

DRAFT ARKLOW AND ENVIRONS LOCAL AREA PLAN 2017

APPENDIX A

STRATEGIC ENVIRONMENTAL ASSESSMENT ENVIRONMENTAL REPORT



WICKLOW COUNTY COUNCIL
JULY 2017

Wicklow County Council

**Arklow and Environs Local Area
Plan 2017-2023**

**Appendix A- SEA Environmental
Report**

Issue | 29 June 2017

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Appendix A 1

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Non-Technical Summary

NTS1: Introduction

This is a non-technical summary of the Environmental Report that has been prepared as part of the Strategic Environmental Assessment of the Draft Arklow and Environs Local Area Plan 2017-2023 (Draft LAP). The document has been prepared in accordance with national and EU legislation. It draws attention to the most important issues and provides information on other significant topics. Any topic which causes concern can be followed in greater detail in the main Environmental Report.

The relevant planning legislation comprises the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended. Key planning documents reviewed as part of the assessment included:

- The Regional Planning Guidelines for the Greater Dublin Area 2010-2022;
- Greater Dublin Area Transportation Study 2016-2035;
- Wicklow County Development Plan 2016 – 2022;
- Wicklow Local Economic and Community Plan 2016-2022;
- County Wicklow Heritage Plan 2009 – 2014;
- County Wicklow Biodiversity Action Plan 2010-2015.

Cognisance was also given to a wide range of legislation, plans and programmes at international, national, regional and local level for relevance to the plan.

NTS2: Draft Arklow and Environs Local Area Plan 2017-2023

The Draft LAP provides the main public statement of planning policies and objectives for Arklow town and environs for the 2017 – 2023 period and beyond.

The policies and objectives are critical in determining the appropriate location and form of different types of development as the LAP is the primary statutory land use policy framework against which planning applications are assessed.

The objectives of the LAP are also used by Wicklow County Council to guide their activities and to indicate priority areas for action and investment by the Councils such as focusing on attracting employment into the town or enhancing the town as a centre for tourism.

The LAP when adopted will replace the Arklow Town and Environs Development Plan 2011-2017.

NTS3: SEA Methodology

The objective of the Strategic Environmental Assessment (SEA) Directive is *‘to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development’* (Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The SEA methodology is based on legislative requirements and EPA guidance and will ensure compliance with the SEA Directive and associated legislation. The EPA’s SEA Pack (Version 18/04/2013) was also used as a source of information during the SEA process.

NTS4: Current State of the Environment

The assessment of the plan with respect to the current Environmental Baseline is the principal task of the SEA process. Consequently, this baseline description must be cognisant of the local level nature of the plan and the pressures and interrelationships between environmental topics.

The environmental baseline provides an overview of the existing conditions in the Draft LAP area relevant to the plan and covers the following environmental topics:

- Biodiversity
- Population and Human Health.
- Land and Soils.
- Water.
- Air, Noise and Climate.
- Archaeological, Architectural and Cultural Heritage.
- Landscape and Visual.
- Material Assets.

Arklow town is located on the south east coast of County Wicklow, circa 63 km from Dublin. The town is located at the mouth of the Avoca River, originally forming as a Viking settlement in the ninth century. The town is divided by the river, which is crossed by the Nineteen Arches Bridge, a stone arch bridge linking the south or main part of the town with the north part, called Ferrybank. Arklow is the main centre located in the south of the County, and is located adjacent to the M/N11, with ease of access to Dublin and Rosslare.

According to the EPA's State of the Environment Report, 2016, Ireland's environment remains in a good condition, although there are a number of key challenges in the coming years. The report identified four priority challenges for the environment, which comprise; valuing and protecting our natural environment; building a resource-efficient low-carbon economy; putting the environment at the centre of our decision making and implementing environmental legislation.

NTS5: Objectives, Targets and Indicators

The SEA is designed to assess the potential environmental impact of the LAP and its associated policies and objectives against the environmental baselines established.

The plan policies and objectives are assessed against a range of established environmental objectives and targets.

Indicators that are recommended in the SEA are utilised over the lifetime of the Draft LAP to quantify the potential level of impact that the policies and objectives are likely to have on the environment. This enables the measurement of the success of the policies in promoting the sustainable development of the area.

NTS6: Assessment of Likely Significant Effects

The environmental impacts of the Draft LAP policies and objectives were assessed with respect to the existing environmental baseline and environmental objectives.

As the policies included in the Draft LAP have been designed to promote sustainability and to protect the environment, the majority of policies are expected to have positive impacts when assessed against the environmental objectives. A matrix was prepared to examine these potential impacts.

NTS7: Consideration of Alternatives

Alternative development scenarios were considered in the preparation of the Draft LAP. These options primarily related to:

- Consolidation of the town centre;
- Development of the suburbia; and
- Consolidated centre with rejuvenated outer centre and protection of the edge of settlement boundary.

Each scenario was assessed against the environmental aspects and a preferred scenario from an environmental perspective determined.

NTS8 Mitigation Measures

This Environmental Report has highlighted some potential negative environmental impacts that may arise from the implementation of the Draft LAP in relation to new policies, zonings and land use designations. A number of mitigation measures have been identified to prevent, reduce and as fully as possible offset any potential significant adverse impacts on the environment of implementing the LAP.

It is envisaged that all planning applications for new developments in the plan area will be environmentally assessed and specific mitigation proposed where appropriate.

NTS9: SEA Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme was developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the Draft LAP.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Wicklow County Council, as the planning authority, is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

1 Introduction

Arup was appointed by Wicklow County Council to carry out a Strategic Environmental Assessment (SEA) of the Draft Arklow and Environs Local Area Plan 2017-2023 (Draft LAP).

This SEA Environmental Report presents the findings of the environmental assessment of the likely significant impacts on the environment as a result of the Draft LAP. A Scoping Report was previously prepared which provided information to allow consultation with defined statutory bodies on the scope and level of detail to be considered in the environmental assessment. Any issues or concerns raised during the scoping process or during the consultation period for the Draft LAP has been incorporated into this report. An SEA Statement accompanies this Environmental Report.

1.1 Planning Context

The relevant planning legislation comprises the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended.

The Draft LAP will sit within a hierarchy of national, regional and local plans. These include the National Spatial Strategy 2002-2020, Regional Planning Guidelines for the Greater Dublin Area 2010-2022, the Wicklow County Development Plan 2016-2022 and other local area plans. This planning hierarchy was taken into account in drafting the LAP and undertaking this SEA.

The National Spatial Strategy sets the national context for spatial planning from 2002-2020. The overall aim of this strategy is to achieve a better balance of social, economic and physical development. The National Spatial Strategy deals with development at regional and local level in broad terms. The Planning and Development Act 2000, as amended requires that this strategy is integrated with both regional planning guidelines and county and city development plans.

The Regional Planning Guidelines are the main means by which to implement the National Spatial Strategy, as detailed in Section 21 of the Planning and Development Act 2000, as amended. The Regional Planning Guidelines give effect to the National Spatial Strategy at regional level and provide more detailed guidance and policy. They must be consistent with the overall context of the National Spatial Strategy. The overall objective of the guidelines is to provide a long-term strategic planning framework for the development of the region.

Development Plans must have regard to national and regional strategies and guidelines to both inform and structure land use policies. Development Plans provide the key policy context for individual planning decisions within the Development Plan area.

In addition, the Guidelines for Planning Authorities (Department of Environment, Community and Local Government (DoECLG), 2013), outlines that good Local Area Plans will also inform policies at regional and national level.

The hierarchy of the planning process within Ireland is summarised in the flow chart depicted in Figure 1.1.

This flow chart (adapted from the Department of Environment, Heritage and Local Government (DoEHLG) Development Plan Guidelines for Planning Authorities (2007)) indicates where the Draft LAP falls within that hierarchy.

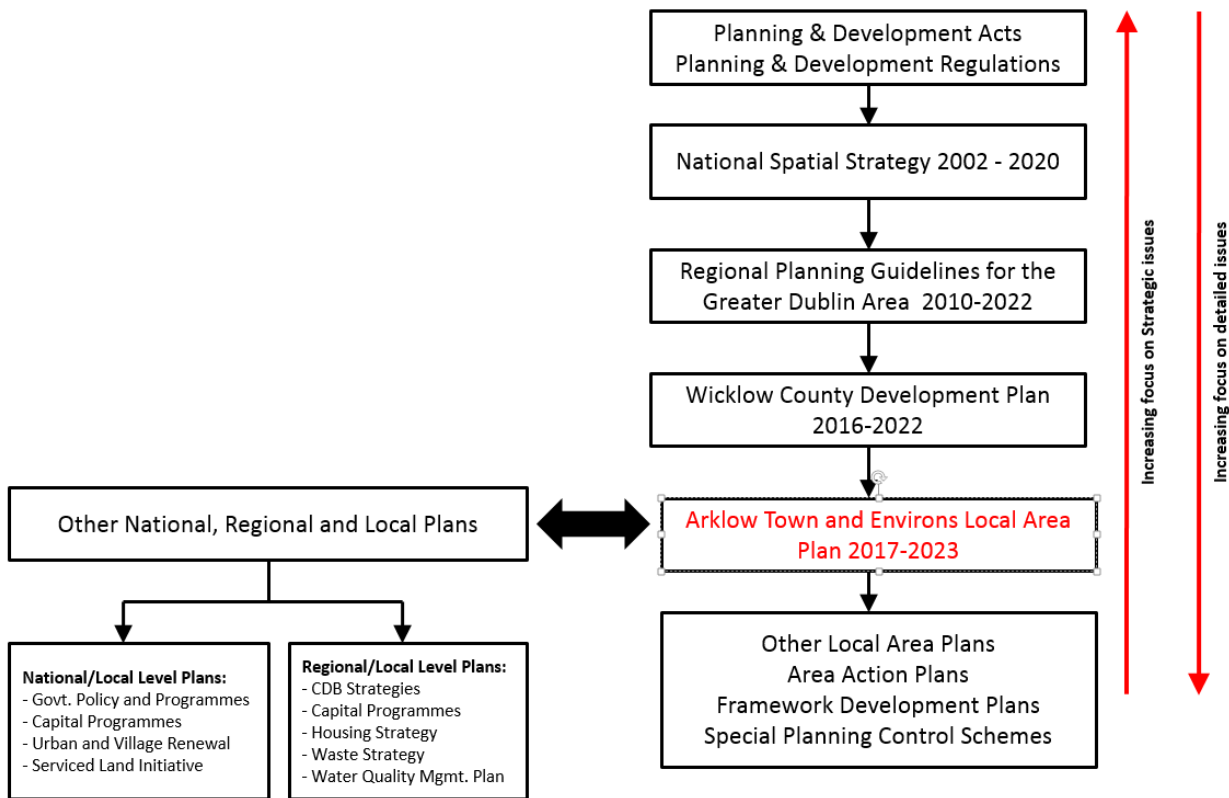


Figure 1.1 Hierarchy of the Planning Process in Ireland.

1.2 Relationship of the Plan to other Plans and Programmes

As part of the SEA process the context of the Draft LAP must be established with regard to other plans and programmes that have been adopted at International, National, Regional and Local level. In particular, the interaction of the Draft LAP with the environmental protection objectives and standards included within these other plans and programmes must be considered.

A wide range of legislation, plans and programmes are of relevance to the Draft LAP and are outlined in **Table 1.1**.

Table 1.1 Hierarchy of Relevant Legislation, Plans and Programmes

Level	Legislation, Plans and Programmes
International / EU Level	Water Framework Directive & associated Directives SEA Directive Floods Directive Groundwater Directive Habitats Directive Birds Directive Freshwater Fish Directive Shell fish Directive

Level	Legislation, Plans and Programmes
	<p>Drinking Water Directive Bathing Water Directive New Environmental Impact Assessment Directive Seveso Directive Sewage Sludge Directive Urban Waste Water Treatment Directive Waste Framework Directive Nitrates Directive Soils Directive Air Quality Directives including Framework Directive Directive on the Reduction of National Emissions of Certain Atmospheric Pollutants Environmental Noise Directive Industrial Emissions Directive EU Reach Initiative European Landscape Convention UN Convention of Biological Diversity, 1992 The Paris Agreement Stockholm Convention Ramsar Convention OSPAR Convention Granada Convention Gothenburg Strategy EU Climate Change and Renewable Energy Package 2030 Climate & Energy Framework</p>
National Level	<p>A Programme for Partnership Government 2016 Building on Recovery: Infrastructure and Capital Investment 2016-2021 Policy Position on Climate Action and Low-Carbon Development. National Policy Position Ireland (2014) Delivering a Sustainable Energy Future for Ireland - The Energy Policy Framework 2007-2020 National Energy Efficiency Action Plan 2013-2020 National Spatial Strategy 2002-2020 Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2015) Quality Housing for Sustainable Communities. Best Practice Guidelines for Delivering Homes Sustaining Communities (2007) The Planning System and Flood Risk Management. Guidelines for Planning Authorities (2009) Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009) Guidelines for Planning Authorities – Retail Planning (2012) Local Area Plans - Guidelines for Planning Authorities (2013) Guidelines for Planning Authorities – Spatial Planning and National Roads (2012)</p>

Level	Legislation, Plans and Programmes
	<p>Our Sustainable Future – A Framework for Sustainable Development for Ireland (2012)</p> <p>Actions for Biodiversity 2011-2016 (2nd National Biodiversity Plan)</p> <p>Draft 3rd National Biodiversity Strategy and Action Plan (2016)</p> <p>Appropriate Assessment of Plans and Projects in Ireland. Guidelines for Planning Authorities (revised 2010)</p> <p>Architectural Heritage Protection - Guidelines for Planning Authorities (2004)</p> <p>Guidelines for Planning Authorities - Retail Planning (2012)</p> <p>Government Policy on Architecture 2009-2015</p> <p>National Policy on Town Defences (2008)</p> <p>Implementation of Regional Planning Guidelines Best Practice Guidance (2010)</p> <p>Irish Water’s Capital Investment Plan,</p> <p>Irish Water’s Water Services Strategic Plan</p> <p>Climate Action and Low-Carbon Development Act 2015</p> <p>National Climate Mitigation Plan</p>
Regional Level	<p>Regional Planning Guidelines for the Greater Dublin Area 2010-2022</p> <p>Retail Strategy for the Greater Dublin Area 2008-2016</p> <p>Transport Strategy for the Greater Dublin Area up to 2035</p> <p>Eastern River Basin District River Basin Management Plan 2009 – 2013 (National River Basin Management Plans 2018-2021 currently in preparation)</p> <p>Eastern-Midlands Region Waste Management Plan 2015-2021</p> <p>Eastern Catchment Flood Risk Assessment Management (CFRAM) Study</p> <p>Flood Risk Management Plans</p> <p>Groundwater Protection Schemes</p>
Local Level	<p>Wicklow County Development Plan 2016-2022</p> <p>South East Draft Flood Risk Management Plans (2016)</p> <p>County Wicklow Heritage Plan 2009 - 2014</p> <p>County Wicklow Biodiversity Action Plan 2010-2015</p> <p>Other Local Area Plans</p>

2 Arklow and Environs Local Area Plan 2017-2023

2.1 Introduction

The Draft LAP provides the main public statement of planning policies and objectives for Arklow town and environs. **Figure 2.1** indicates the boundary of the LAP. The policies and objectives are critical in determining the appropriate location and form of different types of development as the LAP is the primary statutory land use policy framework against which planning applications are assessed.

The objectives of the LAP are also used by Wicklow County Council to guide their activities and to indicate priority areas for action and investment by the Councils such as focusing on attracting employment into the town or enhancing the town as a centre for tourism.

The LAP is a key document for setting out a vision for how Arklow town and environs should develop over the years 2017-2023 and beyond. The plan is consistent with the objectives set out in the following documents:

- The Regional Planning Guidelines for the Greater Dublin Area 2010-2022;
- Greater Dublin Area Transportation Study 2016-2035;
- Wicklow County Development Plan 2016 – 2022;
- Wicklow Local Economic and Community Plan 2016-2022;
- County Wicklow Heritage Plan 2009 - 2014; and
- County Wicklow Biodiversity Action Plan 2010-2015.

2.2 Vision and Development Strategy

A key aim of the Draft LAP is to set out the vision and development strategy for the future development of Arklow town and environs. The vision and development strategy must be consistent with the ‘Core Strategy’ of the County Development Plan and reflect the characteristics, strengths and weaknesses of Arklow. **Table 2.1** sets out the key elements of the Wicklow Country Development Plan ‘Core Strategy’, as they apply to Arklow town and environs.

Table 2.1 Key Elements of Wicklow County Council’s Core Strategy as they apply to Arklow town and environs

CDP CORE STRATEGY	APPLICATION TO ARKLOW
Settlement Strategy	Level 3 settlements are designated ‘Large Growth Towns’ and generally have population targets in the range 15,000 – 25,000. Arklow has a target of 23,000 persons in 2028.
Economic Development Strategy	The economic function of ‘Large Growth Towns’ is to be an attractor for inward investment with an investment target of foreign and local investment into ‘people’ and ‘product’ intensive industries.
Retail Strategy	Arklow is designated a ‘Level 3 retail centre’ which are defined as a tier 1 ‘sub County town centre’ serving a wide district. Such centres will vary both in the scale of provision and the size of catchment, due to proximity to a Major Town / County Town centre. Generally, where the centre has a large catchment (e.g. market town in a rural area) and is not close to a larger centre, there will be a good range of comparison shopping with a mix of retail types, leisure and cultural facilities and a range of cafes and restaurants.

	Such towns / centres would generally range in size from 10-25,000sqm of lettable retail space catering for a population catchment of 10,000- 40,000.
Community Development Strategy	In accordance with the County community facilities hierarchy, Arklow is a 'Level 1' settlement which generally falls into the 15,000-30,000 population range and should be ideally serviced by the following community infrastructure: Multi-purpose Community Resource Centre, Regional and Local Indoor Sports and Recreation Facilities, Swimming Pool/Leisure Centre, Youth Centre, Athletics Track and Field Facilities, Arts and Cultural Centre, Local Multi-Purpose Community Space/Meeting Rooms, Outdoor Water Sports Facilities (where applicable), Neighbourhood Parks and Local Parks, Outdoor (full size) Multi-Use Games Areas – Synthetic / Hardcourt, Playground(s), Playing Pitches, Alternative/Minority Sports Facilities, Open Space/Urban Woodlands/ Nature Areas, Library
Infrastructure Strategy	In accordance with the County Development Plan: <ul style="list-style-type: none"> - Sufficient wastewater treatment capacity is required to cater for the projected population within the plan area - Sufficient water supply is required capable of meeting the demands of projected population within the plan area. - Measures to improve the capacity and efficiency of local roads and connections to national routes in close proximity to the plan area are required.
Environmental Strategy	To ensure the objectives of the plan are consistent with the conservation and protection of the environment.

2.3 LAP Vision

The Draft LAP sets out a vision for the future development of the plan area, in accordance with the County Development Plan. All policies and objectives outlined in the LAP can be developed and implemented with the overall aim of achieving this vision.

The overall vision for Arklow town and environs is made up of the following strategic aims:

Policy Consistency

To be consistent, as far as practicable, with higher order national, regional and county development objectives, in particular the Wicklow County Development Plan and Core Strategy and manage the spatial development of the settlement in an efficient sustainable manner.

Land use Framework

To provide an integrated land use and transportation framework for the growth of the settlement, that aims to reduce the distance people need to travel by car to places; to provide housing at appropriate locations for current and future generations, to revitalise the economy of the town and; to allow improvements of social and community facilities.

Balanced Housing

To enhance existing housing areas and to provide for high quality new housing, at appropriate locations and to ensure the development of a range of house types, sizes and tenures in order to meet the differing needs of all in society and to promote balanced communities.

Vibrant Core

To maintain and enhance the viability and vibrancy of Arklow town centre, to ensure that the core town centre remains at the heart of the community and provides a wide range of uses including retail, employment, commercial, social, recreational and residential in a consolidated and accessible manner.

Sustainable Communities

To support and facilitate social and community development and in particular, to create increased access and links between new and existing housing areas to community facilities, including schools, playing pitches, health facilities, etc. and the town centre.

Employment Activity

To facilitate and encourage the growth of a broad range of employment, enterprise and economic activity in the settlement, to support the port and manufacturing employment tradition in the settlement.

Enhance Tourism

To develop the tourism potential of the area as a visitor / tourist destination in itself and in its role as a 'gateway' to surrounding attractions.

Infrastructure

To protect and improve the settlement's transport, water, waste, energy, communications and maritime infrastructure having regard to our responsibilities regarding the protection of the environment.

Unique Heritage

To recognise, protect and strengthen the unique character, built heritage, seaside location, maritime history and natural environment of the area, ensuring that this heritage can continue to contribute positively to the overall quality of life, biodiversity, recreation and tourism role of the settlement.

Adapt to Climate Change

To address the climate change challenge, directly in the areas of flooding and renewable energy, and indirectly by integrating adaptation to climate change and sustainable development into the plan objectives.

High Quality Design

To ensure a high quality living environment for existing and future residents. To promote high quality design so that new developments complement their surroundings, are well connected to neighbourhoods, are functional and pleasant to experience, are accessible, attractive, secure and contribute to a sense of place.

2.4 LAP Development Strategy

The Draft LAP also sets out a development strategy for the future development of the plan area, in accordance with the County Development Plan. The development strategy for the Arklow town and environs is as follows:

RESIDENTIAL DEVELOPMENT STRATEGY FOR ARKLOW

To adhere to the objectives of the Wicklow County Development Plan in regard to population and housing as are applicable to Arklow.

To ensure sufficient zoned lands is available at appropriate locations capable of meeting the housing needs of the projected population of the settlement area over the plan period in a sustainable manner. Notwithstanding the zoning of land for residential purposes, the Planning Authority shall monitor and implement the population targets as set out in the County Development Plan and shall phase and restrict, where necessary, the granting of residential planning permissions to ensure these targets are not exceeded.

To promote and facilitate in-fill housing developments, the use of under-utilised / vacant sites and vacant upper floors for residential use and facilitate higher residential densities at appropriate locations, subject to a high standard of design, layout and finish.

To promote and facilitate the redevelopment of sites in the town centre zoning, including the identified opportunity sites, where development will positively contribute to the commercial and residential vitality of the town centre.

To promote and facilitate the in-depth development of the waterfront zone, for mixed-use development with a high concentration of residential use subject to a high standard of design, layout and finish.

ECONOMIC DEVELOPMENT AND EMPLOYMENT STRATEGY FOR ARKLOW

To ensure sufficient zoned land is available in appropriate locations capable of facilitating the development of appropriate employment opportunities in accordance with the provisions of the County Development Plan

Facilitate the provision of key infrastructure required for the future development of enterprise and employment.

Promote a high quality built and natural environment that is attractive to indigenous and foreign industry and employees.

To facilitate the development of opportunities to capitalise on the maritime resources of Arklow.

To facilitate the redevelopment of the existing Town Centre as the retail core of the settlement.

Promote tourist developments at suitable locations that are of an appropriate scale and design, particularly developments that are associated with the tourism products or themes associated with Arklow and its hinterland and maximise the town's location as a destination and gateway between other nearby tourism assets.

TOWN CENTRE AND RETAIL STRATEGY FOR ARKLOW

To promote and encourage consolidation of and improvement to retailing and other town centre activities in the core area including the renovation and expansion of existing retail premises in the core retail area

Encourage the redevelopment and regeneration of vacant, underutilised and derelict sites including the conversion of non-retail premises in the core area to retail use.

To protect features that contributes to the town's overall appearance and heritage value.

To encourage higher residential densities in the town centre / village centre zones and the concept of 'living over the shop'.

The redevelopment of lands within the town core area, particularly those sites with frontage onto the main streets and squares of the town, shall provide for a street fronting building of a high quality design or for a high quality urban space, including hard and soft landscaping, and appropriate street fixtures and furniture, in order to enhance and create a more attractive streetscape.

COMMUNITY DEVELOPMENT STRATEGY FOR ARKLOW

To facilitate the development of a range of high quality community, educational, open space and recreational facilities that meet the needs of the local population, and in particular to require that new community, open space and recreational facilities are developed in tandem with new housing.

INFRASTRUCTURE STRATEGY FOR ARKLOW

Promote the development of a safe and accessible pedestrian, cycling and traffic routes

To support and facilitate existing and future port activities.

Facilitate and promote the delivery of reliable and effective water, drainage, energy, waste management and communications infrastructure to service the existing and future development needs of the settlement.

To facilitate Irish Water in the provision of necessary waste water infrastructure, in a sustainable manner.

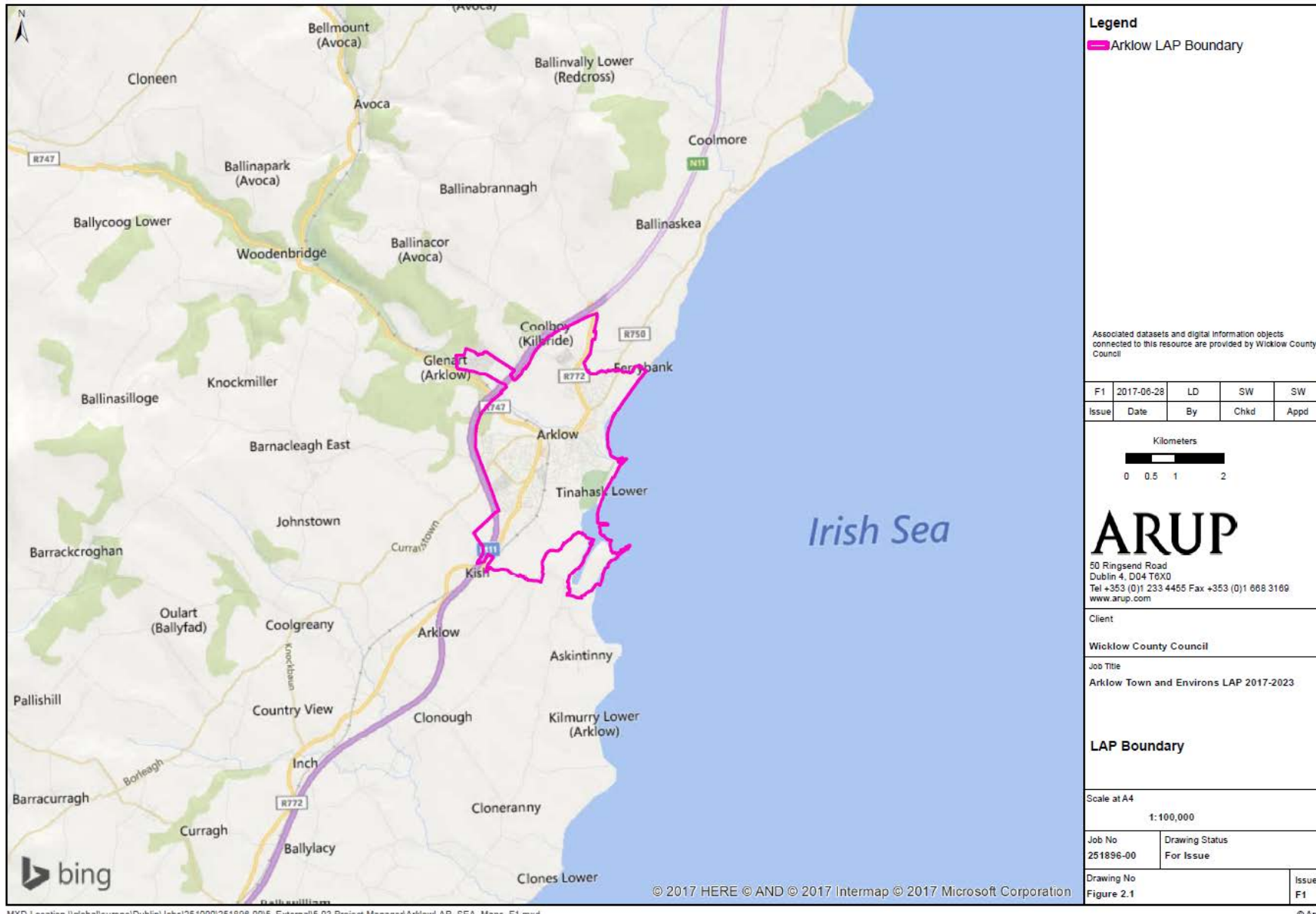
To assist the Office of Public Works through the implementation of measures capable of managing and mitigating against the consequences of flooding.

HERITAGE STRATEGY FOR ARKLOW

To protect the natural, architectural, archaeological and maritime heritage of Arklow and its environs.

To enhance the quality of the natural and built environment, to enhance the unique character of the town and environs as a place to live, visit and work.

To promote greater appreciation of, and access to, local heritage assets.



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Figure 2.1 Arklow Town and Environs LAP 2017-2023- LAP Boundary

3 SEA Methodology

3.1 Introduction

The objective of the Strategic Environmental Assessment (SEA) Directive is *'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development'* (Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The requirements for SEA in Ireland are set out in the national legislation as follows:

- European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations (S.I. No. 435 of 2004) as amended by European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations (S.I. No. 200 of 2011); and
- Planning and Development (Strategic Environmental Assessment) Regulations (S.I. No. 436 of 2004) as amended by the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations (S.I. No. 201 of 2011).

This section highlights how the SEA has been undertaken for the Draft LAP. The SEA methodology is based on legislative requirements and relevant Environmental Protection Agency (EPA) guidance and will ensure compliance with the SEA Directive and associated legislation. The EPA's SEA Pack (Version 18/04/2013) was also used as a source of information during the scoping process. The key stages outlined in Figure 3.1 were identified and are discussed in the following sections.

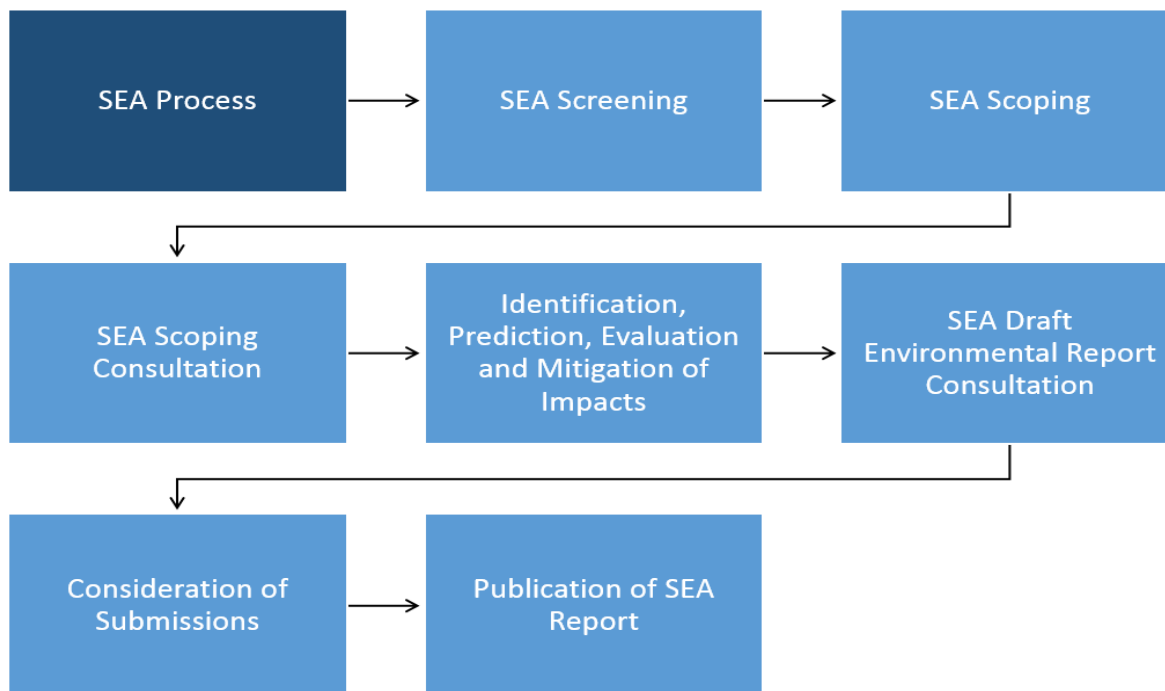


Figure 3.1: Key Stages of the SEA Process

3.2 Screening

Screening is the process for deciding whether a particular plan would warrant SEA. The SEA Regulations outlined above require the following:

- A mandatory SEA for Development Plans if the population or target population is 5,000 persons or more;
- Screening to establish the need for SEA for Development Plans where the population or target population is less than 5,000 persons, to determine whether the new plan would be likely to give rise to significant environmental effects.

An SEA screening assessment was undertaken as part of this SEA process to determine if the Draft LAP required an SEA.

According to the 2016 Census, the population of Arklow and its environs in 2016 was 15,324 persons (refer to Section 4.5.1 for breakdown of population information per electoral division). As the target population is greater than 5,000 persons in the area to which the new Draft LAP relates, an SEA was a mandatory requirement.

3.3 Scoping

The scoping phase of the SEA is a key part of the assessment process as it establishes the likely extent (geographic, temporal and thematic) of the assessment, the range of environmental issues to be covered and the level of detail the assessment will investigate.

The Scoping Process allows input from the environmental authorities and relevant stakeholders to be incorporated.

Essentially any issues/comments submitted as part of the scoping process will provide greater focus on the development of aspects of the Draft LAP.

The issues addressed during the scoping process are as follows:

- The key elements of the Draft LAP to be assessed;
- The key environmental issues to be assessed;
- Research of relevant international, national and local plans, objectives and environmental standards that may influence or impact on the Draft LAP;
- Development of draft environmental objectives, indicators and targets to allow the evaluation of impacts; and
- Identification of reasonable alternative means of achieving the strategic goals of the Draft LAP.

A scoping report was prepared as part of this SEA on behalf of Wicklow County Council which asked key questions of statutory consultees and key stakeholders. The responses received were addressed in the preparation of the Environmental Report. An outline of the responses received to the Scoping Report is included in **Table 3.1** below.

Table 3.1 Summary of SEA Scoping Responses

Consultee/Stakeholder	SEA Scoping Response
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHG)	<p>The Department shall provide advice and recommendations regarding the appropriate treatment of archaeology as an integral part of the development process.</p> <p>Objectives should be included in the Draft LAP for the protection of the archaeological heritage.</p> <p>Any development either above or below ground, within the vicinity of a site of archaeological interest including monuments identified on the Record of Monuments & Places, shall not be detrimental to the character of the archaeological site or its setting.</p> <p>Development Plans should therefore take account of any development and constructional impacts on riverine, lacustrine, intertidal and sub-tidal environments.</p>
Environmental Protection Agency (EPA)	<ul style="list-style-type: none"> • In preparing the Plan and SEA, consideration should be given to a number of key significant national, regional and sectoral plans/programmes/strategies, some of which are currently in preparation and will be finalised and implemented during the lifetime of the Plan; • The Plan should ensure that development proposals and associated population increases within the Plan area are aligned with the ability to provide the required infrastructure (drinking water, wastewater, waste management); • The key issues and challenges outlined in the State of the Environment Report for 2016, as relevant and where appropriate to the Plan area, should be accounted for in preparing the Plan and associated SEA; • The Plan should provide for the protection of surface and groundwater resources in compliance with the Water Framework Directive (WFD); • The Plan should commit to protecting and, where possible, enhancing biodiversity outside of designated areas, including ecological corridors/linkages, hedgerows and wetlands within and adjacent to the plan area. Where possible, existing green/blue infrastructure should be retained and integrated into the Plan to help maintain and conserve important ecological corridors and associated species and habitats;

	<ul style="list-style-type: none"> • The Plan should take into account the relevant aspects of the Eastern CFRAM study, as well as including a commitment to meeting the requirements of the Planning System and Flood Risk Management – Guidelines for Planning Authorities (DEHLG/OPW, 2009); • The Plan should take into consideration the recommendations of the Greater Dublin Area Draft Transport Strategy, as appropriate and relevant. The Plan should establish an integrated traffic management plan that includes adequate provision of public transport to ensure the sustainable development of the Plan area; • In preparing the Plan and SEA, particular consideration should be given to assessing the potential for cumulative effects on the environment as a result of implementing the Plan, in combination with other and relevant plans, programmes and significant projects; • Where significant adverse environmental effects associated with the implementation of the Plan are identified, including cumulative effects, appropriate mitigation measures should be proposed to prevent, reduce and as fully as possible offset these effects; and • The Plan should seek to mitigate and adapt to the effects of climate change. <p>The EPA has provided an SEA integration guidance document which sets out the key environmental issues, as relevant and appropriate, to be taken into account in the preparation of the Plan and associated SEA Environmental Report.</p>
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3.4 Baseline Data

Gathering relevant information relating to the state of the environment for a plan area is an integral part of the SEA process. The SEA Directive requires that certain information relating to the relevant environmental baseline is presented in order to help test the performance of the plans implementation, as well as helping establish how the environment would change if the plan were not to implemented.

Baseline information has been collected from readily available sources, and a Geographical Information System (GIS) was used to graphically present relevant information. The baseline information is reported in Section 4 of this report.

3.5 Environmental Assessment of the Local Area Plan

The environmental assessment process ran in parallel to the development and preparation of the Draft LAP. Interaction between the Draft LAP and SEA is depicted in **Figure 3.2**.

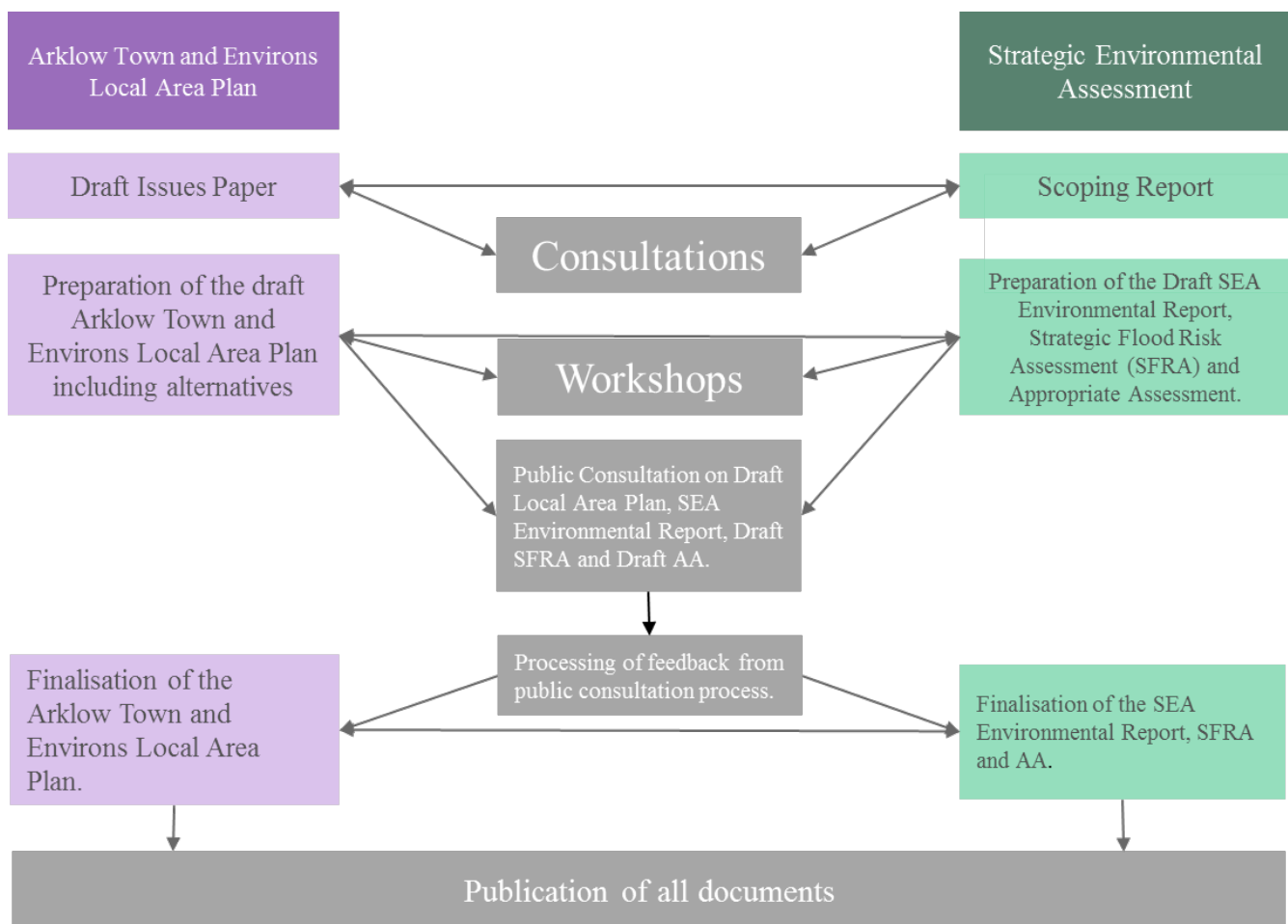


Figure 3.2: Interaction between the Draft LAP and SEA

The environmental assessment process was undertaken in accordance with best practice SEA principles and guidance. This included desk reviews of all of the available GIS data, specialist investigation into the likely impacts associated with the Draft LAP and recommendations for suitable mitigation measures along with monitoring.

3.6 Consultations

This SEA Environmental Report was issued to the relevant statutory stakeholders for comment. The responses received were addressed in the finalisation of the Environmental Report. An outline of the responses received is included in the SEA Statement.

Consultation with representatives of Wicklow County Council also took place throughout the SEA process.

3.7 Consideration of Alternatives

The SEA Directive requires that reasonable alternatives be assessed in order to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the Environmental Report.

Section 5 of this Environmental Report discusses the consideration of alternatives.

3.8 Technical Difficulties Encountered

No major technical difficulties were encountered during the preparation of this Environmental Report.

4 Current State of the Environment

Note all figures referenced from this point onwards are included in **Appendix A1**.

4.1 Introduction

Arklow town is located on the south east coast of County Wicklow, circa 63 km from Dublin, as illustrated on **Figure 4.1**. The town is located at the mouth of the Avoca River, originally forming as a Viking settlement in the ninth century. The town is divided by the river, which is crossed by the Nineteen Arches Bridge, a stone arch bridge linking the south or main part of the town with the north part, called Ferrybank. Arklow is the main centre located in the south of the County, and is located adjacent to the M/N11, with ease of access to Dublin and Rosslare. The extent of the Draft LAP area is illustrated in **Figure 4.2**.

According to the EPA's State of the Environment Report, 2016, Ireland's environment remains in a good condition, although there are a number of key challenges in the coming years. The report identified four priority challenges for the environment, which comprise; valuing and protecting our natural environment; building a resource-efficient low-carbon economy; putting the environment at the centre of our decision making and implementing environmental legislation.

In the EPA's 2020 Vision document it is noted that pressures on the Irish environment increased significantly as a result of a decade of rapid and unprecedented economic growth. Unfortunately, these pressures have accelerated at a rate that far exceeds that observed in other EU countries.

In '2020 Vision' the EPA promotes six environmental goals which consider the principal environmental challenges facing our nation. These goals, which are highly relevant to the sustainable development of Arklow town and environs have a bearing on the assessment of the Draft LAP:

- Limiting and adapting to climate change;
- Clean air;
- Protected waters;
- Protected soils and biodiversity;
- Sustainable use of natural resources; and
- Integration and enforcement.

These goals are identified as a means of realising the vision of protecting and improving Ireland's environment.

4.2 Purpose of the Environmental Baseline

The assessment of the Draft LAP with respect to the current environmental baseline is the principal task of this SEA process.

Consequently, the baseline description must be cognisant of the local level nature of the plan and the pressures and interrelationships between environmental topics.

The environmental baseline provides an overview of the existing conditions in the Arklow town and environs area relevant to the Draft LAP and covers the following environmental topics:

- Biodiversity;
- Population and Human Health;
- Land and Soils;
- Water;
- Air, Noise and Climate;
- Archaeological, Architectural and Cultural Heritage;
- Landscape and Visual; and
- Material Assets.

In accordance with the SEA Directive, the inter-relationship between the SEA environmental topics must be taken into account. Of particular note is the interrelationship between water (quality and quantity) and biodiversity, flora and fauna, soils, human health and population. Flora and fauna is dependent on the hydrological environment (surface water and groundwater) as a habitat. Water quality is also of particular importance with regard to human health as it provides a source of drinking water and it influences agriculture and mariculture. Water is also used for leisure and recreational purposes, providing a material asset both for local populations and as an integral component of the tourism economy.

4.3 Biodiversity including Flora and Fauna

4.3.1 Introduction

The Convention on Biological Diversity defines biodiversity as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.” This includes sites, habitats, species and networks of importance at the international, national or local level, and which may occur within or outside the Plan area.

The term biodiversity refers to more than individual species. It includes the genes they contain, the habitats and ecosystems of which they form part, and also highlights the interdependence and interconnectedness of all living things.

The main elements of biodiversity are:

- European (Natura 2000) sites (SACs and SPAs, and candidate SACs and SPAs);
- NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora or sites proposed for designation;
- Undesignated sites such as proposed NHAs (pNHAs), local biodiversity areas;
- Sites and habitats that can be considered to be corridors or stepping stones for the purpose of Article 10 of the Habitats Directive;
- ‘Natural habitats and protected species’ for the purposes of the Environmental Liability Directive, including habitats and species listed under the Habitats Directive (Annex I habitats, Annex II and Annex IV species and their habitats) and Birds Directives (Annex I species and their habitats, and regularly occurring migratory birds) wherever they occur;
- Legally protected species including protected flora under the European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts 1976-2000;
- Sites identified under the Bern, Ramsar and Bonn Conventions; and
- Biodiversity in general including habitats important for birds, red listed and BoCCI listed species, natural and semi-natural habitat areas including wetlands, woodlands, waterbodies, etc.

A Biodiversity Action Plan was adopted by Wicklow County Council for the 2010-2015 period. The purpose of this document was to provide a framework for the conservation of biodiversity and natural heritage at a local level by translating policies (national and international) and legislation into practical action which serve to raise awareness of and enhance the protection, conservation and management of County Wicklow's natural heritage.

4.3.2 Baseline

County Wicklow, described as the 'Garden of Ireland', consists of a diverse range of landscapes from the Wicklow Mountains to the shores of the Irish Sea.

Much of the Wicklow lowland areas comprise farmed areas, largely used for grazing and silage. The coastal areas include rocky headlands, shingle beaches and sand dune systems. Rivers connect the upland areas to other parts of the county, with river valleys running east, south, west and north forming wildlife corridors around the county. The biodiversity of County Wicklow is protected by National and EU legislation (The Wildlife Act (1976 & 2000) and the EU Habitats and Birds Directives), and is also protected by Wicklow County Council through policies in the Wicklow County Development Plan.

The first Biodiversity Plan for County Wicklow was adopted by the members of Wicklow County Council in December 2010 for the 2010-2015 period. The plan sets out a strategy for increasing our understanding and appreciation of biodiversity in the county along with measures for enhancing the protection of this valuable resource

4.3.3 Habitats

The Biodiversity Action Plan provides an overview of the habitats of County Wicklow. A summary of those relevant to Arklow town and environs is provided in **Table 4.1**.

Table 4.1 Habitats of Arklow and Environs (Wicklow Biodiversity Action Plan 2010-2015)

Habitat	Description
Upland	The Wicklow uplands are an important and prominent aspect of biodiversity in the county. They form the largest unbroken area of high ground in Ireland, made up of granite and metamorphic rock and shaped by glaciation during the last Ice Age. The highest point is Lugnaquilla at 925 metres. Much of the habitat within this upland area is a 'matrix' of blanket bog, heath, acidic grassland, rocky cliffs and scree slopes, and woodland.
Coastland	Coastal habitats in county Wicklow include sand dunes, shingle beaches, coastal headlands, coastal heaths and grasslands and wetland complexes. Biodiversity interest often exists hand in hand with Wicklow's largest towns. Because of the draw of coastal areas, there is often a need for a fine balance to be struck between access to the coast and protection of important biodiversity features.
Sand Dunes	Sand dunes are a complex collection of habitats that, by their nature and position, attract a number of issues. Firstly, they are dynamic systems, the temporary result of constantly shifting sediment systems along our coasts. Secondly, they are associated with sandy beaches which, themselves, are associated with recreational pressure. Added to this is that they are of high ecological importance for a wide variety of species and have, for a number of years, been the area of choice for new golf course and caravan park developments. Sand dunes play an important, and often forgotten, role in coastal flood defence.
Coastal Headlands	The main coastal headlands in the county are Bray head, Wicklow Head and Arklow Rock. Arklow Rock and Arklow Head include a mixture of habitats from coastal heath and grassland mosaic to steep rocky cliffs. The area supports a number of rare plant species and breeding seabirds.

Rivers and Lakes	The linear and flowing nature of rivers gives rise to a number of specific attributes and threats. They are highly important for migratory and ranging species such as salmon and otter, they also act as conduits for pollutants and their linear nature means that it is difficult not to impact on them through human infrastructure. Many human settlements are placed near rivers since there has always been an important reliance on them in terms of providing drinking water and for transport. In addition to this, our rivers carry water and, in times of flood, overflow onto floodplains and then naturally take the water back from the floodplain as the water level in the channel falls. Stress on this function is increasing due to development on floodplains, climate change (resulting in more extreme rainfall events), and drainage in the upland catchment (meaning water moves to the rivers and streams faster). This issue has become very apparent with resultant flood events in Wicklow in recent years. Despite the apparent need to rely on rivers, many human activities impact on them negatively, including changes to flooding regimes and pollution.
Fens, Flushes, Reedbed, Marshes and Wet Grassland	This is a collection of habitats that are often associated with rivers and lakes where they may form a fringe of wetland vegetation. All dependent on a high water table, differentiation between these habitats depends on both substrate (such as peat or mineral soils) and historic management. Fens and flushes
Woodland and Forestry	Wicklow is the most wooded county in Ireland, with almost 20% of the county covered by woodland and forestry. Woodland types in the county vary from upland oak woodlands to birch dominated woodland and wet woodland dominated by willow and alder. The planted woodlands of the demesnes in the county are also significant for biodiversity. Commercial forestry has a large holding in the county as well. Coillte has a considerable interest in the county, owning or managing over 30,000 hectares and there are many private forestry owners.
Farmland	Farmland in Wicklow varies from the upland moorland habitats to the grasslands of the low-lying land in the east. There is no doubt that significant biodiversity benefit can be achieved through environmentally sensitive farming methods. It could even be argued that, outside protected areas, farmed areas have the potential to be one of our greatest biodiversity assets. At the same time, farming has a great potential for biodiversity impact through direct changes to habitats (such as through inappropriate grazing or nutrient enrichment) or through indirect impacts (such as water quality impacts resulting from activities such as upland grazing and slurry spreading). The biodiversity value of farmland is strongly dependent on the existence and best practice implementation of schemes such as the Rural Environmental Protection Scheme (REPS). As of 2007, nearly 30,000 hectares of farmland in the county was entered into REPS.
Hedgerows and Verges	Hedgerows and verges are an important part of the network that connects habitats around the county. In such a highly wooded county as Wicklow, hedgerows can really enhance the county's biodiversity by providing important routes for species movement between woodland sites. Hedgerows are also an important habitat in their own right, providing refuge for important plants, invertebrate and bird species. The combination of a good hedgerow, a wide verge and neighbouring farmland can enhance the value of each of these habitats. Birds that nest in the hedgerows can find food in the form of insects and seeds that occur in the neighbouring habitats, insects can benefit from the shelter of the hedgerow while exploiting the nectar and pollen sources of flower-rich verges
Infrastructure and Artificial Surfaces	As well as the natural habitats described above, it is important to remember that many of our buildings, infrastructure and worked areas can hold important biodiversity as well. Bridges are particularly important in this respect. Many of our older bridges have gaps and crevices in the mortar that are ideal nesting sites for birds and nursery or roost sites for bats. The same is true of bat species. Old walls and buildings, such as mills, next to rivers can be every bit as important in these respects.

4.3.4 Species

Wicklow is home to several rare, protected and/or threatened plants and animals.

Protected species found in the vicinity of Arklow town and environs are those that are legally protected under Irish wildlife legislation (e.g. badgers, bats, hares etc.). Other protected species are those listed on the Birds Directive (Kingfisher) and Annex II of the Habitats Directive (e.g. otters, Atlantic salmon etc.)

4.3.5 Trees

Tree Preservation Orders (TPOs) may be made under Section 45 of the Local Government (Planning & Development) Act 1963 and subsequent acts. Part XIII of the Planning and Development Act 2000 sets out the provisions for TPOs. A TPO can be made if it appears to the planning authority to be desirable and appropriate in the interest of amenity or the environment. A TPO can apply to a tree, trees, group of trees or woodland. The principle effect of a TPO is to prohibit the cutting down, topping, lopping or wilful destruction of trees without the planning authority's consent. The order can also require the owner and occupier of the land subject to the order to enter into an agreement with the planning authority to ensure the proper management of the tree, trees or woodland.

No tree preservation orders have been identified in the plan area.

4.3.6 Designated Sites

There are a range of statutory provisions in force in Ireland to protect, conserve and manage our natural heritage, and to control and regulate human activities that may impact upon it negatively. The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs is responsible, through the National Parks and Wildlife Service, for the designation of conservation sites in Ireland. Currently there are three main types of designation of protected areas- Special Areas of Conservation, Special Protection Areas and National Heritage Areas.

A Special Area of Conservation is a site designated under the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). The Directive obliges member states to designate SACs to protect and conserve habitats and species of importance in a European Union context. The Directive also lists priority habitats and species which must be conserved. Irish habitats include raised bogs, blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. Species which must be afforded protection include Salmon, Otter, Freshwater Pearl Mussel, Bottlenose Dolphin and Killarney Fern. The Habitats Directive has been transposed into Irish law by Ministerial Regulation. The European Communities (Natural Habitats) Regulations, 1997 set out how these sites are to be protected and managed. All SAC sites are afforded full legal protection.

A Special Protection Area is an area of European importance, designated under the Birds Directive (79/409/EEC) by reason of the bird species and populations that they support. Under the Birds Directive, each EU Member State is required to designate SPAs for natural areas that support populations of particular bird species that are rare or threatened in Europe and that require particular measures, including the designation of protected areas to conserve them.

Designated conservation sites in the vicinity of Arklow and its Environs are outlined in **Table 4.2** and illustrated on **Figure 4.3**.

There are no Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) within the Plan area. However, there are six SACs within 15km of the Plan area which are of relevance to the preparation of the draft Plan. These include:

Table 4.2 SACs and SPAs within 15km of the Arklow and Environs Plan Area

Site Name	Site Code
Buckroneys-Brittass Dunes and Fen SAC	00729
Vale of Clara (Rathdrum Wood) SAC	00733
Slaney River Valley SAC	00781
Kilpatrick Sandhills SAC	01742
Magherabeg Dunes SAC	00766
Deputy's Pass Nature Reserve SAC	00717

Natural Heritage Areas (NHA) are deemed to be of special interest containing important wildlife habitat and often contain rare or threatened species. They may also be selected on the basis of their geology or geomorphology. Examples of natural heritage areas across the country include sand dunes systems, blanket bogs and wetlands. First entered into European Law under the 1976 Wildlife Act, transposed into Irish law with the 1997 Natural Habitats Regulations (S.I. No. 94 of 1997), gaining full statutory backing in Ireland with the passing of the Wildlife (Amendment) Act 2000.

There are no NHAs in, or within 15km of the study area. There are 14 proposed Natural Heritage Areas (pNHAs) within 15km of the Plan boundary, as outlined in **Table 4.3** and illustrated on **Figure 4.3**. Three of these pNHAs are located within the plan boundary- Arklow Town Marsh pNHA, Arklow Rock-Askintinny pNHA and Arklow Sand Dunes pNHA.

Table 4.3 pNHAs within 15 km of the Arklow and Environs Plan boundary

Site Name	Site Code
Buckroneys-Brittass Dunes and Fen pNHA	000729
Vale of Clara (Rathdrum Wood) pNHA	000733
Ballymoney Strand pNHA	000745
Courtown Dunes and Glen pNHA	000757
Kilpatrick Sandhills pNHA	001742
Arklow Rock-Askintinny pNHA	001745
Arklow Sand Dunes pNHA	001746
Avoca River Valley pNHA	001748
Ballinacor Wood pNHA	001749
Glenealy Woods pNHA	001756
Magherabeg Dunes pNHA	001766
Kilgorman River Marsh pNHA	001834
Arklow Town Marsh pNHA	001931

Avondale pNHA	002093
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All designated sites within 15km of the plan area are be assessed in the SEA and AA process.

A brief summary of each of the above designated sites is provided in **Table 4.4** below. This text is taken from the National Parks and Wildlife Service's Site Synopses.

Table 4.4 Summary of Designated Sites in Arklow and Environs

Deputy's Pass Nature Reserve SAC (00717)
Deputy's Pass woodland is located on the northern spur of the Deputy's Pass near Glenealy in Co. Wicklow. It was designated a Nature Reserve in 1982. The site is a Special Area of Conservation (SAC) selected for habitats listed on Annex I of the E.U. Habitats Directive, namely Old Oak Woodlands.
Slaney River Valley SAC (00781)
This site comprises the freshwater stretches of the River Slaney as far as the Wicklow Mountains; a number of tributaries, the estuary at Ferrycarrig; and Wexford Harbour. The site flows through the Counties of Wicklow, Wexford and Carlow. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive: Estuaries, Tidal Mudflats and Sandflats, Atlantic salt meadows, Mediterranean salt meadows, Floating River Vegetation, Old Oak Woodlands, Alluvial Forests, Freshwater Pearl Mussel, Sea Lamprey, Brook Lamprey (<i>Lampetra planeri</i>), River Lamprey, Twaite Shad, Atlantic Salmon, Otter, Common (Harbour) Seal
Buckrone-y-Brittass Dunes And Fen SAC and pNHA (00729)
Buckrone-y-Brittass Dunes and Fen is a complex of coastal habitats that comprises two main sand dune systems, Brittass Bay and Buckrone-y Dunes, connected on the coast by the rocky headland of Mizen Head. The dunes have cut off the outflow of a small river at Mizen Head and a fen, Buckrone-y Fen, has developed. A further small sand dune system occurs south of Pennycomequick Bridge. The site is a Special Area of Conservation (SAC) selected for habitats listed on Annex I of the EU Habitats Directive namely alkaline fens.
Vale Of Clara (Rathdrum Wood) SAC pNHA (00733)
The Vale of Clara woodland is situated mostly on the east side of the Avonmore River, immediately north of Rathdrum in Co. Wicklow. The woodland is a remnant of the once extensive forests of east Wicklow, which may have occupied this site since the end of the last Ice Age. The woods in the Vale of Clara are a mosaic of relatively pure oak woodland (<i>Sessile Oak</i> , <i>Quercus petraea</i>), mixed woodland and commercial plantations, growing on an acidic orange-brown, sandy loam over a schist bedrock. A distinct mor humus, often several centimetres thick, overlies the mineral soil. The site is a Special Area of Conservation (SAC) selected for habitats listed on Annex I of the EU Habitats Directive namely Old Oak Woodlands
Ballymoney Strand pNHA (000745)
Ballymoney Strand is made up of two stretches of coastline, at Ballymoney, about 4 km north of Courtown. Between them the site extends for about 1.5 km in length. Several interesting rock types are exposed, a feature that is unusual along the drift covered Wexford coastline. The site supports stunted Blackthorn (<i>Prunus spinosa</i>)/Gorse (<i>Ulex europaeus</i>) scrub and coarse maritime grassland. Of note is the presence here of Hoary Ragwort (<i>Senecio erucifolius</i>), a plant that is rare in Ireland outside of Co. Dublin. In places Sea Buckthorn (<i>Hippophae rhamnoides</i>) has invaded areas of native vegetation. These typical sea-cliff communities are of restricted occurrence in Ireland.
Courtown Dunes and Glen pNHA (000757)
This site is situated immediately north of Courtown. It consists mostly of mixed woodland along the Owenavarragh River and a dune ridge which is largely wooded. This site provides good examples of woodland and coastal habitats in close proximity. The mixed woods support a wide selection of plants including two rare plants found nowhere else in Wexford.

Kilpatrick Sandhills SAC pNHA (01742)
Kilpatrick Sandhills are located about 8 km south of Arklow town, and just south of the Wicklow/Wexford county boundary. The site is comprised of a mosaic of coastal habitats but primarily a mature sand dune system which extends along 2 km of coastline. The site is a Special Area of Conservation (SAC) selected for habitats listed on Annex I of the EU Habitats Directive namely Annual Vegetation of Drift Lines, Embryonic Shifting Dunes, Marram Dunes (White Dunes), Fixed Dunes (Grey Dunes) and Decalcified Dune Heath.
Arklow Rock-Askintinny pNHA (001745)
This coastal site is located just south of Arklow, Co. Wicklow. Arklow Rock is an Ordovician volcanic intrusion which forms a knoll of rhyolite. A large quarry, which is still being worked, has been cut into the rock. The sandy beach and cliffs south of Arklow Head form part of the site. The site is of importance as it is a good example of coastal heath. The other habitats within the site provide good diversity within a relatively small area. The presence of two rare and protected plant species adds significantly to the importance of the site.
Arklow Sand Dunes pNHA (001746)
This coastal site is located just north of Arklow town and comprises mainly a sand dune system. A low ridge of fore dunes, stabilised by Marram (<i>Ammophila arenaria</i>), runs parallel to the shore. Sea-holly (<i>Eryngium maritimum</i>) and Sea Bindweed (<i>Calystegia soldanella</i>) are also present. Although the site is small and vulnerable to pressures from the adjacent amenity sites, it is important as an example of a sand dune system which is relatively intact and showing the stages of dune development from the early fore dunes to mature fixed dunes.
Avoca River Valley pNHA (001748)
The Avoca River Valley is a large mixed woodland located in the valleys of the Avoca and Aughrim rivers, both of which flow through the site and on towards the estuary at Arklow. These areas are remnants of more extensive deciduous woodland coverage throughout these valleys and it is important to conserve this dwindling resource.
Ballinacor Wood pNHA (001749)
Ballinacor Wood is situated in the Avonbeg river valley, about 5km west of Rathdrum, in Co. Wicklow. The site, which is contained within the Ballinacor Estate, includes Sessile Oak (<i>Quercus petraea</i>) dominated woodland (a habitat listed on Annex I of the E.U. Habitats Directive), some wet woodland, grassland and streams. The oak woodland forms an extensive canopy from Ballinacor House and covers most of the slopes of Caran. It stretches northwards along the lower north-eastern slopes of Fananierin Mountain. Although this site has been damaged by the spread of <i>Rhododendron</i> and by overgrazing by deer, it is still an important example of old oak woodland, a habitat that is listed on Annex I of the E.U. Habitats Directive, and it contains some fine examples of mature Sessile Oak trees.
Glenealy Woods pNHA (001756)
Glenealy Woods are located about 8km west-southwest of Wicklow town. They comprise four separate areas of woodland, with an area of over 400ha. They are situated on the south-eastern slopes of Carrick Mountain at an altitude of up to 300m, on the northern spur of Deputy's Pass and a block to the north-east of it. These woods are important because they are almost certainly natural in origin and still retain much of their original character and species content. Scientifically they rank quite highly as being of 'national importance' even though their original extent has been diminished through underplanting with conifers. However, future management allowing the regeneration of native species could be encouraged by fencing to remove grazing animals in the wood (mostly deer) and the removal of certain alien species.
Magherabeg Dunes SAC pNHA (001766)
Magherabeg Dunes SAC is a sand dune system situated at Ardmore Point, about 5 km south of Wicklow Head in Co. Wicklow. The Three Mile Water River enters the sea through the dunes. The site is fairly intact, though some areas are being naturally eroded by wind and sea, in particular at the southern end, where bedrock has been exposed. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive: Annual Vegetation of Drift Lines, Embryonic Shifting Dunes, Marram Dunes, Fixed Dunes, Decalcified Dune Heath, Petrifying Springs
Kilgorman River Marsh pNHA (001834)
Kilgorman River Marsh is situated on the east coast near Castletown and just south of Carmichael Point. The site comprises the lower reaches of a small river along a stretch of approximately 1.5 km before it enters the sea. The main interest of this site is the wetland vegetation associated with the river. It is a good example of a graduation from saltmarsh to freshwater marsh.

Arklow Town Marsh pNHA (001931)

This site is now the principal wetland area in Arklow. It is a large marsh located north of the Avoca estuary on the perimeter of Arklow town. A disused roadway bisects the site from east to west. The importance of this site is that it is a good example of a relatively large wetland, despite the impacts of atmospheric pollution and its proximity to Arklow town. The presence of at least one scarce plant species increases the interest of the site.

Avondale pNHA (002093)

Approximately 40 Whiskered Bats (*Myotis mystacinus*) have been recorded emerging from around a chimney of Avondale House, Co. Wicklow. It is probable that this is a nursery colony although it is not possible to observe the bats directly. As the national population of this species is only several hundred, all colonies containing >10 animals are of national importance.

4.3.7 Relevant Environmental Issues

The following issues / potential impacts were considered during the plan preparation:

- Impacts on protected/designated sites;
- Impacts on protected species;
- Consideration of protecting pNHAs in a similar way to fully designated NHAs;
- Impacts on sensitive habitats outside of protected areas;
- Consideration of maintaining and enhancing the biodiversity richness by protecting rivers, stream corridors and valleys by reserving riparian zones/ecological corridors, maintaining them free from inappropriate development, discouraging culverting or realignment, and promoting natural flood functions;
- Consideration of buffer zones between biodiversity features and areas zoned for development;
- Potential for habitat loss and fragmentation; and

An Appropriate Assessment (AA) Screening (Stage 1) was carried out to examine potential impacts of the draft Plan on Natura 2000 sites. The AA Screening informed the SEA process.

4.3.8 Urban Expansion

Urban expansion has been accelerating over recent years as increased development expands into the countryside. The constant encroachment of the built environment on natural habitats will undoubtedly have an impact on natural flora, fauna and biodiversity.

4.3.9 Water Dependant Habitats

In general, water treatment and wastewater discharges, agricultural runoff, leachate from contaminated sites, urban runoff and unlicensed industrial discharges all have significant negative impacts on water quality which results in subsequent impacts to biodiversity to both aquatic ecosystems as well as neighbouring terrestrial ecosystems.

In the vicinity of Arklow the water dependant ecosystems of the Avoca River, its adjoining rivers the Avonbeg, the Avonmore, and the Aughrim rivers as well as a few minor tributaries rely on good water quality.

The water quality of the Avoca River catchment is generally good to high, however the lower 11.5 km of the Avoca River itself is of 'bad' water quality status, according to the EPA. This is mainly attributed to untreated wastewater being pumped into the Arklow River. There is no wastewater treatment plant in Arklow.

The existing piped wastewater system was installed in the 1930s and was designed as a combined sewer (foul and surface water) which discharges untreated wastewater directly into the River Avoca.

In addition, the input of mining leachate from the abandoned copper mines along the river (acid mine drainage), has resulted in elevated levels of heavy metals including copper, cadmium and zinc.

The Avoca is an important salmonid water with excellent populations of salmon, sea trout and brown trout throughout. It is a large mainly upland catchment, with many varying habitats for fish, excellent species diversity and a good fishery potential.

Any impacts to these surface waters could lead to a deterioration of water quality and a consequent impact to their ecosystems.

Unrestrained development can have a direct impact on water dependent and rare habitats. Abstractions for potable water can result in a direct impact on rivers and lakes and their associated flora and fauna and on groundwater dependent habitats.

4.3.10 Invasive Species

Invasive non-native plant and animal species are one of the greatest threats to biodiversity. Invasive alien species negatively impact biodiversity through competition, herbivory, predation, habitat alteration and introduction of parasites or pathogens and poses a risk to the genetic integrity of our native species.

Terrestrial and aquatic habitats can be significantly negatively impacted, resulting in severe damage to conservation and economic interests, such as agriculture, fisheries, forestry and various recreational activities.

4.4 Population and Human Health

4.4.1 Baseline

4.4.1.1 Population

According to the 2011 Census results, the population of Arklow town and environs was 14,989 in 2011, representing a population increase of 2.2% in the last five years. The population figures quoted in the LAP are based on the 2011 Census figures as the full 2016 census data is not available at the time of publication.

According to preliminary Census 2016 results¹, the population of Arklow was 15,324 in 2016 refer to **Table 4.5**.

Table 4.5 Census Data for Arklow and Environs (Source: www.census.ie)

Population	Electoral Division	Population (2016)
Arklow Town	Arklow No.1 Urban	9,976
	Arklow No.2 Urban	3,013

¹ Data for Table 4.5 was extracted from Table 5 of the preliminary 2016 Census entitled "Population of towns ordered by county and size."

Population	Electoral Division	Population (2016)
Environs of Arklow	Arklow Rural	1,367
	Kilbride	968
TOTAL (Arklow Town & Environs)		15,324

4.4.1.2 Human Health

The concept of health has been defined by the World Health Organisation as “... a state of complete physical, psychological and social well-being, and not simply the absence of disease or infirmity.” Health is influenced by many factors in the social and built environment including housing, employment status, education, transport and access to fresh food and resources, as well as the impacts of air quality, water quality, flooding and access to green space.

Good planning can play an important role in reducing health inequalities. The World Health Organisation’s Commission on the Social Determinants of Health (CSDH) states governments should ‘Ensure urban planning promotes healthy and safe behaviours equitably, through investment in active transport, retail planning to manage access to unhealthy foods, and through good environmental design and regulatory controls, including control of the number of alcohol outlets’.

Given the strong links between income and health, it is recognised that the sustainability of current and future economic activity is an important element in protecting and promoting population health. However, emphasising economic growth without due regard for social and environmental consequences of such growth can have negative impacts on health both for the population as a whole and for groups within the population.

Even within areas of economic development, job creation does not necessarily 'trickle down' to job opportunities for the long-term unemployed, and is neither a sufficient, nor necessary, condition for reducing long-term unemployment. Thus economic development needs to be targeted, geographically and within population groups to ensure that it reduces and does not exacerbate social inequalities.

Cognisance must also be paid to environmental issues and sustainability endeavours to protect human health as the local economy develops. While employment is generally good for health, there can be negative impacts, usually related to the quality of the working environment and type of work undertaken. The groups which face the highest risk of experiencing the adverse effects of unemployment appear to be middle-aged men, youths who have recently left school, the economically marginal such as women attempting re-entry to the labour force and children in families in which the primary earner is unemployed.

The level of green space and access to the natural environment is extremely important for the populace health. The health and wellbeing of individuals is greatly affected by the communities in which they live and the nature of their physical environment. A key element of sustainable communities is access to space as environments which lack public gathering places can encourage sedentary living habits. Open space provision can improve levels of exercise in a community which can impact on health and can improve social interaction and community activities which can contribute to reducing stress-related problems.

Availability of spatial data on human health is limited. A key area for consideration of human health will be the interaction between environmental aspects such as water, landscape, biodiversity, air, and energy and human beings.

The assessment of impacts on human health will reference other sections of the SEA as relevant along with considering aspects such as the Industrial Emissions Directive, the Control of Major-Accident Hazards Involving Dangerous Substance (“SEVESO”) Directive and Flood Risk Assessments. This will ensure that all relevant vectors through which human health impacts could be caused as a result of the Plan are assessed.

The Seveso III Directive: 2012/18/EU came into effect in Ireland on 1st June 2015, replacing the Seveso II Directive 96/82/EC. Article 13 of the new Directive requires member states to ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in land use policies and/or other relevant policies. These objectives must be pursued through controls on the following:

- The siting of new establishments; and
- Modifications to existing establishments;

New developments including transport routes, locations of public use and residential areas in the vicinity of establishments, where the siting or developments may be the source of or increase the risk or consequences of a major accident.

There is one designated Seveso site located within the Plan area. This is the Sigma Aldrich Ireland Limited biotech/biopharma production facility located along the Vale Road in Arklow.

4.4.2 Relevant Environmental Issues

The following issues were considered during the plan preparation:

4.4.2.1 Population

Population change is a complex topic. High growth has occurred in some areas of the Greater Dublin Area (GDA) while falling occupancy rates has occurred elsewhere. Major changes have taken place to the housing market given our economic circumstances and trends such as a reduction in housing completions and rising vacancy rates are evident. Predicting accurate population forecasts impacts on future housing demand and issues such as age profiles, excess in housing stock and occupancy rates and migration must all be taken into account. Future housing demand and all of the services required to sustainably meet demand (e.g. health and sanitation services including waste collection, wastewater treatment and potable water supply, electricity, gas, telecommunications, transportation, education and amenity access) needs to be addressed in a planned manner.

4.4.2.2 Human Health

There are a number of interlinking areas which are relevant to the Draft LAP, for example, the development of sustainable transport and sustainable communities. Policies relating to these areas will impact on human health and quality of life.

The following issues are relevant to the plan:

- Increase in demand for water supply, waste water treatment and other infrastructural and community services due to economic growth;
- Impact of population growth on sensitive habitats and landscape in terms of development and recreational pressures;
- Impacts from noise and air pollution as a result of development and transport;

- Effects on water quality due to new emissions;
- Promotion of walking and cycling via integrated land use and transport policy;
- Consideration of future SevesoO sites;
- Housing needs for all sectors of the community;
- Community infrastructure needs including community facilities;
- Educational needs for both primary and secondary level education;
- Provision of open spaces within residential areas and areas throughout the town;
- Health/medical facility requirements for the town for the future;
- Preservation of public rights of way to allow public access to amenity;
- Adequacy of public/civil space areas;
- Provision for retail and commercial services;
- Vitality and viability of the town centre; and
- Ease of access to the town centre.

4.5 Soils and Geology

4.5.1 Baseline

Geologically, the area around Arklow is dominated by Ordovician Metasediments. Ordovician Metasediments comprise a series of layered sandstones, siltstones and shales with minor volcanic rocks. The shales and mudstones can be very slaty. Occasional limestone units occur in the rock successions. Small areas of Granites and other Igneous Intrusive rocks exist to the south east of the plan area.

The soils in Arklow Town consist mainly of made ground. Made ground consists of materials modified by people, including those associated with mineral exploitation and waste disposal. They include materials deposited as a result of human activities or geological material modified artificially so that their physical properties (structure, cohesion and compaction) have been drastically altered.

The Arklow environs are predominantly underlain by surface water gleys and groundwater gleys. Groundwater gley soils develop where drainage is poor because the water table (phreatic surface) is high, whilst Surface-water gleying occurs when precipitation inputs at the surface do not drain freely through the ground. The Avoca River Valley, which also includes Arklow Marsh, is underlain by Mineral Alluvium.

Refer to **Figure 4.4** and **Figure 4.5** for details of the soils and bedrock geology in the vicinity of the study area.

County Wicklow is widely known for its geological heritage, mainly in the context of iconic landscapes such as the Wicklow Mountains and glacial valleys such as Glendalough. There are no sites of Geological Heritage located within the Plan area, however a number of sites can be found within 15km of the plan area. One of these sites of Geological Heritage, Woodenbridge Wellfield is of particular importance to the plan area. The Woodenbridge Wellfield is the public water supply source for the Arklow area, consisting of five bored wells which together provide approximately 10,000m³ of water per day.

Refer to **Figure 4.6** for geological heritage in the vicinity of Arklow and its Environs.

4.5.2 Relevant Environmental Issues

4.5.2.1 Urbanisation

The degradation of soil fertility and threats to conservation of high-quality soils through the loss of tree/vegetation cover and through urbanisation has consequences for the sustainable development of rural activities as well as the sequestration of carbon.

The following issues were considered during the plan preparation:

- Impacts of pollution from construction work or from the operation of new developments.
- Extent of existing contaminated land.
- Disturbance to soils and geology during new development.
- Pressures on good quality agricultural land due to development.

4.5.2.2 Climate Change

Climate change modelling for Ireland predicts a change to wetter winters and drier summers with a likely increase in the frequency of high intensity rainfall events. These rainfall events can have detrimental effects for slope stability and landslides and their resultant impacts on water management activities.

Eroded soil washed into rivers has the potential to increase nutrient content leading to alteration of surface water nutrient balances which can further lead to the eutrophication of rivers and lakes. If contaminated soils are eroded and transported to watercourses, aquatic plants and animals can be severely damaged.

Geotechnical extraction activities, when not managed in an environmentally sustainable fashion results in further pressure on the hydrological environment.

4.6 Water Resources

4.6.1 Baseline

4.6.1.1 Hydrology

The plan area is located in the Avoca-Vartry catchment, in Hydrometric Area 10. Arklow Town is located on the Avoca River, in the Avoca sub-catchment. The Avoca starts life as two rivers, the Avonmore and the Avonbeg Rivers. These join together at the 'Meeting of the Waters' in the Vale of Avoca, where it flows in an eastern direction to Arklow, and discharges to the Irish Sea.

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD has been transposed into Irish legislation by the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003) and requires that all member states implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving good status by 2015.

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. Arklow and its Environs fall within the Eastern River Basin District (ERBD).

As part of the implementation of the EU Water Framework Directive 2000/60/EC (WFD) a baseline risk assessment was completed of the water bodies within each River Basin District. These assessments were made using water pollution indicators, point and diffuse pollution sources, water abstractions and detail on commercial activities. The risk assessment assigned a water quality status to each waterbody and indicated a risk status namely, whether the water body would meet the criteria for “good status” or would be considered “at risk” of not meeting the standards by 2015.

Based on water quality, ecology and morphology the EPA has determined that the Avoca River close to the Plan boundary is of ‘bad’ status. It was also classed as “1a – at risk” of not achieving “good status” by 2015 under the Water Framework Directive 2000/60/EC (WFD) risk score system in 2010. However, it should be noted that the section of the Avoca River through Arklow Town is classified as ‘undefined’ by the EPA. There are no rivers for drinking water within the plan area.

There are no ‘Nutrient Sensitive’ rivers identified in the plan area. Nutrient Sensitive Waters comprise nitrate vulnerable zones designated under the Nitrates Directive (91/676/EEC) and areas designated as sensitive under the Urban Waste Water Treatment Directive (91/271/EEC).

Surface water features in the vicinity of Arklow are shown on **Figure 4.7**. The Water Framework Directive Risk Status for waterbodies within the plan area is shown on **Figure 4.8**. The Water Framework Directive Status for Lakes and Rivers within the plan area are shown in **Figure 4.9** for 2010-2012. Groundwater for drinking water in the region is shown in **Figure 4.10**.

4.6.1.2 Hydrogeology

The plan area is underlain by a bedrock aquifer which is classified by the GSI as a ‘locally important’ aquifer, which is ‘moderately productive only in local zones.’ Groundwater quality in the aquifer is of ‘good status.’

Groundwater vulnerability is predominantly ‘low’, particularly along the coast and to the north east of the plan area. Large areas of moderate vulnerability are present in and around Arklow Town and the Avoca Valley. Pockets of high or extreme groundwater vulnerability also exist within the plan area, particularly in the centre of Arklow Town, and south east of the plan area.

Groundwater features and source protection zones in the vicinity of the plan area are shown in **Figure 4.11**.

Groundwater vulnerability in the vicinity of the plan area is shown in **Figure 4.12**. WFD Groundwater risk and status in the vicinity of the plan area is shown in **Figure 4.13** and **Figure 4.14**.

4.6.1.3 Flooding

The topography of the Arklow Town area is relatively low lying, particularly to the north of the Avoca River, and is regularly subject to flooding. Arklow has suffered from significant flood events in 1986, 1989, 2000, 2002, 2004, 2005 and 2010, resulting in widespread damage to public and private property, primarily in Lower Main Street, South Quay and Ferrybank.

Development of a flood relief scheme for Arklow is ongoing for some time. The OPW, in combination with Wicklow County Council has recently proposed an emerging preferred flood relief scheme for Arklow.

The objective of the proposed flood relief scheme at Arklow is to protect the low lying areas of the town that are impacted during flood events from the Avoca River and the sea.

The flood scheme will be designed to withstand a 1 in 100 year flood event from the Avoca River as well as 1 in 200 year tidal flooding. The flood defences will also be designed to withstand severe tidal events induced by severe weather conditions

The Arklow Flood Relief Scheme is currently envisaged to commence construction in 2018.

An area specific Strategic Flood Risk Assessment (SFRA) was carried out to guide the future development of Arklow as part of the Draft LAP Review and has also informed the SEA process.

The main sources of flooding in the town are:

- Fluvial: Flooding which occurs when a river overtops its banks due to a blockage in the channel or the channel capacity is exceeded.
- Pluvial: Flooding which occurs when overland flow cannot infiltrate into the ground, when drainage systems exceed their capacity or are blocked and when water cannot discharge due to a high water level in the receiving watercourse.
- Coastal: Flooding which occurs as a result of extreme tidal conditions caused by severe weather.

The SFRA provides an assessment of the flood risk within Arklow town and environs, as well as the appropriateness of land uses (allowed by virtue of land use zoning) allocated to each flood zone. The findings of the SFRA are summarised in Section 7.3.4.

4.6.2 Relevant Environmental Issues

There are a range of existing pressures on the water resources of the region. Many of these pressures apply to biodiversity, flora and fauna, soils and geology, land use and landscape as well as water. In general, these pressures apply directly to quality, quantity and supply and demand of water resources with indirect pressure on the other environmental features.

The following issues were considered during the plan preparation:

- Impacts on surface water and groundwater quality due to development;
- Impacts to designated SACs and SPAs within 15km of the plan area as a result of surface water pollution;
- Compliance with the WFD and achieving the River Basin Management Objectives;
- Compliance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities (OPW/DEHLG, 2009).
- Ensuring drinking water capacity for future predicted increases in population and economic growth;
- Maintenance of water services infrastructure;
- Provision of wastewater treatment infrastructure;
- Effects of flooding due to development;
- Effects of developments within floodplains;
- Climate change impacts on flood levels; and
- Adhering to EPA wastewater licence discharge limits.

4.6.2.1 Modification

Physical modifications have a direct impact on surface water systems through the alteration of habitats, and by indirectly affecting natural processes through the alteration of ecosystems, by reducing their diversity, distribution and population.

Land use practices such as agriculture, forestry and urban expansion can have an indirect effect, manipulating the extent of water draining from the land, which can lead to an increased flood risk to properties and development.

4.6.2.2 Discharges

Inadequately treated effluents and spills or leakage from foul water sewer systems networks can lead to the pollution of the receiving waters. These pollutants can lead to a deterioration in water quality with subsequent downstream uses being impacted negatively e.g. water dependant ecosystems, potable water supplies, industrial or agricultural abstraction, fishing etc. Current estimates for the GDA indicate that the nutrient input into surface waters from direct industrial discharges produce approximately 60% of the yearly phosphorus load with the remainder arising from diffuse sources such as agriculture.

Waste disposal sites (including old or historical un-lined landfills), quarries, industrial lands etc. can produce direct discharges to both surface and groundwaters.

There is no wastewater treatment plant in Arklow. There is an existing piped wastewater system which was installed in the 1930s and was designed as a combined sewer (foul and surface water), which discharges untreated wastewater directly into the River Avoca. Irish Water is in the process of preparing an application for consent for a Waste Water Treatment Plant of 36,000 population equivalent on the north quay, Ferrybank. If this plant is constructed, there would be sufficient capacity for the waste water treatment required to serve the population target and all associated community, employment and commercial demands.

It is an objective of the Council, under the Draft LAP *‘To support and facilitate the development of a waste water treatment plant in Arklow, at an optimal location following detailed technical and environmental assessment and public consultation.’*

4.6.2.3 Extraction

The lowering of water tables through groundwater extraction whether for drinking water, industrial use or through construction practices can cause problems in the context of the hydrological regime of groundwater dependant sites.

Construction activities in particular can lead to the mobilisation of contaminants and have the potential to significantly impact groundwater and subsequently surface water quality.

4.6.2.4 Climate Change

The effect of climate change on the hydrological regime of the planet is difficult to predict, even more so for a small region; however, there is the potential for heavier and prolonged rainstorms to cause more flash flooding, which can lead to an increase in diffuse pollution loads from soil runoff and increasing demand for flood alleviation, control and relief schemes. Conversely, summer droughts are also considered likely and recent research has indicated that the effects of climate change in Ireland will have serious consequences for water resources, resulting in a potential 40% reduction in drinking water supplies. Also, temperature fluctuations may give invasive alien water species a competitive advantage and alter aquatic ecosystems further.

4.7 Air, Noise and Climate

4.7.1 Baseline

4.7.1.1 Air Quality

The EPA measures the levels of a number of atmospheric pollutants throughout Ireland in order to measure compliance with Air Quality Standards Regulations, 2011 (S.I. No. 180 of 2011). For the purposes of monitoring in Ireland, four zones are defined in the Regulations:

- Zone A: Dublin Conurbation;
- Zone B: Cork Conurbation;
- Zone C: Other Cities and Large Towns; and
- Zone D: Rural Ireland which is the remainder of the State excluding Zones A, B and C.

Arklow town and its environs is located in Zone D. The air quality in Zone D as reported by the EPA report “Air Quality in Ireland 2015” is summarised in Table 4.6 below.

Table 4.6: Air Quality Assessment Zone D Concentrations compared to Air Quality Standards

Parameter	Zone	Average measured concentration ($\mu\text{g}/\text{m}^3$)	Air quality standard ($\mu\text{g}/\text{m}^3$)
NO ₂	Zone D	5.5	40
SO ₂	Zone D	2	20
CO	Zone D	500	10,000
Ozone	Zone D	63.8	120
PM ₁₀	Zone D	12.5	40
PM _{2.5}	Zone D	8	20
Benzene	Zone D	0.13	5

The Environmental Protection Agency manages the National Ambient Air Quality Network. This Network sets legislative limit and target values for protection of human health and vegetation. According to the ‘Air Quality in Ireland Report 2015’ no levels above the EU limit values were recorded in Ireland in 2015. The EPA reported that Ireland’s air quality relative to our European counterparts is of good quality.

In addition, the report compared air monitoring data to the much more stringent World Health Organisation (WHO) Guideline values. WHO guideline values were exceeded for ozone at seven monitoring sites, for daily PM₁₀ at sixteen monitoring sites and PM_{2.5} at one monitoring site.

Current and future challenges to air quality in Ireland were identified as follows:

- Reduction of solid fuel use;
- Efficient traffic management and provision of choice in terms of public transport in towns; and
- Transboundary impacts of ozone, to which Ireland’s air mass is subject.

4.7.1.2 Noise

The Environmental Noise Directive (END) (2002/49/EC) requires that action is taken by each member state, with a view to preventing and reducing environmental noise where necessary (particularly where exposure levels can induce harmful effects on human health) and to preserving environmental acoustic quality where it is good. The relevant local authorities have been designated by the Environmental Noise Regulations, S.I. Regulations No. 140 of 2006, as the bodies charged with development and making of 'Noise Action Plans'.

Wicklow County Council prepared the second Noise Action Plan for County Wicklow in 2013. This Noise Action Plan primarily considers the long term environmental noise impact from road, rail and air traffic noise sources, and sets out an approach to review noise impact levels near to the major sources assessed during the strategic noise mapping in 2012 with a view to identifying locations where noise reduction is deemed necessary in the first instance. In County Wicklow there are no major agglomerations or major airports subject to noise mapping or action planning.

Strategic Noise Maps have been prepared for all roads deemed to fall within the threshold of 3 million vehicles a year (approximately 8,250 Annual Average Daily Traffic (AADT)) in County Wicklow which equates to 103 kilometres of roads or under 5% of the total length of roads in County Wicklow.

The Noise Action Plan addressed a number of sections of major roadway that are located either within, or immediately adjacent to Arklow and its Environs area which qualified for noise mapping and, as such were subject to consideration for action planning. Major roads in Arklow which qualified for noise mapping are detailed in **Table 4.7**.

Table 4.7: Major roads in Arklow and Environs

Road	From	To	Max AADT	Approximate Length (km)
M11/N11	DLRCC County Boundary at Fassaroe	Wexford County Boundary at Cooladangan	67,000	54.0
R772	M11 Junction 20 (Arklow North)	M11 Junction 21 (Arklow South)	14,383	6.9

The plan notes that a programme for further assessment and the implementation of potential noise mitigation measures in areas above the threshold of assessment of 57dB_{L_{night}} and 70dB_{L_{den}} will be required. The general approach to be taken by Wicklow County Council in managing environmental noise in the area will seek to:

- Promote noise reduction at source;
- Encourage land use planning to comply with noise targets;
- Promote measures to reduce noise impacts;
- Issue operating restrictions to reduce noise emissions.

The plan concludes that 98.8% of the population of Wicklow County experience noise levels of less than 70dB _{L_{den}}. 1.2% of the population experience levels of greater than 70dB _{L_{den}}. In addition, 92.3% of the population of Wicklow County experience noise levels of less than 55dB _{L_{night}}. 7.7% of the population experience levels of greater than 55dB _{L_{night}}.

Since the publication of the 2013 Action Plan, the N11 Rathnew to Arklow has been completed and opened. Sections of this roadway may be subject to consideration for action planning in the next Noise Action Plan and this will be considered during the review of the Plan in 2018.

The plan notes that a programme for further assessment and the implementation of potential noise mitigation measures in areas above the threshold of assessment will be required.

Wicklow County Council has developed a detailed Programme of Works for the duration of the Noise Action Plan (2013 to 2018) and proposes to implement the programme subject to the availability of the requisite technical staff, expertise and financial resources.

4.7.1.3 Climate

The existing climate for Arklow town and environs corresponds with the general climatic conditions for the whole country which is dominated by the Atlantic Ocean and its air and oceanic currents. Consequently, the region does not suffer from extremes of temperature. According to Met Éireann, average annual temperature is about 9°C. Mean annual wind speed varies between about 4 m/sec in the east midlands and 7 m/sec in the northwest.

Average rainfall varies between about 800 and 2,800 mm. Rainfall accumulation tends to be highest in winter and lowest in early summer.

According to the United Nations Integrated Panel on Climate Change, in line with the global picture, Ireland's average temperature has increased by about 0.7°C over the last 100 years, and the rate of increase has been higher in the last couple of decades. The increase has not been uniform over time, with a warming period from 1910 to the 1940s, followed by a cooling period up to the 1960s. The current warming period commenced around 1980.

2006 was the warmest year recorded in Ireland since the record-breaking year of 1995 at both Malin Head and Phoenix Park, which have observations dating back over 100 years, and also at Casement Aerodrome, Kilkenny and Rosslare.

2016 has been recorded as the warmest year since 2006, and the last 10 years have been the warmest decade. Whilst we can be less categorical about wind speeds, there is some evidence of a reduction in annual average wind speeds, with a corresponding decrease in the frequency of high wind speeds and gusts. Increases in total annual rainfall in parts of the west and north have been observed, with some increase in the number of days with heavier rain but there is no clear pattern of change in other areas.

While the national scale of potential change is evident, translating the potential effects of climate change to a region is a process of inference on what will happen to Ireland at large being reduced to a regional scale. Temperatures in Ireland are predicted to increase by 1.25-1.5°C by 2040 compared to 1961 to 2000.

Rainfall is expected to increase in winter by about 15% and summer projections range from no change to a 20% decrease, potentially along the east coast of the country.

Studies have shown that extreme rainfall events associated with climate change show more marked changes with more events occurring in autumn and a 20% increase in 2-day extreme rain amounts, especially in northern areas. Taking the projected precipitation changes into account, there will be the potential for a significant increase in the number of extreme discharge events and a slight increase in their intensity, leading to an increased probability of flooding in the future.

The potential rise in global temperature might affect the intensity and frequency of storms in the North Atlantic. As a consequence of stormy weather there exists the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

Climate Change Targets

In December 2008, the EU Climate Change and Renewable Energy Package set out a number of commitments. This package commits to reduce the EU's Greenhouse Gas (GHG) emissions from non-Emission Trading Scheme (ETS) sectors (such as transport, agriculture, residential and waste) by 20% on 2005 levels by 2020 or by a more ambitious 30% in the event of a comprehensive global agreement.

As part of the effort-sharing proposal of this package, Ireland is one of the countries facing the highest target of a 20% reduction on 2005 levels for non-ETS sectors. This will result in a limit of approximately 38 Mt CO₂ equivalent for Ireland's non-ETS emissions in 2020, together with annual binding limits for each year from 2013 to 2020.

In October 2014, EU leaders agreed a 2030 policy framework to reduce greenhouse gas emissions by at least 40% compared to a 1990 baseline. No agreement on the contribution of individual EU Member states has yet been reached.

The Climate Action and Low Carbon Development Act was published by government in January 2015. The Act sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050.

In March 2016, the EPA reported that Ireland is unlikely to meet 2020 EU greenhouse gas targets for all sectors including transport. Current projections indicate that Ireland will be 6-11% below 2005 levels by 2020 against the target of 20%.

The publication Ireland's Environment 2016 – An Assessment (EPA, 2016) provides a high-level summary on the status of greenhouse gases and climate change in an Irish context. It describes the key drivers and pressures and responses to climate change that may occur, providing an outlook of greenhouse gas projections to 2020, and also identifies future challenges to be addressed.

4.7.2 Relevant Environmental Issues

4.7.2.1 Air

Currently there are no significant concerns with regard to air quality. There are likely to be slightly elevated levels of vehicle emissions within the urban area of Arklow however, this is the same for all urban areas. Dust and PM₁₀ can be an issue locally during the construction phase of developments.

A recent EPA report stated that emissions from cars (particulate matter and nitrogen oxides) are a major health concern and a climate change concern. However, the prospects for compliance with targets under the new EU National Emissions Ceilings Directive (2016/2284/EU) are more positive. With the exception of NO_x emissions, emissions of acidifying gases are expected to achieve prescribed target emission levels within the next few years. NO_x emissions are too expected to decline but are likely to remain considerably above the target limit.

4.7.2.2 Noise

Potential future noise mapping must be taken into account during the development of the plan. Consideration will need to be given to the following scenarios:

- Bringing people to noise through the zoning of land for new housing, schools etc. developments near to existing road noise.
- Bringing noise to people through the provision of new or altered roads, industrial sites or commercial developments which would alter the noise environment in the vicinity of noise sensitive locations.

4.7.2.3 Climate

As previously mentioned in the Water Resources Section, climate change will have an impact on the region's water resources and must be taken into account in all aspects of sustainable planning.

Further, increased rainfall intensity and stormy weather increases the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

Consideration will need to be given to the following scenarios:

- Climate change mitigation and adaptation, including effects of severe events including flooding.
- Changes in greenhouse gas emissions from increased transport, industry, development etc.

4.8 Archaeology, Architectural and Cultural Heritage

4.8.1 Baseline

Built heritage is addressed in this report under the following headings:

- Archaeological Heritage;
- Architectural Heritage; and
- Vernacular Heritage.

Wicklow County Council published the County Wicklow Heritage Plan 2009-2014 in 2009. The Heritage Plan outlined an action plan for the conservation, preservation and enhancement of Wicklow's heritage including natural heritage.

The built heritage of Wicklow refers to all man-made features, buildings or structures in the environment. This includes a rich and varied archaeological and architectural heritage to be found throughout the countryside and within the historic towns and villages of the county.

The architectural and archaeological heritage of a town, village or place contributes greatly to the distinctive character of each local area.

4.8.2 Archaeological Heritage

A record of archaeological heritage is maintained on the 'Record of Monuments and Places' which was established under Section 12 of the National Monuments (Amendment) Act, 1994 (No. 17 of 1994). Structures, features, objects or sites listed in this Record are known as Recorded Monuments.

The Record of Monuments and Places (RMP) comprises a list of recorded monuments and places and accompanying maps on which such monuments and places are shown for each county.

The National Monuments Service of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs will advise on the protection applying to any particular monument or place under the National Monuments Acts by reason of it being entered in the Record of Monuments and Places and should be consulted if there is any doubt as to the status of the site.

According to the database there are approximately 22 Recorded Monuments within the plan area. **Figure 4.15** depicts Recorded Monuments in the vicinity of Arklow and its Environs.

Any person intending to carry out works at or in relation to a Recorded Monument, or within the zone of Archaeological potential, must give the National Monuments Section of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs two months' notice in writing.

4.8.3 Architectural Heritage

As defined by the Heritage Act, 1995, 'architectural heritage' includes all structures, buildings, traditional and designed, and groups of buildings including street-scapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest.

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

Arklow has a wealth of buildings of architectural merit, including one of Wicklow's few post-Disestablishment Church of Ireland churches, St. Saviours Church, erected in 1899.

According to the Wicklow County Development Plan, there are 38 protected structures in Arklow Town, as indicated in **Table 4.8** below. One additional protected structure is identified outside Arklow Town, but within the plan boundary- The Howard Mausoleum in Fassaroe. This is a pyramid erected in 1785 as a mausoleum for the Howard family of nearby Shelton Abbey.

Owners and occupiers of protected buildings are required to ensure that buildings do not become endangered through harm, decay or damage. **Figure 4.16** depicts Recorded Structures in the vicinity of Arklow Town.

Table 4.8 Protected Structures in Arklow Town (Wicklow County Development Plan 2016-2022)

Town Plan Ref No. NIAH number (if applicable)	Structure & Address	Description
A01 16322001	St.Saviours Church, Coolgreaney Road, Arklow.	Detached multiple-bay single-storey Early English Gothic Style church, built 1899 to designs by Sir Arthur Bloomfield. The church is constructed in coursed rock-faced granite with smooth granite dressings
A02 16322008	Lamberton Water Tower, Coolgreaney Road	Detached three-stage water tower, built c.1930. The tower is constructed in reinforced concrete and comprises of a circular shaft which supports an inverted cone, which in turn supports a drum shape.

A03 16322009	Lamberton Gate Lodge, Coolgreaney Road, Arklow.	Detached two-bay one and a half-storey picturesque former gate lodge, built in 1898, and now in use as a house. The building is constructed in squared rock-faced granite with smooth granite dressings.
A04 16322011	Cemetery Gate Lodge, Emoclew Road, Arklow.	Detached three-bay single-storey Classical style gate lodge, built c.1870. The building is constructed in dressed coursed granite.
A05 16322012	Bank of Ireland, Main Street, Arklow.	End-of-terrace three-bay three-storey bank, built c.1880. The façade is finished in rusticated granite at ground floor level, with brick to the upper storeys, granite sill courses and granite coping to the parapet.
A06 16322014	St. Marys and Peters Church, Parade Ground, Saint Mary's Road, Arklow.	Detached seven-bay double-height Renaissance Style church, built 1861 to designs by Patrick Byrne. The building is finished in ashlar granite to the front north façade and squared rubble granite elsewhere; transepts to south end of the east and west sides.
A07 16322015	Fr. Michael Murphy statue, Parade Ground, Arklow.	Statue by G. Smyth of Dublin, erected in 1898 to commemorate the centenary of the death of United Irishman Fr Michael Murphy in the 1798 Rebellion
A08 16322020	1 Saint Mary's Terrace, Saint Mary's Road.	End-of-terrace three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif
A09 16322021	2 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif
A10 16322022	3 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif.
A11 16322023	4 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif
A12 16322024	5 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif.
A13 16322025	6 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey former house, built c.1870, and now in use as a solicitors' office. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif.
A14 16322026	7 Saint Mary's Terrace, Saint Mary's Road.	Terraced three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with a heavy moulded surround with keystone motif.
A15 16322027	8 Saint Mary's Terrace, Saint Mary's Road	End-of-terrace three-bay two-storey house built c.1870. The house is finished in unpainted lined render with moulded quoins. The panelled timber door is framed with pilasters with console brackets, a plain fanlight and is set within a semi-circular headed opening with heavy moulded surround with keystone motif.

A16 16322029	Arklow Railway Station, Arklow.	Detached four-bay two-storey Railway Station, built 1863. The building is finished in roughcast render with surrounds to the openings; to the north and south are small lean-to and flat-roofed recent additions. The timber sheeted door opening on to the platform is set below a gabled bracketed roof. Window openings are flat-headed and mainly with two over two timber sash frames.
A17 16322030	Navigation Beacon, North Quay, Arklow.	Free standing tall navigation beacon set on the north quay of the Arklow harbour within the tidal estuary of the Avoca River, built in the first half of the 20th century.
A18 16322031	10 Townville St. Marys Road, Arklow	Semi-detached three-bay two-storey Domestic Revival style pair of houses, built c.1900. The houses are rendered with rusticated finish to the ground floor, dry dash finish to the first floor and with moulded quoins. Each is double-gabled
A19 16322031	11 Townville St. Marys Road, Arklow	Semi-detached three-bay two-storey Domestic Revival style pair of houses, built c.1900. The houses are rendered with rusticated finish to the ground floor, dry dash finish to the first floor and with moulded quoins. Each is double-gabled. The northern house has a panelled door with plain fanlight and both are set within a flat-headed opening; and framed with an open gabled porch supported on timber brackets.
A20 16322032	Arklow School (Former), Saint Mary's Road	Detached four-bay two-storey former school, built 1878, and now in use as a house. The building is finished in roughcast render with a projecting two-storey gabled bay to the south side. The front door is now covered with a glazed porch addition which abuts a flat-roofed addition
A21 16322033	Saint Marys and Saint Peters Convent (Apartments) St. Marys Road, Arklow.	Detached nine-bay two-storey former convent built c.1880, and now converted to apartments. The building is constructed in squared semi-coursed basalt rubble with straw coloured brick dressings. To either side is a projecting hipped roof square bay in symmetrical arrangement. To the south is a chapel addition dating from the 1930s while to the rear north is a very long return
A22 16322034	48 Main Street, Arklow	Terraced five-bay two-storey former house, built c.1840, now in use as two shops. The façade is finished in painted render, whilst the pitched roof is slated and has a large rendered chimneystack to the east. To the ground floor are two non-identical timber shopfronts of c.1880
A23 16322035	22 Main Street, Arklow.	Terraced five-bay three-storey house, built c.1760, with shopfront insertion of c.1900. The façade is in brick with a granite base course, granite 'quoins' to the shopfront, and painted stone surrounds to the other ground floor openings, whilst the exposed section of the gabled east elevation is rendered. The pitched roof is slated and has brick chimneystacks
A24 16322037	85 Lower Main Street, Arklow.	Terraced single-bay two-storey former house, built c.1840, now is use as a shop
A25 16322045	2 Bridge Street, Arklow	Terraced two-bay two-storey shop with living quarters, built c.1880. The façade is finished in painted render whilst the pitched roof is covered in artificial slate and has rendered chimneystacks
A26 16322046	Arklow Bridge Arklow	Nineteen-arch stone built road bridge over the Avoca river, built c.1755. The bridge has a large central pier with cutwaters to both the north and south sides of the other smaller piers.
A27 16322047	27 Main Street, Arklow.	End-of-terrace five-bay two-storey house and shop, built c.1890. The façade is finished in brick with moulded string courses and small decorative moulded clay panels. The gabled east elevation is finished in unpainted render.
A28 16322048	AIB 23 & 24 Main Street, Arklow	End-of-terrace three-bay two-storey Queen Anne Revival style bank, built 1914. The symmetrical front elevation, which has a central full-height gabled projection, is finished ashlar limestone to the ground floor level and brick to the upper level, but with Giant order pilasters, upper floor window surrounds and eaves course also in limestone.
A29 16322058	Aberconic Masonic Hall, Ferrybank, Arklow.	Detached three-bay single-storey over tall basement Masonic hall, built 1903. The building is finished in roughcast render with moulded eaves course and base course. The panelled front door with lattice pane fanlight is set within a pointed arch opening with moulded stone surround.

A30 <i>16322059</i>	58 Ferrybank, Arklow.	End-of-terrace three-bay two-storey house/ retail unit, built c.1860. The house is finished in lined rendered with moulded quoins. The panelled front door has a decorative fanlight over and is framed with panelled pilasters with console brackets and a moulded painted surround; all is set within an elliptical-headed opening
A31 <i>16322074</i>	Arklow Methodist Church Ferrybank, Arklow.	Detached five-bay single-storey gable-ended Gothic style Methodist church, built c.1860. The church is rectangular in plan, with the façade finished in uncoursed rubble stone with dressed stone to the openings. The slated, steeply pitched gableended roof has a small octagonal spirelet to the east-facing front and a small stone chimneystack to the rear, as well as stone parapets.
A32 <i>16322079</i>	Kynoch Lodge, Sea, Road, Arklow	Detached multiple-bay single-storey double-pile timber-clad house, built c.1895, originally as a temporary structure. The house is rectangular in plan with a five-sided projecting bay to the north-west corner and two widely spaced canted bays to the south elevation.
A33 <i>16322084</i>	The Cottage, Sea Road Arklow.	Detached two-bay single-storey house, built c.1915, with later extension to the east. The building is roughly rectangular in plan but with a canted bay to the west elevation, a recessed bay to the south-east corner, and a projection to the north-east
A34 <i>16322086</i>	National Training and Development Centre (Former national school) Briggs Lane, Arklow.	Detached five-bay single-storey former national school, built 1892, and now in use as a National Training and Development Centre. The building is constructed in semicoursed rubble granite with brick dressings.
A35 <i>16322087</i>	National Training and Development Centre (Former Sunday school) Briggs Lane, Arklow.	Detached seven-bay single-storey former Sunday School hall, built c.1890, and now in use as a National Training and Development Centre. The building is constructed in semi-coursed rubble granite with brick dressings. To the north is a recent modern lean-to addition
A36 <i>16322088</i>	Kilbride Rectory, Dublin Road, Arklow.	Detached three-bay two-storey house, built c.1920. The house is finished in lined render. The panelled door has multiple-pane sidelights and sits in a slightly projecting flat-roofed recent porch addition.
A37	<i>43 Main Street, Murphy's Public House, Arklow</i>	<i>Semi-detached, four bay, three-storey house/ public house. The façade is finished in painted render with moulded quoins. Timber shopfront with panelled doors. The first floor windows are flat-headed and have plain timber sash frames, modern replacement windows on second floor.</i>
A38	4 Lower Main St, 'Liam De Paor' Arklow	Two storey, two bay, terrace house now in use as a fruit and

4.8.4 Vernacular Heritage

Vernacular Architecture describes the local regional traditional building forms and types using indigenous materials, and without grand architectural pretensions, i.e. the homes and workplaces of the ordinary people built by local people using local materials. This is in contrast to formal architecture, such as the grand estate houses of the gentry, churches and public buildings, which were often designed by architects or engineers.

The majority of vernacular buildings are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, limekilns, farmsteads, forges, gates and gate piers.

4.8.5 Relevant Environmental Issues

Continued development resulting from the unprecedented economic growth of the past decade and increasing population has increased pressure on sites or features of heritage interest.

Individually these developments put direct pressure of architectural heritage, where it is in proximity, or increases the potential to interact with known or previously unknown archaeological sites and features. Cumulatively, this results in negative impact on the overall cultural heritage resource.

The following issues were considered during the plan preparation:

- Impacts on sites of archaeological, architectural and vernacular heritage through development;
- Impacts on historic / heritage landscapes through development;
- Loss of vernacular heritage as a result of evolution of society and building use; and
- Impacts on considerable built heritage due to continued high levels of vacancy / abandonment and potential dereliction unless addressed.

4.9 Landscape and Visual

4.9.1 Landscape

The landscape of County Wicklow comprises mountains, rolling foothills, beaches, forests, lakes and attractive views and prospects. The National Park and the Wicklow Mountain range dominate the County. With the exception of a narrow coastal strip and some low ground in the south, over two thirds of the County lies above the 200 metre contour.

The plan area is located along the south east coast of County Wicklow. The Avoca River, which flows through Arklow provides an important landscape feature. The coastal location of the plan, combined with the Avoca River and Estuary- which dissects the plan area makes it sensitive to development.

The topography of the Arklow Town area is relatively low lying particularly to the north of the Avoca River where flood events have previously occurred.

A Landscape Character Assessment (LCA) of the country has recently been prepared as part of the Wicklow County Development Plan. The LCA focused on characterisation i.e. the discernment of the character of the landscape based on its land cover and landform, but also on its values, such as historical, cultural, religious and other understandings of the landscape. The purpose of this document was to assist in the development of the landscape objectives for the County Development Plan.

The County is divided into fifteen geographically specific Landscape Character Areas (LCAs). Those LCAs of interest in the Draft LAP are the Urban Areas, and the Coastal Area.

In order to inform the Landscape Character Assessment, a landscape sensitivity map was prepared. Landscape sensitivity is a measure of the ability of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values.

The sensitivity of the Avoca river channel, which flows through Arklow Town is deemed to be of medium-high to high sensitivity. The Environs of the Plan area is generally deemed to be of low sensitivity. Low sensitivity areas are those with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area.

The CORINE Land Cover (CLC) inventory is a Pan-European landuse and landcover mapping programme. It supplies spatial data on the state of the European environmental landscape and how it is changing over time. CORINE Land Cover mapping classifies land cover under various headings. The main land-use in the Plan area is discontinuous urban fabric, and pastures.

Discontinuous urban fabric comprises residential areas around the edge of urban district centres, and certain urban districts in rural areas. Pastures are dense grass cover of floral composition, dominated by graminaceae which are not under a rotation system. They are mainly used for grazing, but may be harvested mechanically.

Refer to **Figure 4.17** for CORINE Landcover Data in the vicinity of Arklow town and environs. Refer to **Figure 4.19** for environmental sensitivity mapping.

4.9.2 Visual

Scenic routes and protected views consist of important and valued views and prospects within the county. The Wicklow County Development Plan outlines all the views and prospects in the County which have been identified as being worthy of protection. One prospect identified in the County Development Plan is located in the Arklow town and environs Plan area: R750 Wicklow to Arklow, Prospect towards sea from Coast Road.

No protected views have been identified in the plan area. Refer to **Figure 4.18** for protected views and prospects in Arklow town and environs.

4.9.3 Relevant Environmental Issues

Existing pressures on landscape and visual resources are primarily related to impacts to sensitive views and landscapes resulting from the positioning of new development, infrastructure including road, rail, electricity and water-service infrastructure, without sensitivity to these resources.

The following issues were considered during the plan preparation:

- Maintenance of existing landscape character.
- Impacts on designated protected landscapes, heritage landscapes and protected views as a result of development.
- Impacts due to development on the ecological components of the landscape.

4.10 Material Assets

4.10.1 Baseline

The term ‘Material Assets’ refers to all infrastructure and local services including; transportation, water supply, wastewater treatment and discharge, waste management services, electricity supply, telecommunications etc.

4.10.2 Water Supply

The provision of an adequate supply of water and wastewater treatment facilities is critical to facilitate and sustain the growth of Wicklow over the lifetime of the County Development Plan 2016-2022 and beyond. As of January 2014 Wicklow County Council no longer has any direct control in relation to the provision of such services. The delivery, integration and implementation of water and wastewater projects and infrastructural improvements are now the responsibility of the newly established State body ‘Irish Water’.

Wicklow County Council will work closely with Irish Water to ensure that the County Development Plan and the Draft LAP continue to align with both the National Spatial Strategy and the Regional Planning Guidelines and that the provision of water/ wastewater services will not be a limiting factor in terms of targeted growth.

In February 2016, Irish Water, in partnership with Wicklow County Council, opened a new €5 million water treatment facility at Ballyduff in order to address capacity issues of water supply in the plan area, and to provide a new safe and secure water supply for Arklow town and its environs. The treatment plant at Ballyduff treats raw water which has been abstracted from the Goldmines River and delivers 4.5 ML of potable water per day. The treated water is pumped to three storage reservoirs at Lamberton from where the water is distributed throughout the town

A Remedial Action List (RAL) of problematic drinking water supplies is released by the EPA on a quarterly basis. The Remedial Action list is a public record for the supplies known to be at risk and where the EPA is requiring Irish Water to take corrective action. The EPA has instructed Irish Water to submit an action programme for the improvement of each of these supplies and has initiated enforcement action where action programmes were not being prepared or were not prepared to the satisfaction of the EPA. This includes issuing legally binding Directions requiring specific work to be carried out. The Ballyduff drinking water supply which serves Arklow town and its environs was not included on the Remedial Action list for Quarter 1 of 2017.

4.10.3 Wastewater Treatment

The Arklow Water Supply Scheme Project which has been ongoing for the last ten years and has involved a total investment of over €10 million. A 60% increase in capacity of the treatment plant will support both future growth in population and business development in Arklow.

Of particular relevance to this plan is the proposed new wastewater treatment infrastructure for Arklow. At present, untreated wastewater from homes and businesses in Arklow is discharged into the Avoca River.

Irish Water, in partnership with Wicklow County Council are currently developing plans for a proposed Arklow Wastewater Treatment Plant (WwTP) at the Old Wallboard Factory, North Quay, Ferrybank which will include:

- A new Wastewater Treatment Plant (WwTP) which will treat an estimated 36,000 PE (population equivalent) that will best meet the current needs of Arklow, and to allow for future expansion of the town;
- Sewer pipelines to bring untreated wastewater to the WwTP; and
- A marine outfall pipe to safely discharge the treated wastewater to the Irish Sea.

The programme for delivery of the WwTP project is yet to be confirmed, however the Draft LAP will take into consideration the planned implementation of wastewater treatment infrastructure within the lifetime of the plan.

4.10.4 Transport Infrastructure and Facilities

Arklow is the main centre located in the south of the County. It is serviced by good public transport facilities including the Dublin to Rosslare rail line and Bus Eireann services. In addition, the town is located on the M/N11 road link with ease of access to Dublin and Rosslare. The provision of adequate infrastructure is critical to facilitate and sustain growth.

It is acknowledged that Arklow has excellent strategic transport infrastructure including the port. The continued improvement of the local transportation network, including the provision of footpaths, cycle lanes, traffic management proposals, etc., are important considerations for incorporation into the draft plan.

4.10.5 Waste Management

Waste and recycling bin collection services have been privatised in County Wicklow for the past 15 years. The following waste collectors currently provide these services:

- Greenstar
- AWD Waste Solutions Ltd.
- Ray Whelan Ltd.
- Advance Environmental Solutions (AES)
- Oxigen Environmental Ltd.
- Ozo 24/7 Collect & Recycle
- Thornton
- Wastepal Ltd

There are no EPA waste licenced facilities within the Draft LAP Boundary. The nearest EPA waste licenced facility is the Ballymurtagh Landfill Facility which is located approximately 8km from the plan boundary.

4.10.6 Relevant Environmental Issues

Increased development including residential and industrial expansion exerts pressure on all existing material assets. The following issues were considered the plan preparation:

4.10.6.1 Water Supply

- Ongoing maintenance of water supply infrastructure.

Availability of water supplies into the future is essential to minimise pressure on existing sources. Water shortages will result in impacts to commercial and industrial developments.

Proposals for expansion or introduction of new residential and industrial facilities may result in impacts to water quality and ecosystems.

4.10.6.2 Wastewater Treatment

- Provision of new wastewater treatment infrastructure

4.10.6.3 Transportation Infrastructure and Facilities

- Achieve a sustainable balance between public and private transport modes.
- Protect lands planned for future public transport requirements from development.
- Integration of park and ride services with public transport provisions.
- Need for significant traffic management / calming measures, provision of integrated pedestrian / cyclist facilities and reduction in extent of on street car parking, etc.

4.10.6.4 Waste Management

- Limited waste management infrastructure and impacts associated with over reliance on landfill.

5 Alternatives Considered

5.1 Introduction

Three alternative scenarios for the Draft LAP were examined; (1) a scenario that focuses on the consolidation of the centre, (2) a scenario that focuses on the development of the suburbs and (3) a scenario that consolidates the centre with a rejuvenated outer centre and protection of the edge of settlement boundary. Following the examination, it is clear that there are associated costs and benefits with following any one of the alternatives. However, the ‘preferred strategy’ for the plan most closely reflects Scenario One which concentrates on consolidation of the town centre.

5.2 Alternatives Considered

5.2.1 Scenario 1: Consolidation of the town centre

- Start with existing plan, compliance with all environmental legislation and development is in compliance with the National Spatial Strategy (NSS), National Planning Framework (NPF), Regional Planning Guidelines and the County Development Plan, including Core Strategy and population target;
- Increase the density in the town centre and in the centre (lands within 1.5km of town centre zonings), at the train station and at the harbour/ waterfront, changes of use of some non-residential land to residential use;
- No new greenfield housing zoning;
- Reduction in employment zoning around periphery, existing employment is intensified and people from the county/ surrounding area travel to Arklow as it is an employment hub.
- There is an overall reduction in zoning footprint;
- It becomes a strong tourism destination – all existing tourism zonings maximised within settlement boundary (hotel, caravan park, access to the seafront and rivers, harbour);
- Transport – a second bridge over river, there is increased provision and use of public transport (bus and train);
- Social infrastructure – recreational areas and Active Open Space is provided on the periphery
- Adequate educational and community buildings/ spaces to cater for the population and surrounding rural areas population; and
- Protection of environment at minimum levels in the town centre where high density is prioritised.

5.2.2 Scenario 2: Development of the Suburbia

- Start with existing plan, compliance with all environmental legislation and development is in compliance with NSS/NPF, RPG’s and CDP, including Core Strategy and population target.
- Leave the employment zones as they are, with no reduction;
- Tourism – all zonings left as they are;
- Zoning more land for housing at existing medium density prevalent in town environs;
- Transport –No second bridge over river;
- There is no increased provision /use of public transport;
- Social Infrastructure – Recreational areas and Active OS - Zone a moderate amount of land for OS / recreation;

- Education and recreation uses are located around the periphery (private car is main mode of transport to/from);
- Protection of Environment is maximised with increased buffer zones along flood areas, buffer zone around castle site, buffers around RPS/ monuments where possible, buffer along river. Coastal zone management is fully implemented, maximum protection of urban habitats/ biodiversity areas; and
- Maximum increase of Green Infrastructure links and routes.

5.2.3 Scenario 3: Consolidated centre with rejuvenated outer centre and protection of the edge of settlement boundary

- Start with existing plan, compliance with all environmental legislation and development is in compliance with NSS/NPF, RPG's and CDP, including Core Strategy and population target;
- Increasing residential density on existing zoned town centre and 1.5km from town centre lands, no new greenfield zoning, new residential in the outer centre is at a moderate density;
- Some reduction in undeveloped employment zoning around periphery;
- Tourism – all zonings left as they are (hotel, caravan park, seafront, harbour);
- Transport – second bridge over river provided;
- There is no increased provision /use of public transport;
- Social Infrastructure – adequate educational and community buildings/ spaces to cater for population;
- Protection of environment- moderate – buffer zones provided where required, buffer along flood; and areas/ rivers, Green Infrastructure links and routes enhanced.

5.3 Assessment of Alternatives

This section provides an assessment of the alternative development scenarios.

5.3.1 Development Scenario 1

Scenario 1 seeks to address the existing shortfall of housing in Arklow by concentrating development in the town centre through the provision of high density housing. It also seeks to limit the sprawl of the town by disregarding new greenfield housing zoning, and by reducing the overall zoning footprint around the periphery. Open Space and Recreation zonings will be prioritised on the periphery, ensuring reduced in development in the wider environs of Arklow.

The centralisation of development in Arklow town centre is likely to result in a positive environmental impact, compared to the other scenarios.

Much of the town centre is already zoned for residential development, so by increasing the density of these zonings rather than zoning new greenfield land for housing, additional environmental impacts can be avoided. Similarly, by changing the use of non-residential to residential zonings in the town, housing can be provided in Arklow without having to develop on greenfield land on the periphery. This centralisation of development in the town will have a positive impact on Population and Human Health, as well as Air Quality and Climate as it limits the sprawl of the town, reduces traffic movements and encourages more sustainable transport methods.

Thus, in order to reinforce a high-density, centralised development scenario, arrangements are also made within this scenario for the increased provision and use of public transport, as well as the provision of new infrastructure in the town- a second bridge over the Avoca River. This will bring about more convenient, efficient and sustainable forms of mobility in the town and facilitate an increase in the urban population.

A high population density in Arklow town centre could however put a strain on material assets, and it should be ensured that there is sufficient water and wastewater capacity to facilitate high density residential zonings. High density housing can also result in a landscape and visual impact if residential units are too intrusive.

This development scenario seeks to promote Arklow as an employment hub through the intensification of existing employment zonings. This is likely to have a positive impact on the LAP area in that it will increase the employment opportunity, development and overall prosperity of the area. However, as existing employment zonings are not necessarily centralised in Arklow town, this aspect of Scenario 1 has the potential to have a negative impact on traffic movements and subsequent air quality in the LAP area. Consideration should be given to ensuring that the planned improvements to the public transport networks involve increased access to the most intensified employment areas.

Another aspect of this development zoning is the objective of the Council to transform Arklow into a prime tourism destination. The promotion of Arklow as a prime tourist destination will have a positive impact on the LAP area in that a greater influx of people into Arklow will lead to economic development and increased external investment. However, the potential negative impacts from increased human interaction with the environment of Arklow should be considered. There is also potential for a negative impact on material assets due to a strain on the capacity of the town's utilities during peak tourist season.

A reduction in zoning footprint means less development- which ultimately results in a reduced environmental impact. Similarly, the provision of open space and recreational areas on the periphery of the LAP area will have a positive impact on the environment in general as it means reduced development in the environs of Arklow. This zoning will also have a positive impact on the population of Arklow, in that it represents the provision of an amenity which is deemed beneficial for general health and wellbeing.

The provision of educational and community buildings in the LAP area will have a positive impact on the population of Arklow through the provision of a necessary service.

The execution of minimum environmental protection in the town is predicted to have a neutral impact on the environment in general.

5.3.2 Development Scenario 2

Scenario 2 seeks to utilise existing capacity of the LAP area and zone for development on the periphery of Arklow. This includes zoning more land for housing at existing medium density in the town environs, as well as land for education and recreation. Private car is expected to be the main form of transport to and from these areas.

This development scenario has the potential to have a positive impact on the population of the LAP area through the provision of new residential zoning to make up for the shortfall in housing capacity in Arklow, as well as through the provision of necessary services. However, Greenfield development is not considered a desirable alternative. Any development on previously undeveloped lands has the potential to result in a negative environmental impact on Biodiversity, Soils and Geology, Water Resources, Landscape and Visual and Material Assets due to development on previously undeveloped lands.

Many aspects of the existing plan are to remain the same as per the existing LAP under this development scenario. All tourism and employment zonings are to be left as are, and the scenario does not account for an increase in the provision of public transport and transport infrastructure. This ultimately represents the baseline situation of the LAP area, and environmental impact is considered to be neutral in this instance.

This scenario seeks to employ a maximum level of environmental protection through the increased implementation of buffer zones along flood areas, the castle site, protected structures and monuments where possible and along the Avoca River. Under this development scenario, coastal zone management is fully implemented and maximum protection of urban habitats and biodiversity areas is executed.

In addition, the development scenario seeks to increase, at a maximum level, Green Infrastructure links and routes throughout the LAP area. A moderate amount of land will also be zoned for open space and recreation under this scenario.

The execution of maximum protection of the environment and implementation of Green Infrastructure and open space will have a positive impact on the environment in general with regards Biodiversity, Soils and Geology, Air Quality, Noise and Climate, Water and Hydrology and Landscape and Visual.

However, the impacts of development on unzoned land on the periphery have the potential to counteract some of these provisions for environmental enhancement and protection and this has been considered in the assessment of alternatives process.

5.3.3 Development Scenario 3

Scenario 3 seeks to address the existing shortfall of housing in Arklow by concentrating development in the town centre and lands located within 1.5km from the town centre. Under this development scenario, high density housing will be provided for in the town centre, and medium density housing will be provided for in the outer centre. Concentrating residential development in the town centre is expected to result in a positive environmental impact. Much of the town centre is already zoned for residential development, so by increasing the density of these zonings rather than zoning new greenfield land for housing, additional environmental impacts can be avoided. The increase in density will have a positive impact on Population and Human Health, as well as Air Quality and Climate as it limits the urban sprawl of the town, reduces traffic movements and encourages more sustainable transport methods.

A high population density in Arklow town centre could however put a strain on material assets, and it should be ensured that there is sufficient water and wastewater capacity to facilitate high density residential zonings. High density housing can also result in a landscape and visual impact if residential units are too intrusive.

Scenario three also seeks to limit development on the periphery through the reduction in undeveloped employment zoning. A reduction in zoning footprint means less development- which ultimately results in a reduced environmental impact. However, reduction in this type of zoning can also be considered as a negative impact as it limits the opportunity for employment and development.

This scenario seeks to provide new transport infrastructure in Arklow through the provision of a new bridge over the Avoca River. Development of any kind has the potential to have a negative impact on Biodiversity, Soils and Geology, Water Resources, Heritage and Landscape and Visual. However, the provision of new infrastructure is expected to result in a positive impact on Human Health. While the provision of a new bridge over the Avoca River will facilitate the use of private car transport in the town, it is important to note that no provisions are made for the increased use or provision of public transport in the LAP area.

Alternative development scenario three seeks to provide adequate educational and community buildings/spaces to cater for the population of Arklow town and environs. For the assessment of this alternative scenario, it is assumed that the land in question is already zoned for development, and where additional lands are required, change of use of existing employment zonings on the periphery may be considered.

The development of educational and community buildings in the LAP area will have a positive impact on Population and Human Health through the provision of required services. However, a potential change-in-use of existing employment zonings could also be considered as having a negative impact with regards employment opportunity.

The execution of maximum protection of the environment and implementation of Green Infrastructure and open space under this development scenario will have a positive impact on the environment in general with regards Biodiversity, Soils and Geology, Air Quality, Noise and Climate, Water and Hydrology and Landscape and Visual.

5.4 Preferred Development Scenario

The emerging preferred development scenario for the Arklow LAP from an environmental perspective is Scenario 1: consolidation of the town centre, as outlined in Section 5.3.1.

Arklow town centre’s role is to be the focus for community life and economic activity of the settlement and its hinterland. The town centre is a major source of the town’s identity. The concentration of shops, places of employment, leisure venues and meeting places characterises the town centre. The accommodation of these uses and functions and the management of the pressures they create is the key to a successful and vibrant town centre.

Traditionally the town centre consisted of a wide range of uses that included residential, retail, services, social and cultural activities. However, with the development of the town and the increased use of the private car, newest developments in the town have occurred outside of the town centre. As a consequence, there has been a decline in many of the traditional town centre uses. This has the result that there are many areas within Arklow town centre that are in need of renewal and redevelopment.

This LAP sets out a ‘Town Centre Strategy’ where the primary focus is on the reinvigoration of the main street. The town centre is compact with numerous opportunities for higher residential densities with redevelopment, backland and infill developments. It is estimated that there is capacity for up to 250 new residential units in the town centre along with the new units from the identified opportunity sites.

Existing residential areas have potential development sites with small and large gap infill, unused /derelict land, backland areas and side gardens. Infill proposals will generally be permitted where it can be clearly demonstrated that the proposal respects the existing character of the area and would not have an adverse impact on the amenity of neighbouring properties. It is estimated that there is infill capacity for 150 units.

It is an aim of this plan to focus new residential development into the existing centre of the settlement; however, the centre is not sufficient in size and scope to accommodate all of the required future housing growth of Arklow. In this regard, new residential development is also provided for on lands zoned ‘new residential’ at locations outside of the centre. ‘Edge of centre’ locations will be considered the priority, while ‘out of centre’ housing sites will only be considered on the basis of integrated housing / community facilities / open space schemes that can be well connected to the already built up area.

The assessment process categorised environmental impacts using the ratings outlined in **Table 5.1** which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 5.1 Impact Ratings

Significance of Impact	
Positive	Positive
Neutral	Neutral
Negative	Negative

	Uncertain
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Table 5.2 Environmental Assessment of Alternatives

	Description of Scenario	SEA Environmental Objectives							
		Biodiversity	Population & Health	Soils and Geology	Water Resources	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets
Scenario 1	Start with existing plan, compliance with all environmental legislation and development is in compliance with NSS/NPF, RPG's and CDP, including Core Strategy and population target	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Increase the density in the town centre and in the centre (lands within 1.5km of town centre zonings), at the train station and at the harbour/ waterfront, changes of use of some non-residential land to residential use.	Blue	Green	Blue	Blue	Green	Blue	Red	Red
	No new greenfield housing zoning.	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Reduction in employment zoning around periphery, existing employment is intensified and people from the county/ surrounding area travel to Arklow as it is an employment hub	Green	Green	Green	Green	Yellow	Blue	Green	Green
	There is an overall reduction in zoning footprint	Green	Yellow	Green	Green	Green	Green	Green	Green
	It becomes a strong tourism destination – all existing tourism zonings maximised within settlement boundary (Hotel, caravan park, access to Seafront & rivers, harbour)	Red	Green	Red	Red	Red	Red	Blue	Red
	Transport – a 2 nd bridge over river, there is increased provision and use of public transport (bus and train)	Red	Green	Red	Red	Green	Red	Red	Blue
	Social Infrastructure – Recreational areas and Active OS is provided on the periphery	Green	Green	Green	Green	Green	Green	Green	Blue
	Adequate Educational and Community buildings/ spaces to cater for the population and surrounding rural areas population	Blue	Yellow	Blue	Blue	Blue	Blue	Blue	Blue
	Protection of Environment at minimum levels in the town centre where high density is prioritised	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
Scenario 2	Start with existing plan, compliance with all environmental legislation and development is in compliance with NSS/NPF, RPG's and CDP, including Core Strategy and population target.	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Leave the employment zones as they are, with no reduction	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Tourism – all zonings left as they are	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue

	Description of Scenario	SEA Environmental Objectives							
		Biodiversity	Population & Health	Soils and Geology	Water Resources	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets
	Zoning more land for housing at existing medium density prevalent in town environs	Red	Green	Red	Red	Red	Yellow	Red	Red
	Transport –No 2 nd bridge over river	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	There is no increased provision /use of public transport	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Social Infrastructure – Recreational areas and Active OS - Zone a moderate amount of land for OS / recreation.	Green	Green	Green	Green	Green	Blue	Green	Blue
	Education and recreation uses are located around the periphery (private car is main mode of transport to/from)	Red	Green	Red	Red	Red	Red	Red	Red
	Protection of Environment is maximised with increased buffer zones along flood areas, buffer zone around castle site, buffers around RPS/ monuments where possible, buffer along river. Coastal zone management is fully implemented, maximum protection of urban habitats/ biodiversity areas	Green	Green	Green	Green	Green	Green	Green	Green
	Maximum increase of Green Infrastructure links and routes	Green	Green	Green	Green	Green	Green	Green	Blue
Scenario 3	Start with existing plan, compliance with all environmental legislation and development is in compliance with NSS/NPF, RPG's and CDP, including Core Strategy and population target.	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Increasing residential density on existing zoned town centre and 1.5km from town centre lands, no new greenfield zoning, new residential in the outer centre is at a moderate density.	Blue	Green	Blue	Blue	Green	Blue	Red	Red
	Some reduction in undeveloped employment zoning around periphery	Green	Yellow	Green	Green	Green	Green	Green	Green
	Tourism – all zonings left as they are (Hotel, caravan park. Seafront, harbour)	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Transport – 2 nd bridge over river provided.	Red	Green	Red	Red	Yellow	Red	Red	Yellow
	There is no increased provision /use of public transport	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Social Infrastructure – Adequate Educational and Community buildings/ spaces to cater for population	Blue	Yellow	Blue	Blue	Blue	Blue	Blue	Blue

	Description of Scenario	SEA Environmental Objectives							
		Biodiversity	Population & Health	Soils and Geology	Water Resources	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets
	Protection of Environment- moderate – buffer zones provided where required, buffer along flood areas/ rivers, Green Infrastructure links and routes enhanced.								

6 SEA Objectives, Targets and Indicators

6.1 Introduction

The SEA is designed to assess the potential environmental impact of the policies of the revised LAP against the environmental baselines established.

The policies and associated recommendations are assessed against a range of established environmental objectives and targets. Indicators that are recommended in the SEA are utilised over the lifetime of the LAP to quantify the level of impact that the policies and recommendations have on the environment. This enables us to measure whether they were successful in promoting the sustainable development of the County.

6.2 Environmental Objectives

The formation of the environmental objectives required cognisance of the environmental protection objectives established at a range of levels through the legislation and guidelines outlined in Chapter 2. Global, EU and national level legislation, policy and associated environmental objectives were utilised to develop the environmental objectives for the Draft LAP.

The objectives outlined below are also placed in the context of and linked into the development of the draft policies and recommendations to ensure that the objectives are appropriate for Arklow and its Environs.

The environmental objectives are also linked to appropriate targets and indicators outlined in the following sections. The environmental objectives are as follows:

- **Biodiversity**
 - Conserve and protect the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.
- **Population and Human Health**
 - Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.
- **Land and Soils**
 - Protect quality and quantity of existing soil and geology.
- **Water**
 - Improve/maintain and protect water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development.
- **Air, Noise & Climate**
 - Maintain and promote continuing environmental improvement, in particular a reduction in greenhouse gas emissions and an improvement in air (including noise emissions).

- **Archaeological, Architectural and Cultural Heritage**
 - Promote the protection and conservation of the archaeological, architectural and cultural heritage
- **Landscape and Visual**
 - Conserve and enhance valued natural and historic landscapes and features within them.
- **Material Assets**
 - Make best use of existing infrastructure, promote the sustainable development of new infrastructure and promote the sustainable efficient use of resources.

6.3 Environmental Targets

Each of the Environmental Objectives has a range of Environmental Targets which the LAP Policies and Recommendations are aimed towards. These targets need to be quantifiable to ensure that monitoring can be carried out effectively. The following targets have been established to direct the sustainable implementation of the Policies and Recommendations and to ensure that the environment is maintained and/or improved where possible.

Biodiversity

- Consider siting of new development on non-sensitive sites.
- Improve/conservate and protect all designated sites and species within and adjacent to the Plan area.
- Deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a “favourable conservation status.
- Promote the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders.
- Protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and avoid pollution or deterioration of important bird habitats outside SPAs.
- Improve the ecological coherence of Natura 2000 by encouraging the management of, maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.
- Protect NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation.
- Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors and linear and stepping stone features for migration, dispersal and exchange of wildlife.
- Improve access for the appreciation and promotion of wildlife.

Population and Human Health

- Minimise population exposure to high levels of noise, vibration and air pollution.
- Increase modal shift to public transport.
- Co-ordinate land use and transportation policies.
- Improve access to recreation opportunities.

Land and Soils

Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site.

- Ensure polluting substances are appropriately stored and banded.
- Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation.
- Re-use of brownfield lands, rather than developing Greenfield lands, where possible.
- Minimise the consumption of non-renewable sand, gravel and rock deposits.

Water

- Support the achievement of “good” ecological and chemical status/potential of waterbodies in accordance with the Water Framework Directive.
- Minimise flood risk through appropriate management of flood vulnerable zones.
- Promote sustainable drainage practices to improve water quality and flow

Air, Noise & Climate

- Minimise air and noise emissions during construction and operation of new developments.
- Promote reduction of greenhouse gas emissions to the atmosphere.
- Limiting climate change and adapting to climate change.

Archaeological, Architectural and Cultural Heritage

- Regeneration of derelict and underutilised heritage sites.
- Improve appearance of areas with particular townscape character.
- Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential.
- Enhance access to sites of heritage interest.

Landscape & Visual

- Improve protection for landscapes of recognised quality.
- Maintain clear urban/rural distinctions.
- Enhance provision of, and access to, green space in urban areas.
- Ensure development is sensitive to its surroundings.

Material Assets

- Improve availability and accessibility of commercially provided facilities and public services.
- Increase local employment opportunities.
- Improve efficiencies of transport, energy and communication infrastructure.
- Promotion of sustainable transport infrastructure i.e. increased public transport.
- Reduce the generation of waste and adopt a sustainable approach to waste management.

6.4 Environmental Indicators

The assessment of Policies and Recommendations with respect to the Environmental Objectives and Targets is required to be measurable. The Environmental Indicators need to be capable of the following:

- Describing trends in the baseline environment.
- Demonstrating the likely significant impact of the implementation LAP.
- Being used in a monitoring programme.
- Providing an early warning of significant unforeseen adverse effects.
- Prioritising key environmental impacts.
- Ensuring the number and range of environmental indicators are manageable in terms of time and resources.

Consequently, a range of Environmental Indicators required to assess the level of impact on the environment are outlined in **Table 6.1**.

Table 6.1 Environmental Indicators

Item	Draft SEA Indicator
Biodiversity	Number and extent of Protected Sites. Areas actively managed for conservation. Population and range of Protected Species. Achievement of the Objectives of Biodiversity Plans.
Population & Health	Census population data. Rates of Unemployment per area. % increase in housing (number and type).
Soils & Geology	Rates of re-use / recycling of construction waste. Rates of cement / concrete production. Rates of brownfield site and contaminated land reuse and development. Rates of greenfield development.
Water Resources	Compliance of potable water sources with water quality regulations. Compliance of surface waters with national and international standards. Potable and wastewater treatment capacities versus population. % of wastewater receiving tertiary treatment. Achievement of the Objectives of the River Basin Management Plans. Amount of new developments within flood plains. Annual costs of damage related to flood events.

Item	Draft SEA Indicator
Air, Noise & Climate	<p>Traffic, Transport and Vehicular survey data.</p> <p>National and region specific emission data.</p> <p>Compliance with national standards.</p> <p>Reduction in greenhouse gas emissions.</p> <p>Number and extent of emission licensed facilities.</p> <p>Number of energy / renewable energy production facilities.</p> <p>Rates of energy / renewable energy consumption.</p>
Heritage	<p>Updating of inventories to include new sites / features.</p> <p>Achieving the objectives of development plans regarding heritage protection.</p> <p>Range and extent of areas of heritage potential.</p> <p>Range and extent of areas of special planning controls.</p>
Landscape & Visual	<p>Range and extent of Amenity Landscapes.</p> <p>Rates of development within designated landscapes.</p> <p>Rates of urban expansion.</p> <p>Rates of deforestation.</p> <p>Rates of agricultural land re-development.</p> <p>% change of land use from rural to urban.</p>
Material Assets	<p>Location / level of Infrastructure.</p> <p>Achievement of development plan objectives.</p> <p>Rates of deprivation.</p> <p>Rate of waste disposal to landfill statistics.</p> <p>Range and extent of recycling facilities and services.</p> <p>Rates of recycling.</p>

7 Assessment of Likely Significant Effects

7.1 Introduction

The approach used for assessing likely significant impacts was objectives led. The assessment was primarily qualitative in nature, with some assessment based on expert judgement. This qualitative assessment compares the likely impacts against the Strategic Environmental Objectives to see which Policies and Recommendations meet the Strategic Environmental Objectives and which, if any, contradict these.

Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes within the Wicklow/Greater Dublin Area.

Particular regard was also paid to the need for the sustainable development of ecological resources (including the conservation of fish and other species of fauna and flora, habitats and the biodiversity of water ecosystems and commercial and natural fisheries) as economic resources. In conjunction with the Habitats Directive Assessment due consideration was given to potential significant impacts of the policies and recommendations on ecological resources for the following areas:

- Surface and ground water quality.
- Surface water hydrology.
- Fish spawning and nursery areas.
- Passage of migratory fish.
- Areas of natural heritage importance.
- Designated marine protected areas.
- Biological diversity.
- Ecosystem structure and functioning.
- Seabirds and marine mammals.
- Fish and shellfish cultivation.
- Sport and commercial fishing and angling.
- Amenity and recreational areas.
- Mineral and aggregate resources.
- Sediment transport and coastal erosion.
- Navigation.
- Other legitimate use of the sea.

7.2 Assessment of Environmental Impacts

The environmental impacts of the LAP objectives were assessed with respect to the existing environmental baseline as outlined in Chapter 4 and the environmental objectives listed in Chapter 6.

The assessment process categorised environmental impacts using the ratings outlined in **Table 7.1** which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 7.1 Impact Ratings

Significance of Impact	
	Neutral
	Positive
	Negative
	Uncertain

The matrix outlined in **Table 7.2** highlights these potential impacts. It assesses all policies and objectives in the plan. This assessment outlines an unmitigated scenario. Where potential impacts are identified, it is expected that these can be mitigated through the implementation of the mitigation measures outlined in Section 8.1.

The environmental impacts of the LAP land zonings were also assessed. The matrix outlined in **Table 7.3** highlights these potential impacts. It provides a site specific assessment of the potential impacts associated with any change in land use zonings throughout the LAP area.

It is important to note that while the planning objectives outlined in the Wicklow County Development Plan (CDP) have not been repeated, they are applicable to the Draft LAP.

Having regard to the objectives of the CDP, in particular objectives NH1, NH8, NH24, NH36, NH20, NH21, NH23, BH1, BH2, BH3 BH9, BH10, it is assumed that the necessary provisions for the protection of biodiversity, land and soils, water and heritage will be undertaken prior to any development within the LAP area.

Table 7.2 Environmental Assessment of Objectives

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
Residential Development Objectives										
H1	All new housing developments shall be required to accord with the housing objectives and standards set out in the Wicklow County Development Plan.									This is existing policy, and therefore represents the baseline situation. An SEA has been prepared as part of the Wicklow County Development Plan. A neutral Environmental impact is envisaged.
H2	Notwithstanding the zoning / designation of land for residential purposes, the Development Management process shall monitor and implement the population targets of this plan and shall phase and restrict, where necessary, the granting of residential planning permissions to ensure these targets are not exceeded									Maintaining population targets (as per County Development Plan and Regional Planning Guidelines) is existing policy, and therefore represents the baseline situation. A neutral environmental impact is envisaged.
H3	In order to make best use of land resources and services, unless there are cogent reasons to the contrary, new residential development shall be expected to aim for the highest density indicated for the lands. The Council reserves the right to refuse permission for any development that is not consistent with this principle.									See site specific zoning assessment for an assessment of the impact of proposed 'new-residential' land throughout the LAP area.
H4	The development of zoned land should generally be phased in accordance with the sequential approach as set out in the County Development Plan. The Council reserves the right to refuse permission for any development that is not consistent with these principles.									This is existing policy, as these provisions are already set out in the County Development Plan. A neutral environmental impact is envisaged.
H5	Housing development shall be managed and phased to ensure that infrastructure and in particular, community infrastructure, is provided to match the need of new									See site specific zoning assessment for an assessment of the impact of proposed 'new-residential' land throughout the LAP area. This objective is likely to result in a positive impact on population and human health through

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
	residents. Where specified by the Planning Authority, new significant residential or mixed use development proposals, may be required to provide a social and community facility/facilities as part of the proposed development or the developer may be required to carry out a social infrastructure audit, to determine if social and community facilities in the area are sufficient to provide for the needs of the future residents. Where deficiencies are identified, proposals will be required to either rectify the deficiency, or suitably restrict or phase the development in accordance with the capacity of existing or planned services.										<p>the possible provision of social/community facilities.</p> <p>In ensuring that housing development shall be managed and phased to ensure that infrastructure is provided to match the need of new residents, a strain on existing utilities in an area can be avoided, resulting in a positive impact on material assets.</p> <p>The provision of new residential areas may result in a positive impact on population and human health through new housing opportunities in Arklow.</p>
H6	To encourage in-fill housing developments, the use of under-utilised and vacant sites and vacant upper floors for accommodation purposes and facilitate higher residential densities at appropriate locations, subject to a high standard of design, layout and finish.										<p>It is assumed that this objective does not include any greenfield development.</p> <p>By facilitating high-density as well as in-fill housing developments, and by utilising vacant sites and upper floors, consolidation of the town centre is prioritised and previously un-developed lands on the periphery can be left as are. A largely neutral environmental impact is envisaged.</p> <p>This objective is expected to result in a positive impact on population and human health through the provision of housing.</p> <p>High density housing is likely to result in a negative visual impact. Refer to Table 8.1 for mitigation measures.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
										While the impact on material assets may be considered negative, as high density housing can cause a strain on utilities, it can also be considered to be positive- as the infrastructure in developed areas should already be in place and no major infrastructure works should be required. This analysis results in an uncertain impact for the basis of this assessment.
H7	To encourage a greater usage of backland areas in the town centre and to promote the redevelopment of sites in the town centre where development will positively contribute to the commercial and residential vitality of the town centre.									<p>It is assumed that this objective does not include any greenfield development.</p> <p>By encouraging a greater use of backland areas and by promoting the redevelopment of certain town centre sites, consolidation of the town centre is prioritised and previously un-developed lands on the periphery can be left as are. A largely neutral environmental impact is envisaged, as the land in question is already zoned for development.</p> <p>This objective will likely result in a positive impact on population and human health through the provision of commercial and residential services.</p>
H8	Lands at Tinahask (Action Areas 1 & 2), Kilbride (Action Area 3) and Coolboy (AA4) shall be developed as comprehensive (not piecemeal) integrated schemes that allow for the sustainable phased and managed development of each action area during the plan period.									See site specific zoning assessment for an assessment of the impact of development at Tinahask, Kilbride and Coolboy.

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
Economic Development and Employment Objectives										
ED1	To facilitate and support all forms of employment creation on appropriately zoned land in Arklow and to promote the intensification of activities on existing employment sites and to take advantage of the existing economic assets in order to stimulate further employment within the area.									<p>No new employment lands have been zoned under the Draft 2017-2023 LAP- see site specific zoning assessment. This is the baseline scenario and a largely neutral environmental impact is envisaged.</p> <p>The intensification of activities on existing employment zones is likely to result in a positive impact on population and human health through the provision of jobs.</p> <p>The intensification of existing activities may result in an uncertain impact on material assets. Intensified employment activities could result in a strain on utilities- resulting in a negative impact on material assets. However, it should also be considered that infrastructure in existing employment areas should already be in place and no major infrastructure works should be required- this could be considered a positive impact. This analysis results in an uncertain impact for the basis of this assessment.</p>
ED2	To promote and facilitate the development of employment generating uses that maximise Arklow’s locational strengths along the east coast ‘strategic transport corridor’ and the potential of the ‘Leinster Outer Orbital Route’.									<p>No new employment lands have been zoned under the LAP 2017-2023. See site specific zoning assessment. This is the baseline scenario and a largely neutral environmental impact is envisaged.</p> <p>The promotion of employment in the LAP area is likely to result in a positive impact on population and human health through provision of jobs.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
ED3	To encourage the redevelopment of brownfield sites for enterprise and employment creation throughout the settlement and to consider allowing 'relaxation' in normal development standards on such sites to promote their redevelopment, where it can be clearly demonstrated that a development of the highest quality, that does not create an adverse or unacceptable working environment or create unacceptable impacts on the built, natural or social environment, will be provided.									<p>No new employment lands have been zoned under the LAP 2017-2023. See site specific zoning assessment.</p> <p>The encouragement of redevelopment of brownfield sites for employment in appropriately zoned lands may result in a neutral impact on many environmental factors- as the land in question has already been developed.</p> <p>However, it is uncertain as to what impact the re-development of brownfield sites for employment creation may have on landscape and visual- as it is unclear as to what lands will be subject to development, and what development was there previously. New development could be more, or less visually intrusive than a previous development.</p> <p>The impact on material assets is deemed uncertain, as the re-development of brownfield sites for employment could result in a strain on utilities, resulting in a negative impact on material assets. However, it should also be considered that as the brownfield sites have already been developed, the infrastructure required to support the re-development could already be in place, and no major infrastructure works would be required. This analysis results in an uncertain impact for the basis of this assessment.</p>
ED4	To promote and facilitate the development of large-scale employment generating developments, including industrial, knowledge, high-technology, office and service based and science space developments, at appropriate locations.									<p>No new employment lands have been zoned under the LAP 2017-2023. See site specific zoning assessment. This is the baseline scenario and a largely neutral environmental impact is envisaged.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
										<p>The promotion of large-scale employment is likely to result in a positive impact on population and human health through the provision of job opportunities.</p> <p>The impact on material assets is deemed to be potentially negative, as large-scale employment generating developments could result in a strain on utilities. Refer to Table 8.1 for mitigation measures.</p>
ED5	To support and facilitate existing and future commercial port activities and to resist developments that would undermine the commercial potential of the port area.									<p>This represents the baseline scenario, and a natural environmental impact is envisaged.</p> <p>By WCC supporting and facilitating existing and future commercial port activities, a positive impact on population and human health is envisaged-through job creation.</p>
ED6	To facilitate and encourage the exploration and exploitation of minerals on land zoned 'Extractive Industry' in a manner, which is consistent with the principle of sustainability and protection of residential, environmental and tourism amenities.									<p>There is no change in existing land zonings- this represents the baseline scenario. A neutral environmental impact is envisaged.</p> <p>The lands zoned for 'extractive industry' include an area of land that makes up the Arklow Rock Askintinny PNHA. As this is an ecologically designated site, there is potential for a negative impact on Biodiversity. Refer to Table 8.1 for mitigation measures.</p> <p>The facilitation and encouragement of the exploration and exploitation of minerals in appropriately zoned lands will like result in a positive impact on population and human health through job creation.</p>

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
ED7	<p>In relation to the Prevention of Major Accidents (Control of Major Accident Hazards Involving Dangerous Substances) legislation, it is an objective to:</p> <ul style="list-style-type: none"> comply with the Seveso III Directive in reducing the risk and limiting the potential consequences of major industrial accidents; where proposals are being considered for the following: (i) new establishments at risk of causing major accidents, (ii) the expansion of existing establishments designated under the Directive, and (iii) other developments proposed near to existing establishments; the Council will require that applicants must demonstrate that the following considerations are taken into account: (i) prevention of major accidents involving dangerous substances, (ii) public health and safeguarding of public health, and (iii) protection of the environment; ensure that land use objectives must take account of the need to maintain appropriate distances between future major accident hazard establishments and residential areas, areas of 										<p>This represents compliance with existing legislation. This is the baseline scenario and a neutral environmental impact is envisaged.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
	substantial public use and areas of particular natural sensitivity or interest; and <ul style="list-style-type: none"> have regard to the advice of the Health and Safety Authority when dealing with proposals relating to Seveso sites and land use plans in the vicinity of such sites. 									
Objectives for employment lands at Money Big/Bogland										
	<ul style="list-style-type: none"> To promote and facilitate the development of larger scale employment generating developments on these ‘E Special’ zoned lands at Bogland. To resist the development of a business/office park type development of these ‘E Special’ employment-zoned lands. 									See site specific assessment. Lands at Money Big/Bogland are already zoned for employment under the existing 2011-2017 Development Plan. This represents the baseline scenario and a largely neutral environmental impact is envisaged. The promotion of larger scale employment generating developments is likely to result in a positive impact on population and human health through job creation. A negative impact on material assets may occur; as intensive industry could cause a strain on local utilities. Refer to Table 8.1 for mitigation measures.
Objectives for employment lands at Shelton Abbey										
	<ul style="list-style-type: none"> To promote and facilitate the development this site for a large-scale employment development, 									See site specific assessment. Lands at Shelton Abbey are already zoned for employment under the existing

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
	<ul style="list-style-type: none"> To facilitate the current business park use, Any significant development proposal for this site shall incorporate proposals to develop a landscaped linear open space park along the river bank. 									<p>2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The promotion of larger scale employment generating developments is likely to result in a positive impact on population and human health through job creation. The creation of a linear open space may also result in a positive impact on population and human health through provision of amenity services.</p> <p>A negative impact on material assets may occur; as intensive industry could cause a strain on local utilities. Refer to Table 8.1 for mitigation measures.</p>
Arklow Town Centre Strategy Objectives										
VP1	To maintain the Main Street as the principal vehicular route through the town centre and to maintain the main vehicular routes to the waterfront area along the quays; to exploit any opportunities that arise to improve safety for both pedestrians and vehicles in the Town Centre and Waterfront area.									<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The exploitation of opportunities to improve safety for pedestrians and vehicles is likely to result in a positive impact on population and human health.</p>
VP2	To promote the pedestrian use of all 'dark pink' routes and avail of any opportunities to improve footpaths and pedestrian routes within in the Town Centre Strategy boundary and to the Waterfront zone, Wexford Road and Train Station along the main roads and key pedestrian routes.									<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The promotion of pedestrian use of dark pink routes and the improvement of footpaths and pedestrian routes is likely to result in a positive impact on population and human health. It may also result in a positive impact on air, noise and climate through the promotion of sustainable forms of development.</p>

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
VP3	To facilitate the improvement of existing and the development of new linkages from the Main Street to car parks, amenity areas, the train station and the waterfront zone; in particular, in the Town Centre Strategy area to require redevelopment proposals that have frontage on both Main Street and any 'dark pink' route to include new pedestrian routes through the site.										<p>Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged.</p> <p>The improvement and development of linkages in the town centre is likely to result in a positive impact on population and human health.</p>
VP4	<p>With regard to car parking to facilitate the following;</p> <ul style="list-style-type: none"> to maintain existing and provide new car parking options as funding allows, in proximity to the Main Street and along 'dark pink' routes. to avail of opportunities to remove public on street car parking on the Main Street and at amenity areas, subject to due consideration of the commercial needs of Main Street, including loading parking. to require new development on the Main Street to incorporate pedestrian links, where feasible, to existing or new public car parks. deviations from the minimum car parking requirement (as set out the County Development Plan) shall be considered in the Main Street Strategy area as shown on Map 5.1 where a 									<p>Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged.</p> <p>The provision of car-parking and new pedestrian links in the town-centre will likely result in a positive impact on population and human health.</p>	

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
	public car park is within 200m walking distance to the site. In such cases, only the needs of long-term users (e.g. employees and residents of the development) will have to be addressed by the developer.										
VP5	<p>With regard to public transport to facilitate the following;</p> <ul style="list-style-type: none"> the improvement of public transport user facilities including, shelters, covered bicycle parking, information points with maps, routes, timetables, real-time information and designated taxi ranks at / near the bus stops on Main Street and the train station; the provision of new or enhance existing foot and cycleways to and from the public transport pick up locations, as funding allows; a pedestrian link / bridge from the Train Station to the Wexford Road; improved access to bus stops particularly crossing points for passengers. 									<p>Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged.</p> <p>Improved public transport facilities, footpaths and cycleways is likely to result in a positive impact on population and human health, as well as air, noise and climate through the provision and encouragement of more sustainable forms of transport.</p> <p>The development of a new bridge from the train station to the Wexford Road may result in a negative impact on landscape and visual. Refer to Table 8.1 for mitigation measures.</p>	

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
VP6	To protect and enhance the streetscape of Arklow Main Street through the appropriate control of alterations to existing buildings and the development of new structures; in particular building and roof lines and heights which diverge from the established form will require to be justified.										<p>The protection and enhancement of the streetscape of Arklow Main Street is likely to result in a positive impact on population and human health, as well as landscape and visual through improved aesthetics in the town centre.</p> <p>Control of alterations to existing buildings and development of new structures could result in a positive impact on Heritage through the maintenance of the architectural heritage value of the Main Street</p>
VP7	To seek to improve the appearance of junctions and gateway areas into the Main Street, particularly the Main Street – Bridge Street junction.										The improvement of the appearance of junctions and gateways in the Main Street may result in a positive impact on population and human health and landscape and visual through improved aesthetics in the town centre.
VP8	New or extended / refurbished units shall, at all times that the unit is not in active use, provide an attractive temporary display or professionally designed artwork affixed to the glass frontage. The temporary use of the space during such times for creative, cultural or community purposes will be encouraged; however, such change of use may require planning permission, and advice will be provided by the Council on a case by case basis in this regard.										<p>The adoption of temporary displays or artwork in the town centre may result in a positive impact on population and human health as well as landscape and visual through improved aesthetics in the town centre.</p> <p>An uncertain impact on heritage is envisaged here however, as even minor interference with the appearance or façade of protected structures could be seen as having a negative impact on heritage.</p>
VP9	To support opportunities to create better linkages between the Main Street, the river, the north and south quay and the beaches, in particular access routes and views between the two.										<p>Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged.</p> <p>This objective is likely to have a positive impact on population and human health through the provision of improved access to amenity areas.</p>

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
VP10	To maintain the existing bandstand and ‘Sea Farers Memorial Garden’ and support other possibilities for the development of new urban spaces.										<p>The maintenance of existing structure and garden represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>Supporting other possibilities for the development of new urban spaces may result in a positive impact on population and human health through the urban regeneration of the town centre.</p>
VP11	To improve footpaths, lighting, seating and other street ‘furniture’ as funding allows, and require private development providing such features to meet the highest standards of design and siting in the town centre and waterfront zones.										<p>The improvement of footpaths and street furniture is likely to result in a positive impact on population and human health through provision of improved public facilities.</p> <p>A positive impact on landscape and visual impact is also envisaged as a result of improved design and layout of the town centre and waterfront zones.</p> <p>An uncertain impact on material assets is envisaged- as it is unclear whether the proposed improvements in lighting would require utilities works.</p>
VP12	To facilitate appropriate infill development of vacant backland and private car parking areas along ‘dark pink’ routes in the Town Centre strategy area.										<p>Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged.</p> <p>Provision of more car parking areas may result in a positive impact on population and human health.</p>
VP13	To promote and facilitate the conversion of non-retail premises to retail/retail service use and in the ‘core retail area’ to strongly resist the conversion of existing retail/retail service premises to alternative, less active, uses that would diminish vibrancy and daytime activity.										<p>The conversion of non-retail premises to retail premises involves development on already developed lands and a neutral environmental impact is envisaged.</p> <p>A positive impact on population and human health is envisaged through the provision of required retail services.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
Arklow Waterfront Strategy Objectives										
WZ1	To support in-depth development of the Waterfront zone (WZ), for a mix of residential, commercial, employment, leisure and tourism uses. Applications for the development of such lands shall include a detailed survey of the existing site conditions, proposals for demolition and remediation of previous site activities and a management plan for the disposal of such materials.									<p>The waterfront is zoned for development under the existing 2011-2017 Development Plan. This represents the baseline scenario and as such a neutral impact on the environment is envisaged.</p> <p>The development of new residential, commercial, employment, leisure and tourism development in the waterfront zone is expected to result in a positive impact on population and human health through the provision of housing, services and amenities.</p> <p>The redevelopment of brownfield sites including the remediation of previous site activities is envisaged to result in a positive impact on land and soils it involves the remediation of potentially contaminated land.</p> <p>The impact on landscape and visual is uncertain as it is unclear as to whether new development will be more visually intrusive than that which occupied the brownfield site previously.</p>
WZ2	In the Waterfront Zone to allow for high-density development (up to a plot ratio of (2.5:1) and up to 4 storeys in height along water frontages and 3 storeys elsewhere.									<p>The waterfront is zoned for development under the existing 2011-2017 Development Plan. This is the baseline scenario and as such a neutral environmental impact is envisaged.</p> <p>Development of high-density residential development may result in a positive impact on population and human health through the provision of housing.</p> <p>Four storey development along the waterfront may result in a negative impact on landscape and visual. Refer to Table 8.1 for mitigation measures.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
WZ3	To support existing and proposed water related and maritime activities in the Waterfront Zone including sailing, fishing, other water sports and commercial shipping activities, including the development of jetties, marinas and other support infrastructure.	Red	Green	Red	Red	Red	Red	Red	Red	Development in the foreshore may result in a negative impact on the environment. Refer to Table 8.1 for mitigation measures. Improved amenities may result in a positive impact on population and human health.
WZ4	To support and facilitate existing and future commercial harbour activities and to resist developments that would undermine the commercial harbour of the area.	Blue	Green	Blue	Blue	Blue	Blue	Blue	Blue	There will be no change to existing zoning. This represents the baseline scenario and a neutral environmental impact is envisaged. By WCC supporting and facilitating existing and future commercial harbour activities, a positive impact on population and human health in envisaged through job creation.
WZ5	To support and facilitate maritime activity and to encourage new developments that provide for an improved mix of uses including commercial, retail and residential uses and to particularly encourage tourism and leisure related developments.	Blue	Green	Blue	Blue	Blue	Blue	Blue	Blue	The waterfront is zoned for development under the existing 2011-2017 development plan. This represents the baseline scenario and a neutral environmental impact is envisaged. Through the encouragement of new development that provides for commercial, retail and residential uses, a positive impact on population and human health is envisaged through job creation.
WZ6	To require any new developments in the Waterfront Zone to meet a high standard of design that respects the unique historical, environmental, visual and recreational amenities of the area.	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	This is existing policy, and represents the baseline scenario. A neutral environmental impact is envisaged.
WZ7	To support and facilitate the development of new infrastructure necessary for the continued operation and development of the harbour.	Red	Green	Red	Red	Red	Red	Red	Red	The development of new infrastructure in the harbour area may result in a negative impact on environmental factors. Refer to Table 8.1 for mitigation measures.

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
										The continued operation and development of the harbour may result in a positive impact on population and human health through job creation.
WZ8	Further retail development in the Waterfront Zone shall be restricted to that required to meet the everyday convenience needs of future residents or niche comparison uses such as those related to tourism and the maritime function of the area.									<p>The waterfront is zoned for development under the existing 2011-2017 Development Plan. This is the baseline scenario and as such a neutral environmental impact is envisaged.</p> <p>This objective is likely to result in a positive impact on population and human health in that it ensures provisions are in place to meet the everyday convenience needs of residents.</p>
WZ9	To require any new developments to be suitably set back from the water's edge and to provide public routes and places along waterfronts; to support the development of a footbridge across the entrance to south dock.									<p>Development is expected to be minor in nature and a neutral environmental impact is envisaged.</p> <p>The provision of public routes and places is likely to result in a positive impact on population and human health.</p>
WZ10	To ensure that access to the water, such as steps / slipways / river beaches etc. are maintained and improved.									Improved access to the water is likely to result in a positive impact on population and human health through
WZ11	To encourage and facilitate tourism and leisure related uses in the Waterfront Zone including hotel / accommodation facilities and leisure uses to complement the marina and associated boating uses and activities.									<p>The waterfront is zoned for development under the 2011-2017 Development Plan. This represents the baseline scenario and as such a neutral environmental impact is envisaged.</p> <p>The encouragement of tourism and leisure related uses at the Waterfront may result in a positive impact on population and human health through job creation, as well as improved amenities.</p>

Ref	Text	SEA Environmental Objectives									Comments
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WZ12	To ensure that any development projects in and around the Arklow quays preserve and enhance any valuable structures or items of Arklow’s maritime heritage.										The preservation and enhancement of structures or items of Arklows maritime heritage will likely have a positive impact on population and human health and heritage.
Retail Objective											
RT1	To direct new retail development in the first instance into the retail core of Arklow Town as shown on Map 6.1 in particular to derelict or under-utilised sites.										The consolidation of the town centre and retail core may result in limited urban sprawl and reduced traffic movements. This is likely to result in a positive impact on population and human health. As well as air, noise and climate.
Objectives OP1-The Alps Opportunity Site											
	<ul style="list-style-type: none"> This site should be the subject of a comprehensive (not piecemeal) integrated scheme of development encompassing the entire lands. To provide for a mix of uses capable of accommodating retail, commercial, residential, tourism, community and cultural development, all contained within a high quality architectural, landscaped, streetscape and high quality public realm environment. A high development density will be required to be achieved across the site that is sensitive and appropriate to its immediate built and natural 										<p>The Alps opportunity site is already zoned for ‘town centre’ development under the existing 2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The provision of a mix of uses at this site will likely result in a positive impact on population and human health through provision of services.</p> <p>Measures to ensure that all new structures will present an appropriate façade to the river, walkways and roadside with a continuous streetscape ad building frontage will likely result in a positive impact on landscape and visual.</p>

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	<p>context. In terms of meeting the housing targets set out in this plan any development proposals should aim to achieve the delivery of 120-160 units;</p> <ul style="list-style-type: none"> • A maximum height of 4 storeys fronting onto Upper Main Street/ Parade Ground shall be permitted. • To ensure, where possible, there are active ground floor uses in the buildings fronting the river, public spaces, walkways and streets. • To ensure that all new structures present an appropriate façade to the river, walkways and roadside with a continuous streetscape and building frontage where appropriate. • The lands shall comprise of a series of new streets/laneways, opening up linkages between the Vale Road and the river, Upper Main Street / Parade Ground to the river and links to the Castle ruins. • To facilitate the enhancement of the landscaped linear open space park along the 									

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	river bank and to facilitate the development of an open space link from the linear park to the Castle Ruins and if feasible linking onto Upper Main Street.									
Objectives OP2- Main Street Opportunity Site										
	<ul style="list-style-type: none"> Where possible this site should be the subject of a comprehensive integrated scheme of development encompassing the entire lands. Individual site redevelopment proposals may be considered if they can demonstrate how they comply with the objectives of this opportunity site. Any new scheme should seek to protect the character and appearance of the traditional shop fronts including the Morgan Doyle facade and canopy and any architectural details on buildings of high architectural value wherever possible. To provide for a mix of uses capable of accommodating retail, commercial, residential, community and cultural development, all 									<p>The Mainstreet Opportunity Site is already zoned for development under the existing 2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The protection of traditional shop fronts and architectural details may result in a positive impact on heritage.</p> <p>The provision of a mix of uses at this site will likely result in a positive impact on population and human health through provision of services.</p> <p>Ensuring that all new structures present an appropriate façade to the river, Kinsella’s Lane, the Bandstand and Main Street with a continuous streetscape and building frontage will likely result in a positive impact on landscape and visual.</p>

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	<p>contained within a high quality architectural, landscaped, streetscape and high quality public realm environment.</p> <ul style="list-style-type: none"> • A high development density will be required to be achieved across the site that is sensitive and appropriate to its immediate built and natural context. In terms of meeting the housing targets set out in this plan, any development proposals should aim to achieve the delivery of up to 70 residential units across the entire block; • A maximum height of 3 storeys fronting onto Main Street shall be permitted. • To ensure there are active ground floor uses fronting public spaces, walkways and streets. • To ensure that all new structures present an appropriate façade to the river, Kinsella’s Lane, the Bandstand and Main Street with a continuous streetscape and building frontage where appropriate. 									

Ref	Text	SEA Environmental Objectives								Comments
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	<ul style="list-style-type: none"> Additional links from the Main Street to the river should be incorporated where feasible. To facilitate the enhancement of the landscaped linear open space park along the river bank. 									
Community Development Objectives										
CD1	To facilitate and encourage a series of high quality open spaces throughout the town, preferably as part of a larger linked green network that is available to all ages and accessible to everyone, including people with mobility impairments.									See site specific assessment. Community and Open space is already designated under the existing 2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged. The encouragement of the development of more open space is likely to result in a positive impact on population and human health through increased amenity access.
CD2	To reserve c. 3.1ha at Churchview, (east of the railway line with Yellow Lane to the north) for a park, this will include areas for both sports and activities (such as a MUGA) and passive enjoyment.									This area is zoned under the existing 2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged.
CD3	To facilitate the development of a graveyard at an appropriate location within the settlement. In order to ensure a variety of sites may be open for consideration, graveyards are permitted in principle on all zoned lands that have community uses open for consideration.									This is already zoned under the existing 2011-2017 Development Plan. This represents the baseline scenario and a neutral environmental impact is envisaged.
Tourism and Recreation Objectives										

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
TR1	To facilitate and support the development of the tourism industry in Arklow and maximise the town's location as a gateway between the tourism assets within Co. Wicklow.									<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The objective to maximise the town's location as a gateway between tourism assets may result in a positive impact on population and human health through job creation and inward investment.</p>
TR2	To support and facilitate, in co-operation with relevant bodies and landowners, the provision of tourism amenity routes around the town.									<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The supporting and facilitating of tourism amenity routes may result in a positive impact on population and human health through improved access to tourist attractions, and increased inward investment.</p>
TR3	To recognise the importance of the local golf course and other sports clubs to tourism in the town.									<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>Further recognition of tourism benefits of the golf club and sports clubs may result in a positive impact on population and human health through inward investment.</p>
TR4	To support the development of linkages to connect Arklow with adjoining towns / villages via cycle and walking trails, ensuring that no developments are permitted that would have adverse impacts (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.									<p>Development, should it be required, would be minor in nature and a neutral environmental impact is envisaged.</p> <p>Improved linkages to connect Arklow with adjoining towns/villages may result in a positive impact on population and human health.</p>

Ref	Text	SEA Environmental Objectives								Comments
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										Increased numbers of walking and cycle trails will promote the use of sustainable forms of transport and will likely result in a positive impact on air quality, noise and climate.
TR5	To improve, as funding allows, the principal access routes and junctions linking Arklow town centre to strategic transport corridors and surrounding tourist attractions.									Development, should it be required, would be minor in nature and a neutral environmental impact is envisaged. Improved access routes and junctions may result in a positive impact on population and human health.
TR6	To promote and encourage the recreational use of coastline, rivers and lakes and the development of 'blueways' subject to normal environmental protection and management criteria. Where such recreational uses involve the development of structures or facilities, the Planning Authority will ensure that the proposals will respect the natural amenity and character of the area, listed views and prospects onto and from the area in question. Where possible, such structures should be set back an appropriate distance from the actual amenity itself and should not adversely affect the unique sustainable quality of these resources.									This represents the baseline scenario and a neutral environmental impact is envisaged. The promotion and encouragement of the recreational use of the coastline may result in a positive impact on population and human health.
Infrastructure, transportation & movement objectives										
IT1	To support and facilitate the development of a waste water treatment plant in Arklow, at an optimal location following detailed technical and environmental assessment and public consultation.									The development of a waste water treatment plant in Arklow is expected to result in a positive impact on population and human health as well as material assets through provision of required infrastructure.

Ref	Text	SEA Environmental Objectives									Comments
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											A positive impact on Water is also envisaged, as currently, untreated wastewater enters the Avoca River.
IT2	To improve, as funding allows, the principal access routes into the town centre from surrounding tourism locations, particular the Coast Road north of the town, the Clogga Road, the Vale Road and access to potential north quay developments.										Development, should it be required, would be minor in nature and a neutral environmental impact is envisaged. Improved access routes will likely result in a positive impact on population and human health.
IT3	To promote and encourage the “Safer Routes to School” and the Green Schools Programme within Arklow and to liaise with all relevant Departments/agencies involved in the operation of the programme.										The promotion and encouragement of these school programmes may result in a positive impact on population and human health as well as air, noise and climate through the promotion of sustainable forms of transport.
IT4	To facilitate the improvement of the town’s roads hierarchy to distribute vehicular traffic on appropriate distributor routes whilst minimising the number of car trips through the town centre. In particular, improved junctions and links on the Wexford Road, Emoclew Road, Coolgreaney Road and Abbey Street-Yellow Lane.										Development, should it be required, would be minor in nature and a neutral impact on environmental factors is envisaged. The distribution of traffic and minimisation of the number of car trips through the town centre may result in a positive impact on air, noise and climate through the reduction traffic congestion in the town.
IT5	To facilitate the provision of a western distributor route in order to provide alternative movement routes through the town. The route, which will be subject to route option assessment, will incorporate a new river crossing, linking Kilbride to the Vale Road, Lamberton Avenue and on to the Coolgreaney Road										The provision of a western distributor route may result in a negative impact on the environment, in general. Refer to Table 8.1 for mitigation measures. A positive impact on population and human health is envisaged through improved access.

Ref	Text	SEA Environmental Objectives								Comments
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IT6	To facilitate the construction of a new third interchange at Lamberton, providing a connection to the western distributor road as allowed for in the design of the Arklow bypass.									<p>The provision of a major interchange may result in a negative impact on the environment, in general. Refer to Table 8.1 for mitigation measures.</p> <p>A positive impact on population and human health is envisaged through improved access.</p>
IT7	To require the development of Action Area 2 (Tinahask/Moneybig) to include distributor road access through to Action Area 1 (Tinahask/Abbeylands) and the Employment zoned lands to the south of AA2.									<p>The provision of a distributor road through AA1 may result in a negative impact on the environment in general. Refer to Table 8.1 for mitigation measures.</p> <p>Improved access and transport routes in Arklow will result in a positive impact on population and human health.</p>
IT8	To facilitate the operation and free flow of traffic in a safe manner in particular in the town centre and in locations proximate to schools, health and community facilities, by appropriately controlling car parking at such locations.									<p>The operation and free flow of traffic in the town centre will result in a positive impact on population and human health.</p>
IT9	To facilitate the construction of a Southern Port Access Road (SPAR) linking the Wexford Road to the Action Areas at Tinahask, the Roadstone Quarry and the Waterfront Zone, incorporating a link to form a primary distributor route for HGV traffic to the existing port. The design of the road including its alignment and boundary treatment will be carried out in such a manner as to ensure minimal impact on Arklow Golf Club. Possible future connections of the SPAR to the Clogga Road (at Kish / Rock Big) may also be considered.									<p>The provision of a port access road may result in a negative impact on the environment in general. Refer to Table 8.1 for mitigation measures.</p> <p>Improved access and transport routes in Arklow will result in a positive impact on population and human health.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
IT10	To co-operate with TII and other Local Authorities to improve existing or provide new links from Arklow and the port area to other counties in the region, namely the Leinster Outer Orbital Route as proposed in the Regional Planning Guidelines	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Improved or new links from Arklow to the port area will result in a positive impact on population and human health through increased access. The location of the proposed links, which will go from Arklow town to other counties have not been defined. The impact on the environment is deemed to be uncertain.
IT11	To improve pedestrian and cyclist safety and provide footpaths and cycleways where required and at the following locations: - to the railway station from Abbey Street - Main Street / Vale Road junction / roundabout	Blue	Green	Blue	Blue	Green	Blue	Blue	Blue	Development, should it be required, would be minor in nature and a neutral environmental impact is envisaged. The provision of footpaths and cycleways may result in a positive impact on population and human health as well as air, noise and climate through the promotion of sustainable forms of transport.
IT12	To support and facilitate the development of marine and shipping activity in Arklow, particularly the recreational use of the existing harbour/marina and the development of a roll on-roll off port at the existing Roadstone jetty.	Red	Green	Red	Red	Red	Red	Red	Red	The development of a roll on- roll off port at the existing Roadstone jetty may result in a negative impact on the environment, in general. Refer to Table 8.1 for mitigation measures. The development of marine and shipping activity in Arklow will likely result in a positive impact on population and human health through job creation.
IT13	To suitably manage development within 35m of existing 110KV/220kV transmission lines.	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Green	This represents the baseline scenario and a neutral environmental impact is envisaged. The management of development within 35m of existing 110kv/220kv transmission lines may result in a positive impact on material assets, through protection of existing utilities.

Ref	Text	SEA Environmental Objectives									Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets		
IT14	To support and facilitate the development of landing locations for any cross channel power interconnectors.										<p>The location of the proposed landing locations for cross channel interconnectors has not been defined, and as such, the environmental impact of this objective is unknown.</p> <p>The proposed landing locations will provide the necessary infrastructure for cross channel interconnectors, which will work to improve energy infrastructure. A positive impact on material assets is envisaged.</p>
Heritage Objectives											
HT1	To maintain the favourable conservation status of all proposed and future Natural Heritage Areas (NHAs) in the plan area in particular the Arklow Marsh.										<p>This represents the baseline scenario and a neutral environmental impact is envisaged.</p> <p>The maintenance of the favourable conservation status of all proposed and future NHAs will likely result in a positive impact on biodiversity.</p>
HT2	To protect the listed prospect of special amenity (from the R750/coast road towards the sea) from development that would either obstruct the prospect from the identified vantage point or form an obtrusive or incongruous feature in that prospect. Due regard will be paid in assessing development applications to the span and scope of the prospect and the location of the development within that prospect										<p>The protection of the prospect from the R750/coast road towards the sea will likely result in a positive impact on population and human health and landscape and visual.</p>
HT3	Protect and enhance the character, setting and environmental quality of natural, architectural and archaeological heritage, and in particular those features of the natural landscape and built structures that										<p>The protection and enhancement of the character, setting and environmental quality of natural, architectural and archaeological heritage will likely result in a positive impact on the environment, in general.</p>

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
	contribute to its special interest. The natural, architectural and archaeological heritage of the area shall be protected in accordance with the objectives set out in the Wicklow County Development Plan									
HT4	To consolidate and safeguard the historical and architectural character of Arklow town centre through the protection of individual buildings, structures, shopfronts and elements of the public realm that are of architectural merit and/or contribute greatly to this character.									The consolidation and safeguarding of the historical and architectural character of Arklow town centre will likely result in a positive impact on heritage.
HT5	To maintain the coastal character of the settlement and to provide for its enjoyment as a recreational and natural asset.									This represents the baseline scenario and a neutral environmental impact is envisaged.
HT6	To facilitate the enhancement of facilities such as the Arklow Maritime Museum which increase public awareness and appreciation of the town's maritime heritage.									This represents the baseline scenario and a neutral environmental impact is envisaged. The enhancement of such facilities will likely result in a positive impact on population and human health and heritage.
HT7	To facilitate the development of initiatives to highlight Arklow's maritime heritage in the public realm.									This represents the baseline scenario and a neutral environmental impact is envisaged. The development of initiatives to highlight Arklow's maritime heritage may result in a positive impact on population and human health and heritage.
HT8	To facilitate the development and enhancement of green infrastructure resources, including access to, connectivity between areas of interest and linkages									Improved access to, connectivity and linkages between greenspaces will likely result in a positive impact on population and human health through improved amenity access,

Ref	Text	SEA Environmental Objectives								Comments
		Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	
	between green spaces including the coast, where feasible within Arklow and environs settlement boundary (see Map No. 10.1).									
HT9	To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Arklow and Environs.									The maintenance of the conservation value of future and proposed NHAs will likely result in a positive impact on biodiversity and population and human health.

Table 7.3 Site Specific Zoning Assessment

Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments

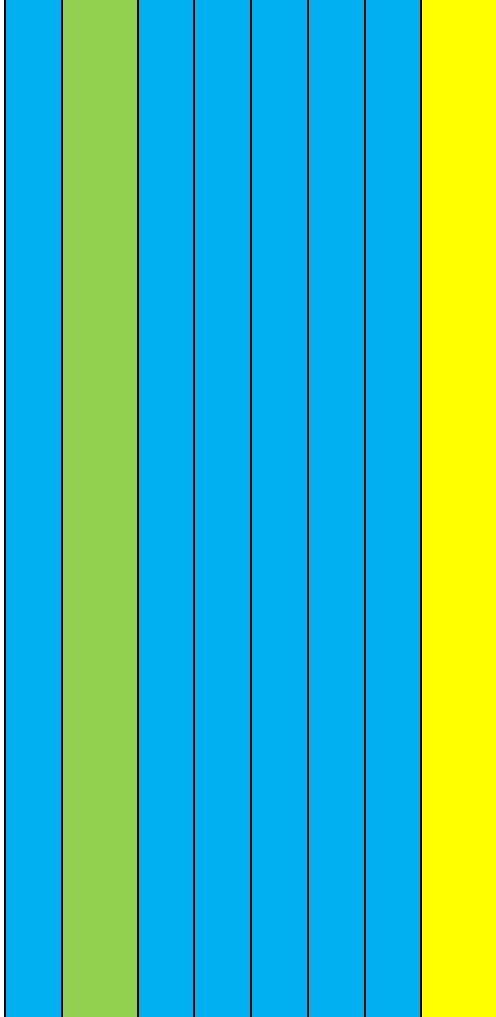
Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments
									housing opportunity, as well as job provision. Refer to Table 8.1 for mitigation measures.
Small reduction in zoning footprint to the north west of the plan area- to exclude a small area of ‘open space’ and ‘agricultural’ zonings.									A reduction in the zoning footprint of the LAP area should generally result in a positive impact on the environment. While the previous land zonings did not necessarily entail development, this change is still considered positive in that the removal of an agricultural zoning and its reversion back to greenfield land ultimately means less interaction with the land and the environment, generally.
Inclusion of ‘open space’ zoning along the western boundary of the LAP area									The inclusion of a sort of ‘green-belt’ along the western LAP boundary will likely result in a positive impact on the environment.
Change of zoning from ‘agriculture’ to ‘community and education’ and ‘open space’ to the west of the plan area, just south of the Arklow River									While the change of use of ‘agricultural zonings’ to ‘open space’ could be considered to result in a positive impact on the environment due to reduced interaction with the land, the change to ‘community and education’ zoning could be considered to result in a negative impact- as this might entail development. An overall uncertain environmental impact is therefore envisaged for the purpose of this assessment.
Change of zoning of a small triangle of land from ‘employment’ to ‘new residential’ in the south west of the plan area									This change in zoning is expected to result in a neutral impact on the environment, as both zonings involve development. The impact on population and human health is classified as uncertain- while the new housing opportunity it is beneficial to the LAP area, a reduction in job opportunity could also be considered a negative impact.
Reduction in zoning footprint to the immediate south west of the plan area- to exclude an area of land zoned for ‘tourism’									A reduction in the zoning footprint of the LAP area will generally result in a positive impact on the environment.

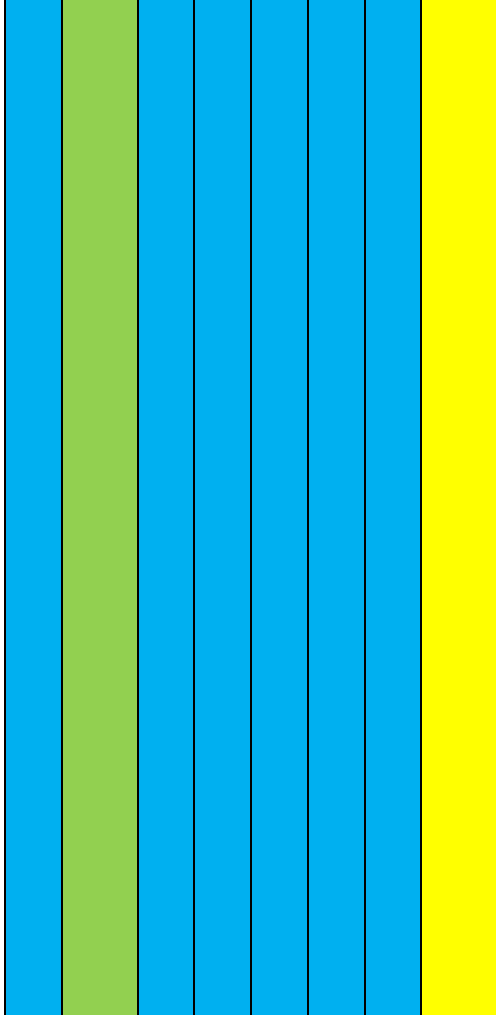
Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments
Change of zoning in the south of the plan area, to the west of the extractive industry, from ‘employment’ to ‘new residential’, with a small area of land zoned for ‘tourism.’	Blue	Yellow	Blue	Blue	Blue	Blue	Blue	Blue	This change in zoning is expected to result in a neutral impact on the environment, as both zonings involve development. The impact on population and human health is classified as uncertain- while the new housing opportunity it is beneficial to the LAP area, a reduction in job opportunity could also be considered a negative impact.
<p>Action Area 1 Tinahask Upper – Abbeylands This Action Area shall be developed as a mixed residential, community and open space zone in accordance with the following criteria:</p> <ul style="list-style-type: none"> Principal vehicular access to this Action Area shall be provided from Action Area 2 (Tinahask Upper / Money Big); other, secondary access routes from the adjacent road network shall also be provided as may be possible; A number of cycling / pedestrian access routes into the action area shall be provided from adjacent 	Blue	Green	Blue	Blue	Blue	Blue	Blue	Blue	<p>This Action Area 1 is zoned under the existing 2011-2017 Development Plan as a mixed residential, community and open space zone.</p> <p>This is the baseline scenario- and a neutral environmental impact is envisaged.</p> <p>The AA1 development criteria listed allows for a maximum of 600 residential units, as opposed to the 500 allowed under the 2011-2017 LAP. This will result in a positive impact on population and human health through provision of additional housing.</p>

<p>developed areas and in particular to the railway station;</p> <ul style="list-style-type: none"> • A maximum of 600 residential units shall be provided in a range of development formats, densities, unit sizes and designs; • To achieve a sense of place and allow for visual diversity any residential application should provide for a number of identifiable and distinct housing estates (not exceeding 150 units) each containing materially different house designs within an overall unified theme; • A minimum of 3.5ha shall be reserved for the provision of schools. This may be located adjacent to the CE lands in Action Area 2 which may be the location of a single campus, subject to consultation and agreement with relevant stakeholders, including the Department of Education and Skills; • A minimum area of 3.75ha shall be developed as public open space, of which a minimum area of 3.2ha shall be laid for active sports uses in a range of track, pitch and court types suitable for a variety of sports and shall include necessary car parking, lighting and changing facilities; remaining open 		
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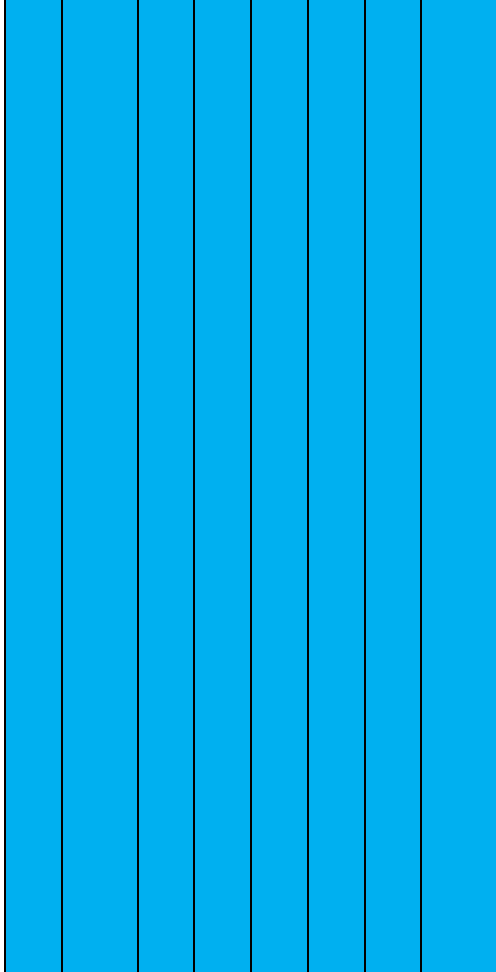
Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments
<p>areas shall be laid out as informal parks and walks;</p> <ul style="list-style-type: none"> The action area shall include at least 1 equipped children’s play area; Any development proposals shall have regard to the setting and curtilage of structures and sites of heritage value, and habitats of biodiversity value and appropriate buffer zones/mitigating measures shall be provided as required; The development of the Action Area shall be delivered in phases such that the road infrastructure and active open space is provided in the first phase accompanied by no more than 50% of the residential development. 									
<p>Action Area 2 Tinahask Upper - Money Little and Money Big</p> <p>This action area measures c. 64ha and shall be developed as a mixed use residential, employment, local shops and</p>									<p>AA2 is zoned under the existing 2011-2017 Development Plan as a mixed use residential, employment and community zone. AA2, under this LAP has been zoned as a mixed use residential, employment, local shops and services, community and open space zone.</p>

Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments
<p>services, community and open space zone in accordance with the following criteria:</p> <ul style="list-style-type: none"> • The development of this action area shall be contingent on the provision of the following road infrastructure as part of any development project: <ul style="list-style-type: none"> ○ provision of a Port Access Road along the indicative alignment shown in this plan; ○ improvement of the existing link road and railway bridge from the Knockmore roundabout to the site as required; ○ new area distributor roads through this action area to both AA1 and employment zoned lands to the south of AA2. <p>Such road provision and improvements shall be subject to detailed design and phasing, based on the quantum of development that is planned to occur in each phase of the development.</p>									<p>It should be noted that a minimum area of AA1 was also reserved for ‘open space’ as well as for a retail and service zone under the 2011-2017 plan, and as such no change in land zoning will occur, and a neutral impact on the environment is envisaged.</p> <p>However, the boundary of AA2 has also extended since the 2011-2017 plan, to provide for increased residential zoning, in place of a previous employment zoning. This extension of the AA2 area is expected to result in a neutral impact on the environment, as both zonings- residential and employment, involve development. The increased residential land zoning will result in a positive impact on population and human health, through provision of additional housing.</p> <p>The impact on material assets is deemed uncertain, as additional housing units could cause a strain on utilities. However, it is unclear as to whether this would be more of a strain than the previous employment zoning that was designated under the 2011-2017 LAP.</p>

<ul style="list-style-type: none">• A maximum of 885 residential units shall be provided, in a range of sizes and formats.• To achieve a sense of place and allow for visual diversity any residential application should provide for a number of identifiable and distinct housing estates (not exceeding 150 units), each containing materially different house designs within an overall unified theme;• A minimum area of 18ha shall be devoted to employment uses;• A minimum area of 5ha shall be developed as public open space, of which a minimum area of 3ha shall be laid for active sports uses; remaining open areas shall be laid out as informal parks and walks, and shall include at least 1 equipped children’s play area;• A minimum of 4ha shall be reserved for the provision of schools. This may be located adjacent to the CE lands in Action Area 1 which may be the location of a single campus, subject to consultation and agreement with relevant stakeholders, including the Department of Education and Skills;• A local shops and services zone, on a maximum site area of 1ha to service both the future resident		
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<p>and working population of the action area, of a scale commensurate with the needs of the future population shall be provided. This local centre shall comprise of a small group of shops including 1 medium size foodstore/ general grocery store (not a supermarket), and other such retail and non-retail services as shall be determined as warranted following the carrying out of a Retail Impact Assessment;</p> <ul style="list-style-type: none">• The development of the Action Area shall be delivered in phases such that adequate road infrastructure and local services are provided for each phase; in particular, the road infrastructure (providing access to the AA1 lands to the north) and local shops & services sites shall be provided in Phase 1 accompanied by no more than 50% of the residential development; and the open space, employment facilities and Southern Port Access link road shall be provided no later than Phase 2 accompanied by no more than 75% of the residential units (an additional 25% on top of Phase 1).• Any development proposals shall have regard to the setting and curtilage of structures and sites of		
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Change in land zoning	Biodiversity	Population & Human Health	Land & Soils	Water	Air, Noise & Climate	Heritage	Landscape & Visual	Material Assets	Comments
heritage value, and habitats of biodiversity value and appropriate buffer zones-/mitigating measures shall be provided as required.	Blue	Green	Blue	Blue	Blue	Blue	Blue	Yellow	
<p>Action Area 3- Kilbride This Action Area shall be developed as a mixed residential, community and open space zone in accordance with the following criteria:</p> <ul style="list-style-type: none"> • Vehicular access to the Action Area shall be provided from the L-6179 or from the Regional Road if it is possible, with the roads configuration of the development providing / facilitating a possible future third Avoca river crossing; other, 	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	AA3 is zoned under the existing 2011-2017 Development Plan as a mixed residential, community and open space zone. This is the baseline scenario and a neutral impact on the environment is envisaged.

<p>secondary access routes from the adjacent road network shall also be provided as may be possible;</p> <ul style="list-style-type: none">• A number of pedestrian access routes into the action area shall be provided where possible from adjacent developed areas;• A maximum of 1,500 residential units shall be provided, in a range of development formats, densities, unit sizes and designs.• To achieve a sense of place and allow for visual diversity any residential application should provide for a number of identifiable and distinct housing estates (not exceeding 150 units), each containing materially different house designs within an overall unified theme.;• A minimum of 5.4ha shall be reserved for the provision of a school campus, subject to consultation and agreement with relevant stakeholders, including the Department of Education and Skills;• A local shops and services centre, of scale commensurate with the needs of the future population of the Action Area shall be provided, on a site of c. 1ha.		
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<ul style="list-style-type: none"> • A minimum area of 12ha shall be developed as public open space, of which a minimum area of 4.5ha shall be laid for active sports uses; remaining open areas shall be laid out as informal parks and walks, and shall include a minimum of 2 equipped children’s play areas; • The development shall be delivered in phases such that adequate road infrastructure and local services are provided for each phase; in particular, the road infrastructure to serve the action area and local shops & services sites shall be provided in Phase 1 accompanied by no more than 50% of the residential development; and the open space and strategic road infrastructure shall be provided no later than Phase 2 accompanied by no more than 75% of the residential units (an additional 25% on top of Phase 1). • Any development proposals shall have regard to the setting and curtilage of structures and sites of heritage value, and habitats of biodiversity value and appropriate buffer zones-/mitigating measures shall be provided as required. 		
<p>Action Area 4 - Coolboy, Arklow</p>		<p>The zoning of previously unzoned land at Tinahask may have a negative impact on the environment- as it will likely involve development on greenfield land. Refer to Table 8.1 for mitigation measures.</p>

<ul style="list-style-type: none"> • This Action Area shall be developed as a mixed residential and active open space area in accordance with the following criteria: • Vehicular access to the Action Area shall be provided from the Beech Road; • A maximum of 220 residential units shall be provided in this action area, in a range of development formats, densities, unit sizes and designs. While the area of land zoned for new residential (R special) could accommodate a higher number of units, given that buffer zones will be required along those power lines that cannot be undergrounded and along the M11 and the stream, it is considered likely that those areas that are developed for housing would achieve densities in the order of 20/ha; • A minimum area of 2ha shall be developed as active open space and shall be laid for active sports uses; • Parts of the action area have been identified as being within Flood Zones A (high flood risk) and B (moderate flood risk). Regard shall be paid to the Strategic Flood Risk Assessment and relevant flood risk objectives of the County Development Plan. 		<p>The provision of new residential land however, can be deemed as positive impact on population and human health through the provision of housing.</p>
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7.3 Principal Environmental Impacts

The principal findings of the assessment of environmental impacts are summarised in the following sections. It should be noted that the assessment considers the predicted residual (i.e. mitigated) impact on each environmental topic.

7.3.1 Population and Human Health

The potential impacts for Population and Human Health are predominantly positive through the provision of residential and employment opportunities.

It is proposed to consolidate the town centre through the provision of high density housing at vacant and under-utilised sites, through the provision of in-fill housing developments and through the redevelopment of brownfield sites.

The encouragement of large-scale employment activities on the periphery of the town will result in a positive impact on local job creation.

Positive impacts will also occur where new transport infrastructure is provided for, or existing infrastructure is upgraded through the provision of improved access through the LAP area.

7.3.2 Biodiversity

The land use zonings and objectives of the Draft LAP 2017-2023 will primarily result in a neutral impact on Biodiversity. Development will be largely consolidated within existing zoned or developed lands, with a large portion of development within the existing urban centre of the LAP area. Uncertainties exist where the precise nature and extent of development is unknown.

Negative impacts will occur where greenfield lands have been zoned for development- such as the land at AA4-Coolboy, which has the potential, even with the provision of mitigation, to impact on habitats and species.

The development of new distributor roads throughout the LAP area, the exploitation of natural resources at Arklow Rock pNHA, as well as maritime and commercial shopping activities also have the potential for negative impacts on biodiversity.

7.3.3 Land and Soils

The majority of potential impacts for Land and Soils are neutral or positive as development will primarily be consolidated within existing zoned or developed lands.

Uncertainties will occur where the precise nature and extent of proposed new development is unknown.

Negative impacts will occur where greenfield lands have been zoned for development- such as the land at AA4-Coolboy, as well as where new distributor roads are proposed.

7.3.4 Water

The land use zonings and objectives of the Draft LAP will primarily result in a neutral impact on Water as development will largely take place with existing zoned or developed lands.

Negative impacts are identified where maritime activities in the Waterfront Zone are proposed, as well as commercial shipping activities, the development of jetties, marinas and other support infrastructure.

The Strategic Flood Risk Assessment (SFRA) has been carried out as part of this SEA. The findings of the SFRA demonstrate that flood risk to the plan area can be adequately managed and the use or development of the lands will not cause unacceptable adverse impacts.

7.3.5 Air, Noise and Climate

The potential impacts on Air, Noise and Climate are predominantly positive or neutral as high density housing will be provided for in the town centre, resulting in a reduction in traffic movements.

The plan also promotes sustainable travel modes while making provisions for improved pedestrian and cycle routes in the town centre. Such measures will have a positive effect on air, noise and climate.

Uncertainties will occur where the precise nature and extent of proposed new development is unknown. Negative impacts exist where greenfield lands have been zoned for development- such as the land at AA4- Coolboy, which is located on the periphery of the LAP area.

7.3.6 Heritage

The land use zonings and objectives of the Draft LAP will primarily result in a positive or neutral impact on Heritage as development will largely take place with existing zoned or developed lands

This plan also places a significant emphasis on the retention, protection and enhancement of existing heritage features within the town.

Uncertainties will occur where the precise nature and extent of proposed new development is unknown and where the discovery of heritage features cannot be ruled out.

Negative impacts will occur where greenfield lands have been zoned for development- such as the land at AA4-Coolboy, as this has the potential to impact on archaeology.

There is also the potential for negative impacts where rezoning occurs for development from agricultural to community and education, where development is proposed. However, further assessment will occur at planning stage to ensure no significant negative impacts occur.

7.3.7 Landscape and Visual

The majority of potential impacts for Landscape and Visual are neutral.

Uncertainties exist where the precise nature and extent of proposed new development is unknown. Negative impacts exist where high density housing is proposed, as well as where greenfield lands have been zoned for development- such as the land at AA4-Coolboy.

Provisions for a pedestrian link / bridge from the Train Station to the Wexford Road also has a negative impact on landscape and visual.

7.3.8 Material Assets

In general, the potential impacts on Material Assets are largely considered as positive or neutral. This is because development will occur in a manner that is balanced and self-sustaining occurring in tandem with physical and social infrastructure.

Negative impacts will occur where a potential strain on existing utilities could occur- such as with the provision of large scale employment activities.

8 Mitigation Measures and Monitoring

8.1 Mitigation Measures

Mitigation measures are measures envisaged and designed to prevent, reduce and as fully as possible offset any significant adverse impacts on the environment of implementing the revised LAP. All mitigation measures have been developed and agreed with WCC as part of the SEA iterative process.

The primary mitigation measure is to ensure the sustainable and appropriate development of Arklow town and environs and its environs without compromising the integrity of the natural and built environment. All new development that requires an Environmental Impact Assessment (EIA) in accordance with EIA legislation will address the range of environmental objectives, indicators and targets and associated environmental mitigation measures and incorporate them into the project specific mitigation measures.

Table 8.1 Mitigation Measures

Environmental Receptor	Mitigation Measures	Relevant objectives	
		Country Development Plan Objectives	Draft LAP Objectives
Biodiversity	Ensure that appropriate measures for conservation and enhancement of the natural and built environment are incorporated into all relevant plans and programmes.	NH1, NH2, NH3, NH4, NH5, NH6, NH8, NH11, NH12, NH13, NH15, NH16, NH17, NH18, NH19, NH20, NH21 and NH22	HT1, HT3, HT5, HT8, HT9
	Ensure that all new development plans are cognisant of the Biodiversity Action Plan for the County.	Refer to the Natural Heritage Strategy of the County Development Plan.	
	Ensure the protection of ecological resources that have economic benefits e.g. ecological zones that draw tourism.	NH38, NH41 and NH44	HT3 HT4 and HT9
	Compliance with the zoning of the SACs, NHAs, SPAs which prohibits non-compatible developments.	NH2, NH3, NH4, NH5 and NH6	HT1 and HT9
	Ensure that an AA is carried out for all development proposals with potential to impact on Natura 2000 sites.	NH2, NH3, NH4, NH5 and NH6	HT1 and HT9
	Ensure that greenfield development, such as that targeted for AA4- Coolboy is subject to environmental assessment, where required.	NH1, NH2, NH3, NH4, NH5, NH6, NH8, NH11, NH12, NH13, NH15, NH16, NH17, NH18, NH19, NH20, NH21 and NH22	HT1, HT3, HT5, HT8, HT9
	The development of new distributor routes should be subject to route option assessment and environmental assessment, where required.	NH1, NH2, NH3, NH4, NH5, NH6, NH8, NH11, NH12, NH13, NH15, NH16, NH17, NH18, NH19, NH20, NH21 and NH22	HT1, HT3, HT5, HT8, HT9
Population and Human Health	Ensure that access to adequate health and education facilities to meet the demand of the current and projected populace are included in development plans.	CD 6, CD7, CD8, CD9, CD10, CD11, CD12, CD13, CD14, CD15, CD16 and CD17	

	Encourage the further development of regional public transport infrastructure including rail and bus corridors.	TR1, TR2, TR3, TR3, TR4, TR5, TR6, TR7 and TR8	
Land and Soils	Perform a survey of obsolete urban renewal areas and facilitate and promote the reuse and regeneration of brownfield sites, derelict land and buildings in and around urban centres.	RT13 and the general town centre and retail objectives for Level 5 Town Plans,	H6 H7, ED3 and VP12
	Promote the recycling of construction and demolition waste and the reuse of aggregate and other materials in order to reduce the quantities of virgin material being extracted. This is particularly relevant with regards the proposed greenfield development at AA4-Coolboy.	WE1	
	Ensure that the 'polluter pays principle' is adhered to in full cooperation with the EPA.	WE6	
Water	Ensure that the objectives and the programme of measures outlined the River Basin Management Plans are fully implemented.	W12, NH3 and NH20	
	Provide adequate capacity at water and wastewater treatment and storage facilities for current and projected populace.	WI1, WI2, WI3, WI4, WI5, WI6, WI7, WI8, WI9, WI10	IT1
	Prevent the alteration of natural drainage systems and in the case of development works require the provision of acceptable mitigation measures in order to minimise the risk of flooding and negative impacts on water quality.	FL4, FL5, FL6, FL7, FL8, FL9	
	Comply with the objectives and policies of the Eastern Catchment Flood Risk Assessment Management Study.		
	Promote SUDS principles for all drainage including the integration of storm water attenuation facilities for new developments and existing catchment areas.	FL8	
	Ensure that any new development does not present an inappropriate risk of flooding or does not cause or exacerbate such a risk at other locations.	FL4, FL5, FL6, FL7, FL8, FL9	

	Preserve and protect the water quality of Wicklow's river systems where these help to regulate stream flow, recharge ground water and screen pollutant.	NH20, NH21, NH22, and NH23	
	Preserve and protect the marine environment of Arklow- including water quality and biodiversity where maritime activities in the Waterfront Zone are proposed, as well as commercial shipping activities, the development of jetties, marinas and other support infrastructure.	NH1, NH8, NH12, NH19 and NH22	HT3, HT5 and HT7
	Comply with the DoECLG/OPW guidance on development and flood risk through the control of development in any flood plain so that new and existing developments are not exposed to increased risk of flooding and that any loss of flood storage is compensated for elsewhere in the river catchment.	FL4, FL5, FL6, FL7, FL8, FL9	
	Ensure that mitigation measures proposed under the SFRA are implemented as appropriate.		
Air, Noise and Climate	Ensure that the objectives and policies of EU Air Quality legislation are incorporated into plans and programmes upon implementation into Irish law.	WE9, WE10, and WE11	
	Promote the reduction of emissions of Greenhouse Gases to ensure Ireland's compliance with our Emission Targets.	WE9, WE10, WE11	
	Facilitate sustainable transport modes and the use of walking, cycling and public transport.	TR1, TR2, TR3, TR4, TR5, TR6, TR7	VP2, VP5, IT3 and IT11
	Consideration of existing noise policy in County Wicklow for example noise mapping and noise action plans produced by the Local Authority.	WE12, WE13, WE14 and WE15	
	Consideration of likely noise impacts/effects associated with new developments. This includes being cognisant of proximity to sensitive receptors when siting new developments and consideration of existing noise sources when zoning lands for residential development.	WE12, WE13, WE14 and WE15	

Archaeological, Architectural and Cultural Heritage	Ensure the protection of all features of architectural and archaeological merit. This is particularly relevant where development is proposed on greenfield lands at Coolboy.	BH1, BH2, BH3, BH9, BH10, BH11, BH13BH15, BH16, BH17 and BH22	HT3 and HT4
	Promote the integration of suitably designed developments into existing urban and rural landscapes.		VP6, VP8, WZ6, WZ21 and HT3
	Prevent inappropriately designed developments in designated areas of architectural merit.		VP6, VP8, WZ6, WZ21 and HT3
Landscape & Visual	Ensure that all new plans and programmes incorporate the findings of the landscape Character Assessment for County Wicklow.	Refer to the Natural Heritage Strategy of the Wicklow County Development Plan.	
	Ensure that new development in the Waterfront Zone meets a high standard of design that respects the unique historical, environmental, visual and recreational amenities of the area.		WZ6
	Protect and Enhance the streetscape of Arklow Main Street through the appropriate control of alterations to existing buildings and the development of new structures; in particular building and roof lines and heights which diverge from the established form will require to be justified.		VP6
Material Assets	Protect the hydrological environment from adverse effects of the wastewater discharges by ensuring that there is suitable wastewater treatment to meet demands before discharge to the environment.	W7, W8, W9, W10	IT1
	Promote the development of the proposed new Arklow Wastewater Treatment Plant.		IT1
	Promote the development of sustainable transportation infrastructure where considered feasible. Refer to Objectives of the Wicklow County	TR1, TR2, TR3, TR4, TR5, TR6, TR7	VP2, VP5, IT3 and IT11
	Promote the implementation of the Waste Management Plan together with any future	WE6	

	National or Regional Waste Management Plans.		
	Encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste.	WE2, WE3, WE4, WE5, WE6	
	Ensuring specific national policies and regulations regarding waste Management are adhered to.	WE6, WE7 and WE8	
	Promote and facilitate community awareness and involvement in community-based recycling initiatives or environmental management initiatives that will lead to local Sustainable waste management practices.		IT3
	Promote the development of sufficient energy resources to meet the needs of the GDA and promote the use of renewable energies to meet those needs.	CCE6, CCE7, CCE8, CCE9, CCE10, CCE11, CCE12, CCE13, CCE14, CCE15 and CCE16	

8.2 SEA Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the revised LAP.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Wicklow County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Table 8.2 Monitoring Programme

Environmental Category	Target	Indicators	Data Sources, Responsibility, and Frequency
Biodiversity including Flora and Fauna	<p>Improve protection for protected sites and species.</p> <p>Improve protection for important wildlife sites, particularly protection of ecological linkages through the provision of green infrastructure.</p> <p>Improve access for the appreciation and promotion of wildlife.</p> <p>Preferably site new development in non-sensitive locations</p>	<p>Number and extent of Protected Sites.</p> <p>Areas actively managed for conservation.</p> <p>Population and range of Protected Species.</p> <p>Achievement of the Objectives of Biodiversity Plans</p>	<p>Sources: Wicklow County Council, National Parks and Wildlife Services, Fisheries Board and EPA.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>
Population and Human Health	<p>Reduce population exposure to high levels of noise, vibration and air pollution.</p> <p>Increase modal shift to public transport.</p> <p>Co-ordination of land use and</p>	<p>Census population data.</p> <p>Rates of Unemployment per area.</p> <p>% increase in housing (number and type).</p>	<p>Sources: Wicklow County Council and Central Statistics Office.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>

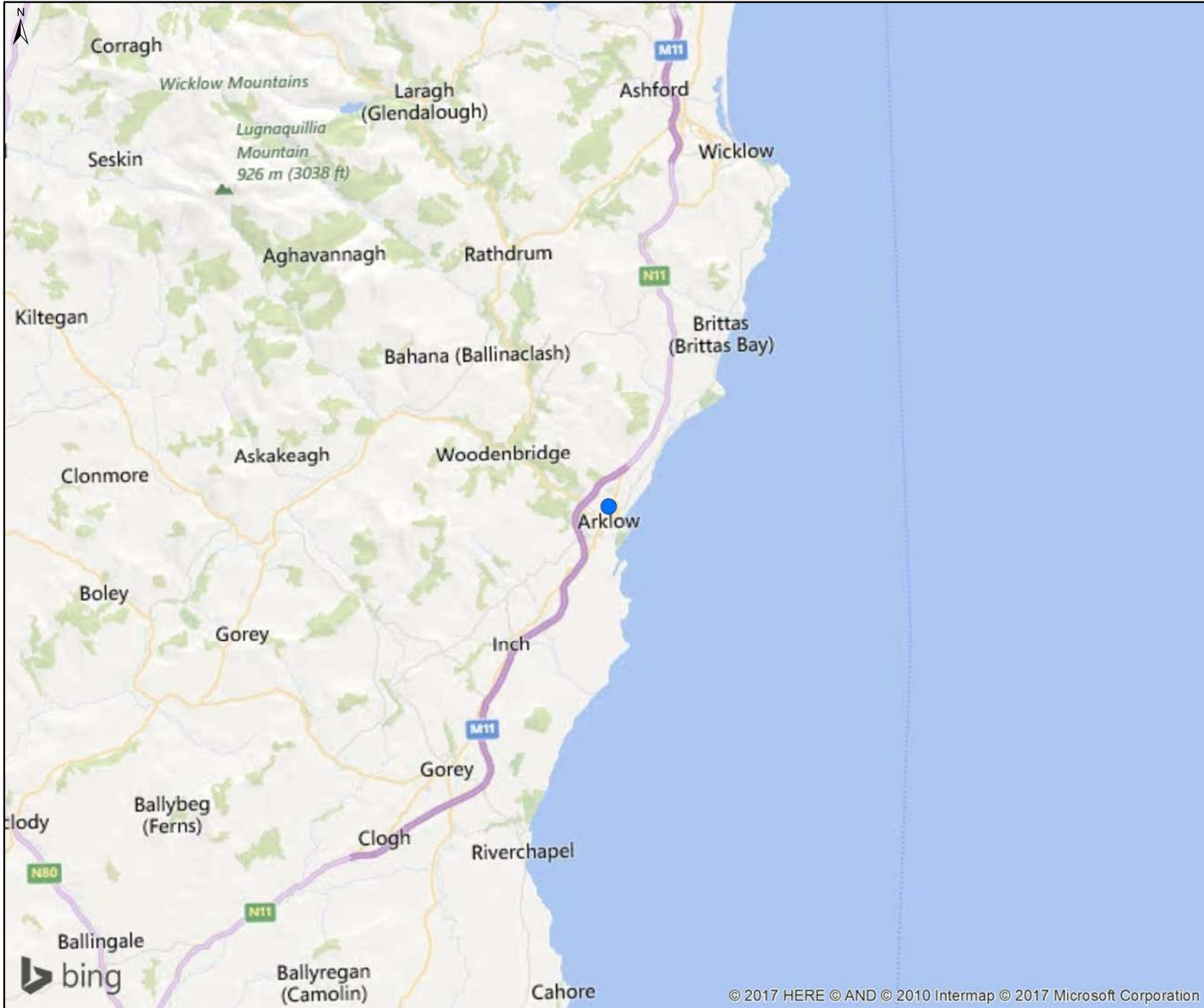
	<p>transportation policies.</p> <p>Reduction in journey to work (time/distance).</p> <p>Improve access to recreation opportunities</p>	<p>% change of commuter transport distances / times / range of public transport utilised.</p> <p>% of commuters using public transport.</p> <p>% change in education levels.</p>	
Soils and Geology	<p>Maintain the quality of soils.</p> <p>Safeguard strategic mineral reserves.</p> <p>Re-use of brownfield lands, rather than developing Greenfield lands.</p> <p>Minimise the consumption of non-renewable sand, gravel and rock deposits</p>	<p>Rates of re-use / recycling of construction waste.</p> <p>Rates of quarrying.</p> <p>Rates of brownfield site and contaminated land reuse and development.</p> <p>Rates of greenfield development.</p>	<p>Sources: Wicklow County Council and Environmental Protection Agency.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>
Water Resources	<p>Improve water quality in rivers, lakes and groundwater.</p> <p>Protection of catchments/basins.</p> <p>Management of zones vulnerable to flooding.</p> <p>Promote sustainable drainage practices to improve water quality and flow</p>	<p>Compliance of potable water sources to water quality regulations.</p> <p>Compliance of surface waters with national and international standards.</p> <p>Potable and wastewater treatment capacities versus population.</p> <p>% of wastewater requiring treatment.</p> <p>Achievement of the Objectives of the River Basin Management Plans.</p> <p>Amount of new developments within flood plains.</p>	<p>Sources: Wicklow County Council, Environmental Protection Agency and Fisheries Board.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>

		Annual costs of damage related to flood events.	
Air, Noise and Climate	<p>Reduce levels of air pollution including air and noise emissions.</p> <p>Consideration of noise exposure when zoning land for new developments.</p> <p>Minimise emissions of greenhouse gases.</p> <p>Reduce waste of energy, and maximise use of renewable energy sources</p>	<p>Traffic, Transport and Vehicular survey data.</p> <p>National and region specific emission data.</p> <p>Compliance with national standards.</p> <p>Reduction in greenhouse gas emissions.</p> <p>Compliance of emission licensed facilities.</p> <p>Number of energy / renewable energy production facilities.</p> <p>% of dwellings / businesses using renewable energies.</p> <p>Rates of energy / renewable energy consumption.</p>	<p>Sources: Wicklow County Council, Environmental protection Agency and Central Statistics Office.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development.</p>
Archaeological, Architectural and Cultural Heritage	<p>Enhance access to sites of heritage interest</p> <p>Regeneration of derelict and underutilised heritage sites.</p> <p>Improve appearance of areas with particular townscape character.</p> <p>Improve protection for protected archaeological sites and monuments and their settings,</p>	<p>Updating of inventories to include new sites / features.</p> <p>Achieving the objectives of development plans regarding heritage protection.</p> <p>Range and extent of areas of heritage potential.</p> <p>Range and extent of areas of special planning controls.</p>	<p>Sources: Wicklow County Council and Department of Environment Community and Local Government.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development.</p>

	protected structures and conservation areas and areas of archaeological potential.		
Landscape and Visual	<p>Improve protection for landscapes of recognised quality.</p> <p>Maintain clear urban/rural distinctions.</p> <p>Enhance provision of, and access to, green space in urban areas</p>	<p>Range and extent of Amenity Landscapes.</p> <p>Rates of development within designated landscapes.</p> <p>Rates of urban expansion.</p> <p>Rates of deforestation.</p> <p>Rates of agricultural land re-development likely to impact landscape.</p> <p>% change of land use from rural to urban.</p>	<p>Sources: Wicklow County Council and Department of Environment, Community and Local Government.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>
Material Assets	<p>Improve availability and accessibility of commercially provided facilities and public services.</p> <p>Increase local employment opportunities.</p> <p>Improve efficiencies of transport, energy and communication infrastructure.</p> <p>Improve waste water treatment infrastructure.</p> <p>Reduce the generation of waste and adopt a sustainable approach to waste management.</p>	<p>Location / level of infrastructure.</p> <p>Achievement of development plan objectives.</p> <p>Rates of deprivation.</p> <p>Rate of waste disposal to landfill statistics.</p> <p>Range and extent of recycling facilities and services.</p> <p>Rates of recycling.</p>	<p>Sources: Wicklow County Council, Central Statistics Office, National Roads Authority and Environmental Protection Agency.</p> <p>Responsibility: Wicklow County Council</p> <p>Frequency: Align with monitoring evaluation report on the effects of implementing Wicklow County Development Plan.</p>

Appendix A1

Figures



Legend

- Location of Arklow

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd

Kilometers

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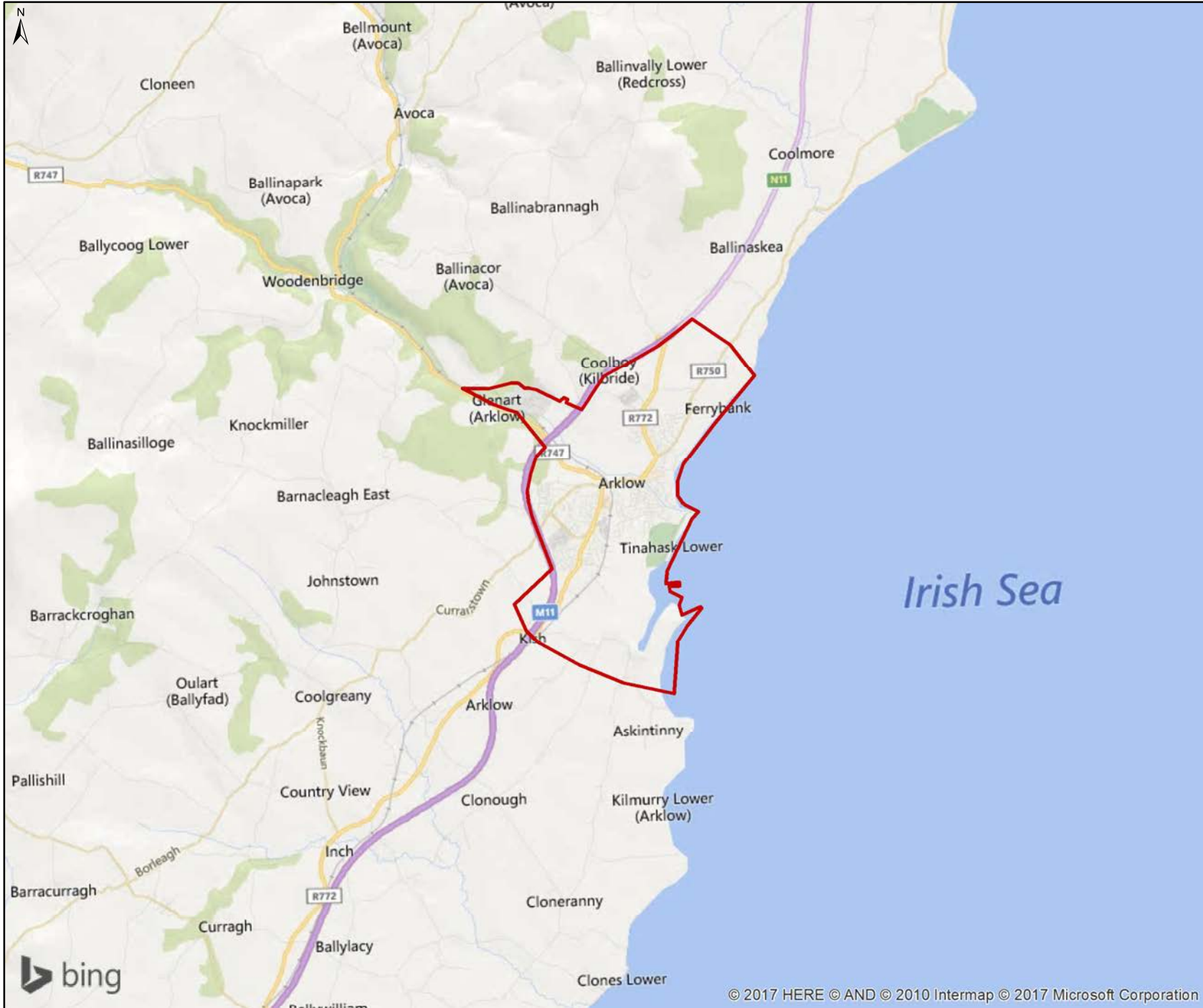
Job Title
Arklow Town and Environs LAP 2017-2023


Location of Arklow

Scale at A4
1:300,000

Job No 251896-00	Drawing Status For Issue
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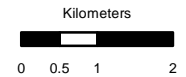
Drawing No Figure 4.1	Issue F1
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Legend
 Arklow Town and Environs
 LAP 2017- 2023 Study Boundary

Associated datasets and digital information objects connected to this resource are provided by Wicklow County Council

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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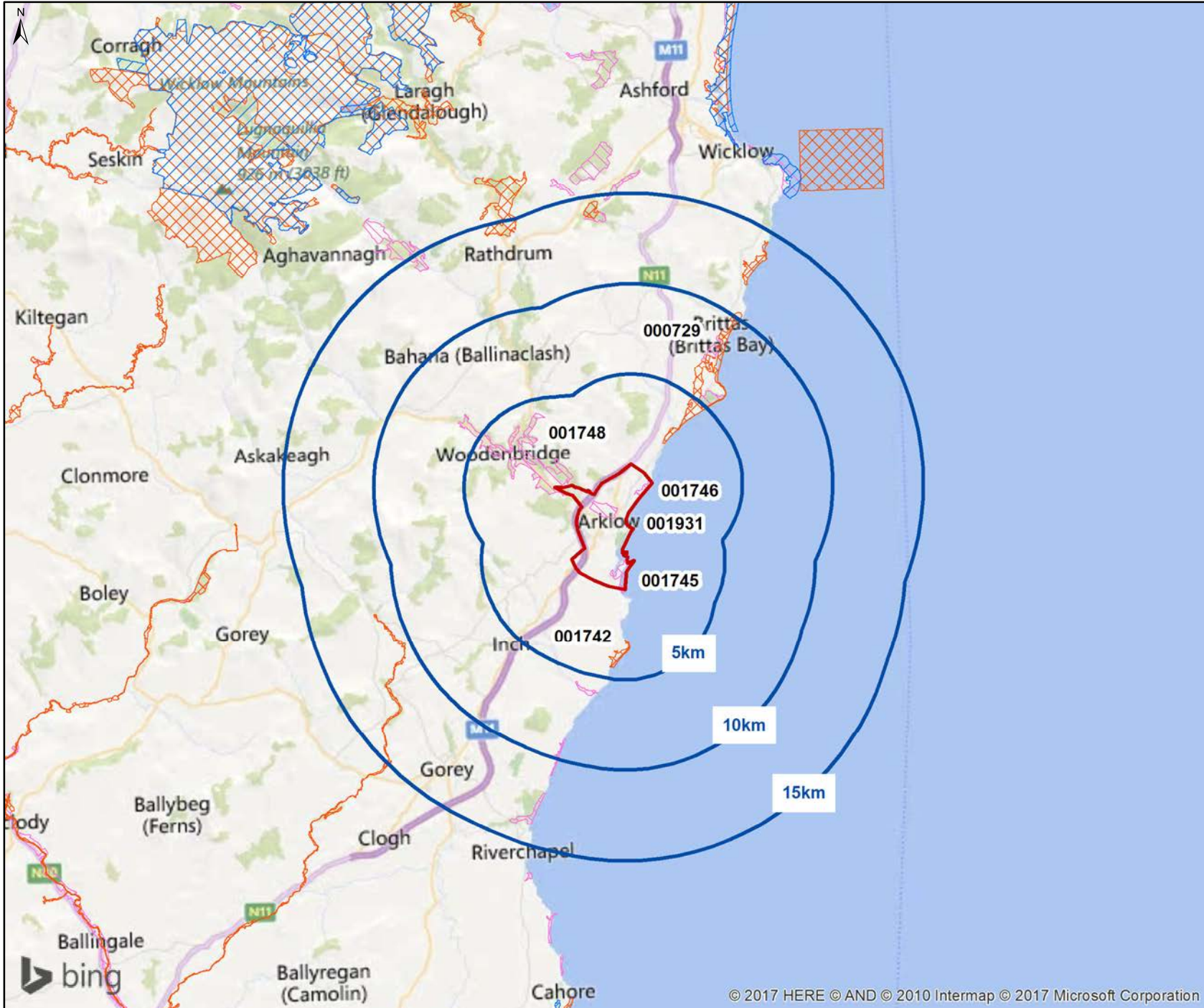
Job Title
Arklow Town and Environs LAP 2017-2023

Extent of Plan Area

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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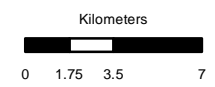
Drawing No Figure 4.2	Issue F1
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - Buffer
 - Special Protection Areas
 - Special Areas of Conservation
 - National Heritage Areas
 - Proposed National Heritage Areas

Associated datasets and digital information objects connected to this resource are available at the EPA GeoPortal managed by Environmental Protection Agency Ireland <http://gis.epa.ie/GetData/Download>

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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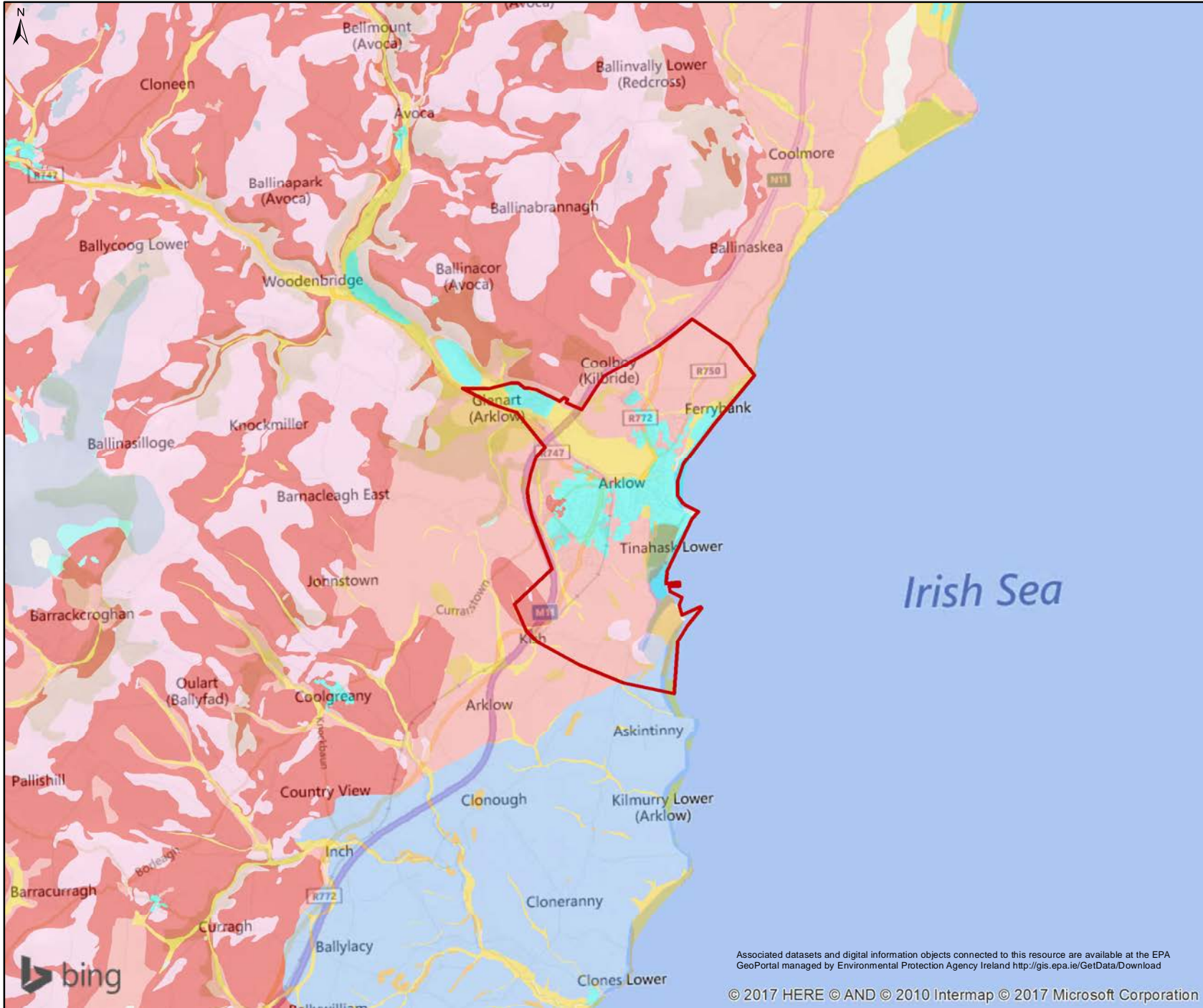
Job Title
Arklow Town and Environs LAP 2017-2023

Designated Sites

Scale at A4
1:300,000

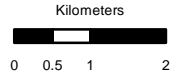
Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.3	Issue F1
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - AeoUND - Aeolian Undifferentiated
 - AlluvMIN - Mineral alluvium
 - AminDW - Acid Brown Earths / Brown Podzolics
 - AminPD - Surface water Gleys / Ground water Gleys Acidic
 - AminPDPT - Peaty Gleys Acidic
 - AminSP - Surface water Gleys / Ground water Gleys Shallow
 - AminSRPT - Podzols Peaty
 - AminSW - Lithosols / Regosols
 - BminPD - Surface water Gleys / Ground water Gleys Basic
 - Made
 - MarSands
 - MarSed
 - Water

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Job Title
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Soils

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.4	Issue F1
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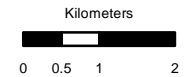
Arklow Town and Environs
 LAP 2017- 2023 Study Boundary

Generalised Bedrock

- GII - Granites & other Igneous Intrusive rocks
- OM - Ordovician Metasediments
- OV - Ordovician Volcanics

Associated datasets and digital information objects connected to this resource are available from the Geological Survey of Ireland at www.gsi.ie.

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Job Title
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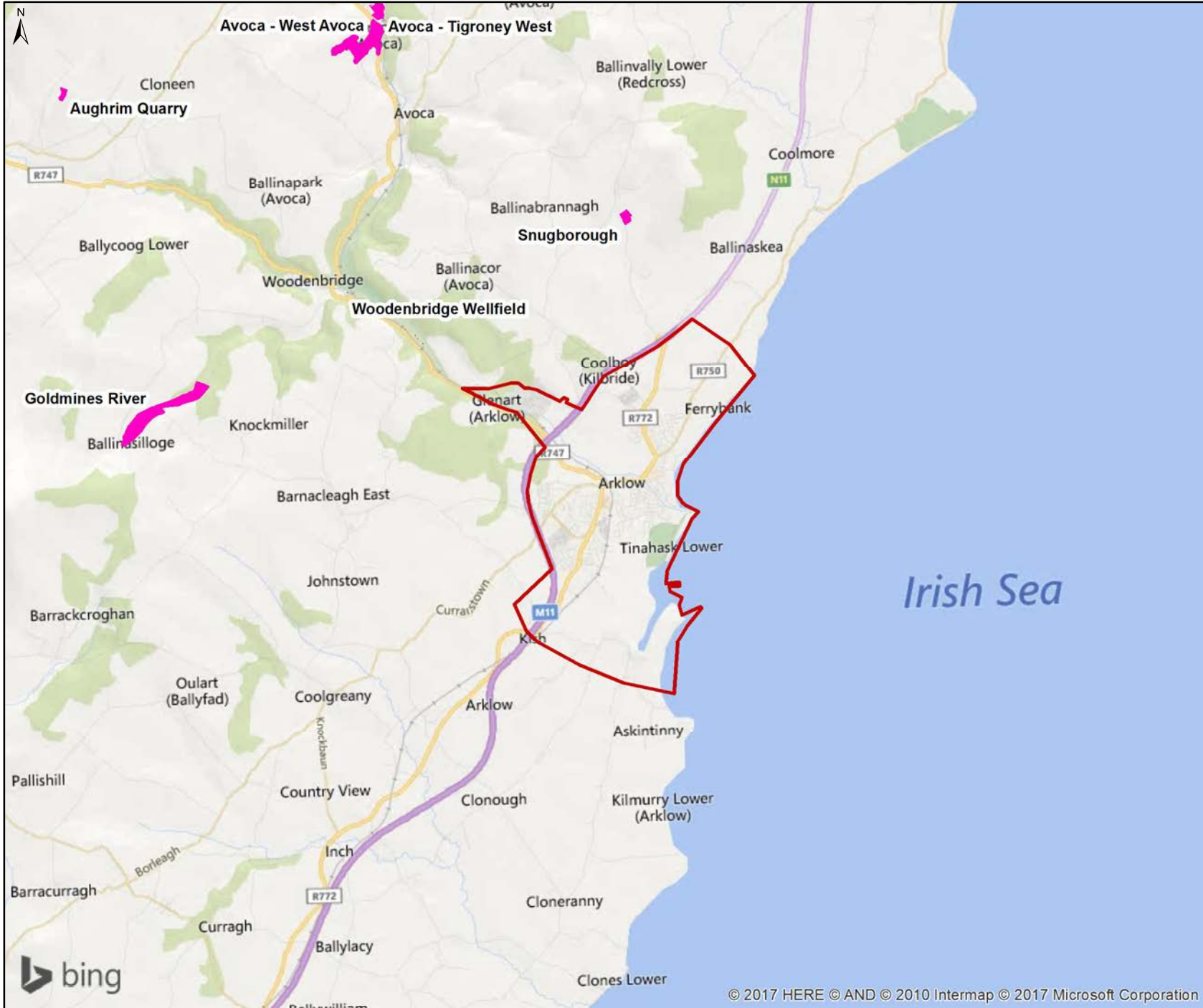
Geology

Scale at A4
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Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.5	Issue F1
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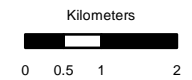
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - Geological Heritage Sites

Associated datasets and digital information objects connected to this resource are available from the Geological Survey of Ireland at www.gsi.ie.

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Job Title
Arklow Town and Environs LAP 2017-2023

Geological Heritage

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.6	Issue F1
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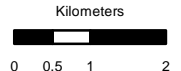


Legend

- Arklow Town and Environs
- LAP 2017- 2023 Study Boundary
- Streams
- Rivers

Associated datasets and digital information objects connected to this resource are available at the EPA GeoPortal managed by Environmental Protection Agency Ireland <http://gis.epa.ie/GetData/Download>

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Client
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Job Title
Arklow Town and Environs LAP 2017-2023

Surface Water Features

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.7	Issue F1
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Legend

Arklow Town and Environs
 LAP 2017- 2023 Study Boundary

WFD Risk Scores

- 1a At risk of not achieving good status
- 1b Possibly at risk of not achieving good status
- 2a Expected to achieve good status

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F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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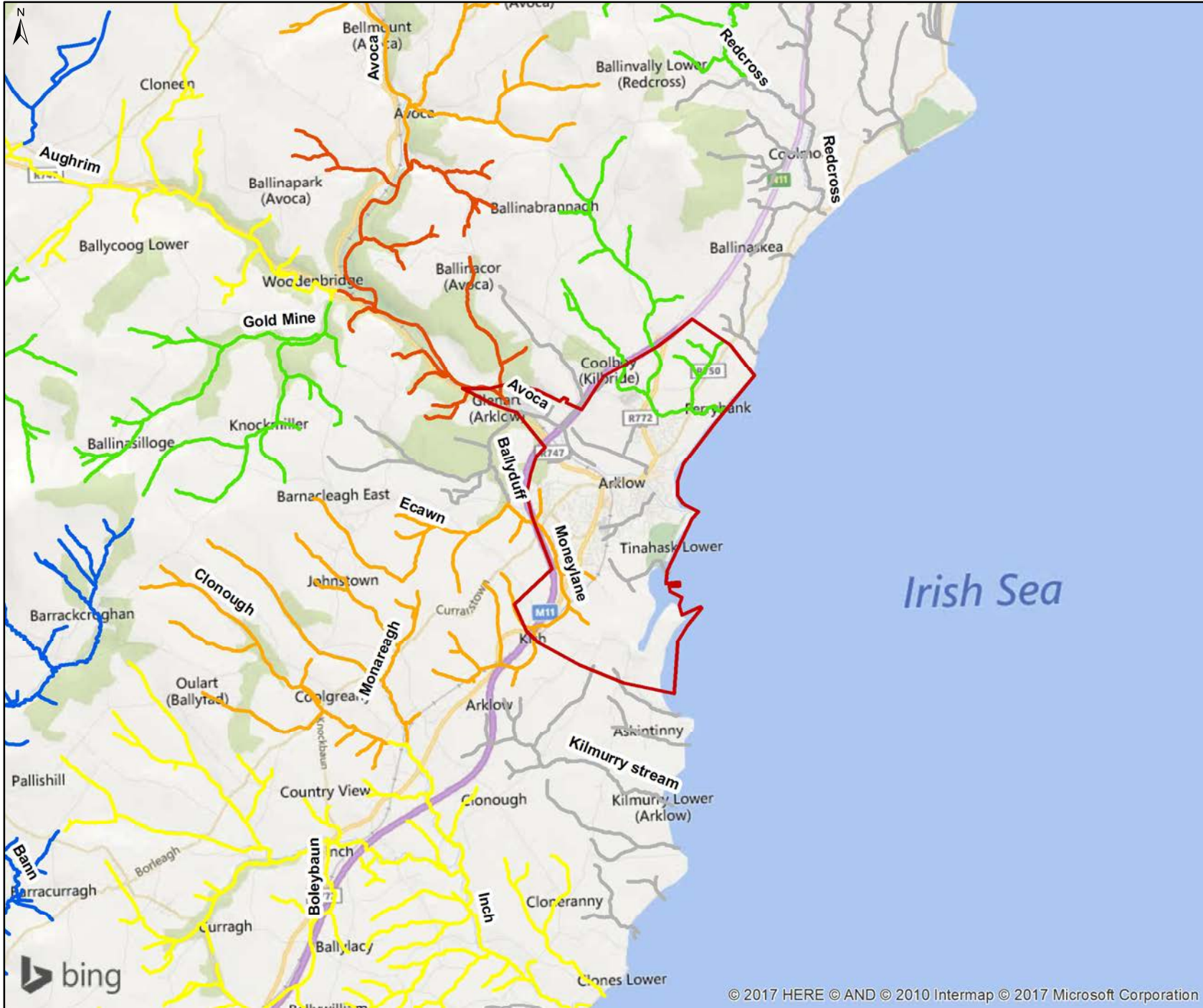
Job Title
Arklow Town and Environs LAP 2017-2023

WFD Risk Status

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.8	Issue F1
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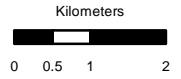


Legend
 Arklow Town and Environs
 LAP 2017- 2023 Study Boundary

WFD Status 2010 - 2015
 High
 Good
 Moderate
 Poor
 Bad
 Unassigned

The following datasets are included in the Sensitivity Map:
 Special Areas of Conservation
 Special Protection Areas
 Potential National Heritage Areas
 Surface Water WFD Status
 Groundwater WFD Status
 Recorded Monuments
 Protected Structures
 Protected Views and Prospects
 Groundwater Vulnerability

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Job Title
Arklow Town and Environs LAP 2017-2023

WFD Status - Lakes and Rivers

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.9	Issue F1
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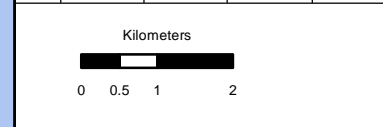


Legend

- Arklow Town and Environs
- LAP 2017- 2023 Study Boundary
- Rivers for Drinking Water
- Groundwater for Drinking Water**
 - Ballyglass
 - Buckroney-Brittas Dunes
 - Buckroney-Brittas Fen
 - Historic Mine (Avoca)
 - Inch
 - Wicklow

Associated datasets and digital information objects connected to this resource are available at the EPA GeoPortal managed by Environmental Protection Agency Ireland <http://gis.epa.ie/GetData/Download>

F1	2017-06-14	LD	SW	SW
Issue	Date	By	Chkd	Appd



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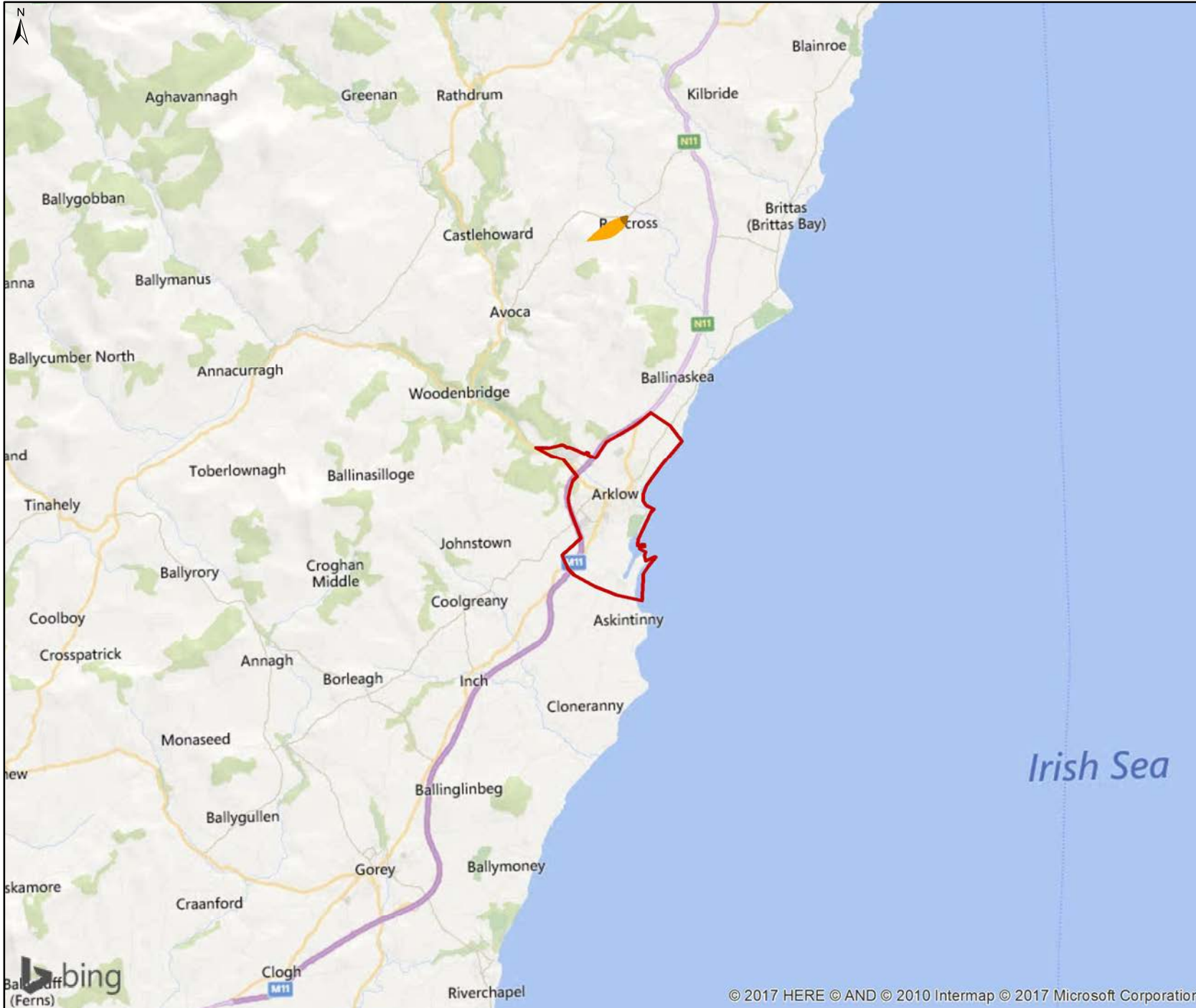
Job Title
Arklow Town and Environs LAP 2017-2023

Drinking Water

Scale at A4
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Job No 251896-00	Drawing Status For Issue
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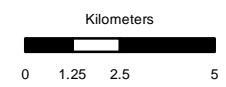
Drawing No Figure 4.10	Issue F1
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - Groundwater Features
 - Source Protection Zones**
 - SI - Inner Protection Zone
 - SO - Outer Protection Zone

Associated datasets and digital information objects connected to this resource are available from the Geological Survey of Ireland at www.gsi.ie.

F1	2017-06-15	LD	SW	SW
Issue	Date	By	Chkd	Appd



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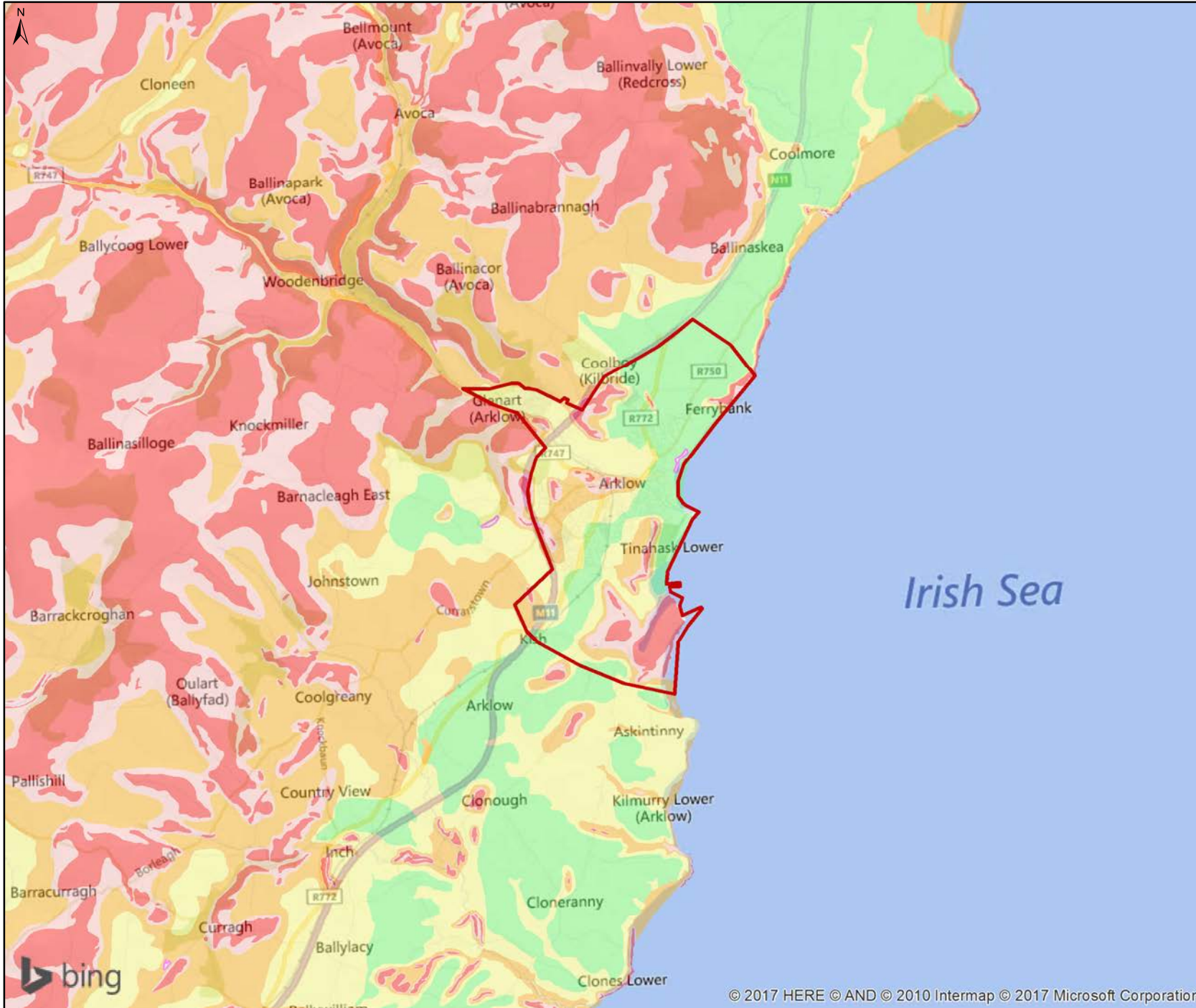
Job Title
Arklow Town and Environs LAP 2017-2023

Groundwater Features and Source Protection Zones

Scale at A4
1:200,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.11	Issue F1
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Legend

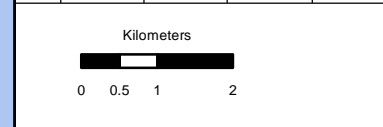
Arklow Town and Environs
 LAP 2017- 2023 Study Boundary

Groundwater Vulnerability

- X - Rock at or near Surface or Karst
- E - Extreme
- H - High
- M - Moderate
- L - Low
- Water

Associated datasets and digital information objects connected to this resource are available from the Geological Survey of Ireland at www.gsi.ie.

F1	2017-06-15	LD	SW	SW
Issue	Date	By	Chkd	Appd



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Client
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Job Title
Arklow Town and Environs LAP 2017-2023

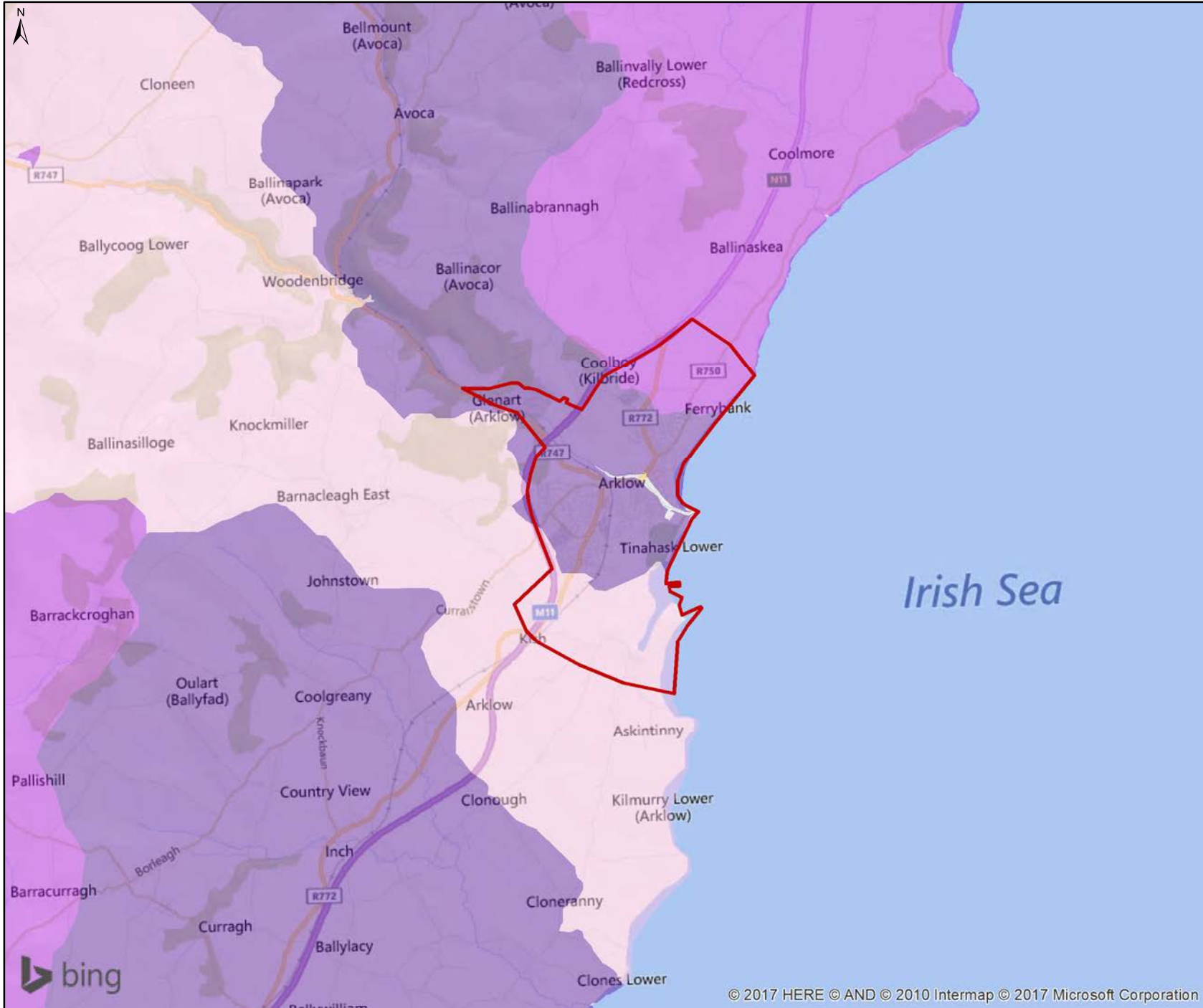
Groundwater Vulnerability

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.12	Issue F1
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Legend

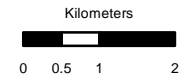
Arklow Town and Environs
 LAP 2017- 2023 Study
 Boundary

Groundwater Waterbody Risk Scores

- 1a - At risk of not achieving good status
- 1b - Possibly at risk of not achieving good status
- 2a - Expected to achieve good status
- 2b - Strongly expected to achieve good status

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F1	2017-06-15	LD	SW	SW
Issue	Date	By	Chkd	Appd



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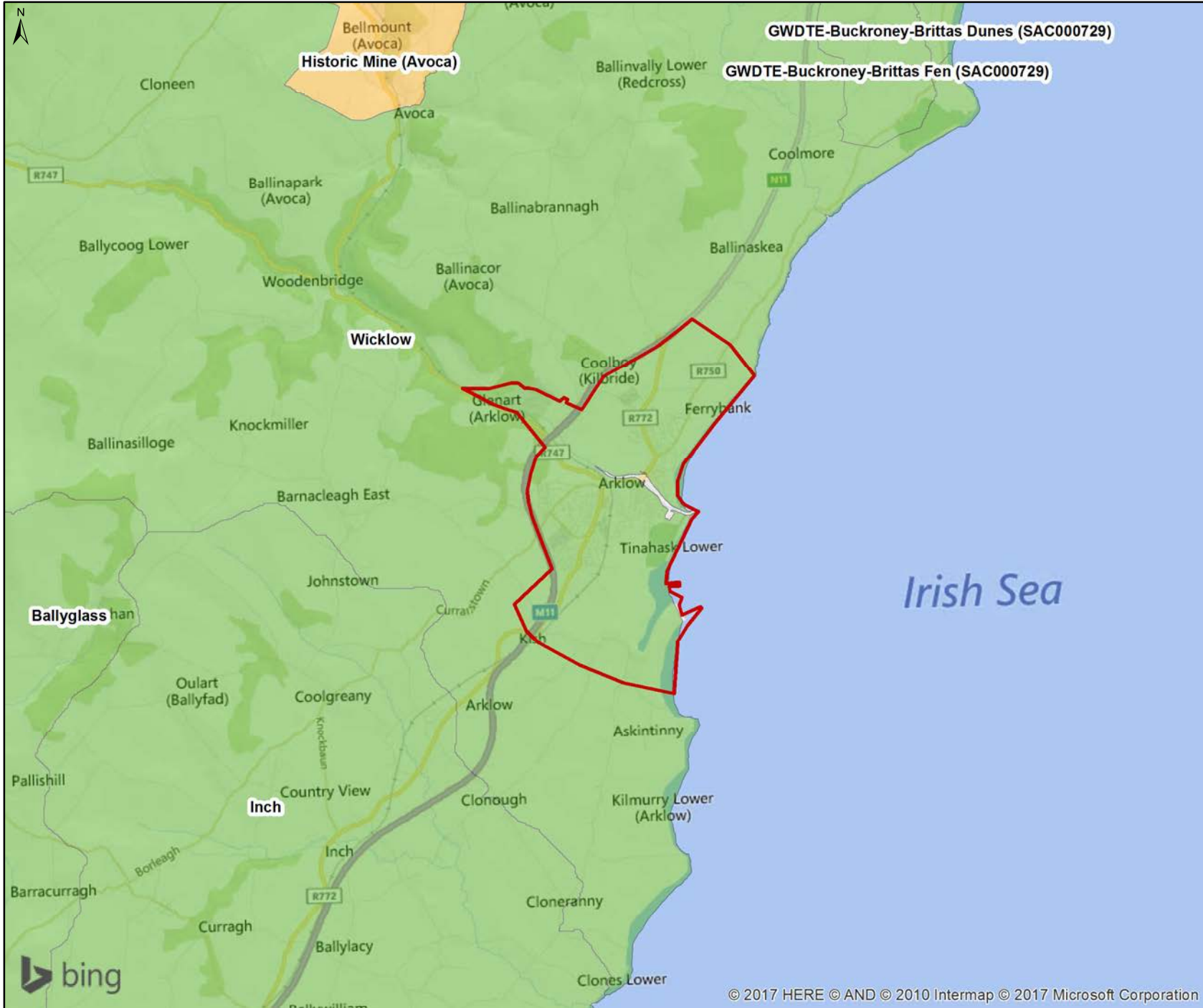
Job Title
Arklow Town and Environs LAP 2017-2023

WFD Groundwater Risk

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.13	Issue F1
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Legend

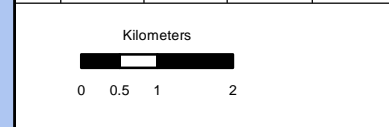
- Arklow Town and Environs
- LAP 2017- 2023 Study Boundary

WFD Status 2010 - 2015

- Good
- Poor

Associated datasets and digital information objects connected to this resource are available at the EPA GeoPortal managed by Environmental Protection Agency Ireland <http://gis.epa.ie/GetData/Download>

F1	2017-06-15	LD	SW	SW
Issue	Date	By	Chkd	Appd



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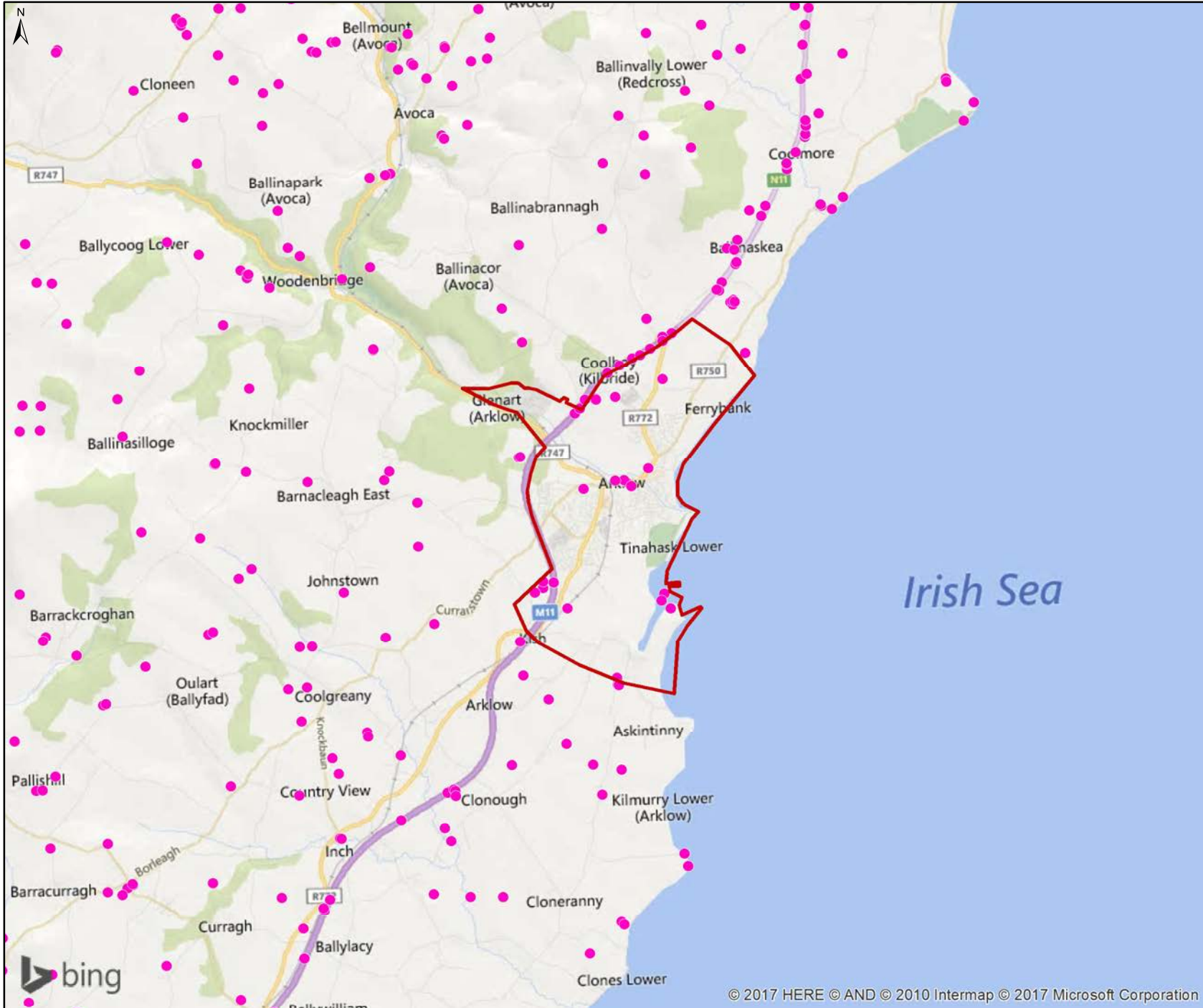
Job Title
Arklow Town and Environs LAP 2017-2023

WFD Groundwater Status

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.14	Issue F1
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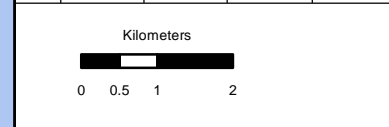


Legend

- Arklow Town and Environs
- ▭ LAP 2017- 2023 Study Boundary
- National Monuments

Associated datasets and digital information objects connected to this resource are available at the Historic Environment Viewer Managed by Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
<http://webgis.archaeology.ie/historicenvironment/>

F1	2017-06-15	LD	SW	SW
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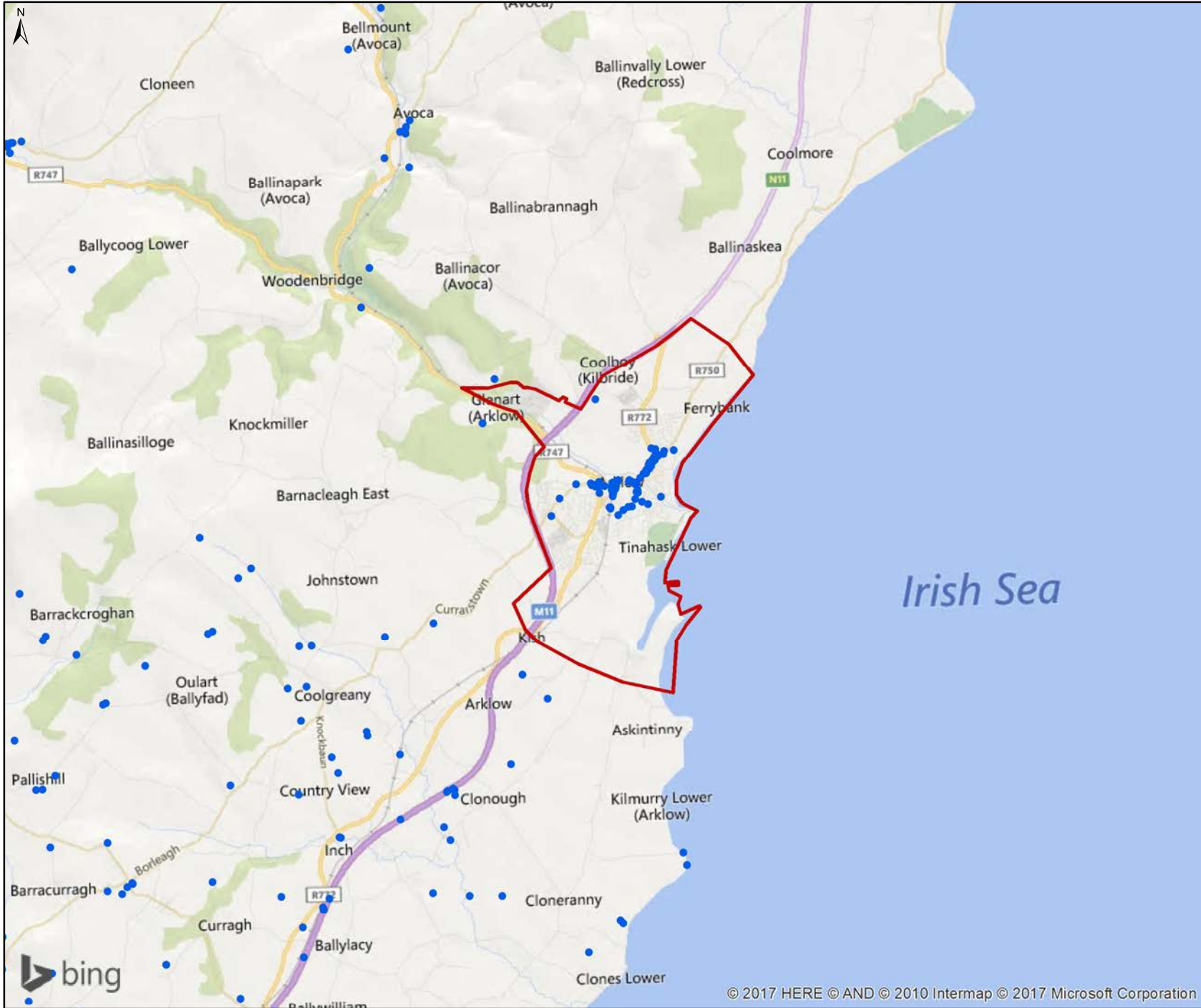
Job Title
Arklow Town and Environs LAP 2017-2023

Recorded Monuments

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.15	Issue F1
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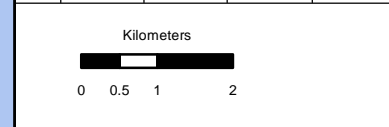


Legend

- Arklow Town and Environs
- LAP 2017- 2023 Study Boundary
- Protected Structures

Associated datasets and digital information objects connected to this resource are available at the Historic Environment Viewer Managed by Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
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Issue	Date	By	Chkd	Appd



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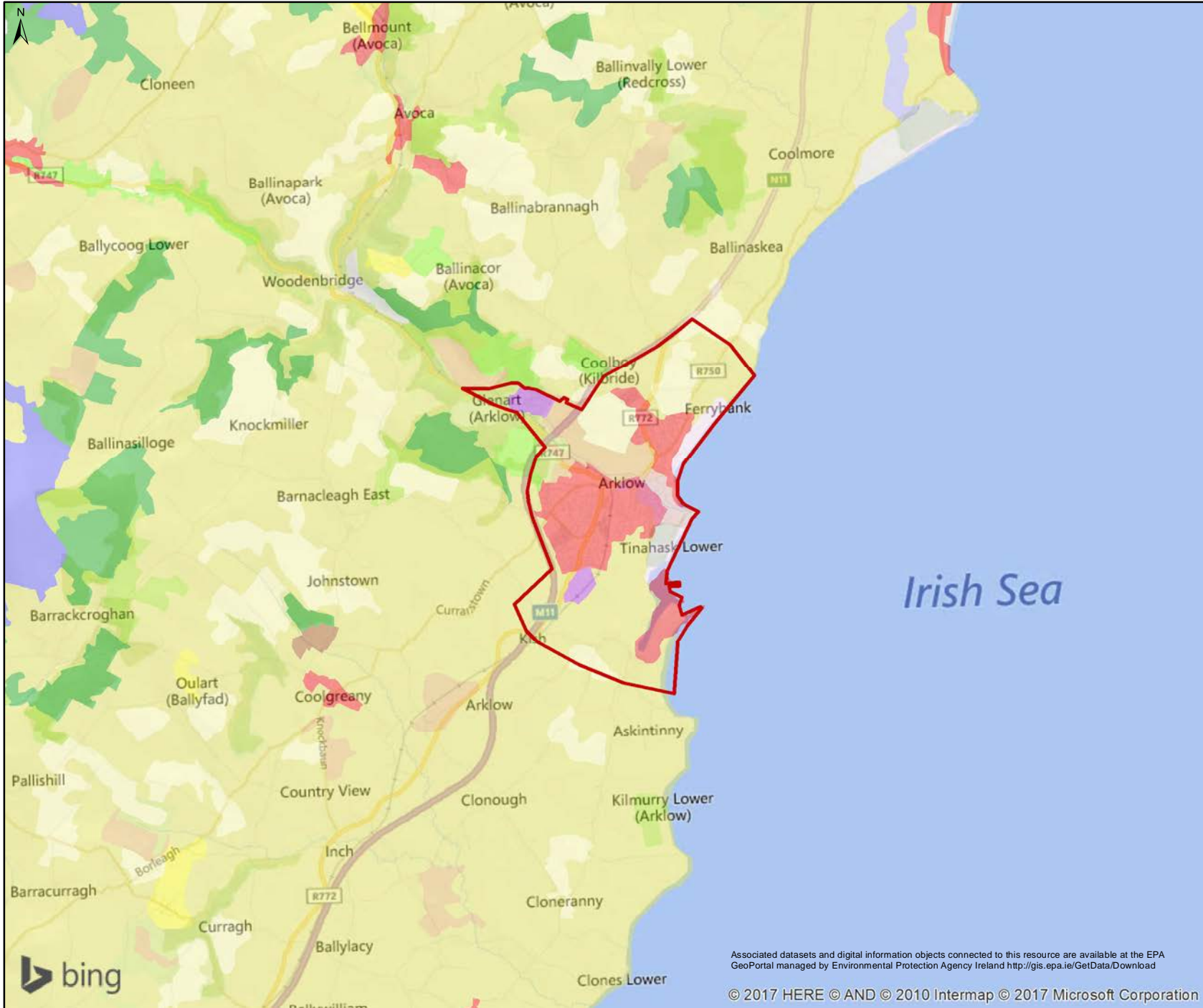
Job Title
Arklow Town and Environs LAP 2017-2023

Protected Structures

Scale at A4
1:100,000

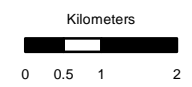
Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.16	Issue F1
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - 111 Continuous urban fabric
 - 112 Discontinuous urban fabric
 - 121 Industrial or commercial units
 - 123 Sea ports
 - 131 Mineral extraction sites
 - 132 Dump
 - 142 Sport and leisure facilities
 - 211 Non-irrigated land
 - 231 Pastures
 - 242 Complex cultivation patterns
 - 243 Land principally occupied by agriculture with areas of natural vegetation
 - 311 Broad-leaved forest
 - 312 Coniferous forest
 - 313 Mixed forest
 - 324 Transitional woodland scrub
 - 331 Beaches dunes sand
 - 411 Inland marshes
 - 412 Peat bogs

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CORINE Landcover

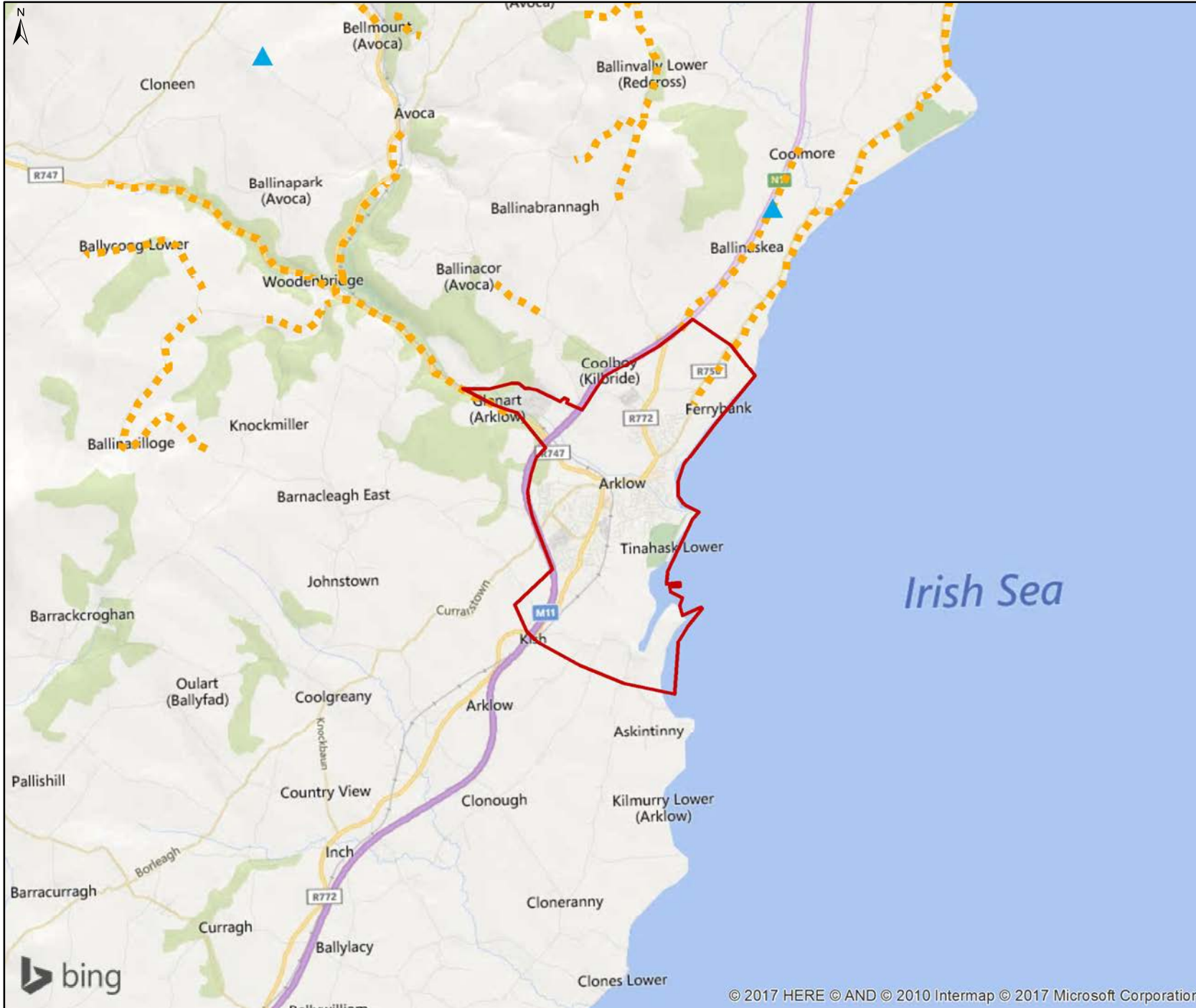
Scale at A4
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Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.17	Issue F1
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Associated datasets and digital information objects connected to this resource are available at the EPA GeoPortal managed by Environmental Protection Agency Ireland <http://gis.epa.ie/GetData/Download>

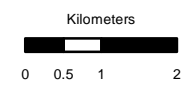
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- Legend**
- Arklow Town and Environs
 - LAP 2017- 2023 Study Boundary
 - Views County Development Plan 2016 to 2022
 - Prospects County Development Plan 2016 to 2022

Associated datasets and digital information objects connected to this resource are provided by Wicklow County Council

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Protected Views and Prospects

Scale at A4
1:100,000

Job No 251896-00	Drawing Status For Issue
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Drawing No Figure 4.18	Issue F1
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Legend

Arklow Town and Environs
 LAP 2017- 2023 Study
 Boundary

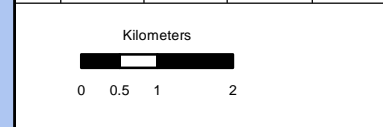
Sensitivity Overlay Classes

- 0 - 5 No Sensitivity
- 10 - 15 Low Sensitivity
- 20 - 25 Moderate Sensitivity
- 30 - 35 Elevated Sensitivity
- 40 - 45 High Sensitivity
- 50 - 60 Extreme Sensitivity

The following datasets are included in the Sensitivity Map:

- Special Areas of Conservation
- Special Protection Areas
- Potential National Heritage Areas
- Surface Water WFD Status
- Groundwater WFD Status
- Recorded Monuments
- Protected Structures
- Protected Views and Prospects
- Groundwater Vulnerability

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Sensitivity Mapping

Scale at A4

1:100,000

Job No	Drawing Status
251896-00	For Issue

Drawing No	Issue
Figure 4.19	F1

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