SEA Environmental Report

Appendix II – Non-Technical Summary

FOR THE

Portarlington Joint Local Area Plan 2025-2031

for: Laois and Offaly County Councils

by: CAAS Ltd.

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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for the Portarlington Joint Local Area Plan (JLAP) 2025-2031. The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Plan. The Environmental Report has been prepared as part of a Strategic Environmental Assessment (SEA) process for the Plan.

What is SEA?

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a proposed plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic, social and other considerations.

Why is SEA needed? The Benefits

SEA is the Councils' and the public's guide to what are generally the best areas for development in the town.

SEA enables the Councils to direct development towards robust, well-serviced and connected areas in the town – thereby facilitating the general avoidance of incompatible development in the most sensitive, least well-serviced and least well-connected areas, in the town and beyond.

SEA provides greater certainty to the public and to developers. Plans are more likely to be adopted without delays or challenges and planning applications are more likely to be granted permission. Environmental mitigation is more likely to cost less.

The Plan directs incompatible development away from the most sensitive areas in the town and focuses on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services.

Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

How does the SEA work?

All of the main environmental issues in the area were assembled and considered by the team who prepared the Plan. This helped them to devise a Plan that contributes towards the protection and management of environmental sensitivities. It also helped to identify wherever potential conflicts between the Plan and the environment exist and enabled these conflicts to be mitigated.

The SEA was scoped in consultation with designated environmental authorities.

What is included in the Environmental Report that accompanies the Plan?

- A description of the environment and the key environmental issues;
- A description and assessment of alternatives for the Plan;
- An assessment of the provisions of the Plan; and,
- Mitigation measures, which will avoid/reduce the environmental effects of implementing the Plan and will contribute towards compliance with important environmental protection legislation.

Difficulties Encountered during the SEA process

No significant difficulties have been encountered during the undertaking of the assessment to date.

What happens at the end of the process?

An SEA Statement is prepared which summarises, inter alia, how environmental considerations have been integrated into the Plan.

Section 2 The Plan

2.1 Introduction and Content

The Portarlington Joint Local Area Plan (JLAP) 2025-2031 has been prepared and adopted in accordance with the requirements and provisions of the Planning and Development Act 2000, as amended (hereafter referred to as 'the Act').

The Plan sets out an overall strategy for the proper planning and sustainable development of Portarlington, in the context of the Laois County Development Plan 2021-2027, the Offaly County Development Plan 2021-2027 and the Eastern and Midland Regional Spatial and Economic Strategy 2019-2031. The Draft has also been informed by Ministerial Guidelines issued pursuant to Section 28 of the Act.

2.2 Form and Content of the Plan

The Plan comprises a written statement and accompanying maps. The written statement shall take precedence over the map should any discrepancy arise. In the full interpretation of all objectives for Portarlington, it is essential that both the County Development Plans and the Joint Local Area Plan are read together. Where conflicting objectives arise between the two, the objectives of the former shall take precedence.

The general development management standards applicable to the Plan area are included in the County Development Plans, while policies and objectives that are specific to Portarlington are included in the JLAP.

It is a specific provision of the Plan to ensure that all of the provisions from the Laois County Development Plan 2021-2027 and Offaly County Development Plan 2021-2027 identified in this SEA Environmental Report and accompanying Appropriate Assessment (AA) Natura Impact Report that accompany this Plan shall be complied with throughout the implementation of this Plan.

2.3 Vision Statement and associated Key Plan Objectives

The Joint Local Area Plan for Portarlington is underpinned by the following Vision Statement, which is intended to guide the future growth of the town over the period 2025-2031: "To develop Portarlington as a sustainable low carbon settlement centred on a compact, vibrant town centre utilising locational strengths to attract employment and to promote the unique settlement as an attractive town in which to live, work and play, while ensuring the management of flood risk and the protection of the unique built and natural heritage".

Key Plan Objectives in relation to the delivery of the above Vision Statement are as follows:

- Objective 6.1: Support new development that will enable sustainable housing growth, employment and prosperity for Portarlington as a 'Key Service Centre' in line with the Strategic Objectives of the Regional Spatial and Economic Strategy for the Eastern and Midland Region (2019), the Laois County Development Plan 2021 – 2027 (designated as a Self-Sustaining Growth Town) and the Offaly County Development Plan 2021 – 2027 (designated as a Self-Sustaining Town).
- Objective 6.2: Promote and support positive placemaking and the development of sustainable communities, with an emphasis on active travel and shorter walking and cycling timeframes to social and community facilities, improving permeability in the built environment, and encouraging a reduction in car dependency.
- Objective 6.3: Support and facilitate the regeneration and consolidation of the town centre, in line with the objectives of the 'Portarlington Regeneration Strategy 2030', while emphasising heritage-led regeneration.
- Objective 6.4: Work in partnership with community groups for the regeneration and revitalisation of Portarlington, and to actively seek and secure funding and investment under available national and regional investment and funding programmes in line with the development strategy as set out.
- Objective 6.5: Support compact residential growth in Portarlington through the sustainable intensification, and consolidation of the town centre and in established residential areas, to meet identified housing targets and requirements.
- Objective 6.6: Monitor and manage the delivery of housing in Portarlington, in line with national, regional and county level objectives, through the development strategy in this plan and also through the development management process.
- Objective 6.7: Promote and support balanced economic development and employment growth.
- Objective 6.8: Protect, conserve and enhance the built, natural and cultural environment, by promoting awareness and high-quality urban design and utilising relevant heritage legislation.
- Objective 6.9: Develop and improve flood mitigation measures throughout the town and rural hinterland.

- Objective 6.10: Enhance climate adaptation and mitigation, and accelerate a transition to a low carbon, climate resilient and environmentally sustainable economy in Portarlington.
- Objective 6.11: Ensure that Portarlington grows at a sustainable level in line with the Core Strategy Table and deliver consolidation and targeted 'catch up' investment in services, infrastructure, amenities and local employment in order to become more self-sustaining.
- Objective 6.12: Development within flood risks areas shall be limited to that appropriate to the level of flood risk, as identified in Map 3 (Land Use Zoning, SAC and Flood Zoning) in accordance with the provisions of the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009), as amended. New development within this area is limited to water-compatible uses in Flood Zone A and less vulnerable or water compatible uses in Flood Zone B except where all criteria of the Plan Making and Development Management Justification Tests have been shown to have been satisfied and a detailed SSFRA has been prepared.

2.4 Strategic work undertaken by the Councils to ensure contribution towards environmental protection and sustainable development

Far in advance of the placing of the Draft Plan on public display and adopting the Plan, Laois and Offaly County Councils undertook various works in order to inform the preparation of the Plan.

Strategic work undertaken by the Councils includes background work in relation to Plan provisions, including those relating to:

- Core Strategy;
- Climate change;
- Town centre revitalisation;
- Placemaking;
- Housing;
- Economic development;
- Transport and movement;
- Community services development;
- Built heritage; and
- Biodiversity and natural heritage.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Plan provisions.

2.5 Relationship with other relevant Plans and Programmes

It is acknowledged that many of the major issues affecting Portarlington's development are contingent on national policy and government funding.

The Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Plan must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents include plans and programmes such as those referred to throughout this summary. These documents have been subject to their own environmental assessment processes, as relevant.

The Revised National Planning Framework sets out Ireland's planning policy direction up to 2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Local Area Plans. The Regional Spatial and Economic Strategy for the Eastern and Midland Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must, as relevant and appropriate, be implemented through the Laois and Offaly County Development Plans, that set out the overarching development strategy for the Counties, and the Joint Local Area Plan.

In order to be realised, projects included in the Joint Local Area Plan (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

Section 3 The Environmental Baseline

3.1 Introduction

The summary of the environmental baseline of the Plan area is described in this section. This baseline together with the Strategic Environmental Objectives, which are identified in Section 3.11, is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Plan and in order to determine appropriate monitoring measures.

3.2 Likely Evolution of the Environment in the Absence of the Plan

In the absence of a new Joint Local Area Plan for Portarlington, the framework for development across the Plan area would be provided by the County Development Plans and other related documents. There would be no Joint Local Area Plan to provide additional detail beyond that provided already through the existing planning framework as how to achieve sustainable development and environmental protection and management in the town. As a result, there would be both:

- A decreased likelihood in the extent, magnitude and frequency of the positive environmental effects identified by this assessment occurring; and;
- An increased likelihood in the extent, magnitude and frequency of the adverse environmental effects identified by this assessment occurring.

3.3 Biodiversity and Flora and Fauna

Key ecological sensitivities within and surrounding the Plan area include:

- **River Barrow and River Nore Special Area of Conservation, situated partially within the central parts of the Plan area**. The sensitive features of the River Barrow and River Nore Special Area of Conservation include: estuaries; mudflats and sandflats not covered by seawater at low tide; reefs; annuals colonising mud and sand; Atlantic salt meadows; Mediterranean salt meadows; water courses of plain to montane levels and associated vegetation; European dry heaths; tall herb fringe communities of plains and of the montane to alpine levels; petrifying springs with tufa formation; old sessile oak woodlands; alluvial forests; Desmoulin's whorl snail; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; salmon; otter; Killarney fern; and Nore pearl mussel.
- **Mountmellick Special Area of Conservation,** located c. 4.6 km to the south-west of the Plan area.
- **Non-statutorily proposed sites surrounding the Plan area, comprising:**
    - **Emo Court proposed Natural Heritage Area,** located c. 3.4 km to the south of the Plan area.
    - **Derries Wood proposed Natural Heritage Area,** located c. 4.8 km to the south-east of the Plan area.
    - **Grand Canal proposed Natural Heritage Area,** located c. 4.8 km to the south-east of the Plan area.
- Peatland areas adjacent to the northern parts of the Plan area: **Derryounce Bog and Derrylea Bog;**
- **Locally important, non-designated habitats within the Plan area**, including the River Barrow nature corridor, the People's Park, the woodland area at the rear of Kilnacourt House (Formerly Odlums Wood), Carrick Woods, the Derryounce Lakes and Trails recreation area, various woodlands, parks, gardens, hedgerows, old buildings/stone walls and lands used for agriculture within and surrounding the Plan area, providing habitats for flora and fauna and facilitating linkages and corridors to the surrounding countryside for the wildlife; and
- **Aquatic and riverine ecology** associated with rivers and streams and their tributaries and riparian buffer zones, including the **River Barrow and River Kilkeeran.**

Designated sites in the wider area include Special Areas of Conservation[1] (SACs) and Special Protection Areas[2] (SPAs). These are mapped on Figure 3.1. There are a total of three European sites (two SACs and one SPA) designated within 15 km of the Plan boundary.

The CORINE 2018[3] mapping (as shown on Figure 3.2) identifies the land cover of central parts of the Plan area as urban fabric with adjacent areas of pastures, non-irrigated arable land, complex cultivation

[1] SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The Regulations have been prepared to address several judgments of the Court of Justice of the European Union (CJEU) against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

[2] SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

[3] The CORINE (Co-ordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner.

patterns and land principally occupied by agriculture with significant areas of natural vegetation. Mixed forests, broad leaved forests, transitional woodland scrub and peat bogs are identified to the north and south of the Plan area.

Existing Problems
Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Ireland's Article 12 Birds Directive Reports and the 6th National Report under the Convention of Biological Diversity identify similar issues.

The Plan includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services.

Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna; however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

3.4 Population and Human Health

The results of Census 2022 within the CSO boundary of Portarlington recorded a population of 9,288 persons. This represents a 10.9% increase in population since Census 2016.[4] The Core Strategy in Laois County Development Plan 2021-2027 provides for a population growth in Portarlington up to 1,000 persons over the Plan period, and an associated housing allocation of 400 units. The Core Strategy of the Offaly County Development Plan indicates a population increase for its functional area in Portarlington of 207 persons over the Plan period, and an associated housing allocation of 140 units.

Portarlington is identified as a Self-Sustaining Growth Town within the Laois County Development Plan 2021-2027 and a Self-sustaining Town within the Offaly County Development Plan 2021-2027. As set out in the Eastern and Midland Regional Spatial and Economic Strategy Self-Sustaining Growth Towns and Self-Sustaining Towns are *'settlements that act as regionally important local drivers providing a range of functions for their resident population and their surrounding catchments including housing, local employment, services, retail and leisure opportunities'.* Portarlington therefore performs an important retail, residential, service and amenity function for its population and for its local rural hinterlands. It also supports the upper tiers of the urban hierarchy including the larger towns of Portlaoise in County Laois and Tullamore in County Offaly.

The population provided for in the Plan will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes;
- Contribution towards increase in demand for waste water treatment at the municipal level;
- Contribution towards increase in demand for water supply and associated potential impact of water abstraction;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan.

Existing Problems
The number of homes within the Plan area with radon levels above the reference level is within the normal range experienced in other locations across the country.

[4] Portarlington JLAP 2025-2031.

Parts of the Plan area are vulnerable to adverse effects from changes in the occurrence of severe rainfall events and associated flooding from surface water. Flooding in certain circumstances could pose a risk to human health. There is historic and predictive evidence of flooding within the Plan area.

3.5 Soil

Main soil types surrounding the built-up areas[5] of Portarlington are: groundwater gleys (wetland soils with slowly permeable horizons resulting in seasonal waterlogging), alluvial soils (associated with alluvial clay, silt or sand river deposits of the River Barrow) and peat soils[6] (these are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues).

Geological Survey Ireland coordinate the Irish Geological Heritage Programme, whereby an objective has been set to identify and select sites of geological interest within each county across the country. County Geological Sites (CGSs) do not receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. The audit of CGSs in County Laois was completed in 2016, which identified 33 CGSs in County Laois. The audit of CGSs in County Offaly was completed in 2016, which identified 28 CGSs in County Offaly. There are no County Geological Sites occurring within the Plan area.

The GSI have identified[7] the Plan area as having mainly low levels of landslide susceptibility.

3.6 Water

Surface water within and around the Plan area is channelled by rivers, streams and their tributaries. The River Barrow flows west to east through the Plan area. The current WFD (2016-2021) status[8] of the rivers and streams draining the Plan area is *moderate* (identified by the EPA as 'Kilkeeran_010') and *poor* (identified by the EPA as 'Barrow_070' and 'Barrow_080'). Subject to exemptions provided for by Article 4 of the WFD, some of these water bodies will need improvement in order to comply with the objectives of the WFD. Figure 3.3 illustrates the WFD surface water status within and surrounding the Plan area.

The River Barrow is currently identified in the combined 2016-2021 data as being at risk of not meeting the WFD's objectives due to damage caused by significant pressures related to[9]:

- **Urban wastewater pressures**, which may include direct discharge of nutrients from urban wastewater treatment plants and discharge from combined storm overflows or storm water overflows. Discharges of elevated concentrations of phosphorus, ammonium and nitrogen impact on the ecology of surface waters;
- **Urban run-off pressures,** which may include leaking sewers and run-off from paved and unpaved areas and misconnections where private foul connections are connected to storm sewers instead of the foul sewer network; and
- **Agricultural pressures**, which may include issues related to farming including loss of excess nutrients and sediment loss to surface waters from diffuse sources such as spreading of fertilisers and manures. Excess phosphorous and sediment are typically issues for rivers and lakes, and too much nitrogen is the main issue for estuaries and coastal waters.

The WFD status (2016-2021) of all groundwater underlying the Plan area (mapped on Figure 3.4) is generally identified as being of *good* status and meeting the objectives of the WFD, except for an area of *poor* status[10] in the south-east of the Plan area, which is identified as being at risk of not meeting the WFD's objectives due to groundwater contamination.

Strategic Flood Risk Assessments (SFRAs) have informed the preparation of the County Development Plans, which include flood risk management and drainage provisions. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA undertaken for the JLAP has informed its land use zoning and written provisions.

[5] The built-up areas are mainly made up of urban soils. Urban soils are soils, which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas.
[6] Peatlands are a very characteristic habitat in County Offaly, with groundwater and rain fed peat soils being a prominent and typical feature in the landscape.
[7] https://www.gsi.ie/en-ie/programmes-and-projects/geohazards/projects/Pages/Landslide-Susceptibility-Mapping.aspx
[8] As per EPA's WFD Status 2016-2021 classification (https://gis.epa.ie/EPAMaps/).
[9] https://gis.epa.ie/EPAMaps/Water
[10] Overlying an Industrial Facility (License Number: P0274-01). The facility has been demolished and the site is currently undergoing groundwater and soil remediation works for groundwater contamination monitored by the EPA.

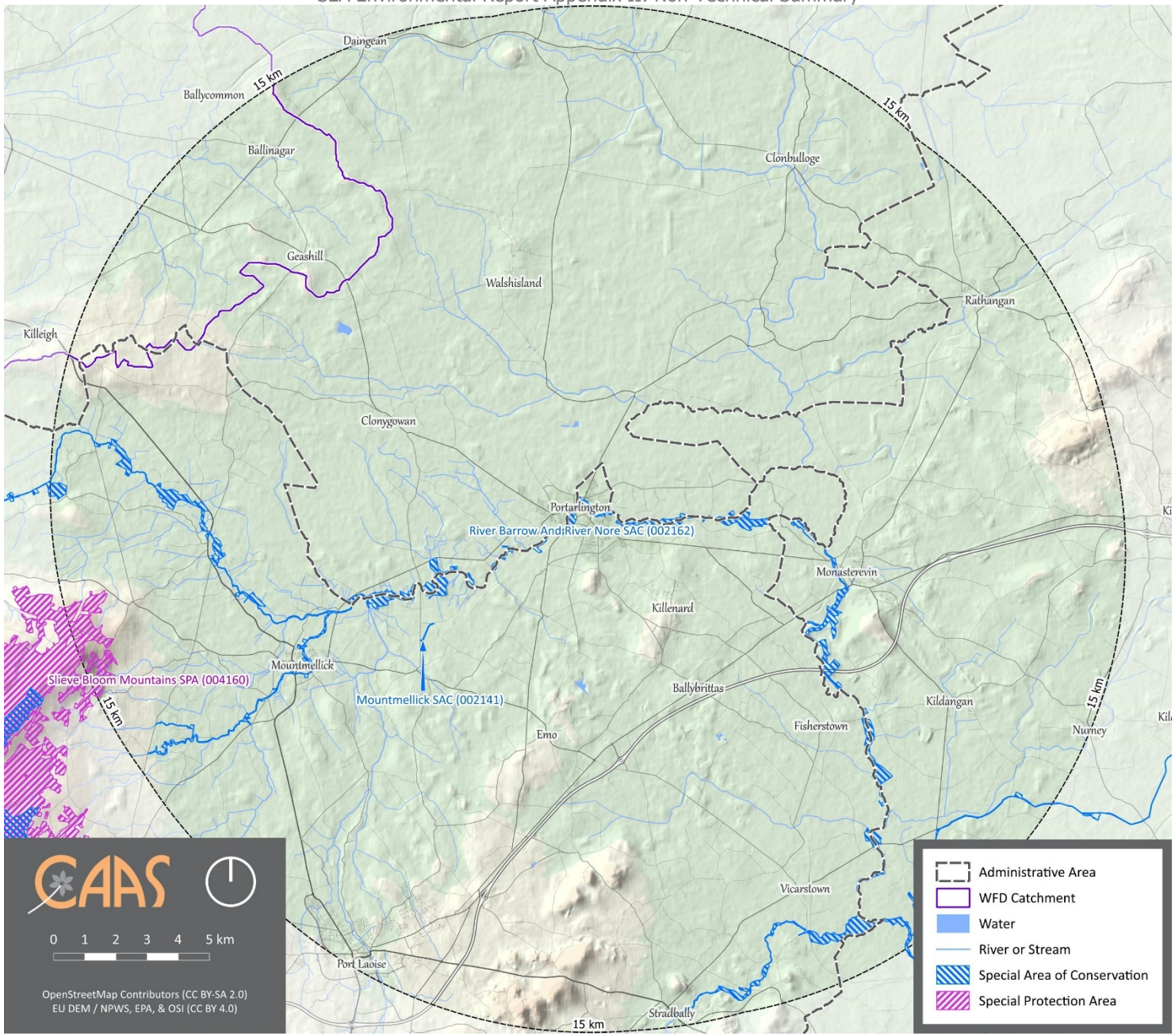

Figure 3.1 European Sites within and within 15 km buffer of the Plan area

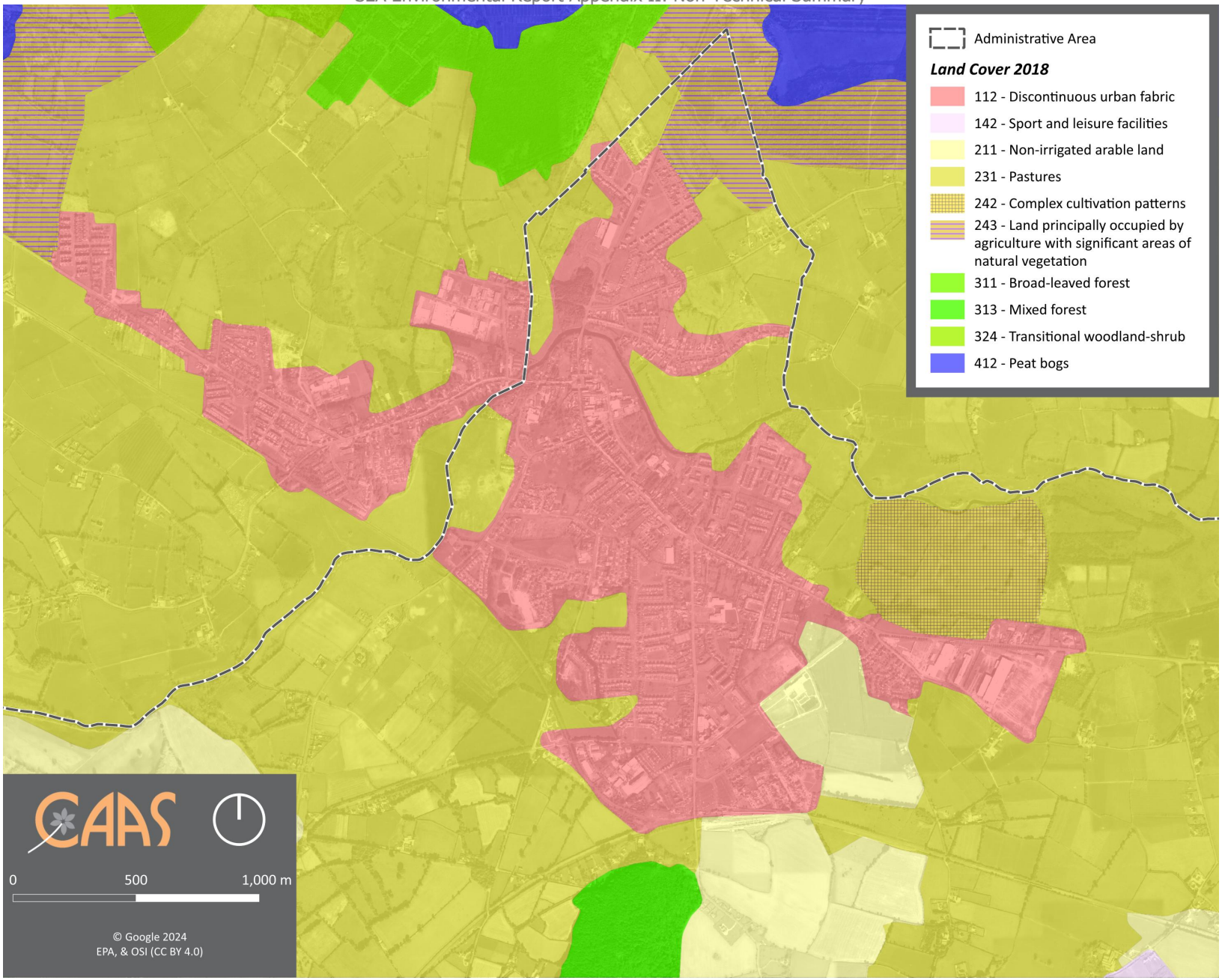

Figure 3.2 CORINE Land Cover Mapping 2018

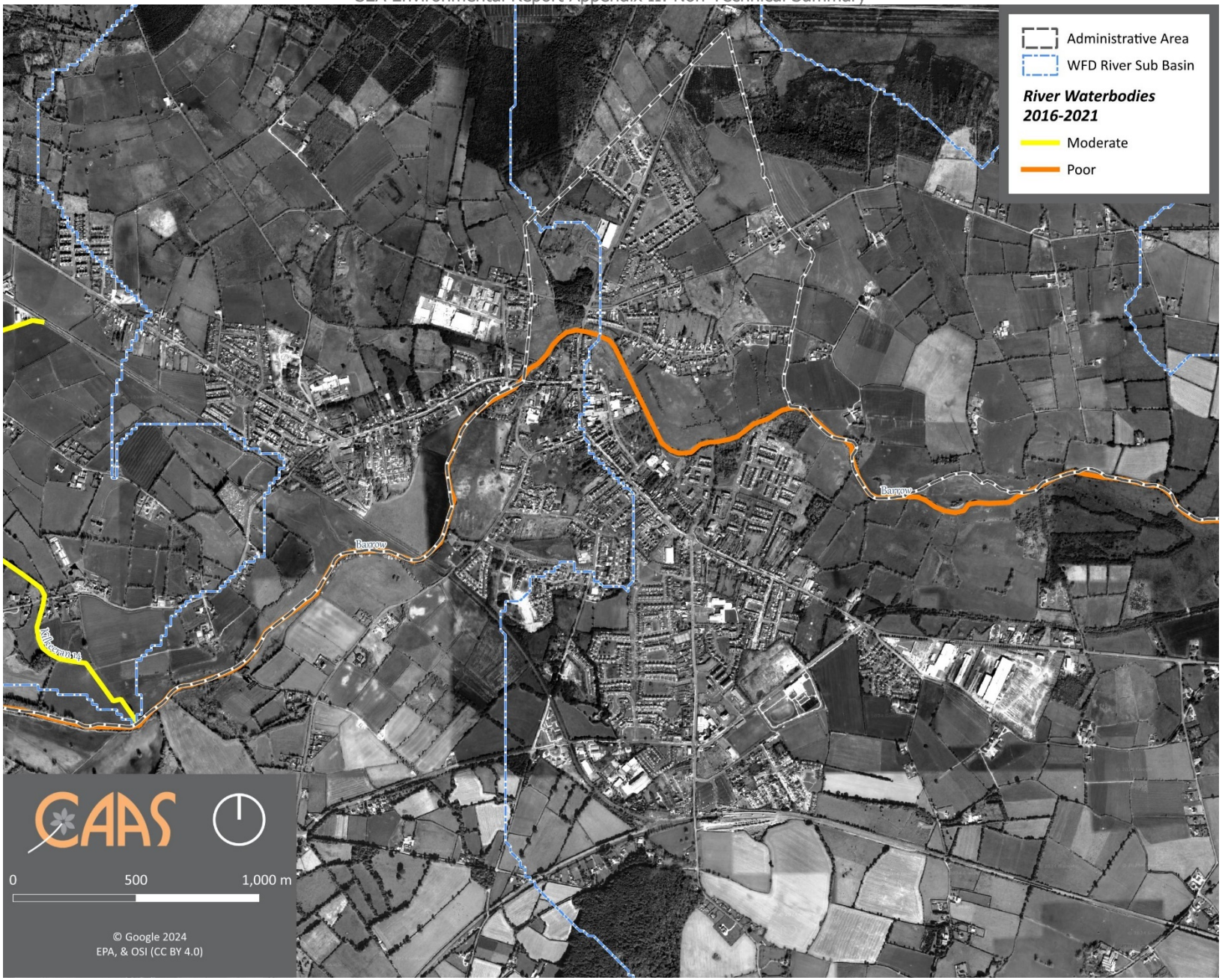

Figure 3.3 Surface Water Status (2016-2021)

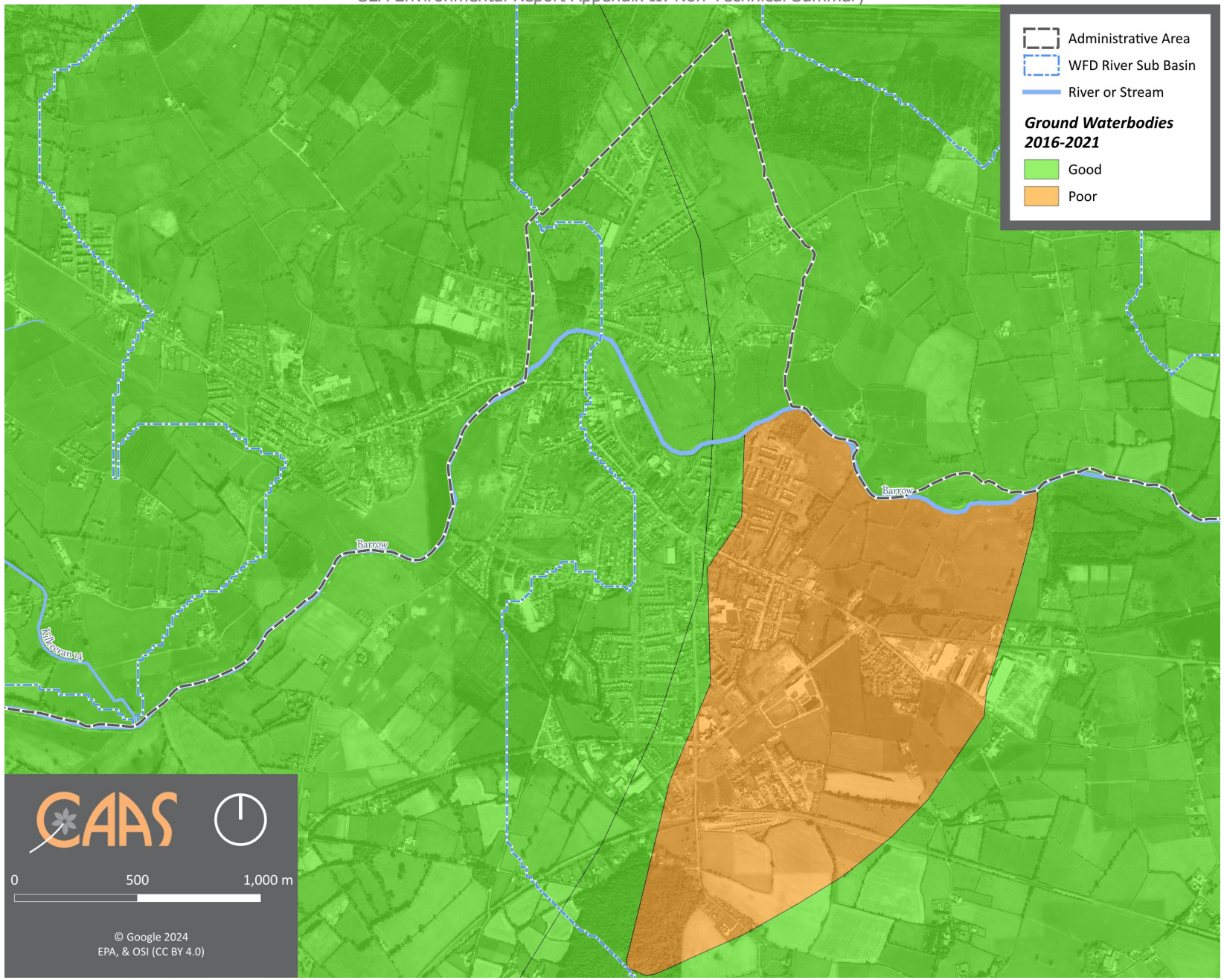

Figure 3.4 Groundwater Status (2016-2021)

3.7 Air and Climatic Factors

Climate mitigation describes the action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change.

The National Climate Action Plan 2024 is the second statutory update to the plan since the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to 2030 and 2050 targets for reducing greenhouse gas emissions. It builds on Climate Action Plan 2023, outlining how Ireland will accelerate the actions required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development. The National Climate Action Plan 2025 is the third statutory update to the plan since the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to 2030 and 2050 targets for reducing greenhouse gas emissions. It builds on Climate Action Plan 2024, outlining how Ireland will accelerate the actions required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts.

The National Adaptation Framework (2024) aims to create a unified approach involving both government and society to adapt to climate change. It outlines how various sectors and local authorities can implement adaptation measures to minimise Ireland's vulnerability to climate change's adverse effects while taking advantage of any beneficial impacts. The Framework emphasises the importance of integrating adaptation strategies into all levels of policy making, infrastructure development, and local planning.

The Laois Climate Action Plan 2024-2029 and the Offaly Climate Action Plan 2024-2029 will contribute towards addressing the mitigation of greenhouse gas emissions, climate change adaptation, and strengthening the alignment between national climate policy and the delivery of local climate action.

The EPA's (2024) *Air Quality in Ireland 2023 Report* identifies that:

- Ireland's latest monitoring shows we are in compliance with current EU standards.
- Ireland is not on track to achieve its ambition, set out in the National Clean Air Strategy, to meet the health-based WHO air quality guideline limits in 2026.
- Main pollutants of concern are fine particulate matter ($PM_{2.5}$) from solid fuel combustion and nitrogen dioxide (NO_2) from vehicle emissions/traffic.
- Air pollution can be a major environmental risk to people's health, with approximately 1,600 premature deaths annually in Ireland due to poor air quality.

The report further identifies the critical role of local authorities in the enforcement and implementation of existing plans and investment in infrastructure to encourage cleaner and healthier air quality choices, including:

- Local authorities must provide more resources to increase air enforcement activities and implement the new solid fuel regulations.
- Investment in clean public transport infrastructure across the country must be maintained and increased.
- More safe footpaths and cycle lanes must be created to continue to increase active travel as a viable and safe alternative to car use and associated NO_2 emissions.

3.8 Material Assets

Other material assets, in addition to those referred to below, covered by the SEA include archaeological and architectural heritage (see Section 3.9) natural resources of economic value, such as water and air (see Sections 3.6 and 3.7).

Public Assets and Infrastructure
Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include: resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, telecommunications, water supply, waste water infrastructure etc.); and natural resources that are covered under other topics such as water and soil.

Green Infrastructure
Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green infrastructure is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality.

Portarlington and its hinterland has a rich green infrastructure. It includes: the River Barrow, which provides a nature corridor extending through the centre of the town; the People's Park; the woodland area at the rear of Kilnacourt House (Formerly Odlums Wood); Carrick Woods; and the Derryounce Lakes and Trails recreation area.[11]

Waste Water
The Portarlington Wastewater Treatment Plant (WWTP) serving the Plan area is currently listed as a priority area[12] (such areas are those where improvements are required to resolve urgent environmental issues), due to significant pressure on waters at risk of pollution. The proposed action plan includes upgrades to the waste water collecting systems, with a completion date from Uisce Éireann still to be confirmed. As identified in the Plan, this WWTP serves the majority of the Plan area and the settlements of Ballybrittas and Killenard, operating with no capacity issues.[13]

The Portarlington WWTP has a design capacity of 13,000 Population Equivalent (PE)[14], with current load of 11,090 PE.[15] As indicated by Uisce Éireann, there is spare capacity available.[16]

The Portarlington WWTP (Registration No. D0158-01) is currently fully compliant with the Emission Limit Values (ELVs) set in the Wastewater Discharge Licence in the most recent available Annual Environmental Report 2022 (published in April 2023).[17]

Uisce Éireann have indicated that there are issues with storm water overflows from the combined sewer system in Portarlington and that there is a Drainage Area Plan underway that will investigate these issues. In the interim, to allow some phased development to go ahead, it will be necessary to remove storm water from the system.[18]

Water Supply
Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout County Laois and County Offaly.

Portarlington is located within the Portarlington Water Resource Zone[19] and as identified by Uisce Éireann, there is potential capacity available to meet targeted population growth by 2032, although an improvement in level of service is required.[20]

Portarlington is supplied by water treatment plants at: La Bergerie (producing approximately 1,400 m^3/day of water), Doolough (producing approximately 450 m^3/day of water) and Ballymorris Treatment Plant. Uisce Éireann have indicated that there are some constraints in the water network and that a project is currently being planned to address this issue.[21]

[11] Portarlington JLAP 2025-2031
[12] https://www.epa.ie/publications/compliance--enforcement/waste-water/Priority-areas-for-website-April-2024.pdf
[13] Portarlington JLAP 2025-2031
[14] Population Equivalent (PE) is a measurement of the organic biodegradable load. A population equivalent of 1 (1 PE) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD_5) of 60 g of oxygen per day; the load is calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.
[15] https://www.water.ie/sites/default/files/docs/aers/2022/D0158-01_2022_AER.pdf
[16] Uisce Éireann: Settlements with Waste Water Discharge Authorisations - *Wastewater Treatment Capacity Register*. The register provides an indication of available wastewater treatment capacity based on loads received in 2021 and available treatment plan capacity now or by completion of a project by 2024 (where relevant). Available at: https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/laois (Published in June 2023).
[17] https://www.water.ie/sites/default/files/docs/aers/2022/D0158-01_2022_AER.pdf
[18] Portarlington JLAP 2025-2031
[19] A Water Resource Zone (WRZ) is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water distribution network in an area. A WRZ may include multiple Water Treatment Plants and/or sources.
[20]This may take the form of leakage reduction and/or capital investment to maintain/improve levels of service as the demand increases. Proposed solutions will be developed and prioritised through the National Water Resources Plan and investment planning process. https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/laois (Published in June 2023).
[21] Portarlington JLAP 2025-2031

Waste Management
The National Waste Management Plan for a Circular Economy (Regional Waste Management Planning Offices, 2024) sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030. The Plan seeks to influence sustainable consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.

Transport
Portarlington is served by is served by three Regional Roads, the R419, R420 and R423. These facilitate access to the N80 National Secondary Road and to other major national road links such as the M7, M8 and M9 motorways via Portlaoise to the south, and the M6 via Tullamore to the north-west. These links provide access to the east, south and west of Ireland, including Rosslare, the Greater Dublin Area, Dublin Port and Dublin Airport. Portarlington is a focal point of the Irish railway network, being situated on the junction for services to the west (Galway, Mayo), the south (Cork, Limerick, Tralee) and the east (Dublin, Kildare). Portarlington Train Station provides regular daily services to major urban areas in Ireland including Cork, Killarney, Limerick and Dublin. There are also a number of bus services connecting Portarlington to Kildare, Monasterevin, Portlaoise, Tullamore and Dublin.[22]

A Local Transport Assessment has been integrated into the Plan to help ensure a shift towards more sustainable modes of transport.

Existing Problems
The provisions of the Plan will contribute towards protection of the environment with regard to impacts arising from material assets.

The provisions of infrastructure and supporting services for development, particularly water and wastewater services, is critical. Current challenges include those identified above.

3.9 Cultural Heritage

The built heritage of Portarlington includes Lea Castle (a medieval castle on the banks of the River Barrow on the western side of Portarlington), 18th and 19th century two, three and four storey town houses, walled gardens and burgages, vernacular structures, industrial heritage, Huguenot artefacts, ecclesiastical architecture and a considerable number of features of interest including stone walls and street furniture.

Archaeological Heritage
The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped. It is available from the National Monuments Service and at archaeology.ie.

There are various entries to RMP within the Plan area. These Recorded Monuments are mostly identified within Portarlington town centre. The historical core of the town is a Recorded Monument with an associated Zone of Notification centred around Market Square. This zone is an area in which significant archaeology has been found and where there is a high likelihood of further such findings.

Architectural Heritage
Protected structures are defined in the Planning and Development Act 2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

There are approximately 96 entries in the RPS within the Plan area, as set out in the Laois County Development Plan 2021-2027 and the Offaly County Development Plan 2021-2027. Clusters of architectural heritage are indicated within Portarlington town centre. Notable Protected Structures include: 13th Century Lea Castle; Kilnacourt House; Garda Station; Portarlington Market House; The Weighbridge Inn; St. Paul's Church of Ireland Church; and Portarlington Railway Station.

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. An ACA may or may not include Protected Structures. There are currently no ACAs designated within the Plan area.

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Existing Problems
The context of archaeological and architectural heritage has changed over time however no existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

3.10 Landscape

Portarlington is located in the heart of a low-lying agricultural landscape and serves a large agricultural hinterland, that rises up towards the south of the Plan area. The River Barrow, flowing west to east through the centre of the Plan area is an important natural amenity feature with a significant ecological value and sensitivity. The land surrounding the town is predominantly made up of agricultural land with a woodland area to the south (Carrick Wood) and Derryounce Bog and Lakes and associated walkway partially within and adjacent to the northern parts of the Plan area.

The existing Laois County Development Plan 2021-2027 identifies six Landscape Character Types/Areas and Scenic Views and Prospects within the Council's administrative area. The landscape sensitivity of County Laois is classified as 'low', 'medium' and 'high'. The Plan area is located within the 'Development Boundary' and 'Lowland Agricultural Areas', which are both classified as of 'low' sensitivity. There are no designated Views or Prospects within the Plan area.

The existing Offaly County Development Plan 2021-2027 identifies ten Landscape Character Areas, Areas of High Amenity and Key Amenity Routes and Views and Prospects within the Council's administrative area. The landscape sensitivity of County Offaly varies and is thereby classified within the following sensitivity classes: low; medium; and high. Portarlington is predominantly classified as 'low' landscape sensitivity, with an area of 'high' along the River Barrow corridor and an area of 'medium' within Derryounce Bog and Derrylea Bog adjacent to the north of the Plan area. There are no designated Areas of High Amenity or Views and Prospects within the Plan area.

3.11 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and which are required to be implemented.

The SEOs are set out under a range of topics (see Table 3.1) and are used as standards against which the provisions of the Plan and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if – in the case of adverse effects – unmitigated.

Table 3.1 Strategic Environmental Objectives

Environmental Component	SEO Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	**BFF**	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Strategy and its targets • To protect, maintain and conserve natural capital
Population and Human Health	**PHH**	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	**S**	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites
Water	**W**	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	**MA**	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals - this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids.
Air	**A**	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution and move closer to WHO recommended levels
Climatic Factors	**C**	• To minimise emissions of greenhouse gasses • Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure) • Contribute towards the reduction of greenhouse gas emissions in line with national targets • Promote development resilient to the effects of climate change • Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	**CH**	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	**L**	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

Section 4 Alternatives

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Summaries of the alternatives for the Plan and their assessment are provided below.

4.2 Limitations in Available Alternatives

The Plan is required to be prepared by the existing, already in force, Laois and Offaly County Development Plans and the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan.

The alternatives available for the Plan are significantly limited by the provisions of higher-level planning objectives, including those of the National Planning Framework (NPF), the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Region and the County Plans.

4.3 Alternatives Already Considered

The preparation of the Laois and Offaly County Development Plans and associated SEA processes already considered various different types of alternatives. The selected alternatives for the County Development Plans set requirements for lower tier planning in the Counties and have been integrated into the Joint Local Area Plan, as appropriate.

4.4 Local Transport Plan Alternatives

- **Local Transport Plan Alternative 1**: Inform the Plan with a Local Transport Plan, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes.
- **Local Transport Plan Alternative 2**: Do not inform the Plan with a Local Transport Plan, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes, relying solely on existing provisions, including those included as part of the County Development Plans.

Informing the Plan with a Local Transport Plan, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes, (**Area Based Transport Assessment Alternative 1**) would provide a more coordinated and more orderly provision of transport infrastructure and services, with delivery of projects, and associated benefit with respect to sustainable mobility and compact development, more likely. This approach would be more likely to improve the potential for meeting important objectives relating to emissions and energy use. Potentially adverse impacts on environmental components including ecology and water would need to be adequately mitigated at project level.

Not informing the Plan with a Local Transport Plan, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes, (**Area Based Transport Assessment Alternative 2**) would provide a less coordinated and less orderly provision of transport infrastructure and services, with delivery of projects, and associated benefit with respect to sustainable mobility and compact development, less likely. This approach would be less likely to improve the potential for meeting important objectives relating to emissions and energy use. Potentially adverse impacts arising

from more coherently planned transport developments on environmental components, including ecology and water, could be mitigated at both JLAP and project level.

Selected Local Transport Plan Alternative for the Plan: Alternative 1

4.5 Transport Infrastructure Alternatives

In integrating provisions relating to the provision of transport infrastructure into the Plan, the following alternatives were considered:

- **Transport Infrastructure Alternative 1:** Provide new transport infrastructure with all additional environmental mitigation left to be defined until project level.
- **Transport Infrastructure Alternative 2:** Provide new transport infrastructure, subject to environmental constraints, including those related to habitats and potential impacts such as disturbance from lighting – includes minimising river crossings, avoiding sensitive habitats, not increasing barriers to flood waters and sustainable design and construction techniques.

Under **Transport Infrastructure Alternative 1**, new transport infrastructure would be considered subject to environmental constraints, including those related to habitats and potential impacts (e.g. disturbance from lighting). This would include minimising river crossings, avoiding sensitive habitats, not increasing barriers to flood waters and sustainable design and construction techniques. By focusing on mitigation at both plan and project levels, Alternative 1 would offer the most certainty for environmental protection and management and would be more likely to result in important individual projects (relating to sustainable mobility and emissions/energy objectives) receiving permission.

Under **Transport Infrastructure Alternative 2**, all additional environmental mitigation would be left to be defined in the future, at project level. This would offer the least certainty for environmental protection and management and would be more likely to result in important individual projects (relating to sustainable mobility and emissions objectives) not been given permission.

Selected Transport Infrastructure Alternative for the Plan: Alternative 1

4.6 Ecosystem Services Approach Alternatives

The importance of fulfilling natural capital[23] and ecosystem[24] service obligations has increasingly emerged in recent years. An Ecosystems Services Approach would provide a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. An Ecosystems Services Approach would include the integration of ecological considerations at a local level across the Plan area.

- **Ecosystem Services Approach Alternative 1**: A Plan that follows an Ecosystems Services Approach to a greater degree.
- **Ecosystem Services Approach Alternative 2**: A Plan that that does not follow, or follows to a lesser degree, an Ecosystems Services Approach.

Ecosystem Services Approach Alternative 1 would integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Principles that would be integrated throughout the Plan, in a coordinated and comprehensive manner, would include:

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function;

[23] Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals).
[24] Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing.

- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation or recreation, culture and quality of life; and
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

This would mean that there would be:

- An increased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues, such as the management of air quality, noise pollution, light pollution, pollination, flood risk, water bodies and river basins and natural resources supporting energy production and recreation; and
- A decreased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Ecosystem Services Approach Alternative 2 would not integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

As has been the case over previous plan periods, many natural capital and ecosystem service issues would be integrated into individual Plan Policy Objectives and into decision making at lower tiers of plan preparation and development management. However, this approach would be less coordinated and comprehensive than would be the case under an Ecosystems Services Approach.

This would mean that there would be:

- A decreased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues; and
- An increased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Selected Ecosystem Services Approach Alternative for the Plan: Alternative 1

4.7 Built Heritage Alternatives

- **Built Heritage Alternative 1**: A Plan that adds detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage.
- **Built Heritage Alternative 2**: A Plan that does not add detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage, relying solely on existing provisions, including those included as part of the County Development Plans.

A Plan that adds detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage (**Built Heritage Alternative 1**) would further contribute the protection of existing heritage that is already contributed towards by the existing planning framework. By integrating heritage considerations into the Plan, Alternative 1 would be most likely to ensure that new development respects the historic grain of the built environment and archaeology that currently exists.

A Plan that does not add detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage, relying solely on existing provisions, including those included as part of the County Development Plans (**Built Heritage Alternative 2**) would not further contribute the protection of existing heritage that is already contributed towards by the existing planning framework. By not integrating heritage considerations into the Plan, Alternative 2 would be least likely to ensure that new development respects the historic grain of the built environment and archaeology that currently exists.

Selected Built Heritage Alternative for the Plan: Alternative 1

4.8 Approach to Opportunity Sites Alternatives

Alternatives under this heading relate to Opportunity Sites across the Plan area.

- **Approach to Opportunity Sites Alternative 1**: Do not include specific key planning criteria for future for future planning applications at Opportunity Sites; development would be market-led and would seek to comply with relevant planning provisions in the absence of additional guidance.
- **Approach to Opportunity Sites Alternative 2**: Include specific key planning criteria for future planning applications at Opportunity Sites, but which allow for flexibility in areas such as final design, layout and uses.
- **Approach to Opportunity Sites Alternative 3**: Include Opportunity Sites that would outline specific key planning criteria (which would not allow for flexibility in areas such as design, layout and uses) for future planning applications at Opportunity Sites.

A Joint Local Area Plan for Portarlington would help to direct incompatible development away from the most sensitive locations in the wider County areas and to focus on directing compact, sustainable development within and adjacent to the existing built-up footprint of Portarlington. Development of areas within and adjacent to the existing built-up footprint of Portarlington, which is generally more robust, better serviced and better connected than other lands elsewhere in the wider County areas, would contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development would be accompanied by placemaking initiatives to enable Portarlington to become a more desirable place to live – so it can sustainably accommodate new residents and maintain and improve services to existing and future communities.

Not including specific guidance for future planning applications at Opportunity Sites (**Approach to Opportunity Sites Alternative 1**) would reduce the likelihood of sustainable development. Development would be market-led and would seek to comply with relevant planning provisions in the absence of additional guidance. The sustainable development of the Plan area would be less likely than under Alternative 2.

By including specific guidance for Opportunity Sites while, at the same time, allowing for flexibility in areas such as final design, layout and uses, for future planning applications at Opportunity Sites, **Alternative 2** would increase the likelihood of sustainable development.

Including Opportunity Sites that would outline specific key planning criteria (which would not allow for flexibility in areas such as design, layout and uses) for future planning applications at Opportunity Sites (**Approach to Opportunity Sites Alternative 3**) would increase the potential to hinder compliance with rigid criteria in the longer term, in a context of evolving market needs and planning requirements.

<u>Selected Approach to Opportunity Sites Alternative for the Plan: Alternative 2</u>

4.8.1 Compact Development/Land Use Zoning Alternatives

Two alternatives for compact development/land use zoning are identified as follows (there are various alternative components under each alternative):

- **Compact Development/Land Use Zoning Alternative 1: "More Consolidated, More Compact Development"**

  Under this Compact Development/Land Use Zoning Alternative, the town would reach its population allocation under the core strategies as contained in the Laois and Offaly County Development Plans.

The approach under this alternative would allow for water supply, waste water, compact growth, public transport and co-ordinated development considerations to be integrated into the Plan to the highest degree.

The infrastructure required to be in place to achieve the growth targets is already in place or planned under this alternative.

The development of central and adjacent areas would be more compact and sustainable under this scenario and would better support the longer-term viability of the settlement. 30% of residential units would be expected to take place within the existing built-up footprint on infill and/or brownfield sites, with a greater focus on use of consolidation and regeneration sites, with potential for wider regeneration benefits to the town centre, including housing provision. Regeneration, reuse and redevelopment of more central and brownfield and infill lands and optimising the use of vacant, derelict, and underutilised sites and buildings would be more likely to be achieved.

Giving a strong preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan and giving a focus to Opportunity Sites (with clear design and uses identified – making successful applications for the sustainable, compact development of the town more likely) would allow for the proper planning and sustainable development of the town as envisaged by the wider planning framework to the greatest degree.

There would be greater potential and viability for integrated land use and transportation under this alternative, including proximate development patterns linked by active travel infrastructure and public transport. Associated benefits and improvements to the public realm and appearance of the built environment, including liveability and quality of life improvements, would be more likely.

This Compact Development/Land Use Zoning Alternative would make the greatest contribution towards the protection and management of the environment by facilitating development of lands (including those within central and adjacent areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. There would be a reduced need for greenfield land consumption under this alternative. This Compact Development/Land Use Zoning Alternative would be considered the most effective out of both Compact Development/Land Use Zoning Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the town.

The approach under Compact Development/Land Use Zoning Alternative 1 'More Consolidated, More Compact Development' would benefit the protection of various environmental components. Although potentially adverse effects associated with land use development would exist, they would be mitigated to a significant degree. Less residual environmental effects would result.

Under this alternative there would be:

- More optimum use of land and resources, with positive role for addressing climate change, such as potential for reduced carbon heavy travel patterns.
- Greater potential for modal shift to sustainable travel such as walking, cycling and public transport, with knock on benefits for climate resilience in the Plan area.
- Use of already serviced lands in more central and built-up urban area could lead to potential reduced costs for delivery of new supporting infrastructure.
- Creation of more liveable built environments, with greater accessibility to services and amenities for local communities.

- **Compact Development/Land Use Zoning Alternative 2 "Less Consolidated, Less Compact Development"**

  Under this Compact Development/Land Use Zoning Alternative, the Town would reach its population allocation under the core strategies as contained in the Laois and Offaly County Development Plans.

  The approach under this alternative would not allow for water supply, waste water, compact growth, public transport and co-ordinated development considerations to be integrated into the Plan to the highest degree.

  Additional infrastructure would be required to accommodate sporadic development, more than would be required for Alternative A 'More Consolidated, More Compact Development' and some development may have to be serviced by private waste water treatment systems which would have to be properly maintained.

  The development of the Town and Outer Core areas would be less compact and less sustainable under this scenario and would not optimally support the longer-term viability of the settlement. 30% of residential development would be less likely to be achieved within the existing built-up footprint on infill and/or brownfield sites in comparison with Alternative A 'More Consolidated, More Compact Development'. Under this alternative there would be potential for greater proportion of housing to be delivered outside of the built-up area, including on urban fringe and outer suburban areas and on greenfield sites, creating unsustainable travel patterns with a reliance on the private car. Giving less of a preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan and giving less of a focus to Opportunity Sites (there would be no clear guidance on the design parameters or uses provided – making successful applications for the sustainable, compact development of the town less likely) would allow for the proper planning and sustainable development of the town as envisaged by the wider planning framework to a lesser degree.

  There would be greater potential for negative impacts on the vitality and viability of the built-up area (including Town and Outer Core areas), due to increased and sustained levels of vacancy and dereliction for existing buildings and brownfield lands. This alternative would be likely to result in a more dispersed pattern of low-density urban development, that would be more difficult to serve with active travel infrastructure and public transport.

  This Compact Development/Land Use Zoning Alternative would make less of a contribution towards the protection and management of the environment by facilitating development of lands (including those town centre and adjacent areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services. Demand to develop more sensitive, less well-serviced lands elsewhere in the Plan area would be provided for. This Compact Development/Land Use Zoning Alternative would be considered the least effective out of both Compact Development/Land Use Zoning Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the town.

  The approach under Alternative 2 'Less Consolidated, Less Compact Development' would benefit the protection of various environmental components to a lesser degree. Although potentially adverse effects associated with land use development would exist, they would be mitigated to in many cases; however, more residual environmental effects would result.

  Under this alternative there would be:
  - An increase in car dependency and associated carbon heavy travel patterns, which would undermine efforts aimed at securing climate resilience.
  - Increased suburban pattern of residential development with potential for self-contained and disconnected built environments.

- Reduced potential for modal shift to sustainable travel options such as walking, cycling and public transport.
- Potential for increased costs associated with the delivery on new supporting infrastructure (roads, footpaths etc.) in more peripheral and outer suburban areas.
- Increased costs for the delivery of necessary supporting infrastructure for urban fringe, outer suburban areas and greenfield sites.

Selected Compact Development/Land Use Zoning Alternative for the Plan: Alternative 1 "More Consolidated, More Compact Development"

4.9 Reasons for Choosing the Selected Alternative in light of Other Reasonable Alternatives Considered

Alternatives were selected for the JLAP having regard to both:

1. The environmental effects which are identified by the SEA and are summarised above; and
2. Planning - including social and economic - effects that also were considered.

Section 5 Summary of Effects arising from Plan

Table 5.1 summarises the overall environmental effects arising from Plan provisions. The effects encompass all in-combination/cumulative effects arising from implementation of the Plan. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Plan are detailed as are residual effects, taking into account mitigation integrated into both the Plan and the Laois and Offaly County Development Plans – see Section 6.

Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Strategic Environmental Objective (SEO) codes are taken from Table 3.1.

Stage 2 Appropriate Assessment (AA) has been undertaken alongside the preparation of the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The AA assesses the effects of the Plan on European Sites designated for certain habitats and species. The conclusion of the AA is that the Plan will not affect the integrity of the Natura 2000 network[25].

Strategic Flood Risk Assessment (SFRA) requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA undertaken for the JLAP has informed its land use zoning and written provisions.

[25] Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
(a) no alternative solution available;
(b) imperative reasons of overriding public interest for the plan/programme/project to proceed; and
(c) adequate compensatory measures in place.

Table 5.1 Overall Findings –Effects arising from the Plan

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the Laois and Offaly County Development Plans and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. • Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. • Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. swifts) and bats.	• Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. • Losses or damage to ecology (these would be in compliance with relevant legislation).	**BFF**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the Laois and Offaly County Development Plans and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Population and Human Health	• Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	• Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under "Soil", "Water" and "Air and Climatic Factors" below.	**PHH**
Soil	• Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contribution towards the protection of the environment from contamination the highest standards of remediation.	• Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank erosion.	• Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. • Riverbank erosion will continue to occur naturally over time and is likely to be enhanced by climate change.	**S**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the Laois and Offaly County Development Plans and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. • Contribution towards flood risk management and appropriate drainage.	• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events.	• Any increased loadings as a result of development to comply with the River Basin Management Plan. • Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Plan.	**W**
Material Assets	• Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond. • Contribution towards compliance with national and regional water services and waste management policies. • Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. • Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.	• Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. • Residual wastes to be disposed of in line with higher-level waste management policies. • Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.	**MA**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES, the Laois and Offaly County Development Plans and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond. • In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: o Sustainable compact growth; o Sustainable mobility, including walking, cycling and public transport; o Drainage, flood risk management and resilience; o Sectors including agriculture, residential heating and infrastructure; o Sustainable design, energy efficiency and green infrastructure.	• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality[26]. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors[27]. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	• An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable compact growth and sustainable mobility. • Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Plan to ensure that noise levels at sensitive receptors will be minimised.	**AC**
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere by facilitating development within the Plan area. • Contributes towards protection of cultural heritage within the Plan area by facilitating brownfield development and regeneration.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	• Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.	**CH**
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating development within the Plan area.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	• Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the Plan's landscape protection measures.	**L**

[26] Although interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human heath, there would be potential for displacement of traffic to lead to localised increases traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Plan area and beyond.

[27] Although interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human heath, there would be potential for displacement of traffic to lead to localised increases traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Plan area and beyond.

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Various environmental sensitivities and issues have been communicated to the Councils through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating various related recommendations into the Plan, the Councils have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through:

- Strategic work undertaken by the Councils to ensure contribution towards environmental protection and sustainable development[28];
- Considering alternatives for the Plan[29];
- The integration of individual SEA, AA and SFRA provisions into the text of the Joint Local Area Plan; and
- The integration of individual provisions into the text of the existing, already in force, County Development Plans.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified at Table 3.1 and used in the evaluation. Monitoring indicators, targets, sources and remedial action is provided at Table 6.1 overleaf.

[28] Far in advance of the placing of the Draft Plan on public display and adopting the Plan, Laois and Offaly County Councils undertook various works in order to inform the preparation of the Plan.

Strategic work undertaken by the Councils includes background work in relation to Plan provisions, including those relating to:

- Core Strategy;
- Climate change;
- Town centre revitalisation;
- Placemaking;
- Housing;
- Economic development;
- Transport and movement;
- Community services development;
- Built heritage; and
- Biodiversity and natural heritage.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Local Area Plan provisions.

[29] Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan (see Section 4), as part of the Plan preparation/SEA process alternatives for the Plan were considered. These alternatives were assessed by the SEA process and the findings of this assessment informed the selection of alternatives for the Plan, facilitating an informed choice with respect to the type of Plan that was prepared, placed on public display and adopted.

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	**BFF**	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, Local Biodiversity/Heritage Plans	• DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years) [30] • DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 6 years) [31] • Consultations with the NPWS [32]	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		• Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, Local Biodiversity/Heritage Plans	• Internal review of local land use plans	• Review internal systems
		• SEAs and AAs as relevant for new Council policies, plans, programmes etc.	• Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.	• Internal monitoring of preparation of local land use plans	• Review internal systems
		• Status of water quality in water bodies	• Included under Water below	• Included under Water below	• Included under Water below
		• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Laois County Development Plan Chapter 11 "Biodiversity and Natural Heritage" and Offaly County Development Plan Chapter 4 "Biodiversity and Landscape"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Laois County Development Plan Chapter 11 "Biodiversity and Natural Heritage" and Offaly County Development Plan Chapter 4 "Biodiversity and Landscape"	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
Population and Human Health	**PHH**	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Laois County Development Plan Chapter 6 "Economic Development" and Offaly County Development Plan Chapter 5 "Economic Development Strategy"	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Laois County Development Plan Chapter 6 "Economic Development" and Offaly County Development Plan Chapter 5 "Economic Development Strategy"	• Internal review of progress on implementing Plan objectives • Consultations with DCEE	• Review internal systems • Consultations with DCEE

[30] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.
[31] Ditto.
[32] Ditto.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
		• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	• Consultations with the Health Service Executive and EPA	• Consultations with the Health Service Executive and EPA
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• CSO data	• Where proportion of population shows increase in private car use above previous CSO figures, the Councils will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
		• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping	• Internal review of local land use plans	• Review internal systems
Soil (and Land)	**S**	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Maintain built surface cover nationally to below the EU average of 4% as per the NPF • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels	• EPA Geoportal • Compilation of greenfield and brownfield development for the DHLGH • AA/Screening for AA for each application	• Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Councils will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
		• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements	• Internal review of grants of permission where contaminated material must be disposed of	• Consultations with the EPA and Development Management
		• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	• Internal monitoring of grants of permission	• Review internal systems
Water	**W**	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Subject to exemptions provided for by Article 4 of the Water Framework Directive, not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan	• EPA Monitoring Programme for WFD compliance [33]	• Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Uisce Éireann to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Councils will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• Internal monitoring of likely significant environmental effects of grants of permission	• Where planning applications are being permitted on flood zones, the Councils will ensure that such grants are in compliance with the Flood Risk

[33] Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
					Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	• Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in-combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health	• Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Uisce Éireann • DHLGH in conjunction with Local Authorities	• Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Councils will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• CSO data	• Where proportion of population shows increase in private car use above previous CSO figures, the Councils will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Air	A	• Proportion of journeys made by private fossil fuel-based car compared to previous levels • NO_2 (Nitrogen Dioxide), PM10 (particulate matter with diameter of 10 microns or less) and O_3 (Ozone) as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by car compared to previous levels • Improvement in Air Quality trends, particularly in relation to transport related emissions • Progress in successfully implementing Plan measures relating to sustainable mobility and travel	• CSO data • Data from the National Travel Survey • EPA Air Quality Monitoring • Consultations with Department of Transport and Department of Environment, Climate and Communications	• Where proportion of population shows increase in private car use above previous CSO figures, Council will coordinate with the Regional Assembly, DHLGH, DCEE and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	C	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	• Internal monitoring of likely significant environmental effects of grants of permission	• Review internal systems
		• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	• Monitoring of Climate Action Plans 2024-2029 • EPA Annual National Greenhouse Gas Emissions Inventory reporting • Climate Action Regional Office • Consultations with DCEE (at monitoring evaluation)	• Where targets are not achieved, the Councils will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Share of renewable energy in transport	• Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in		

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
			compliance with the provisions of the Plan		
		• Greenhouse gas emissions	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 51% (compared to 1990 levels) by 2030 (helping to set Ireland on a path to reach net-zero emissions by 2050)		
		• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating		
		• Proportion of journeys made by private fossil fuel-based car compared to previous levels	• Decrease in the proportion of journeys made by residents of the settlement using private fossil fuel-based car compared to previous levels • Progress in successfully implementing Plan measures relating to sustainable mobility and travel	• CSO data	• Where trends toward carbon reduction are not recorded, the Councils will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel	• CSO data	• Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Cultural Heritage	CH	• Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Councils will work with Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		• Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Consultation with DHLGH	
Landscape	L	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission	• Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Councils will re-examine Plan provisions and the effectiveness of their implementation