Arklow WwTP however the MoU would co-ordinate the works in order to minimise disturbance to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank &amp; South Quay). No significant cumulative impacts predicted during the operational phase.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to biodiversity, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	

## Land, soil and water

**EIAR** sections 13 & 14 and associated Technical Appendices dealt with: - land, soil and water. Appendix 5.1 contained a CEMP. Appendix 13.1E contains a Marsh Hydrology report and Appendix 14.1 contains a Baseline Water Quality report. Appendix 15.2 contained a Dredge Material Management Study and Appendix 15. 4 contained a Construction & By-products Waste Management Plan.

The EIAR described the receiving environment, and several desktop studies, field & surveys and ground & water quality investigation tests were undertaken. The linear site mainly comprises a mix of wetland, woodland, agricultural and urban lands underlain by a variety of bedrock types and bedrock aquifer types. Water quality in Avoca River has been seriously adversely affected over time by acidic contaminants from Avoca Mines and untreated urban sewerage. The WFD status of the Avoca River Estuary was classified as “Good” in 2015 for several species of migratory fish (incl. Salmon & Lampreys), however, the overall WFD status of the Avoca Estuary as “Moderate”, the ERBD classified the status of the Avoca River as “Poor”, and the waterbody is at risk of not achieving Good Status.

The EIAR described the proposed site preparation and construction works, the installation of the flood defence embankment and wall at Ferrybank, the underpinning works at Arklow Bridge and river dredging, and the flood defence walls and public realm works at River Walk, South Quay & Harbour Dock. It identified potential impacts (incl. sediment release during in-stream works, accidental sediment & chemical discharges to ground & surface water during the construction phase, and contaminated surface water run-off during the operational phase). The EIAR did not predict any significant adverse impacts on land, soil or water during the construction and operational phases, subject to implementation of mitigation measures related to the management of in-stream works and surface water drainage.

<b><i>Submissions</i></b>	<b><i>Concerns raised</i></b>
IW, IFI, HSE, Arklow Marine Services, South Quay residents, Mr O'Toole, Mr Nyhan & Mr. O'Broinn.	Surface & round water quality. Drainage arrangements & flood risk River dredge material stockpiling.

	River & harbour contaminants.
<b>Potential impacts</b>	<b>Assessment &amp; mitigation measures</b>
<p>There is potential for the following impacts on land, soil &amp; water in relation to the works associated with the construction &amp; operation of the proposed Scheme.</p> <p><b>Water quality:</b> Potential pollution of ground water and surface waterbodies &amp; watercourses (incl. Arklow Town Marsh &amp; drainage ditches and the Avoca River) by sediments &amp; contaminants released during river dredging, bridge underpinning works and construction works (incl. flood defence embankment and walls), and by accidental fuel spillages or leaks during the construction and operational phases.</p>	<p>Refer to section 7.5 &amp; 7.7 of this report for detailed analysis of land soil &amp; water impacts which concluded that there would be no significant adverse effects.</p> <p>The linear site mainly comprises a mix of wetland, woodland, agricultural and urban lands that drain to the Avoca River and hence the Irish Sea. The riverbed does not support a wide variety of macroinvertebrates (tidal or estuarine) or spawning habitat for fish because of historic contamination from Avoca Mines and untreated urban sewerage discharges. It does however provide a migratory route for fish.</p> <p>The EIAR contains a suite of mitigation measures to protect ground and surface water quality during the site preparation, river dredging, in-stream &amp; construction works from contamination by sediments, historic substances and chemical spills during the construction &amp; operational phases. These EIAR also provides for the examination and appropriate disposal of any identified contaminated river dredge waste.</p> <p>Implementation of the EIAR mitigation measures for in-stream works and surface water drainage arrangements, the reinstalment of river access points, along with adherence to best construction practices and an agreed CEMP, and compliance with all relevant regulations</p>

<p><b>Flood risk:</b> Possible potential impacts resulting from uncontrolled surface water runoff and build-up behind the flood defence embankment at Ferrybank and flood defence walls at South Quay.</p>	<p>(incl. IFI Guidelines) would protect water quality during the construction &amp; operational phases.</p> <p>These issues are addressed in detail in sections 7.7 above. No adverse flood risk impacts are anticipated given that the purpose of the Scheme is to protect against the harmful effects of fluvial and tidal flooding.</p>
<p><b>Residual Effects:</b> Residual impacts are not predicted to be significant subject to the implementation of mitigation measures.</p>	
<p><b>Cumulative Impacts:</b> Construction phases impacts could occur in combination with the Arklow WwTP however the MoU would co-ordinate the works in order to minimise disturbance to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank &amp; South Quay). No significant cumulative impacts predicted during the operational phase.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to land, soil &amp; water, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	

<b>Material assets</b>	
<p><b>EIAR</b> sections 7 &amp; 17 and associated Technical Appendices dealt with traffic &amp; transport and material assets (incl. access, power supply, telecommunications, water supply &amp; wastewater management). The EIAR described the receiving environment (incl. the road network &amp; access arrangements) and several desktop studies and traffic surveys were undertaken. The EIAR described the site as comprising a mix of wetland, woodland, agricultural and urban lands located within an area zoned for a variety of mainly urban uses. It described the proposed movement, access and service arrangements to the main elements of the Scheme and the site compounds. It stated that the works would take place on a phased basis within a series of 5 x Work Packages over a period of 5 years, and it identified that there would be localised traffic impacts (incl. disruptions &amp; diversions) which would be co-ordinated by an agreed Traffic Management Plan. The EIAR did not predict any significant adverse impacts on material assets during the operational phase, subject to implementation of mitigation measures.</p>	
<b>Submissions</b>	<b>Concerns raised</b>
IW, IFI, HSE, Cllr. Leonard, Save Maritime Arklow Group, Arklow Rowing Club, Arklow Sea Scouts, Arklow Marine Services, Arklow Marina Ltd, South Quay residents, Mr Young, Mr O'Toole, Mr Nyhan & Mr O'Broinn.	<p>Construction traffic &amp; loss of car parking.</p> <p>Interference with services during construction.</p> <p>WwTP &amp; other works.</p> <p>Tourism, recreation &amp; water sports.</p> <p>Fisheries, angling &amp; maritime businesses.</p>
<b>Potential impacts</b>	<b>Assessment &amp; mitigation measures</b>
<b>Traffic:</b> Potential for localised impacts on the road network & traffic safety during the construction & operational phases.	<p>Refer to section 7.4 of this report for a detailed analysis of traffic &amp; movement impacts which concluded that there would be no significant adverse impacts on traffic movement or safety during the construction and operational phases.</p> <p>The national, regional &amp; local road network has sufficient capacity to assimilate the redistributed local and commercial traffic and any additional</p>

<p><b>Water supply &amp; drainage:</b> Potential impacts on environmental services related to the provision of clean water and disposal of unclean water from the site (incl. wastewater &amp; storm water), and resultant impacts on water quality because of uncontained and unmanaged discharges.</p> <p><b>Public water supply:</b> potential adverse impacts on future connections to adjacent lands.</p> <p><b>Water sports, fisheries &amp; tourism:</b> potential localised adverse impacts on water sport activities, angling &amp; tourism.</p>	<p>construction traffic volumes associated with the construction phase. The realigned section of road along South Quay and associated traffic calming measures along with the continuous footpath along with the S side of the Avoca River would contribute to an improvement in pedestrian and road safety in the surrounding area.</p> <p>Refer to section 7.7 of this report and section 8.4 (Land, soil &amp; water) above for an analysis of water supply &amp; drainage impacts. The proposed drainage system (and pumping stations) would manage discharge volumes, prevent flooding &amp; protect downstream water quality. Section 8.4 (Land, Soil &amp; Water) above concluded that the proposed development would not have significant impact on surface &amp; ground or ground water and would not give rise to a flood risk.</p> <p>Refer to section 7.7 of this report which noted the concerns raised by IW and the Council's response to them. These concerns would be addressed by ensuring compliance with standard IW requirements and during the detailed design stage of the project.</p> <p>Short term disturbance to water sports, tourists &amp; angling predicted during the construction phase but no long terms adverse effects on during the operational phases. Access to the Harbour Dock slipway will remain open for the various users and</p>
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	<p>the floating pontoons on the N side of Avoca River would be unaffected during the operational phase. The EIAR drainage and surface water management arrangements would ensure that water quality is protected with no resultant adverse effects on fisheries anticipated.</p>
<p><b>Residual Effects:</b> Residual impacts are not predicted to be significant subject to the implementation of mitigation measures and compliance with any recommended conditions.</p>	
<p><b>Cumulative Impacts:</b> Minor construction phases impacts could occur in combination with the Arklow WwTP however the MoU would co-ordinate the works in order to minimise disturbance to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank &amp; South Quay). No significant cumulative impacts predicted during the operational phase.</p>	
<p><b>Conclusion:</b> I have considered all the written submissions made in relation to material assets, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.</p>	

## Cultural heritage

**EIAR** sections 11 & 12 and associated Technical Appendices dealt with Archaeology, Architecture & Cultural Heritage, and Landscape & Visual impacts. The EIAR described the receiving environment as mainly comprising a mix of wetland, woodland, agricultural and urban lands. It described Arklow's underlying archaeological heritage including within Arklow Town Marsh & Avoca River. It identified several Recorded Monuments including the SE tip of Arklow Marsh which lies within the Zone of Archaeological Potential for the Historic Town of Arklow (RMP W1040-029). It identified several Protected Structures (incl. Arklow Bridge) and features of maritime heritage interest (incl. Tyrrells's slipway, quay walls & bollards at South Quay and Harbour Dock). The EIAR described the proposed Scheme and identified potential impacts on cultural heritage. It did not predict any significant adverse impacts during the construction phase, subject to implementation of mitigation measures (incl. archaeological pre-testing, monitoring, recording & river dredge examination) and retention of maritime features. The EIAR did not predict any significant adverse impacts on Recorded Monuments or Protected Structures.

<b><i>Submissions</i></b>	<b><i>Concerns raised</i></b>
Ms Whitmore TD, Cllr. Leonard, Save Maritime Arklow Group, South Quay residents, Mr Young, Mr O'Toole, & Mr. O'Broinn.	General cultural heritage. River & marsh archaeology. Arklow Bridge. Maritime & quayside heritage.
<b><i>Potential impacts</i></b>	<b><i>Assessment &amp; mitigation measures</i></b>
There is potential for the following impacts on cultural heritage in relation to the construction & operational phases of the proposal.  <b>Archaeology:</b> Potential impacts on and as yet undiscovered artefacts within in Arklow Town Marsh and the Avoca River.	Refer to section 7.6 of this report for detailed analysis of archaeology & cultural heritage impacts which concluded that there would be no significant adverse effects.  The Avoca River and the SE tip of Arklow Marsh lie within the Zone of Archaeological Potential for the Historic Town of Arklow (RMP W1040-029), and it is possible that the river bed and



<p><b>Heritage features:</b> Potential impacts on character &amp; setting of several Protected Structures (incl. Arklow Bridge) and the historic maritime quayside &amp; docks (incl. Tyrell's Slipway).</p>	<p>surrounding marsh lands may contain as yet undiscovered artefacts. River dredge material would be transported to several compounds around the town for stockpiling &amp; archaeological examination. Groundworks at the marsh would be monitored during the site preparation and construction phase, and any discoveries recorded and preserved by record.</p> <p>Notwithstanding these measures, the proposed Scheme could have a permanent adverse impact on archaeological heritage within the marsh and the riverbed.</p> <p>The proposed underpinning works at Arklow Bridge would not affect the character of this Protected Structure, and the proposed public realm works would make a positive contribution to it's setting. Having regard to the scale and layout of the Scheme and the separation distances to other Protected Structures in the surrounding area, along with the proposed retention of sections of the quay walls, slipways and maritime bollards, the Scheme would not adversely affect any other heritage features in the surrounding area.</p> <p>The proposed Scheme would not have an adverse impact on any heritage features in the area, and the public realm works and proposed heritage trail would have positive benefits.</p>
<p><b>Residual Effects:</b> Residual impacts are not predicted to be significant subject to the implementation of mitigation measures and compliance with any recommended planning conditions.</p>	

**Cumulative Impacts:** Minor construction phases impacts could occur in combination with the Arklow WwTP however the MoU would co-ordinate the works in order to minimise disturbance to local residents, businesses and traffic. Minor construction impacts may occur in-combination with the implementation of planning permissions for developments in the surrounding area (incl. at Ferrybank & South Quay). No significant cumulative impacts predicted during the operational phase.

**Conclusion:** I have considered all the written submissions made in relation to cultural heritage, in addition to those specifically identified in this section of the report. I am satisfied that they have been appropriately addressed in terms of the application and that no significant adverse effect is likely to arise.

## **8.12 Cumulative Impacts**

Several projects are either permitted or being progressed in the wider area. This includes the Irish Water WwTP at North Quay/North Dock and the Circle K Service Station at Dublin Road, and the potential in-combination impacts of these works have been addressed in the EIAR, and a Memorandum of Understanding has been agreed in relation to the coordination of infrastructure works in the town and in particular along South Quay. Having regard to the nature and scale of the remaining projects and the separation distance from the proposed development, I am satisfied that cumulative effects can be avoided, managed and mitigated by the embedded measures which form part of the proposed development, mitigations measures, and suitable conditions. There is, therefore, nothing to prevent the granting of approval on the grounds of cumulative effects.

## **8.13 Interactions and Interrelationships**

I have also considered the interrelationships between the key receptors and whether this might as a whole affect the environment, even though the effects may be acceptable when considered on an individual basis. In particular, the potential arises for the following interactions and interrelationships.

### ***Population and human health:***

- Noise, dust & odours
- Air quality and climate
- Landscape and visual amenity
- Material Assets (fishing)
- Roads and traffic (air quality, safety & disturbance)

### ***Air & climate***

- Noise, dust & odours
- Roads and traffic (emissions)
- Population and Human Health

***Landscape***

- Population and Human Health (visual amenity)
- Material Assets and Cultural Heritage (tourism & recreation)

***Biodiversity:***

- Hydrology (water quality & fisheries)
- Population and human health (water quality)
- Material assets (recreation, water sports, angling & tourism)
- Landscape (visual amenity)
- Soils and geology (protected species & water quality)
- Land (landscape character)

***Land, Soil and water:***

- Air quality
- Biodiversity (terrestrial & aquatic)
- Population & Human Health

***Material Assets and Cultural Heritage:***

- Population & human health
- Landscape (visual amenity & landscape character)
- Roads and traffic (disturbance & safety)

In conclusion, I am satisfied that any such impacts can be avoided, managed and mitigated by the measures which form part of the proposed development and the aforementioned conditions, as recommended in section 7.0 above.

**8.14 Risks associated with major accidents and/or disasters**

No outstanding risks associated with major accidents or disasters identified and the potential impacts associated with climate change have been factored into most sections of the EIAR.

## 8.15 Reasoned Conclusion

Having regard to the examination of environmental information contained above, and in particular to the EIAR and the submissions from the prescribed bodies and observers in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment have been identified in section 7.0 and section 8.0 of this report. It is considered that the main significant direct and indirect impacts of the proposal on the environment are as follows.

- ***Biodiversity impacts*** arising from proximity to sensitive habitats and foraging corridors, connections to aquatic and water dependent habitats, changes to vegetation along the route, and general disturbance during the construction phase. These impacts would be mitigated by the agreement of measures within a Construction and Environment Management Plan and the implementation of mitigation measures which include: - pre-construction surveys (for bats & otter); in-stream works and surface water management measures; buffer zones around protected plant species, an Invasive Species Management Plan; and the appointment of a Project Ecologist.
- The ***risk of pollution of ground and surface waters during the construction phase*** through a lack of control of surface water during excavation and construction, the mobilisation of sediments and other materials during excavation and construction and the necessity to undertake construction activities in with in existing watercourses (incl. dredging & bridge underpinning). The construction of the proposed development could also potentially impact negatively on ground and surface waters by way of contamination through accidents and spillages. These impacts would be mitigated by the agreement of measures within the Construction and Environment Management Plan, and the implementation of mitigation measures related to: - design and avoidance, management of in-stream works, management of accidental spills and contamination and drainage management.

- The proposed project would give rise to an increase in ***vehicle movements and resulting traffic impacts*** during the construction phase where the vehicles would interact directly and indirectly with several roads and junctions. The construction phase impacts would be mitigated by the agreement of measures within a Construction and Environment Management Plan and the implementation of mitigation measures (incl. the preparation of a Traffic Management Plan). The operational phase of the proposed development would have a positive localised impact on the receiving environment by improving safety along the road network at South Quay.
- The project could give rise to minor localised impacts on ***residential amenity*** during the construction phase (incl. noise, dust, odours, traffic safety & general disturbance). These impacts would be mitigated by the implementation of measures related to the protection of air quality, odour management, control of noise and traffic management.
- The proposed development would have ***potentially significant positive environmental impacts*** during the operational phase by the provision of a flood defence system for Arklow town along the Avoca River and into Arklow Town Marsh, and the creation of a new public realm area along the river with constituent footpaths and amenity areas.

In ***conclusion***, having regard to the above identified significant effects, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation measures and any conditions recommended in section 7.0 of this report.

## **9.0 APPROPRIATE ASSESSMENT**

### **9.1 Compliance with Articles 6(3) of the EU Habitats Directive**

The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

### **9.2 Natura Impact Statement**

The application was accompanied by a Natura Impact Statement report which contained a Stage 1 Appropriate Assessment Screening report and a Stage 2 Natura Impact Statement. The reports described the site, receiving environment and the proposed development. It utilised the data collected as part of the EIAR desktop studies (incl. NPWS & IFI datasets for habitats & species, and WFD, EPA & GSI ground & surface water quality data) and specific field surveys (incl. habitats, plant species, otter, birds & bats, and macroinvertebrates), and it referenced the data collected for the WwTP EIAR.

The Zone of Impact considered the potential for effects to conservation features within (in-situ) and outside (ex-situ) the proposed development area and the European sites. The 15km radius taken as a starting point and the Source-Pathway-Receptor links were identified for both the construction and operational phases, and potential impact mechanisms were described (incl. water pollution via discharges, habitat loss in Avoca River & Arklow Town Marsh, noise disturbance, and barrier to faunal movement). The Zone of Impact was then expanded to consider the potential for effects to conservation features of mobile species from further European sites.

The **AA Screening** identified the following 4 x European sites within a **15km radius** of the works that have the potential to be affected by the proposed development:

- Buckroney - Brittas Dunes & Fen SAC
- Kilpatrick Sandhills SAC
- Slaney River Valley SAC
- Magharabeg Dunnes SAC

The Conservation Objectives and Qualifying Interests were identified, described and assessed relative to the aforementioned impact mechanisms. The AA Screening concluded that there was no pathway for significant effects, based on their coastal location (3), separation distance (4) and the absence of aquatic connections (4).

The **AA Screening** then identified a very large number of **distant** European sites (between 20km and 260km) that contain mobile species which were recorded at the site during the various surveys (c.24 bird species), which have the potential to be affected by the proposed development. A large number of these European sites were screened out from further assessment based on species characteristics (incl. diet & habitat preference and foraging distance). The Screening exercise identified the following 12 x distant European sites (SPAs) within c.170km of the proposed works that have the potential to be affected by the proposed development:

- The Murrough SPA
- Cahore Marshes SPA
- Poulaphouca Reservoir SPA
- Wexford Harbour & Sloba SPA
- Ireland's Eye SPA
- Tacumshin Lake SPA
- Lambay Island SPA
- Saltee Island SPA
- Skerries Island SPA
- Ballymacoda Bay SPA
- Ballycotton Bay SPA
- Cork Harbour SPA



The Conservation Objectives and relevant Special Conservation Interest species (i.e. recorded present at the site & environs) were identified, described and assessed relative to the aforementioned impact mechanisms. The AA Screening concluded the potential for significant effects could not be ruled out for these sites and their relevant bird species (incl. Lesser Black-backed Gull, Herring Gull, Black-headed Gull, Wigeon, Curlew, Oystercatcher & Lapwing) and progression to Stage 2 is required.

The **AA Screening** also identified the following ***distant*** European site that contains mobile faunal species (Otter) which was recorded at the site during the various surveys, that has the potential to be affected by the proposed works:

- Wicklow Mountains SAC

The Conservation Objectives and relevant Qualifying Interest species (i.e. recorded present at the site & environs) were identified, described and assessed relative to the aforementioned impact mechanisms. The AA Screening concluded the potential for significant effects could not be ruled out for this site and its relevant faunal species (otter) given the presence of an aquatic connection between the European sites and the proposed works, and progression to Stage 2 is required.

The **Natura Impact Statement** report listed the Conservation Objectives, relevant Qualifying Interests and relevant Special Conservation Interests for each of these sites (based on their recorded present at the site & environs). It identified the potential sources of direct and indirect impacts on the sites, and assessed the potential impacts relative to the Conservation Objectives for each site. The impact mechanisms of concerns were listed (incl. discharges, loss of in-river and marsh habitats, and barriers to otter movement). It had regard to the EIAR water quality assessments, ecological surveys and mitigation measures, and other plans and projects that might act in-combination (incl. the WwTP & Circle K Service Station). It concluded that the risk for the habitats and species which are designated as Qualifying Interests and Special Conservation Interests for the European sites was minimal subject to the implementation of the EIAR mitigation measures.

***The desk top studies and site surveys*** described the site and surrounding area along with potential connections to nearby and further afield European sites. The reports assessed the Avoca River and Arklow Town Marsh and their environs for aquatic and mobile species of Special Conservation Interest and Qualifying Interest and for the European sites. The ecological characteristics of the riparian and wetland sites were described as was the recorded presence of SCI and QI species, and WFD/EPA/ERBD water quality data for the Avoca River and estuary was provided.

***The NIS formally concluded*** that 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 of any European site, either alone or in-combination with other plans and projects, and there is no reasonable scientific doubt in relation to this conclusion.

***Having reviewed the NIS*** and supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, does clearly identify the potential impacts, and does use best scientific information and knowledge, and details of mitigation measures are provided. I am satisfied that the information is sufficient to allow for the appropriate assessment of the proposed development, subject to the further consideration of European sites located within an enlarged Zone of Influence (further analysis below).

### **9.3 AA Screening Assessment**

The main issues related to ecology and the concerns raised by the Observers are summarised and addressed in section 4.0 of this report, section 7.5 deals with Biodiversity and section 8.0 contains an environmental impact assessment. These sections should be read in conjunction with this assessment.

The European sites within the Zone of Influence (i.e the area over which an impact can have a potential effect in relation to proximity of European sites and the mobility of faunal species from further afield sites) of the proposed works and approximate separation distances are set out below. The applicant's bird surveys recorded the presence of many bird species at the subject site that are of Special Conservation Interest for a large number of further afield European sites (up to c.260km).

However, having regard to the characteristics of the subject site and environs, the substantial separation distances between the proposed works and the European sites in-combination with the specific features and requirements for many of the recorded bird species (incl. habitat preference, dietary needs & foraging distances), only the European sites that have a realistic and pragmatic mobile connection to the site will be included in this Screening assessment. This option will avoid the unnecessary inclusion of every European site in the entire country that is designated for a species that was recorded at the site, irrespective of logistics of a connection.

The proposed development would not be located in a European site, and although it would be connected to a large number of European sites, it is not relevant to the maintenance of any such sites. There are 4 x European sites located within a c.15km radius of the proposed development, and 13 x sites located within the Zone of Influence (up to c.170km). The Qualifying Interests and Special Conservation Interests, and approximate straight line and aquatic separation distances from the project site to these European sites are listed below.

European site	Site code	QIs & SCIs	Distance
<b>Buckronev - Brittas Dunes &amp; Fen SAC</b>	000729	Annual vegetation of drift lines Perennial vegetation of stony banks Mediterranean salt meadows Embryonic, White, Grey & Atlantic dunes Dunes with <i>Salix repens</i> Humid dune slacks & Alkaline fens	5km N
<b>Kilpatrick Sandhills SAC</b>	001742	Annual vegetation of drift lines Embryonic, White, Grey & Atlantic dunes	7km S
<b>Slaney River Valley SAC</b>	000781	Estuaries, Mudflats & sandflats Atlantic & Mediterranean salt meadows Floating river vegetation Old sessile oak woods & Alluvial forests Freshwater Pearl Mussel Sea, Brook & River Lampreys Twaite Shad & Salmon Otter & Harbour seal	13km W
<b>Magharabeg Dunnes SAC</b>	001766	Annual vegetation of drift lines Embryonic, White & Grey dunes Petrifying springs (tufa formation)	15km N
<b>Wicklow Mountains SAC</b>	002122	Oligotrophic waters Natural dystrophic lakes & ponds Wet, Dry, Alpine & Boreal heaths Calaminarian & <i>Nardus</i> grasslands Blanket bogs & Siliceous scree Calcareous & Siliceous rocky slopes Old sessile oak woods & Otter	25km NW
<b>The Murrough SPA</b>	004186	Red-throated Diver & Greylag Goose Light-bellied Brent Goose Wigeon, Teal & Little Tern Black-headed & Herring Gull Wetland and Waterbirds	21km N

<b>Cahore Marshes SPA</b>	004143	Wigeon, Golden Plover & Lapwing Greenland White-fronted Goose Wetland and Waterbirds	27km S
<b>Poulaphouca Reservoir SPA</b>	004063	Greylag goose Lesser Black-backed Gull	41km NW
<b>Wexford Harbour &amp; Slobbs SPA</b>	004076	Little & Great Crested Grebe Cormorant & Grey Heron Bewick's & Whooper Swan Light-bellied Brent Goose Shelduck, Wigeon, Teal & Mallard Pintail, Scaup & Goldeneye Red-breasted Merganser Hen Harrier, Coot & Oystercatcher Golden & Grey Plover Lapwing, Knot, Sanderling & Dunlin Black-tailed & Bar-tailed Godwit Curlew, Redshank & Little Tern Black-headed & Lesser Black-backed Gull Greenland White-fronted Goose Wetland and Waterbirds	47km S
<b>Ireland's Eye SPA</b>	004117	Cormorant & Herring Gull Kittiwake, Guillemot & Razorbill	66km N
<b>Tacumshin Lake SPA</b>	004092	Bewick's & Whooper Swan Little Grebe, Coot, Wigeon, Gadwall & Teal Pintail, Shoveler & Tufted Duck Golden & Grey Plover Lapwing & Black-tailed Godwit Wetland and Waterbirds	69km S
<b>Lambay Island SPA</b>	004069	Fulmar, Cormorant & Shag Lesser Black-backed & Herring Gull Kittiwake, Guillemot & Greylag Goose Razorbill & Puffin	76km N

<b>Saltee Island SPA</b>	004002	Fulmar, Gannet & Cormorant Lesser Black-backed & Herring Gull Shag, Kittiwake & Guillemot Razorbill & Puffin	78km S
<b>Skerries Island SPA</b>	004122	Cormorant, Shag & Purple Sandpiper Light-bellied Brent Goose Turnstone & Herring Gull	85km N
<b>Ballymacoda Bay SPA</b>	004023	Wigeon, Teal, Curlew & Redshank Turnstone, Lapwing, Sanderling & Dunlin Ringed, Golden & Grey Plover Black-tailed & Bar-tailed Godwit Black-headed & Common Gull Lesser Black-backed Gull Wetland and Waterbirds	153km SW
<b>Ballycotton Bay SPA</b>	004022	Ringed, Golden & Grey Plover Lapwing, Teal, Curlew & Turnstone Black-tailed & Bar-tailed Godwit Common & Lesser Black-backed Gull Wetland and Waterbirds	164km SW
<b>Cork Harbour SPA</b>	004030	Little & Great Crested Grebe Cormorant & Grey Heron Shelduck, Wigeon, Teal & Pintail Shoveler, Oystercatcher & Curlew Redshank & Red-breasted Merganser Golden & Grey Plover Lapwing, Dunlin & Common Tern Black-tailed & Bar-tailed Godwit Black-headed & Common Gull Lesser Black-backed Gull Wetland and Waterbirds	170km SW

**The potential effects relate to:**

- Ex-situ impacts on qualifying species for the distant European sites and outside the European sites which are an integral and connected part of the population by:
  - Release & transport of pollutants in ground or surface water.
  - Loss habitats used by QI/SCI species.
  - Loss of foraging & commuting areas used by QI/SCI species.
  - Noise disturbance to QI/SCI species during construction.

Based on my examination of the NIS report and supporting information (incl. the desktop studies & field surveys), NPWS website, NPWS and IFI submissions, aerial and satellite imagery, the scale of the proposed works and nature of the likely effects, the substantial separation distance and functional relationship between the proposed works and the European sites and their conservation objectives, the site specific characteristics, the species specific characteristics and requirements (incl. habitat preference, diet & foraging distances), and the absence of suitable support habitats or an aquatic connection between the European site and the proposed works, taken in conjunction with my own assessment of the subject site and surrounding area, I conclude that a Stage 2 Appropriate Assessment is required for the following 13 x European sites which I consider to be within the Zone of Influence by reason of mobile and/or aquatic connections.

<b>South &amp; South West</b>	<b>North &amp; North West</b>
Cahore Marshes SPA	The Murrough SPA
Wexford Harbour & Slobbs SPA	Wicklow Mountains SAC
Tacumshin Lake SPA	Poulaphouca Reservoir SPA
Saltee Island SPA	Ireland's Eye SPA
Ballymacoda Bay SPA	Lambay Island SPA
Ballycotton Bay SPA	Skerries Island SPA
Cork Harbour SPA	

## AA Screening Conclusion

In conclusion, having regard to the nature and scale of the proposed development, the recorded presence of species that may be qualifying interest (QI) and/or special conservation interest (SCI) species for distant European sites, to the nature of the QI habitats and species, and the SCI species, and the conservation objectives of the European sites, and to the available information as presented in the EIAR regarding ground and surface water pathways and mobile connections between the project and the European sites, and other information available, it is my opinion that the proposed development has the potential to affect the following 13 x European sites having regard to the conservation objectives of the sites, and that progression to a Stage 2 Appropriate Assessment is required.

### 9.4 Appropriate Assessment:

The details for the remaining European sites within the Zone of Influence of the proposed development, their Conservation Objectives and relevant Qualifying Interest and Conservation Interest Species (as recorded present within the subject site & environs) are summarised below.

Site name	Recorded QIs & SCIs	Conservation Objectives
<b>Cahore Marshes SPA</b>	Lapwing & Wigeon	To maintain or restore the favourable conservation condition.
<b>Wexford Harbour &amp; Slobbs SPA</b>	Lesser Black-backed Gull, Wigeon, Curlew & Oystercatcher	To maintain the favourable conservation condition.
<b>Tacumshin Lake SPA</b>	Wigeon	To maintain or restore the favourable conservation condition.
<b>Saltee Island SPA</b>	Lesser Black-backed Gull & Herring Gull	To maintain the favourable conservation condition.
<b>Ballymacoda Bay SPA</b>	Lesser Black-backed Gull	To maintain the favourable conservation condition.
<b>Ballycotton Bay SPA</b>	Lesser Black-backed Gull	To maintain the favourable conservation condition.
<b>Cork Harbour SPA</b>	Lesser Black-backed Gull	To maintain the favourable conservation condition.
<b>The Murrough SPA</b>	Black-headed Gull & Wigeon	To maintain or restore the favourable conservation condition.



<b>Poulaphouca Reservoir SPA</b>	Lesser Black-backed Gull	To maintain or restore the favourable conservation condition.
<b>Ireland's Eye SPA</b>	Herring Gull	To maintain or restore the favourable conservation condition.
<b>Lambay Island SPA</b>	Lesser Black-backed Gull	To maintain or restore the favourable conservation condition.
<b>Skerries Island SPA</b>	Herring Gull	To maintain or restore the favourable conservation condition.
<b>Wicklow Mountains SAC</b>	Otter	To maintain the favourable conservation condition.

### **Favourable Conservation Status is achieved when:**

#### **1. Habitats**

- The natural range (and area covered) is stable or increasing.
- The specific structure and functions which are necessary for its long-term maintenance exist now and for the foreseeable future.
- The conservation status of its typical species is favourable.

#### **2. Species**

- Population dynamics data indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

#### **Wicklow Mountains SAC:**

This European site lies within the Zone of Influence of the proposed works as it has an aquatic connection to the site via a network of watercourses and tributaries.

#### **European site description:**

Wicklow Mountains SAC is a complex of upland areas in Counties Wicklow and Dublin, flanked by the Blessington reservoir to the W and Vartry reservoir in the E, Cruagh Mountain in the N and Lybagh Mountain in the S.

***Qualifying Interest habitats and species:***

This SAC is designated for its importance to a wide variety of upland habitats including heathlands, bogs, oak woods and lakes, along with one species of mammal (Otter). The full list of QI habitats and species is set out in the table above. It is noted from the NPWS documentation and accompanying maps that the QI habitats are located a considerable distance upstream of the proposed works, and for this reason only the QI species Otter will be included for further consideration.

***Conservation Objectives:***

1. To maintain the favourable conservation condition of Otter in Wicklow Mountains SAC, which is defined by the following list of attributes and targets.

***Attributes & targets:***

No significant decline in: - Distribution, Extent of terrestrial & freshwater habitats, coupling sites & holts, Availability of fish biomass & Connectivity.

**Potential direct effects:** The proposed development would not be located within a European site. It is not relevant to the maintenance of any European site. No potential for direct effects having regard to the location and scale of the proposed development and to the separation distance between the works and the QI habitats and species.

**Potential indirect effects:**

There is potential for indirect effects on this European site and its QI species Otter during the **construction phase** as a result of water pollution from the unmitigated release of fine sediments and contaminated river dredge during construction works and hydrocarbons by way of accidental spillages from machinery, which could give rise to water pollution in Avoca River, chemical contamination and clogging of fish gills, with resultant impacts on the availability of prey biomass for the QI species Otter. Further potential indirect effects relate to the loss of marsh habitat at Arklow Town Marsh and disturbance to connectivity along the river resulting from the

construction of the flood defence wall. The uncontrolled introduction of invasive species from works vehicles could give rise to the colonisation of habitats by invasive species, with resultant impacts on the attributes and targets for the QI species, in the absence of mitigation. There no potential for any additional significant indirect adverse effects during the **operational phase** when the works are complete.

**Mitigation measures:** The NIS mitigation measures which would serve to protect the SAC and its QI habitats and species from adverse effects, include: -

- Preparation of a CEMP
- Preparation of an Invasive Species Management Plan
- Erection of site boundary fencing/buffer zones
- Timing & seasonality of works.
- Appointment of Ecological Clerk of Works
- Adherence to best construction practices
- Surface water management measures to protect water quality including:
  - regular surface water monitoring,
  - no concrete mixing, refuelling or washing out on site,
  - waste management plan & off-site waste disposal,
  - protection of all watercourse from contamination.

**Otter** has been recorded commuting and foraging along the larger rivers in this SAC and along the Avoca River which has an aquatic connection to watercourses and tributaries in the SAC. A holt has been recorded along the NW embankment adjacent to Arklow Town Marsh and an NPWS Derogation Licence will be required for its removal. Any deterioration of water quality because of the proposed works and resultant impacts on the availability of fish biomass for Otter could have an adverse impact on this QI species. However, I am satisfied that following the implementation of the mitigation measures (incl. the measures to protect water quality and hence the availability of prey species) the proposed development would not have an adverse impact on Otter along Avoca River and nearby watercourses during the construction and operational phases. Therefore, there would be no resultant adverse effects on this QI species respect to its attributes and targets (incl. Distribution, Extent of

terrestrial & freshwater habitats, Couching sites & holts, Availability of fish biomass & Connectivity).

**Suggested conditions:** Compliance with IFI “Guidelines on protection of fisheries during construction works in and adjacent to waters” should be required. A Project Ecologist should be appointed to oversee the works. All plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

**Conclusion:** I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of this European site in light of its Conservation Objectives, subject to the implementation of mitigation measures outlined above.

#### **Various Coastal & Estuarine SPAs:**

The distant European sites outlined above lie within the Zone of Influence of the proposed Flood Relief Scheme as some of their SCI bird species may have a mobile connection to the site and environs at Avoca River and Arklow Town Marsh. These SPAs occupy mainly coastal and estuarine locations to the N and S of the site and they are located within c.170km of the works. The 7 x bird species recorded at the site and environs that may have originated in the 12 x SPAs based on the species characteristics (incl. habitat preferences, diet & foraging range).

#### **European site description:**

These European sites occupy mainly coastal and estuarine locations to the far N and S of the site including Dublin Bay, and Wexford and Cork Harbours, they support a wide variety of breeding and wintering birds, and several species have an extensive foraging range (incl. the 3 x species of Gull).

**Special Conservation Interest species:** The 7 x SCI species from the 12 x SPAs comprise Lesser Black-backed Gull, Herring Gull, Black-headed Gull, Wigeon, Curlew, Oystercatcher and Lapwing.

**Conservation Objectives:**

1. To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests.
2. To maintain the favourable conservation condition.

**Attributes & targets:** Specified for several sites and related to population trends and distribution.

**Potential direct effects:**

The proposed development would not be located within a European site, and it is not relevant to the maintenance of any European site. Given that the works would be located in excess of c.20km of the SPA site boundaries and there would be no potential for direct effects.

**Potential indirect effects:**

The construction works associated with the proposed development and its future operational use will take place entirely within the boundaries of the development site which is located within the E section of Arklow Town Marsh and the Arklow town section of the Avoca River, upstream and downstream of Arklow Bridge.

During the construction phase (incl. site preparation, bridge underpinning, river dredging, construction of the flood defence embankment & walls and public realm works), potential indirect effects relate to loss of habitat within Arklow Town Marsh (incl. Wetland habitats) and the Avoca River (incl. sandbanks, wooded islands & river bed). The proposed embankment in the E section of the Marsh would occupy a small fragment of the overall wetland area on lands which are partly characterised by agricultural grassland adjacent to the urban area along Dublin Road. The loss of habitat relative to the overall size of the marsh would not be significant, the native species landscaping along the embankment would provide foraging opportunities for the SCI species, and the timing and seasonality of works would minimise general disturbance. The installation of floating roosting platforms and tall debris traps upstream of Arklow Bridge would balance the loss of habitat in Avoca River (incl.

sandbanks & wooded islands). The riverbed does not contain a varied macroinvertebrate population because of historic pollution from Avoca Mines and untreated urban sewerage discharges. The maintenance of a continuous flow in part of the river channel during the in-stream works would ensure that fish mobility is not hindered, with no significant adverse impact on the availability of SPI prey species.

The uncontrolled discharge of deleterious materials (incl. fine sediments, dredge contaminants, accidental chemical or fuel spills & other pollutants) to ground and surface waters could have resultant adverse impacts on prey species and hence the food supply for SPI bird species. The design and phasing of the flood defence scheme, the CEMP construction work practices, and the EIAR mitigation measures (incl. water quality protection) would ensure that no deleterious materials would discharge to ground and surface water in Arklow Town Marsh or to the Avoca River. The design of the flood defence scheme would ensure that the project would not introduce any additional barriers to bird mobility or a collision risk. Further potential indirect effects relate to the uncontrolled introduction of invasive species from works vehicles which could give rise to the colonisation of habitats by invasive species, with possible resultant impacts on SCI species and their prey species, in the absence of mitigation. This would be controlled an Invasive Species Management Plan.

There is no potential for any additional significant indirect adverse effects during the **operational phase** as the proposed surface water drainage arrangements would protect water quality in Avoca River and Arklow Town Marsh from any contaminated runoff from hard surfaces (incl. accidental spills).

**Mitigation measures:** The NIS/Stage 2 Appropriate Assessment report contains mitigation measures which would serve to protect the SPAs and their constituent SCI species that frequent the site from adverse effects (see above).

**Suggested conditions:** All works should take place outside the bird breeding season. A Project Ecologist should be appointed to oversee the works. All plant and machinery should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

**Conclusion:** I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of this European site in light of its Conservation Objectives, subject to the implementation of mitigation measures outlined above.

***In relation to In-combination effects***, there are several permitted plans and projects in the surrounding area (incl. the WwTP & the Circle K Service Station) that have the potential to act in-combination with the Scheme during the construction phase. An MoU has been agreed with IW and the OPW in relation to the co-ordination of infrastructural works for the proposed development and the permitted WwTP. Having regard to the nature and scale of the proposed development, and subject to the full implementation of the mitigation measures, and to the previous conclusion of no adverse effects on the further afield European sites as a result of the project, I am satisfied that there would be no significant in-combination effects.

***In relation to the NIS***, I am satisfied that the applicant has described the receiving environment, identified the European sites within the Zone of Influence, and provided sufficient information to assess potential effects during the construction and operational phases on the Qualifying Interest and Special Conservation Interest habitats and species before and after the implementation of mitigation measures. I am satisfied that the NIS was informed by relevant and robust desktop and site surveys and prepared in accordance with all relevant guidelines. I concur with the conclusions of the NIS as summarised above.

**Conclusion:**

I concur with the conclusions reached in the NIS that the proposed flood relief scheme will have no adverse effects (direct, indirect or in-combination) on the Conservation Objectives, Qualifying Interests or Special Conservation Interests for any European Sites within the Zone of Influence of the Scheme.

## **9.5 Appropriate Assessment conclusion:**

I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the European site Nos. 002122, 004186, 004143, 004063, 004076, 004117, 004092, 004069, 004002, 004122, 004023, 004022 and 004030, or any other European site, in view of the site's Conservation Objectives.



## **10.0 COMPULSORY PURCHASE ORDER**

### **10.1 Introduction**

The statutory powers of the local authority to acquire land are contained in Section 213 of the Planning and Development Act 2000 (as amended) which authorises the Local Authority to compulsorily acquire any land or any rights in relation to land specified in the approved scheme.

As noted in section 5.3 above, 9 x submissions were made in respect of the compulsory purchase order, and 7 x submissions have not been formally withdrawn.

Wicklow County Council's case is based on the grounds that the proposed CPO will serve an important regional and local need in terms of providing flood relief measures along the Arklow town section of the Avoca River and Avoca estuary to alleviate flooding up to the 1% Annual Exceedance Probability fluvial event and the 0.5% Annual Exceedance Probability coastal flood event, that would: - protect properties (incl. residential & non-residential) and infrastructural utility services from flood damage, improve health and safety in flood risk areas, reduce flood related disruption and disturbance (incl. evacuation & traffic diversions), and provide a basis for maintaining the river to manage future flood risk; that it would give effect to a wide range of Development Plan objectives for the surrounding area; that it would be in accordance with European, national and regional policy; and that it would accord with proper planning and sustainable development of the area.

The Objectors raised concerns in relation to: - the extent of the permanent land take, severance and loss of access to other lands in their ownership, impact on future development opportunities, lack of consideration of alternatives, and various environmental concerns (incl. traffic impacts & road safety; residential, tourist, ecological, heritage & visual amenity impacts; loss of trees & views; severance from riverside; surface water run-off; and non-compliance with planning policies).

The Board should note that a number of the concerns raised by the Objectors have been addressed in preceding sections of this assessment which should therefore be read in conjunction with this CPO assessment [section 7.0 (Planning Assessment) section 8.0 (Environmental Impact Assessment) and section 9.0 (Appropriate Assessment)]. These assessments concluded that the Flood Relief Scheme would be in keeping with the proper planning and sustainable development of the area subject to compliance with recommended conditions, and that it would not have any significant adverse effects on the environment or European sites, subject to the implementation of mitigation measures.

## **10.2 Assessment of CPO**

Four criteria are normally applied where it is proposed to use powers of compulsory purchase to acquire land or property namely:

- Development Plan compliance,
- Community need,
- Suitability of land to meet the community need, and
- Alternatives.

### **10.2.1 Development Plan compliance**

Section 6.0 of the EIAR provides a comprehensive review of an extensive range of public policy and sets out how the proposed development complies European, national, regional and local environmental, planning, climate change and flood protection policy. This includes: - the EU Water Framework Directive and EU Strategy on Adaptation to Climate Change; National Flood Policy, Project Ireland 2040 which encompasses the National Planning Framework and National Development Plan, the Climate Action and National Marine Planning Framework Plans; the Regional Spatial and Economic Strategy for the Eastern and Midland Region; and the current Wicklow County Development Plan and Arklow and Environs Local Area Plan.

Section 7.1 of this report assesses policy compliance and concludes that the proposed flood relief scheme complies with European, national, regional and local environmental, planning, climate change and flood protection policy, and in particular the current Wicklow County Development Plan and Arklow and Environs Local Area Plan. These plans contain a variety of policy objectives related to land use, environment, biodiversity, flood protection, transport, heritage, amenity, recreation, tourism and residential amenity that are of relevance to the lands affected by the CPO. The affected lands are occupied by a variety of land uses and covered by several specific zoning objectives including residential, commercial, town centre, community, amenity, open space and waterfront.

The relevant local policies and objectives are summarised in section 3.3 of this report and the most pertinent to this CPO case are summarised below.

#### **Wicklow County Development Plan 2016 to 2022**

**Core Strategy:** Arklow is a Level 3 – Large Growth Town 11

**Landscape:** Landscape Category No.6 - Urban Area - suitable for development.

**Flood risk Objectives:** Section 9.2.1 seeks to assist the OPW through the implementation of measures capable of managing and mitigating against the consequences of flooding in all areas.

#### **Arklow & Environs Local Area Plan 2018 to 2024**

**LAP Strategy:** Assist the OPW through the implementation of measures capable of managing and mitigating against the consequences of flooding; facilitate the sustainable development of Arklow and provide for a high level of protection of the environment and natural assets such as the beach, river and sea; and prepare the Avoca River (Arklow) Flood Defence Scheme (incl. comprehensive flood defences).

It is therefore clear that the adopted Wicklow County Development Plan and Arklow and Environs Local Area Plan include specific objectives for the proposed flood relief scheme based on the scheme currently before the Board.

Furthermore, Section 15 (1) of the Planning and Development Act 2000, as amended states that it shall be the duty of the Planning Authority to take steps within its powers as may be necessary for securing the objectives of the Development Plan. Section 212(1) (a) of the same Act permits the Planning Authority to “secure, facilitate and control the improvement of the frontage of any public road by widening, opening, enlarging or otherwise improving.” Section 212 (3) of the same acts permits the Local Authority to “in connection with any of its functions under this Act, make and carry out arrangements or enter into agreements with any person or body for the development or management of land and may incorporate a company for those purposes.”

### **Conclusions:**

Having regard to the foregoing, I am satisfied that the lands affected by the proposed CPO substantially accord with European, national and regional planning and environment policy, and the various policy objectives contained in the Wicklow County Development Plan and Arklow and Environs Local Area Plan as they relate to land use, environment, heritage, residential amenity and tourism, and this includes the Objector’s lands. I am therefore satisfied that the use of a CPO to acquire lands for the implementation of the Arklow Flood Relief scheme would be appropriate.

### **10.2.2 Community Need**

Section 2.0 of the EIAR sets out the background, need, objectives and main benefits of the Arklow Flood Relief scheme, which are summarised below:

- Facilitate the implementation of the Arklow Flood Relief Scheme.
- Provide flood relief measures along the Avoca River and estuary to alleviate flooding up to the 1% Annual Exceedance Probability fluvial event and the 0.5% Annual Exceedance Probability coastal flood event.
- Protect residential & non-residential properties from flooding & damage.
- Protect infrastructural utility services from flood damage.
- Improve health & safety in flood risk areas by reducing stress & anxiety.
- Reduce flood related disruption & disturbance (incl. evacuation & traffic).
- Reduce risk of environmental pollution (incl. runoff of hydrocarbons).

- Provide basis for maintenance of Avoca River to manage future flood risk.
- Facilitate improved public realm amenities.
- Comply with European, national, regional & local plans and policy.
- Give effect and facilitate the implementation of the above plans & policy.
- Accord with proper planning and sustainable development of the area.

The planning and environmental merits of the scheme were assessed in Sections 7.0 and 8.0 of this report which concurred with this analysis. I acknowledge that the Objectors raised concerns in relation to several planning and environmental issues (incl. construction phase impacts, residential, visual, recreational & tourist amenity, traffic safety, biodiversity, cultural heritage, drainage & flood risk and material assets), however I consider that the overall benefits of the Arklow Flood Relief scheme to the wider community would outweigh any localised adverse impacts.

I am satisfied that the Arklow Flood Relief scheme is an appropriate and suitable means of meeting the stated objectives of the project. It would accord with national, regional and local policy, it would provide for protection from periodic flooding along the Arklow town section of the Avoca River and estuary, provide for improved environmental conditions and enhancements to the public realm. It could also provide a resultant economic return on investment in Arklow town. It is considered, therefore, that the proposed development will benefit the wider community and the CPO can be justified in the interests of the common good. I consider that the community need for the scheme has therefore been established.

### **Conclusion:**

Having regard to the foregoing, I am satisfied that the proposed CPO of the lands affected by the proposed Arklow Flood Relief scheme, including the plots owned by the Objectors, would serve a community need which has been fully established.

### **10.2.3 Suitability of land to meet community need.**

It is proposed to permanently acquire land (c.19, 417ha) which is currently in public and private ownership or occupation for the construction of the Arklow Flood Relief scheme and associated public realm works and additional land (c.1,662ha) will be

temporarily acquired for construction works (note that the balance between permanent & temporary acquisition shifted during the course of the assessment). At present the lands are in a variety of uses including residential, commercial, community and amenity. No habitable dwellings will be permanently acquired. No Public Rights or Private Rights of Way will be permanently extinguished. No Fishing Rights will be temporarily extinguished.

I refer to Section 7.0 of this report (Planning Assessment) and to the conclusion that the proposed design and layout of the Flood Relief Scheme and associated public realm works are appropriate, as is the location and layout of the proposed flood defence embankment and walls at Ferrybank and the flood defence walls and public realm works along River Walk, South Quay and Harbour Dock. The extent of the land that would be acquired under the Order on a permanent and temporary basis is determined by the specifications of the proposed Scheme, including its layout and associated construction works. I am satisfied that the lands proposed to be acquired are necessary to facilitate the provision of the scheme, and that the land-take is necessary and proportional to ensure the delivery of the proposed development to an appropriate design standard.

The landowner's objections in relation to the effect of the land-take on visual amenity, residential amenity, traffic safety, biodiversity, cultural heritage and material assets has been addressed in Sections 7.0, 8.0 and 9.0 of this report. These sections concluded that although the proposed Scheme would give rise to a permanent effect during the operational phase (incl. loss of connectivity to the river & minor habitat loss) and general disturbance during the construction phase (incl. from noise, vibration, dust, odours & traffic), the impact would not be unduly significant when balanced against the wider community benefits of the scheme. Any loss of private space would be compensated for under the terms of the CPO arrangements and associated accommodation measures.

A substantial proportion of the Scheme would utilise land that is already in public ownership, in addition to some backland sites at Ferrybank and quayside lands at Harbour Dock, and a small section of the local road network along South Quay that would be improved, which is supported by the policy objectives contained in the County Development Plan and Local Area Plan. I am therefore satisfied that the

location of the lands is appropriate for meeting community needs in terms of complying with planning policy.

**Conclusion:**

Having regard to the foregoing, I am satisfied that the lands identified in the CPO are required for the construction of the project and that the lands are therefore considered suitable to meet this community need.

#### **10.2.4 Alternatives**

The consideration of reasonable alternatives was addressed in EIAR Section 3.0. This section considered the “Do-Nothing” alternative as well several other measures (incl. Catchment management, upstream storage & flood storage at Arklow Town Marsh) which were evaluated against a range of technical, economic, social and environmental criterion. The various alternatives were discounted as they would not fully achieve the Council’s objective of protecting properties, infrastructure and utilities from the adverse effects of predicted fluvial and tidal flooding as a consequence of climate change, rising sea levels and storm surges.

The Objectors did not raise any specific concerns in relation to the principle of the Flood Relief scheme or the corridor selected relative to their landholdings. Specific concerns related to the extent to the spatial extent of the land acquisition, a preference for a temporary versus permanent land take at some locations, the installation of a flood defence wall at Ferrybank instead of a flood defence embankment (which would require a lesser permanent land take) along with the need to access adjacent lands in their ownership, and a preference not to have a public footpath and realigned section of local road along part of South Quay. These matters were debated during the oral hearing, as summarised in section 6.2 above and detailed in the digital record of the hearing. The Council requested that the Deposits Maps and Schedules be amended to take account of some of these concerns, as summarised in section 6.2.7 above, and noted that the suggested amendments would continue to ensure compliance with Development Plan policies and objectives.

It is considered that the process undertaken by the Council has been a robust assessment of alternative options having regard to environmental considerations and the stated Scheme Objectives, which are considered to be reasonable. I agree that the flood defence measures and corridor chosen best meets these objectives. I concur with the reasons for choosing the preferred alternative as presented in the EIAR.

The Objectors also identified potential impacts on property, as well as environmental considerations including impacts on residential amenity (incl. noise, vibration, dust, odour), visual amenity, biodiversity, cultural heritage, material assets and traffic impacts. The issues relating to properties and lands are likely to arise no matter which flood defence measures are chosen. The planning and environmental issues have been addressed in detail in the Sections 7.0, 8.0 and 9.0 of this report. It is acknowledged that sections of the proposed Flood Defence scheme may present burdens in respect of residential, visual and access impacts on owners, and that these impacts will, in many cases, be permanent impacts notwithstanding the mitigation measures proposed.

### **Conclusion:**

Having regard to the foregoing, I am satisfied that several alternative options for providing the Arklow Flood Defence scheme have been considered and assessed, and that the proposed option and affected lands represent the most reasonable means of achieving the scheme's objectives and meeting the identified community need, in the interests of the common good.

## **10.3 Site specific CPO issues**

### **10.3.1 CPO submissions**

Nine written submissions were received in relation to the CPO and two were withdrawn during the course of the virtual oral hearing. Six of the remaining Objectors participated in the virtual oral hearing. The main issues raised in the written and oral submission and the Council's response to them are summarised in section 5.3 and section 6.2 of this this report and reiterated below.



The virtual oral hearing afforded the Council the opportunity to provide a brief description of the Arklow Flood Relief Scheme and the benefits accruing, and to provide a response to the specific concerns raised by the Objectors. The Objectors at the virtual oral hearing, were given the opportunity to provide a brief summary of their main concerns relating to the acquisition of the CPO Plots that they own or occupy, and to question the Council. The ensuing debate is available on the digital record of the proceedings and summarised in section 6.0 above.

The main concerns raised by the Objectors in their written and/or oral submissions are summarised below.

- **Plot 101:** excessive land take, severance and access, temporary acquisition preferred, and boundary treatment (Patrick & Patricia Ivory).
- **Plots 102b, 103 & 104:** excessive land take, severance and access, environmental impacts (incl. biodiversity, hydrology, cultural heritage & structural stability) (Proinseas O Broinn).
- **Plot 107a, b & c:** right of way & access (Graeme McWilliams & Crag Digital Avoca Ltd.)
- **Plot 109:** excessive land take, severance and access, adverse impacts on future development potential (noted spur off Bridgewater roundabout to lands), suggested other means for securing access to embankment and requested that a small section identified for compensatory tree planting be swapped (Estate of Malachy McDaniel Stone).
- **Plot 120g:** query ownership of plot, safety and privacy impacts related to road widening and proximity of footpath, and environmental impacts (incl. biodiversity, cultural heritage, open space loss, visual impact & surface water drainage), and responsibility for property maintenance and insurance (Elizabeth & Nicola Kenny).

- **Plot 120h:** query ownership of plot, safety and privacy impacts related to road widening and proximity of footpath, and environmental impacts (incl. biodiversity, cultural heritage, open space, visual impact, loss & surface water drainage), and the lack of consideration of more environmentally friendly flood relief alternatives. (Christine McElheron).
- **Plot 120k:** query lack of community engagement and justification for land take, and environmental impacts (incl. biodiversity, cultural heritage, open space loss, visual impact, surface water drainage, river & harbour and vehicular access) (Cllr. Peir Leonard).

The main aspects of the Council's response to the Objector's written and or/or oral submissions are summarised in section 5.4 and section 6.2 above, and any further elaboration and clarification of concerns raised, or further amendments to the CPO Plots are summarised below.

- **Plot 101:** CPO amended from permanent to temporary on marsh side of flood embankment, maintenance access is required for full length of the embankment, and access to adjacent lands can be provided.
- **Plots 102b, 103 & 104:** CPO amended from permanent to temporary on marsh side of flood embankment, the temporarily acquired lands to the W will be re-instated, and access to adjacent lands can be provided.
- **Plot 109:** noted the presence of spur off the roundabout to their lands, access is required for the flood defence works, future maintenance and landscaping, any swap of landscaped areas is outside project boundaries.
- **Plots 120 g, h & k:** clarified that a flood wall is preferable to glass panels (incl. maintenance & effectiveness); outlined the reasons for the footpath location (incl. safety, continuity of levels & universal access); confirmed that the upstream catchment is too large for effective eco-friendly alternatives; emergency access to the river will be maintained; road layout

is designed in accordance with DMURS and entrance sightlines will be retained; and noted that properties will be surveyed before & after the works, insurance certificates can be provided.

### **10.3.5 Consideration of CPO Issues**

Several of the concerns raised by Objectors can be addressed by way of a modification or amendment to the Arklow Flood Defence scheme.

The general concerns raised in relation to residential amenity, visual amenity, traffic safety, disturbance during construction, biodiversity, cultural heritage and material assets have been addressed in preceding sections of this report which should therefore be read in conjunction with this CPO assessment in section 7.0 (Planning Assessment) and section 8.0 (Environmental Impact Assessment). These concerns would be addressed by the implementation of EIAR mitigation measures, compliance with a final CEMP, and adherence to best construction practice.

The specific concerns raised in relation to the extent of the permanent land take relative to construction phase works only, as opposed to the completed flood defence scheme have been addressed by the Council's proposal to amend the Deposit Maps and Schedules in respect of some of the lands to reflect their temporary acquisition (Plots 101 & 103).

Site specific concerns raised in relation to accessing lands on the W side of the proposed flood defence embankment at Ferrybank (Plots 101, 102, 103 & 104) relate to site specific accommodation measures and should be addressed directly by the Council at the detailed design stage.

Site specific concerns raised in relation to access to lands to the rear of properties at nos.1, 5 & 6 Ferrybank (Plot 109) off the Bridgewater roundabout have been addressed by way of a recommended planning condition in section 7.0 of this report, and should be reflected in the Deposit Maps and Schedules by way of a modification, in the event that the Board concur with this recommendation.

The Council also proposed to amend the Deposit Maps and Schedules to reflect the full or partial temporary acquisition of two other plots (Plots 124d & 125).

Although I understand the concerns raised by the Objectors in relation to the potential adverse effects of the Arklow Flood Relief scheme on their landholding (owners & occupants), on balance, I am satisfied that the overall benefits of the Scheme to the wider community would outweigh these localised impacts.

Furthermore, many of the Objector's concerns can be addressed by way of the EIAR mitigation measures, compliance with the final CEMP, adherence to best construction practices, and any recommended planning conditions, in addition to the accommodation measures agreed with the Council.

## **10.4 Overall conclusion**

Having regard to the assessment carried out above, I am satisfied that:

- The community need for the Arklow Flood Relief scheme has been established.
- The particular lands that constitute the corridor for the scheme are suitable to meet the needs of the Arklow Flood Relief scheme.
- The scale, layout and location of the proposed Arklow Flood Relief scheme have been justified.
- All lands included in the CPO, and
- The proposed Arklow Flood Relief scheme is compatible with the relevant development plan provisions.

The proposed development is therefore acceptable in environmental and planning terms and I recommend that the CPO be confirmed and the application for the Arklow Flood Relief scheme be approved.

## 10.5 Recommendation

I acknowledge that the proposed Compulsory Purchase Order for the proposed Arklow Flood Relief scheme will involve the permanent loss of land for construction works. At present the lands are in a variety of uses including agricultural, residential, commercial and amenity lands. However, this loss should be balanced against the wider objectives which seek to implement the Arklow Flood Relief scheme in accordance with the policies and provisions contained in the Development Plan and Local Area Plan, and the need to secure the objectives of the Development Plan in accordance with the provisions of Section 15(2) and Sections 212(1) (a) of the Planning and Development Act 2000.

The acquisition of the lands in question would also serve an important community need by providing a flood defence facility that would enable the realisation of a specific policy objective and in turn address the need to provide community wide and environmental benefits in the surrounding area. I therefore recommend that the Compulsory Purchase Order of the Arklow Flood Relief scheme be confirmed.

## 10.6 Decision

**CONFIRM** the above compulsory purchase order with modifications to the Deposit Maps and Schedules based on the reasons and considerations set out in Section 12.0 and Schedule 2 below.

## **11.0 CONCLUSION AND RECOMMENDATION**

I recommend that the application under Section 216 of the Planning and Development Act, 2000 (as amended) for the construction of the Arklow Flood Relief should be granted for the reasons and considerations as set out in Schedule 1 and consequently that the CPO is approved (Schedule 2).

## **12.0 SCHEDULE 1 – ARKLOW FLOOD RELIEF SCHEME**

### **REASONS AND CONSIDERATIONS**

Having regard to:

- a. the National Planning Framework Plan 2018-2040,
- b. the National Development Plan 2021-2030,
- c. Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019-2031,
- d. the policies of the planning authority as set out in the Wicklow County Development Plan 2016 to 2022 and the Arklow and Environs Local Area Plan 2018 to 2024,
- e. the distance to dwellings or other sensitive receptors,
- f. the submissions made in connection with the application,
- g. the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites,
- h. the Appropriate Assessment report of the Inspector, and
- i. the report and recommendation of the Inspector.

#### **Proper planning and sustainable development:**

It is considered that subject to compliance with the conditions set out below the proposed development would accord with European, national, regional and local planning and environmental policy, it would not have an unacceptable impact on the landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and it would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

**Appropriate Assessment Stage 1:**

The Board agreed with the screening assessment and conclusion carried out in the Inspector's report that the following European sites are the only sites for which there is a possibility of significant effects and must therefore be subject to Appropriate Assessment.

European site	Site code
Wicklow Mountains SAC	002122
The Murrough SPA	004186
Cahore Marshes SPA	004143
Poulaphouca Reservoir SPA	004063
Wexford Harbour & Slobbs SPA	004076
Ireland's Eye SPA	004117
Tacumshin Lake SPA	004092
Lambay Island SPA	004069
Saltee Island SPA	004002
Skerries Island SPA	004122
Ballymacoda Bay SPA	004023
Ballycotton Bay SPA	004022
Cork Harbour SPA	004030

**Appropriate Assessment Stage 2:**

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed flood relief development for European Sites in view of the site's Conservation Objectives, namely:

European site	Site code
Wicklow Mountains SAC	002122
The Murrough SPA	004186
Cahore Marshes SPA	004143
Poulaphouca Reservoir SPA	004063



Wexford Harbour & Slobs SPA	004076
Ireland's Eye SPA	004117
Tacumshin Lake SPA	004092
Lambay Island SPA	004069
Saltee Island SPA	004002
Skerries Island SPA	004122
Ballymacoda Bay SPA	004023
Ballycotton Bay SPA	004022
Cork Harbour SPA	004030

The Board considered that the information before it was sufficient to undertake a complete assessment of all aspects of the proposed development in relation to the site's conservation objectives using the best available scientific knowledge in the field.

In completing the assessment, the Board considered, in particular, the following:

- (i) the site Specific Conservation Objectives for these European Sites,
- (ii) the current conservation status, threats and pressures of the qualifying interest features,
- (iii) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects, and
- (iv) the mitigation measures which are included as part of the current proposal,

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the implications of the proposed development on the integrity of the aforementioned European Sites, having regard to the site's Conservation Objectives.

In overall conclusion, the Board was satisfied that the proposed development would not adversely affect the integrity of any European sites in view of the site's Conservation Objectives and there is no reasonable scientific doubt as to the absence of such effects.

### **Environmental Impact Assessment:**

The Board completed an environmental impact assessment of the proposed development taking account of:

- (a) the nature, scale, location and extent of the proposed development on a site,
- (b) the Environmental Impact Assessment Report (EIAR) and associated documentation submitted in support of the application,
- (c) the submissions received from the prescribed bodies and observers, and
- (d) the Inspector's report.

The Board considered that the environmental impact assessment report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment. The Board agreed with the examination, set out in the Inspector's report, of the information contained in the environmental impact assessment report and associated documentation submitted by the applicant and submissions made in the course of the application. The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated, as follows:

- The risk of pollution of ground and surface waters during the construction phase which would be mitigated by the implementation of measures set out in the Environmental Impact Assessment Report (EIAR) and the final Construction and Environment Management Plan (CEMP) which include specific provisions relating to groundwater, surface water and drainage.
- Noise, vibration, dust and odours during the construction and phase would be avoided by the implementation of the measures set out in the Environmental Impact Assessment Report (EIAR) and the final Construction and Environment Management Plan (CEMP) which include specific provisions relating to the control of noise, vibration, dust and odours.

- Biodiversity impacts, including on habitats, flora and fauna (incl. terrestrial and aquatic wildlife), would be mitigated by the implementation of specific mitigation to protect such habitats, flora and fauna (incl. pre-construction surveys, timing and seasonality of works, drainage and runoff management, the management of artificial lighting, buffers and the appointment of a project ecologist), during the construction and operational phases.
- The increase in vehicle movements and resulting traffic during the construction phase would be mitigated by the preparation of a Construction Traffic Management Plan.
- Landscape and visual impacts would arise during the operational phase from the insertion of the flood defence embankment and flood defence walls into the urban, riparian and marsh landscapes, however, the scale, design and linear layout of the project and associated public realm works would assist in assimilating the works into the landscape.
- The impacts on residential amenity during the construction phase would be avoided by the implementation of the measures set out in the Environmental Impact Assessment Report (EIAR) and the final Construction and Environment Management Plan (CEMP) which include specific provisions relating to the control and management of dust, vibration, noise, odours, water quality and traffic movement.
- The impact on cultural heritage would be mitigated by archaeological pre-testing and monitoring with provision made for resolution of any archaeological features or deposits that may be identified.
- Positive environmental impacts would arise during the operational phase from the installation of robust flood defence measures, improved public realm works and continuous pedestrian walkway along the south side of the river.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

## CONDITIONS

1. The applicant shall ensure that all construction methods and environmental mitigation measures set out in the Environmental Impact Assessment Report, the Natura Impact Statement and associated documentation are implemented in full, save as may be required by the conditions set out below.

**Reason:** In the interest of the protection of the environment.

2. A permanent access shall be provided to the lands located to the rear of nos.1, 5 and 6 Ferrybank off the Bridgewater roundabout on the NW side of Arklow Bridge, after the completion of construction works.

**Reason:** In the interest of the proper planning and development of the area.

3. The services of a suitably qualified and experienced Ecologist shall be retained to undertake pre-construction surveys at the various project elements immediately prior to commencing work in order to check for the presence of protected species in the vicinity (including Otter, Bat, Birds and Plants). Buffer zones shall be provided around Moore's Horsetail and Wild Clary in accordance with measures contained in the Natura Impact Statement. Bridge underpinning and river dredging works shall be carried out in accordance with the requirements of Inland Fisheries Ireland. Derogation Licences shall be obtained for the removal of any Bat roost or Otter holts.

**Reason:** In the interest of protecting ecology and wildlife in the area.

4. The following additional ecological requirements shall be complied with:
  - a. Construction of the in-stream temporary haul road should be with accumulated exposed gravels rather than existing inert materials and there should be no tracking of plant/machinery in the live channel.
  - b. Pile driving mitigation measures to reduce impacts on aquatic habitats and species shall be implemented (including soft start, vibrating hammer and bubble curtain).
  - c. Additional native species planting shall be provided between streetlights and Avoca River to prevent light spillage so as to maintain dark conditions for roosting bats.

- d. The use and uptake of the bat boxes and tubes shall be monitored annually over a 5-year period focusing on occupancy of bat tubes (usage & species determination) as well as presence of foraging bats and the survey results shall be submitted to Minister for Housing, Local Government and Heritage.

**Reason:** In the interest of protecting ecology and wildlife in the area.

5. The landscaping proposals shall be carried out within the first planting season following commencement of construction of the proposed development. The landscaping and screening shall be maintained at regular intervals. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those original required to be planted.

**Reason:** In the interest of visual amenity.

6. All plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

**Reason:** In the interest of the proper planning and sustainable development of the area, and to prohibit the spread of invasive species.

7. The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be finalised prior to commencement of development. This plan shall provide details of intended construction practice for the development, including hours of working, noise, vibration, dust and odour monitoring and management measures, traffic management, protection of wayleaves, an invasive species management plan, and off-site disposal of construction, demolition and post examination river dredge waste. Structural surveys at sensitive receptors shall be undertaken to establish their condition and tolerance for vibration impacts before works commence. A construction noise management plan and a

contingency plan for remedial action shall be prepared in the event that monitoring levels indicate an exceedance of limits, before works commence.

**Reason:** In the interests of public safety and residential amenity.

8. The preservation, recording and protection of archaeological materials or features that may exist within the site shall be facilitated. In this regard, a suitably-qualified archaeologist shall be retained to monitor all site investigations and other excavation works and provide arrangements for the recording and for the removal of any archaeological material considered appropriate to remove.

**Reason:** In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

## **13.0 SCHEDULE 2 – COMPULSORY PURCHASE ORDER**

### **REASONS AND CONSIDERATIONS**

Having considered the objections made to the compulsory purchase order, the report of the person who conducted the oral hearing into the objections, the purpose of the compulsory purchase order, and also having regard to:

- (i) the need to provide a flood relief scheme at the Avoca River,
- (ii) the community need, public interest served and overall benefits, including benefits to the wider area to be achieved from use of the acquired lands,
- (iii) the provisions of the current Wicklow County Development Plan and the Arklow Town and Environs Local Area Plan and the policies and objectives stated therein, which specifically identify the need for proposed flood relief scheme, and
- (iv) the proportionate design response to the identified need,

it is considered that, subject to the modifications to the Order (No.2) as set out in the Schedule below, the acquisition by the local authority of the lands in question, as set out in the compulsory purchase order and on the deposited maps, are necessary for the purpose stated, and that the objections cannot be sustained having regard to the said necessity.

## SCHEDULE

The compulsory purchase order (Deposit Maps and Schedules) shall be modified as follows:

**Plot 101:** Part of the lands in Plot No.101 on the marsh side of the proposed Embankment (in the ownership or reputed ownership of Patrick & Patricia Ivory) to be acquired on a temporary basis only, identified as Plot No.101T comprising 0.1789ha (0.4423acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.

**Plot 103:** Part of the lands in Plot No.103 on the marsh side of the proposed Embankment (in the ownership or reputed ownership of Proinseas O Broinn) to be acquired on a temporary basis only, identified as Plot No.103T comprising 0.5595ha (0.1.3825acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.

**Plot 109:** Part of the lands in Plot No.109 located on the east side of the proposed Embankment which have access off Bridgewater roundabout (in the ownership or reputed ownership of Estate of Malachy McDaniel Stone) to be acquired on a temporary basis only, and be listed or deemed to be listed in Part 11 of the CPO Schedule.

**Plot 124d:** The area of Plot No.124d (which lands are owned by Wicklow County Council and leased to Arklow Slipway Ltd.) to be permanently acquired is to be decreased from 0.2385ha (0.589 acres) to 0.0233ha (0.0576 acres).

**Plot 124d:** The remainder of Plot No.124d to be acquired on a temporary basis only, identified as Plot No. 124dT comprising 0.2152ha (0.5318 acres) and be listed or deemed to be listed in Part 11 of the CPO Schedule.



**Plot 125:** Plot No.125 (in the ownership or reputed ownership of Roadstone Limited) to be acquired on a temporary basis only, identified as Plot No.125T and be listed in Part 11 of the CPO Schedule.

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Karla Mc Bride  
Senior Planning Inspector  
16<sup>th</sup> March 2022