



**ENVIRONMENTAL REPORT
FOR THE
STRATEGIC ENVIRONMENTAL ASSESSMENT
OF THE
KERRY COUNTY DEVELOPMENT PLAN
2022-2028
December 2021**

Environmental Assessment Unit
Kerry County Council

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NON-TECHNICAL SUMMARY

Introduction

In accordance with Section 11 and 12 of the Planning and Development Act (PDA) 2000, as amended, Kerry County Council (KCC) as a Planning Authority (PA) has a duty to make a County Development Plan (CDP) for its functional area and to review it every six years. The current Kerry County Development Plan (KCDP) was adopted on the 16th of February 2015, became effective from the 16th March 2015 and was due expire in 2021. However, the PDA (Amendment) 2018 enacted legislative requirements, to enable the co-ordinated and timely incorporation of the National Planning Framework (NPF) and the relevant Regional Spatial Economic Strategies (RSES) into each City or County Development Plan. Further legislative amendments occurred in 2020 which culminated in the delayed commencement of the review of the County Development Plan until June 2020.

In June 2020 an *Issues Paper* and a public notice as per Section 11 of the PDA was made noting that the existing KCDP was to be reviewed. As part of the plan making process a Strategic Environment Assessment (SEA) was required and SEA scoping commenced in the summer of 2020. This report is now the Environmental Report (ER) of the SEA of the Draft Kerry County Development Plan 2022-2028. It outlines how the SEA process has informed the plan-making process to ensure that the implementation of the plan will not have a significant effect on the environment. The KCDP 2022-2028 is also accompanied by a Habitat Directive Appropriate Assessment (Natura Impact Report (NIR)) and a Strategic Flood Risk Assessment (SFRA). All three environmental assessments have informed the plan making process.

The Kerry County Development Plan 2022-2028, SEA Environmental Report, Habitats Directive Appropriate Assessment Natura Impact Report and the Strategic Flood Risk Assessment are now available for public consultation.

Submissions may be made in one of the following ways:

1. Online Via our Public Consultation Portal consult.kerrycoco.ie
OR
2. In writing to: Damien Ginty, Senior Planner Planning Policy Unit, Kerry County Council, Rathass, Tralee, Co. Kerry. V92H7BT

Email submissions will not be accepted.

Please mark submissions, observations or comments with:

“Submission on SEA Environmental Report for the Kerry County Development Plan 2022-2028”

**Submissions may be made during the period from
Monday December 6th, 2021 – Wednesday, 23rd February, 2022.**

Chapter 1

This presents an introduction to the plan review and the legislative background to the SEA process. It also includes information on the appropriate assessment of the KCDP under Article 6 of the Habitats Directive, contained in the NIR and the SFRA. The Chapter provides information on how the three processes were integrated into the draft KCDP. It provides a brief introduction to the KCDP – its structure and content. It notes that the consolidated three town plans for Tralee, Killarney and Listowel along with their respective zoning maps are also included in the KCDP. The Chapter notes the drafting of the KCDP occurred during a time of increased awareness of biodiversity loss and the impacts from climate change. Indeed, the plan was being finalised soon after Ireland's second 2021 *Climate Action Plan, Securing our Future* and first carbon budgets were published.

Chapter 2.

This chapter provides an overview of the context of the plan being assessed in this ER, the draft KCDP 2022-2028. The chapter details where the KCDP sits in the hierarchy of international, European and Irish legislation and planning policy. The remainder of the chapter provides an overview of the draft KCDP 2022-2028 summarising the contents of the plan contained within 6 volumes as follows:

Volume 1: Consists of the main written statement supported by a number of appendices.

Volume 2: Consists of the three Town Development Plans for Tralee, Killarney and Listowel.

Volume 3: Consists of a number of Appendices which also form part of the KCDP.

Volume 3: Consists of a number of Appendices particularly associated with cultural heritage.

Volume 4: Consists of maps associated with the plan including town zoning maps,

Volume 5: Contains 3 Environmental Assessments:

- A Strategic Environmental Assessment (SEA) which assesses the likely significant effects the Plan will have on the environment.
- An Appropriate Assessment (AA), contained in a Natura Impact Report (NIR), which assesses the likelihood for adverse effects on the integrity of European Sites (Natura 2000 network)
- A Strategic Flood Risk Assessment (SFRA) of flood risk in the county and associated policies.

Volume 6: A series of other strategies/policies that support the plan, including a Biodiversity Action Plan (BAP).

The main written statement in Volume 1 consists of 14 chapters. In particular, Chapters 3-5 provide information specifically relating to the settlement hierarchy, core strategy and associated housing requirements for the county. In tandem Chapter 5 outlines rural housing policy while Chapter 7 provides for the recently published national policy on *Housing for All*. All are informed by a *Housing Need and Demand Assessment* contained in Volume 6.

Other Chapters of the KCDP provide specific details on Economic Development (Chapter 9), Tourism and Outdoor Recreation (Chapter 10), Connectivity – transport and digital (Chapter 14), Sustainable Communities (Chapter 6) and protection of the cultural and natural environment (Chapters 8, 11 and 13). The KCDP is underpinned by climate policy outlined in Chapter 2. The plan also includes an updated policy on Renewable Energy (RE) detailed in Chapter 12. This includes updated zoning maps for on-shore wind supported by several reports provided in appendices in Volume 1. Volume 6, Appendix 1 provides an overview of the Development Management Standards and Guidelines. Volume 1, Appendix 9 details the monitoring and review of the plan, with a specific discussion on SEA monitoring.

In relation to Tralee, Killarney and Listowel towns, the KCDP includes updated land use and zoning frameworks in respect of the three towns and consolidates their associated written texts. The CDP therefore sets out the policies and objectives for the future development of the towns of Tralee, Killarney, and Listowel, including compliance with the core strategy for the County. It should be noted that these zonings were previously assessed for SEA, AA and SFRA for the variations made to each Town Development Plan at the time they were varied in 2018 (Tralee and Killarney) and 2020 (Listowel). This is discussed in more detail in the ER. Objectives and policies are however now being amended/consolidated in the KCDP 2022-2028. For ease of assessment all policy and objectives in the three town plans are therefore screened anew in this ER.

Other than the above three towns, the KCDP plan does not otherwise set out a quantum of lands to be zoned residential in order to meet the proposed population growth of the county. The zoning of residential land will occur as part of the relevant Local Area Plans in line with the new Core Strategy presented in the KCDP 2022-2028.

The plan does provide zoning for on-shore wind development and the Tarbert-Ballylongford Landbank. Both zonings are discussed further in the ER.

Chapter 3

This Chapter outlines in more detail the SEA process and the steps undertaken in the SEA of the KCDP to date. SEA is a process for the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme, before a decision is made to adopt the plan or programme. It aims to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development.

The SEA process consists of a series of steps or stages that need to be undertaken. These are:

- Screening of P/P to establish whether it must undergo an SEA;
- Scoping of the details to be provided in the Environmental Report, in consultation with environmental authorities;
- An Environmental Report - containing the findings of the assessment on the likely significant effects on the environment of the P/P;
- Consultation on the Draft Plan and associated Environmental Report;
- An SEA Statement - identifying how environmental considerations and consultations have been integrated into the Final Plan; and
- Monitoring Programme of the significant environmental effects of the P/P

This report deals with step 3 of the above process, the Environmental Report of the SEA for the Kerry County Development Plan 2022-2028. The chapter also details information on the Scoping process and the further consultation required as part of the SEA which is outlined above in the introduction to this non-technical summary.

Chapter 4

As required this SEA looks at alternatives in assessing the likely significant effects on the environment from the implementation of the plan. Alternatives are considered and are assessed against the EPOs described in Chapter 6 using an assessment matrix. For this plan alternatives were considered for the county's future settlement policy (four in total) and for the county's future renewable energy (RE) policy (four in total). Alternatives are as follows:

ALTERNATIVES	
Settlement Policy	RE Policy
Alternative 1: Equal settlement dispersed outside key towns	Alternative A: To retain existing Renewable Energy Strategy
Alternative 2: Strategic Sustainable Planning	Alternative B: Non-strategic approach to planning for renewable energy development
Alternative 3: Employment/Economic Led	Alternative C: Using renewable energy sources other than wind
Alternative 4: Rural housing designations	Alternative D Strategic plan-led approach to renewable energy development
The preferred option for the county is Alternative 2 combined with a rural housing policy as outlined in Alternative 4A	The preferred option for the county's RE policy is Alternative D

Chapter 5

In line with the SEA Directive, an environmental baseline is presented in this Chapter for the plan area. This includes: a description of the state of the environment at present; discussion of the key problems/ issues currently being faced in the plan area; and a description of the expected evolution of the environment should the plan not be implemented, i.e. in the absence of the plan. The key environmental baseline data for the area will be discussed under the parameters outlined in Schedule 2B (f) of SI No 436/2004. These environmental parameters are:

- biodiversity (flora, fauna),
- population/human health,
- geology/soils,
- hydrology/hydrogeology,
- air/climatic factors,
- material assets
- cultural assets (architecture, archaeology),
- landscape, and
- the interrelationship between the above factors.

In addition to the above environmental parameters and further to the recommendations made in the *Planning System and Flood Risk Assessment. Planning Guidelines for Local Authorities*, OPW 2009, the following is added to the list:

- Flood Risk Assessment and Management. It should be noted that a Strategic Flood Risk Assessment (SFRA) was undertaken for the county development plan as part of the SEA process (provided in Volume 5). The SFRA informed the SEA/AA and plan making process where appropriate.

The chapter concludes by describing how the outlined environmental baseline for the county could evolve in the absence of the plan. As required, the chapter also assesses likely interactions between the environmental parameters on implementation of the plan.

Chapter 6

This chapter outlines the environmental protection objectives (EPO), targets and indicators that will be used to monitor the environmental effects of the plan. These are provided below in Table 1 along with the monitoring scheme outlined in Chapter 9.

Chapter 7

This chapter discusses the likely significant effects of the draft KCDP 2022-2028 on the environment further to an assessment of the policies and objectives of the draft plan and proposed zonings. Several amendments to both policy and objectives are recommended and these have been integrated into the draft plan.

In relation to proposed alterations to objectives/policy it should be noted that throughout the draft KCDP 2022-2028 the term “Sustainable” is used widely. Sustainable is defined *as that which meets the needs of the present without compromising the ability of future generations to meet their own needs*. The conservation of species and habitats in accordance with the requirements of the Habitats Directive is considered to be an important component of sustainable strategies, policies and objectives. Similarly, where the term ‘at appropriate locations’ is used within the KCDP, the protection of the Natura 2000 networks (European Sites) ecological integrity inherently applies.

Several objectives and policy statements of the draft plan had already included both terms when initially phrased by the planning team and therefore required no amendment by the SEA. A full list of objectives screened for this SEA is provided in Appendix 2. This includes objectives from the three town plans, as consolidated. Screening of policy is also recorded in Chapter 7.

Several objectives/policy statements in the plan were highlighted for alteration by the SEA to ensure no significant effects on the environment from the implementation of the plan. In addition, certain objectives in Appendix 2 do show an “uncertain interaction with EPOs” for several parameters. The mitigation provided and/or integrated into the plan in these instances is discussed in more detail in Chapter 8.

In relation to zoning maps, other than the three town plans, the KCDP as noted does not provide for residential zoning. This is to be undertaken at Local Area Plan level aligned with the new Core Strategy. In relation to the three town plans, as discussed the zoning maps for the three towns were previously compiled further to variations to the plans in 2018 (Tralee and Killarney) and 2020 (Listowel). No changes are now proposed to those zoning maps. They are included into the KCDP 2022-2028 as part of the consolidation of the town plans. However, housing allocation has altered since the drafting of the town plans in 2018 and 2020, mainly reflecting the new Core Strategy now provided in the KCDP 20122-2028. More details and an assessment of same are provided in Chapter 7.

The KCDP has included zoning maps for future on-shore wind and zoning for the Tarbert-Ballylongford Landbank. An assessment of the likely significant effects on the environment from these zonings is contained in this Chapter 7. Of note is the recommendation from the Natura Impact Report (NIR) in relation to the proposed zoning at Tarbert Island.

Finally, it should be noted that Chapter 7 also details the evaluation for significant effects of changes made by the Elected Members at a final meeting held prior to the publication of the KCDP on November 22nd and 23rd, 2021.

One change made at this time has been highlighted as having possible conflicts with EPOs, namely a change made to the rural housing policy as outlined in Chapter 5, Section 5.5.2 of the KCDP.

Chapter 8

Further to the evaluation of likely significant effects in Chapter 7, Chapter 8 describes mitigation that is required to ensure no effects on the environment are likely from the implementation of the plan. This includes an assessment of objectives, policy and zoning maps included in the KCDP highlighted from Chapter 7 as requiring further assessment for mitigation. It also includes any proposed amendments made to the plan further to the appropriate assessment of the plan and the SFRA to ensure no conflicts will arise.

Further to the assessment of the plan for significant effects outlined in this Chapter, mitigation recommended by the SEA has been predominately included in the KCDP, however, two recommendations are made on the draft KCDP now on display:

- That the Tarbert Bay pNHA as shown in the NIR that accompanies the KCDP be removed from the land bank zoning at Tarbert Island (see NIR for further assessment of same & Figure 7 8 of this report) and
- That the change to rural housing policy made by Elected Members on the 22nd/23rd of November, 2021 be reversed (see Section 7.7 of this report for further information).

Chapter 9

This chapter presents the recommended monitoring schedule for the KCDP in order to ensure that any likely significant effects on the environment from the implementation of the plan are monitored over time. The methodology used in the development of the monitoring programme for the KCDP is based on the use of indicators and targets, as identified in Chapter 6, and the identification of responsibilities and the setting of appropriate time lines for monitoring. It also includes intervention in the event of an unforeseen occurrence. Monitoring focuses on aspects of the environment that are likely to be significantly impacted by the KCDP. Indicators and targets (Chapter 6) have been identified for the main environmental issues in the study area as outlined in Chapter 5. The frequency of monitoring is in many cases linked to relevant legislation and/or cyclic record taking such as the census, annual EPA air and water quality reports etc. Monitoring for the SEA of the KCDP 2022-2028 is provided below in Table 1.

Chapter 10

Outlines the next stage in the SEA process, namely consultation as summarised in the introduction of this non-technical summary.

Table 1: SEA Monitoring of the KCDP 2022-2028

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
Population	P1: Guide the future development of the county in a sustainable manner that reflects the existing character and amenities of the area and improves the quality of life for the existing and future populations.	That populations in the plan area have access to high quality residential, amenity and public infrastructure with sustainable travel patterns	<ul style="list-style-type: none"> Population growth of settlements identified in the <i>Core Strategy</i>, Number of new houses within settlement boundaries Number of derelict houses/vacant properties in use Housing delivered for the Travelling Community. Housing delivered for special needs groups such as older people or disabled. Travel patterns and modes of transport within the county in comparison to 2016 baseline Number of new addresses in rural areas as per the Geodirectory Register, Economic growth in plan area in various sectors supported by CDP Monitor vacancy rates in settlement boundaries, Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways Footfall within both the town centre and the retail core/core shopping areas of main settlements Number of regeneration sites progressed. Number of public realm strategies/town centre health checks carried out over the lifetime of the plan Number and usage of digital working hubs 	<p>Yes – internal sections of KCC; Local enterprise office; Census; HSE</p> <p>Frequency:</p> <ul style="list-style-type: none"> Trends from census cycle/geodirectory register; CDP review 	<p>Review objectives and policy; review development management procedures.</p> <p>Planning Department, in consultation with other sections in KCC, including Capital Infrastructure Unit, Housing Unit and Economic Development Unit</p>
Human Health	HH1: Protect the public from threats to health and wellbeing across the functions of relevance to	That the quality of the local environment that is governed by the KCDP protects the health and wellbeing of the population	<ul style="list-style-type: none"> Compliance of waste-water infrastructure to legislation/regulations/conditions for relevant licences, permits etc for discharges, Compliance of water supply schemes with relevant legislation/regulation/conditions for abstraction and consumption, Compliance of infrastructure projects to relevant legislation/regulation/conditions re-noise, odour and/or 	<p>Yes – EPA, Irish Water; KCC including Enforcement, Environment Sections and Health and Wellbeing Officer; LAWPRO</p> <p>Frequency:</p>	<p>Pursue reasons for non-compliance. Consultations with Environment Section of KCC, Enforcement, EPA, LAWPRO and IW</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	the KCDP		<ul style="list-style-type: none"> air quality. Compliance of waste management sites Health clusters from any activities facilitated by CDP Implementation of the Noise Action Plan Health trends from <i>Healthy Ireland</i> linked to the CDP 	<ul style="list-style-type: none"> Annual reports from EPA/Irish Water Annual reports from KCC sections CDP review WFD/LAWPRO cyclic reports 	
Biodiversity (Flora/Fauna)	B1: Protect biodiversity including ecosystem services	That biodiversity is integrated into all decision making across the functions of the KCDP	<ul style="list-style-type: none"> Completion of a Biodiversity Action Plan for the county and number of actions completed Compliance with Article 6 of the Habitats Directive for land use plans and other plans/programmes supported in the CDP Integration/provision of green/blue infrastructure <i>All Ireland Pollinator Plan</i> projects logged by biodiversity office Public realm plans; village design statements/Masterplans that support biodiversity initiatives; Developments permitted in proximity/within European sites/sites of ecological importance. Status/risk of waterbodies under the WFD that reflect pressures from land use governed by the CDP. Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways 	<p>Yes – from KCC Sections; NBDC <i>All Ireland Pollinator Plan</i> tracker/web-tool; NPWS data/habitat mapping/CORINE mapping.</p> <p>Frequency:</p> <ul style="list-style-type: none"> Annual/Biennial NPWS Art 17 cycle CDP review WFD cycle 	<p>Review of policy and objectives, Land Use plans, other LA plans and projects and development management procedures.</p> <p>Consultation with Planning Department, NPWS, IFI, LAWPRP</p>
Soil	S1: Protect soils against pollution, and prevent degradation	That the soil/geology and the geological heritage of the county is protected	<ul style="list-style-type: none"> Audit of GSC Changes in land uses/soil types in CORINE Status/risk of groundwater waterbodies under the WFD Status of Geopark and geotourism projects % brownfield sites developed compared to greenfield 	<p>Yes- KCC Sections; GSI; CORINE/Teagasc; EPA/LAWPRO</p> <p>Frequency:</p>	<p>Review of policy and objectives and development management procedures.</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	of the county's soil resource		<ul style="list-style-type: none"> sites • Geohazards from activities/developments supported in plan including flooding • Number of application granted for soil importation/inert waste facilities, • Number of planning permissions granted and area of land permitted for excavation and extraction of non-renewable sand, gravel and rock deposits. • Number of landslides linked to land uses governed by the CDP 	<ul style="list-style-type: none"> • WFD cycle • Annual/Biennial Reports from KCC & LAWPRO 	Consultation with Planning Department, Capital infrastructure Unit and Environment/Enforcement, KCC and other statutory bodies if applicable.
Water	W1: Ensure waterbodies are protected, maintained and improved in line with the objectives of the WFD	That the functions governed by the plan ensure compliance with the objectives of the WFD for all waterbodies within the plan.	<ul style="list-style-type: none"> • Status/risk of waterbodies under the WFD with pressures associated with land uses governed by the CDP • Status/risk of <i>blue dot</i> catchments where pressure identified from land uses governed by the CDP • Compliance of water treatment plants and waste water infrastructure for settlements with targeted population growth • Compliance with existing legislation/regulations/conditions for relevant licences, permits etc for discharges, • Number of households served by urban wastewater treatment plants/ septic tanks/ individual WWTP or other systems, • Number of existing septic tanks inspected, and remediation works undertaken located within designated WFD Priority Areas for Action and/or Blue Dot/high status catchments, • Number of households served by public water supplies • Number of plants exceeding the Emission Limit Values (ELVs) for Wastewater Treatment Discharge licence set by the EPA, 	<p>Yes- KCC; EPA/LAWPRO; OPW.</p> <p>Frequency:</p> <ul style="list-style-type: none"> • WFD cycle • Annual reports KCC, EPA and LAWPRO. 	<p>Pursue non-compliance and/or pollutions event, Review of policy and objectives and development management procedures.</p> <p>Consultation with Planning Department, Environment, Enforcement, KCC and IW, LAWPRO.</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
			<ul style="list-style-type: none"> Implementation of flooding projects, No of blueways developed 		
Air Quality	AQ1: Protect local air quality from emissions that are harmful to human health and the local environment	That the quality of the local environment governed by the functions of the plan protects local air quality	<ul style="list-style-type: none"> Compliance with existing legislation/regulations/conditions for air quality e.g. IPCC Population/growth of settlements identified in the <i>Core Strategy</i> Travel patterns and modes of transport within the county Number of new addresses in rural areas as per the Geodirectory Register, Changes in the sources of space heating used by populations Number of new air monitoring stations in the county Air quality trends particularly in Tralee and Killarney Integration/provision of green and blue infrastructure 	Yes- Census; KCC sections; geodirectory register; EPA Frequency: <ul style="list-style-type: none"> Census cycle Annual reports EPA & KCC Real time data from monitoring stations 	Pursue non-compliance. Review of policy and objectives and development management procedures. Consultation with Environment and Enforcement, KCC and planning department.
Climatic Factors	C1: Ensure the plan supports a transition to a climate resilient, biodiversity rich and climate neutral economy and society	That mitigation and adaptation to climate change inform the functions/decision making governed by the plan	<ul style="list-style-type: none"> Population/growth of settlements identified in the <i>Core Strategy</i> Travel patterns and modes of transport within the county Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways Number of new addresses in rural areas as per the Geodirectory Register, % brownfield sites developed compared to greenfield sites Number of new houses within settlement boundaries Number of derelict houses/vacant properties in use Establishment of a decarbonising zone, Establishment of a low-carbon/low-emissions towns centres, 	Yes- Census; geodirectory register; KCC sections; CORINE/Teagasc, Energy Office, KCC, and SEAI. Frequency: <ul style="list-style-type: none"> Census cycle KCC internal annual records SEAI annual reports Real time data on RE energy production 	Review of policy and objectives and development management procedures. Consultation with planning department, Economic Development Unit, Energy office and future Climate Action Officer.

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
			<ul style="list-style-type: none"> • District heating schemes identified and/or development • Roll out of EV infrastructure • Number of Sustainable Energy Communities (SEC) established in the county • Number of buildings with a BER rating of B2 or more as a % of overall building stock • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • RE projects granted in the Tarbert-Ballylongford land bank, • Micro-generation projects in the county over lifetime of the plan, • % change of land uses for bioenergy production • Flooding/coastal protection schemes undertaken • Other actions from the Kerry Climate Change Adaptation Strategy (and future LA CAP) completed. 		
Material Assets	M1: Protect the material assets of the county while optimising new assets to match proposed growth and sustainable development.	To promote sustainable development that matches existing and new infrastructure with the proposed population growth for the county.	<ul style="list-style-type: none"> • Completion of infrastructure projects identified in the KCDP • Amount of (Km) new greenways, cycleways and footpaths provided, • km of long distant walks available in the County. • Growth in settlements with sufficient water infrastructure –drinking and waste water treatment • Completion/upgrade/improvements of water infrastructure, • Roll out of National Broadband Plan - Number of households serviced and % of households with the minimum broadband speed of 30Mbps and % of households with the target broadband speed of 	Yes- KCC sections; EPA; Irish Water; Eirgrid/ESB Networks Frequency: <ul style="list-style-type: none"> • Census cycle • Annual reports 	Review of policy and objectives and development management procedures. Planning Department, TII, NRDO and/or Economic Development Unit, KCC

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
			<p>100Mbps</p> <ul style="list-style-type: none"> • Creation of innovation/creativity/co-working hubs/digital centres • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • Projects granted in the Tarbert-Ballylongford land bank, • % brownfield sites developed compared to greenfield sites • % of waste going to landfill and recycling when compared with 2020 figures, • Progress of bus shelter upgrade programme 		
Cultural Heritage	CH1: Protect the cultural heritage of the county	The cultural heritage of the plan area, including setting and curtilages are protected	<ul style="list-style-type: none"> • Archaeological Impact Assessments, and/or archaeological investigations undertaken • PS/ACAs identified and any new additions • Recording of non-designated built heritage e.g. vernacular buildings • Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites • Visitor numbers for iconic cultural heritage sites. • Number of literary, musical, artistic and other cultural initiatives undertaken in the county • Implementation and outcomes of the KCC Scéim Gaeilge IV, 2018-2021 • Changes in number of Irish speakers within Gaeltacht areas 	<p>Yes- KCC sections; Failte Ireland; WAW monitoring data.</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Annual/Biennial reports • CDP review • Census 	<p>Pursue non-compliance</p> <p>Review of policy and objectives and development management procedures.</p> <p>County Archaeologist/Conservation Officer/Irish Officer.</p>
Landscape	L1 Protect the landscape of the county	That landscapes identified in the plan, including seascapes, are	<ul style="list-style-type: none"> • Developments permitted within/in proximity to areas of high value landscape or visual sensitive areas, • Number of houses/permissions on approach roads into towns and villages or within a certain radius of same, 	<p>Yes- KCC sections</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Annual/Biennial 	<p>Review of policy and objectives and development management procedures.</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
		protected from negative visual impacts	<ul style="list-style-type: none"> Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites 	reports <ul style="list-style-type: none"> CDP review 	Planning Department
Flooding	F1 Protect the public and infrastructure from inappropriate development in areas at risk of flooding	That sustainable flood risk management practices are implemented in the plan area in adherence to DOEHLG's <i>Guidelines on Flood Risk Management</i>	<ul style="list-style-type: none"> Local Area Plans that undergo SFRA Integration/provision of green and blue infrastructure Development within areas identified as at flood risk Implementation of CFRAMs and flood relief schemes identified in the county Incorporation of specific nature based solutions at plan/project level 	Yes- KCC Sections; OPW. Frequency: <ul style="list-style-type: none"> LAP cycle Annual reports CDP cycle 	Review of policy and objectives and CFRAM project timelines, OPW in consultation with KCC.

1. INTRODUCTION

1.1. Background

In accordance with Section 11 and 12 of the Planning and Development Act (PDA) 2000, as amended, Kerry County Council (KCC) as a Planning Authority (PA) has a duty to make a County Development Plan (CDP) for its functional area and to review it every six years. The plan area relates to the county of Kerry, located in Munster on the south west coast of Ireland (Figure 1-1). The county shares a land boundary with Cork and Limerick. To the north the Shannon Estuary separates Kerry from Co. Clare. The 2016 census indicates the population of County Kerry stands at 147,704¹, a 1.5% increase since the 2011 census. The electoral structure of the County was reconfigured following the re-organisation of local government in 2014. The County is now divided into five municipal districts, for electoral and local government purposes. The five districts are Tralee; Killarney; Listowel; Kenmare and Castleisland/Corca Dhuibhne (Figure 1-2).

The legal basis, function and adoption process for CDPs is set out in the PDA. A CDP sets out an overall strategy for the proper planning and sustainable development of a county for a six-year period. The PDA sets out mandatory objectives which must be included in a CDP. Principally, it must include a *Core Strategy* – a strategy that seeks to align population and housing growth across the towns, villages and rural parts of the county. Objectives for the appropriate zoning of lands, the provision of infrastructure, the conservation and protection of the environment, and the integration of the proper planning and sustainable development with the social, community and cultural requirements of the area and its population are also required. The CDP must present a clear strategic vision for the future development of the county. This strategic vision must be developed and outlined at an early stage in order to inform the more detailed policy elements of the plan. The CDP is structured under different headings that encompass the broad range of social, cultural, economic and infrastructural development throughout the county. Specific policies/objectives are provided. As a result of further amendments to the PDA, all new CDP will need to reflect a changed and evolving landscape in relation to climate change, biodiversity loss and pressures on water resources. Responding to the challenges of Covid-19 is also a crucial consideration.

The current Kerry County Development Plan (KCDP) was adopted on 16th February 2015, became effective from the 16th March 2015 and was due expire in 2021. However, the PDA (Amendment) 2018 enacted legislative requirements, to enable the co-ordinated and timely incorporation of the National Planning Framework (NPF) and the relevant Regional Spatial Economic Strategies (RSES) into each City or County Development Plan. Section 11(1) of the Planning & Development Act 2000 as amended, sets out legal provisions which either suspended or deferred county development plan processes, or required plans to commence variation or review processes within six months of the making of the RSES. The RSES for the Southern Region, of which Kerry is part, came into effect on 31st January 2020.

Subsequent to this legislation an order made under Section 251A of the Planning and Development, Act 2000, as amended, on 29th March 2020 has also resulted in an extension of time for a range of specified/appropriate periods and timelines under this Act, and a number of other related Planning Acts and associated regulations. These two legislative amendments delayed the commencement of the review of the Development Plan until June 2020.

¹ www.cso.ie

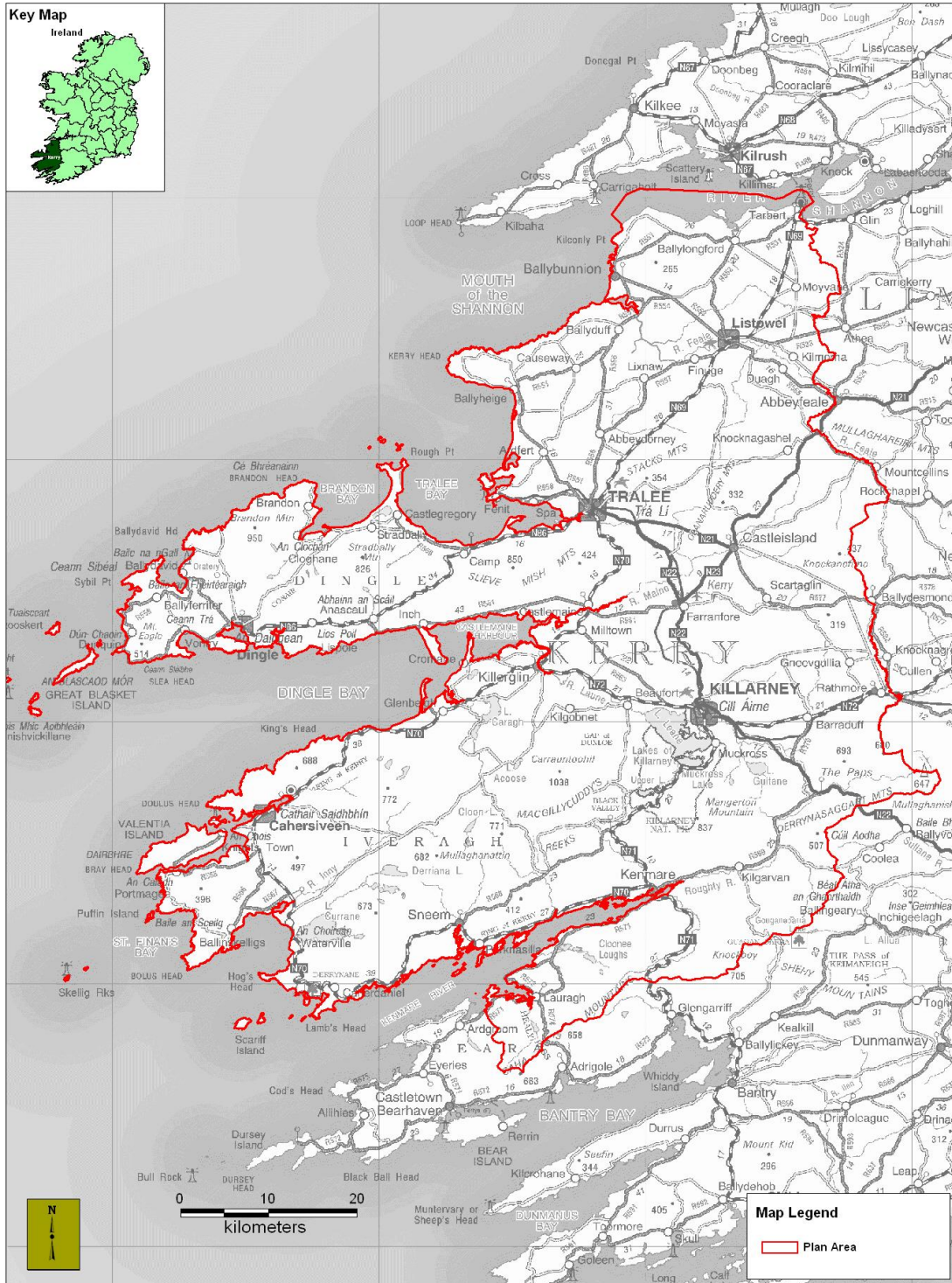


Figure 1-1 The geographical area covered by the Kerry County Development Plan 2022-2028

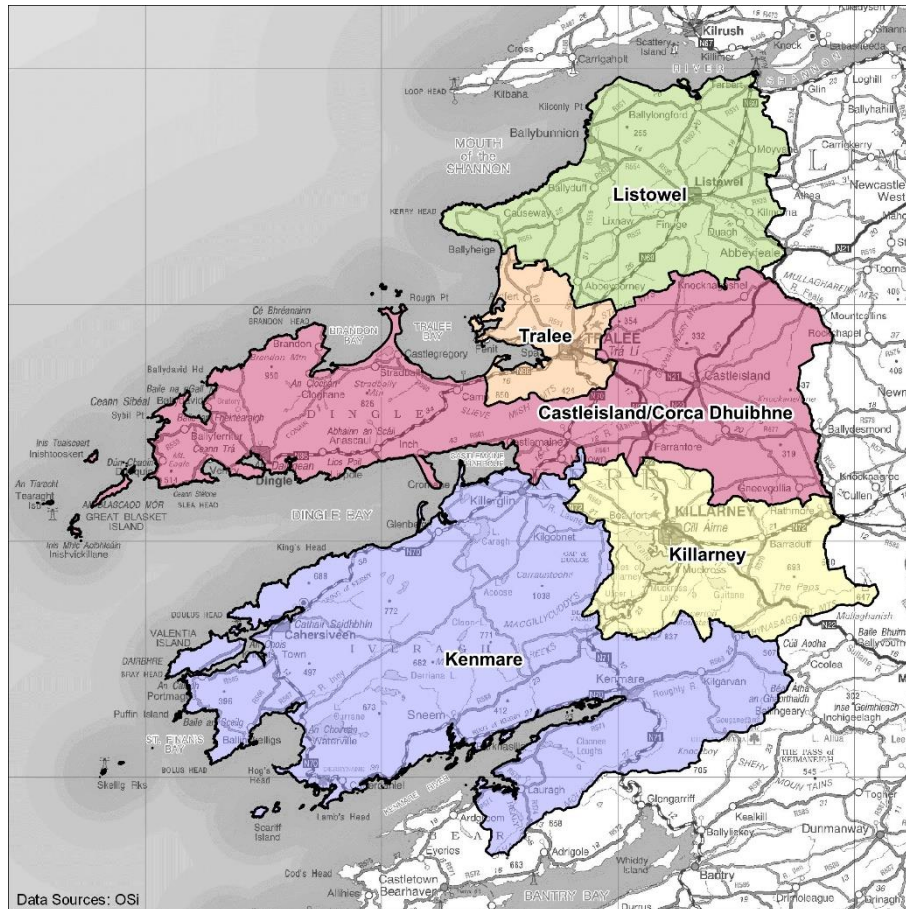


Figure 1-2 Municipal Districts in the county.

In June 2020 an *Issues Paper*² and a public notice as per Section 11 of the PDA was made noting that the existing KCDP was to be reviewed. The *Issues Paper* noted the key objectives of the new KCDP as:

- To promote the growth of a sustainable and strong economy.
- To attract inward investment and people into the County and stem outward migration from the County.
- Promote a high quality of life.
- To promote the creation of attractive vibrant settlements that provide a high quality of life for our citizens.
- Strengthening the fabric of rural areas and villages and supporting the communities who live there.
- To maintain and provide additional services for our citizens, investors and visitors.
- To protect and enhance the natural and built environment.
- To support climate change and adaptation.
- To actively strive to secure the financial resources and funding to achieve policies and objectives contained in the County Development Plan.

Due to Covid 19 public open days were not held as per government guidelines. Two public webinars were held at which planning officials were present. A total of 204 submissions (written, online and e-mail) were received.

² <https://cdp.kerrycoco.ie/issues-paper/>

The Chief Executive’s Report on submissions received was considered by the Elected Members and directions regarding the policies and objectives to be contained in the Plan were issued to the Chief Executive at a meeting held on 15th March 2021. The Draft Plan was then prepared having regard to the directions received from the Elected Members. Prior to public consultation the plan was submitted to the Elected Members and on meetings held on the 22nd and 23rd of November 2021 the Elected members made additional changes to the KCDP 2022-2028. These changes are also screened in this report.

Of note is one amendment made to the KCDP at this time namely to rural housing policy laid out in Chapter 5, Section 5.5.2 of the plan. SEA comments in relation to this change are provided below.

<p>Amend Objective KCDP 15.12 by adding: e) Persons who have spent a substantial period of their lives (i.e., over seven years), living in the local rural area in which they propose to build a first home for their permanent occupation.</p>	<p>The amendment has altered rural housing policy, specifically the criteria laid out in <i>Chapter 5, Section 5.5.2 Rural Settlement Policy</i> of the KCDP for the consideration of a housing application in <i>rural areas under significant urban influence</i> and <i>rural areas under urban influence</i>.</p> <p>The amendment has essentially removed the policy distinction that was made between the two rural areas identified under urban influence in the county – namely who should be permitted to build a house. Further to the change, for housing policy both areas under urban influence are now the same.</p> <p>This amendment is considered a material alteration. By removing the distinction between the types of rural areas, as identified in the KCDP, possible significant effects on the sustainable development of rural areas, particularly those identified in proximity to the county’s main settlements as show in Map 5.1 in Chapter 5, could occur. The amendment is at variance with national and regional planning policy that seeks to sustainably manage settlement patterns in the county in line with national and regional spatial planning policy and climate action policy, particularly as it relates to one-off housing in areas located in proximity to main towns and settlements that are urban generated.</p> <p>The SEA therefore recommends that the amendments made are removed, and the policy reverts back to a distinction between rural areas under significant urban influence and rural areas under urban influence.</p>
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1.2. Tralee, Killarney and Listowel Town Development Plans (as extended and varied)

Kerry has three former town councils with corresponding town development plans as extended under the PDA. They are Tralee, Killarney and Listowel. The Tralee, Killarney, and Listowel Town Development Plans 2009-2015 (as extended and varied) are being incorporated into the CDP and they are contained in Volume 2 of the document. The CDP is the first consolidated County Development Plan for the entire County of Kerry including the former Town Council areas of Tralee, Killarney, and Listowel. The KCDP includes updated land use and zoning frameworks in respect of the towns of Tralee, Killarney and Listowel and consolidates their associated written texts. The CDP therefore sets out the policies and objectives for the future development of the towns of Tralee, Killarney, and Listowel, including compliance with the core strategy for the County. The land-use zoning maps for each town are included in Volume 2. It should be noted that these zonings were previously assessed for SEA, AA and SFRA for the variations made to each Town Development Plan at the time they were varied in 2018

(Tralee and Killarney) and 2020 (Listowel). This is discussed in more detail in this ER but essentially these zonings have remained unchanged. Objectives and policies are however now being amended/consolidated in the KCDP 2022-2028. For ease of assessment all policy and objectives in the three town plans are therefore screened anew in this ER.

Development Plan Review Process and Indicative Timeline	
Publication of Council’s intention to review County Development Plan – initial phase of Public Consultation (Strategic Issues Paper prepared in consultation with Elected Members)	June 2020
Presentation of Chief Executive’s Report on submissions received during initial phase of Public Consultation	March 2021
Direction from Members to Chief Executive to prepare Draft Development Plan	March 2021
Draft Plan prepared for presentation to the Members of the Council	Sept 2021
Consideration and adoption of Draft County Development Plan by the Members of the Council	Nov 2021
Draft Plan (as amended by elected members) on Public Display for minimum period of 10 weeks	Dec 2021
Preparation of Chief Executive’s Report on Draft Plan	Estimate Feb 2022
Member’s consideration of Chief Executive’s Report and any amendments to Draft Plan	Estimate April 2022
Public consultation on amendments – 4 weeks	Estimate Aug 2022
Members consider Chief Executive’s Report on submissions and amendments and Adoption of County Development Plan	Sept 2022

Figure 1-3 Timescales for the drafting of the Kerry County Development Plan 2022-2028.

1.3. Structure of the KCDP 2022-2028

This KCDP 2022-2028 presently on consultation consists of 6 Volumes set out as follows:

Volume 1	Chapters	1. Introduction
		2. Climate Change & Achieving a Sustainable Future
		3. Core & Settlement Strategy
		4. Towns & Villages
		5. Rural Housing
		6. Sustainable Communities
		7. Housing for All
		8. The Gaeltacht, Culture and Heritage
		9. Economic Development
		10. Tourism & Outdoor Recreation
		11. Environment
		12. Energy
		13. Water & Waste Management
		14. Connectivity
Volume 1	Appendix (1)	Glossary of Terms & Abbreviations
	Appendix (2)	Development Plan Guidelines & Section 28 Compliance
	Appendix (3)	List of Mandatory Objectives
	Appendix (4)	Kerry County Council Submission to Irish Water – STVGP
	Appendix (5)	Natural Environment and Designations
	Appendix (6)	Wind Zoning Methodology
	Appendix (7)	Landscape Review of County Kerry
	Appendix (8)	Rural Area Types
	Appendix (9)	Implementation & Monitoring
Volume 2	Town Development Plans & Zoning Maps	Tralee
		Killarney
		Listowel
Volume 3	Appendix (1)	List of Public Rights of Way
	Appendix (2)	The Archaeology of Kerry - An Overview
	Appendix (3)	National Monuments & Registered Monuments
	Appendix (4)	Archaeological Landscapes
	Appendix (5)	Record of Protected Structures
	Appendix (6)	Proposed Additions to the Record of Protected Structures
	Appendix (7)	Architectural Conservation Areas
Volume 4	Maps associated with the Plan	Tralee, Killarney & Listowel Zoning Maps
		Rural Area Types
		Visually Sensitive landscapes & Views/prospects
		Wind Zoning
Volume 5	Environmental Assessments	Ballylongford Landbank and Tarbert Island
		Strategic Environmental Assessment (SEA)
		Natura Impact Report (NIR)
Volume 6	Strategies and policy documents	Strategic Flood Risk Assessment (SFRA)
		Development Management Standards & Guidelines
		Land-use zoning
		Biodiversity Action Plan
Volume 6	Strategies and policy documents	Housing Strategy/Housing Demand Need Assessment (HDNA)

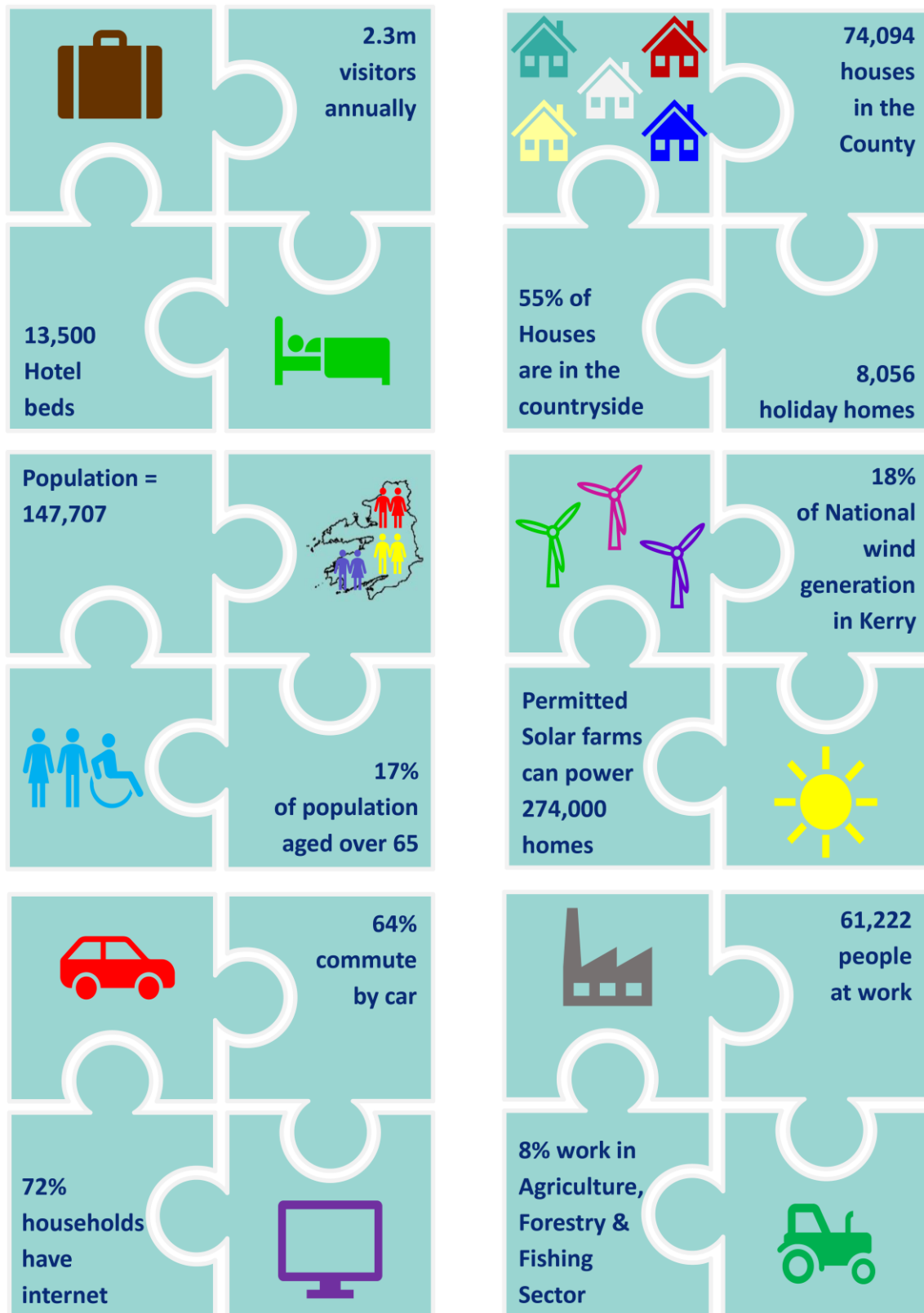


Figure 1-4 A snapshot of Kerry County at the commencement of the KCDP 2022-2028³.

³ KCDP 2022-2028 Issues Paper, June 2020.

1.4. Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is a systematic and effective process for ensuring that environmental issues are taken into account at every stage in the preparation, implementation, monitoring and review of plans, programmes and strategies. It is a process of evaluating the environmental consequences of a proposed policy, plan or programme (P/P). SEA aims to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development. In this instance the “plan/programme” requiring assessment under the Directive is the KCDP 2022-2028.

SEA of plans and programmes is required by European Directive 2001/42/EC (‘the SEA Directive’). For a specific range of land-use plans, this Directive is transposed into Irish law by Statutory Instrument (S.I.) No. 436 of 2004 (the Planning and Development (Strategic Environmental Assessment) Regulations 2004), as amended by S.I. No. 201 of 2011 (the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011). Hereafter these are referred to as the ‘SEA Planning Regulations’. The SEA process consists of a series of steps or stages which are:

- **Screening** of P/P to establish whether it must undergo an SEA;
- **Scoping** of the details to be provided in the Environmental Report (ER), in consultation with environmental authorities;
- **The Environmental Report** (ER) containing the findings of the assessment on the likely significant effects on the environment of the P/P;
- **Consultation** on the Draft Plan and associated Environmental Report;
- **An SEA Statement** - identifying how environmental considerations and consultations have been integrated into the Final Plan; and
- **Monitoring Programme** of the significant environmental effects of the P/P.

Pursuant to Article 13(B) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI 436 2004), as amended in Regulations 2011, (S.I. No. 201 of 2011) and Article 9(1) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI 435/2004), as amended in Regulation 2011, (S.I. No. 200 of 2011), Kerry County Council is required to carry out a mandatory SEA for the review of the County Development Plan. Screening was therefore deemed unnecessary and the SEA proceeded straight to the Scoping Stage.

1.5. Article 6 of the Habitats Directive 92/43/EEC

It should be noted that in addition to the SEA, the KCDP 2022-2028 is assessed under Article 6 of the Habitats Directive 92/43/EEC. The KCDP is accompanied by a Natura Impact Report (NIR). This informs the SEA process where appropriate.

1.6. Strategic Flood Risk Assessment (SFRA)

The KCDP is also subject to a SFRA, running concurrently with the drafting of the plan and other environmental assessments. The SFRA is essentially an assessment of the flood risk of the plan area prepared in accordance with DEHLG/OPW (2009) guidelines *‘The Planning System and Flood Risk Management’*. The purpose of a SFRA under the guidelines is *“to provide a broad (area-wide) assessment of all types of flood risk to inform strategic land-use planning decisions. SFRA’s enable the Local Authority to undertake the sequential approach, including the Justification Test, allocate appropriate sites for development and identify how flood risk can be reduced as part of the development plan process.”* The SFRA provides guidance to ensure sustainable flood risk management principles underpin planning decision-making over the lifetime of the CDP.

Table 1-1 Integration of SEA, SFRA and assessment under Article 6 of the Habitats Directive

STAGES IN PLAN MAKING PROCESS	PLAN	SEA	SFRA	Article 6 of the Habitats Directive
Pre-review	Preparation of Issues Papers	SEA mandatory for CDP/ screening not applicable	-	-
Initial public consultation	Publication of (a) statutory notice of intention to make the KCDP	Scoping of the Environmental Report, in consultation with environmental authorities noting SFRA to be undertaken		Notify consultees that an assessment under Art 6 will be undertaken
Preparation of Documentation	Preparation of draft plan	Preparation of ER. The process is iterative, amendments are made to the plan by SEA where required, and record made of same	Inform plan making process, will be iterative	An assessment under Article 6 of the Habitats Directive will be drafted in parallel with SEA and Plan. The process will be iterative, amendments will be made to the plan where required, and record made of same
Public consultation	Public display of draft plan and consideration of submissions	Public display of ER/SFRA and consideration of submissions		Public display of Assessment under Article 6 and consideration of submissions
2nd public display (if required)	Display of any MA(s) to draft plan	Identify any significant environmental effects resulting from material amendments		Identify any likely significant Effects on European sites resulting from material amendments
Completion of process	Adoption of plan	Making specified information available in the form of a SEA Statement	Finalise SFRA	Provide information on the Article 6 process
Post-plan	Implementation	Monitoring of significant environmental effects		-

1.7. Climate Change and a transition to a low carbon society.

The KCDP 2022-2028 was being finalised for public consultation as COP26 drew to a close in Glasgow and following the publication of Ireland's first carbon budgets and the latest National *Climate Action Plan, Securing our Future* (CAP 2021). Climate action and planning for climate change is now driving all public policy as enshrined in law with the *Climate Action and Low Carbon Development (Amendment) Act 2021*. This 2021 Act specifically requires the state to pursue the “**national 2050 climate objective**”, namely the “transition to a climate resilient, biodiversity rich and climate neutral economy” by the end of 2050.

The “integration” of climate action into planning policy commenced in 2010. However, the new CDP strongly augments this integration – directly through policies/objectives that support climate action but also indirectly through policies/objectives to support spatial and physical planning decision-making and renewable energy policy. Planning policy needs to dictate a vision for the future development of the county that supports sustainable growth and settlement patterns; sustainable and local transport initiatives; green and blue infrastructure/nature-based solutions and appropriate development of land/land uses. Renewable Energy (RE) policy will have a direct effect on *mitigation* by facilitating National targets for the cutting of Greenhouse Gas (GHG) emissions while *adaptation* policy in addressing the future pressures from climate change, such as flooding, will also need to be outlined.

Taken in combination these clear synergies between plan making and the implementation of preferred mitigation and adaptation options will cumulatively form part of the local, regional and ultimately national response to climate change. Evolving national policy, most recently in the published carbon budgets and *Climate Action Plan 2021 Securing our Future*, outlines further the need for spatial policy to reflect both mitigation and adaptation policies at a local level. In Kerry, the 2019 KCC *Climate Adaptation Strategy* is guiding adaptation responses in the short-term period to 2024. The strategy represents the start of the process of adaptation planning within the Council and is the first step in increasing knowledge and understanding of our changing climate, growing resilience, and enabling effective responses to the threats posed by climate change. The *Climate Action and Low Carbon Development Act* in 2021 now requires each LA to produce their own 5 year *Climate Action Plan* with which the CDP must align. These LA CAPs will need to combine both mitigation and adaptation actions. At the time of writing LAs are awaiting further guidance on LA CAPs.

1.8. Biodiversity

Drafting the KCDP occurs at a time where numerous international reports outline an unprecedented decline in global biodiversity to which Ireland, or Kerry, is not immune. There has been a growing awareness of the importance of both the intrinsic value of biodiversity but also associated “ecosystems services” such as those provided by wild pollinators. Biodiversity as a means to both mitigate and adapt to climate change has also recently gained momentum.

Kerry has a rich and diverse natural heritage. Many ecological sites of International, European, National and local significance occur in the county with corresponding environmental designations. The county has several high-status watercourses that support salmonid species; extensive upland habitats; sand dunes and wetlands that in turn support an array of birdlife and other wildlife. Equally, woodlands; hedgerows, wetlands, rivers and streams that criss-cross the county act as stepping-stones within the ecological and visual landscape. Historic low intensity farming has resulted in a landscape where High Nature Value Farming Areas (HNVf) dominate. Combined, the county's natural heritage and associated ecosystem services offer existing green and blue infrastructure that could offer possible nature-based solutions to many of the challenges facing society. A multi-beneficiary or co-benefits approach to the conservation of biodiversity, via enhancement of existing green and blue infrastructure, is supported in

this CDP. Co-benefits include improved water quality, air quality, soil health, human health and wellbeing. To reflect this the CDP will need to contain objectives/policies that protect the county's biodiversity, augment its ability to offer positive/multi-beneficiary/co-benefit responses to climate change and where possible reverse declining trends in biodiversity that can be attributed to role and function of the KCDP. Further to and in addition to these aims, the CDP also includes in Volume 6 Kerry County Councils own Biodiversity Action Plan (BAP).

The SEA provides plan makers with a statutory framework to integrate climate and biodiversity related policies/objectives into the CDP.

1.9. Structure of this Environmental Report

The remainder of this report is structured as follows:

Section Heading

2	Policy Context of the KCDP 2022-2028
3	Methodology for the SEA of the KCDP 2022-2028
4	Alternative Development Scenarios
5	Existing Baseline Environment of the Plan Area
6	Environmental Protection Objectives, Targets and Indicators for the SEA
7	Likely Significant effects of the Environment from the implementation of the KCDP 2022-2028
8	Mitigation
9	Monitoring
10	Next Stage

Appendices

1	Relevant European/National/Regional/Local Plans
2	Screening of Objectives in the KCDP 2022-28, including the towns of Tralee, Killarney & Listowel

2. POLICY CONTEXT OF THE KERRY COUNTY DEVELOPMENT PLAN 2022-2028

2.1. Introduction

The SEA Directive requires that the SEA process includes an assessment of other Plans/Programmes (P/Ps), which is related to the P/P being assessed (Annex I (a) and Schedule 2B of S.I. 436 of 2004). As part of the SEA process the KCDP is established with regard to other plans and programmes that have been adopted at International, European, National and Regional level. The purpose of this review is to take into consideration the legislative and policy framework within which the KCDP sits and must conform. This section focuses on the key planning plans/programmes deemed most relevant to the CDP. Relevant international and national policies, plans and programmes are set out in Appendix 1. The following sections will focus on key national and regional planning policy as they are deemed particularly important in setting the context of the CDP. In-combination or cumulative effects with other plans and programmes is specifically addressed in Chapter 7, Section 7.6.

2.2. The National and Regional Planning Policy Context of the KCDP

A CDP is part of a systematic hierarchy of land use plans and spatial plans. As outlined in Figure 2-1 it forms a third tier to this spatial planning decision making hierarchy.

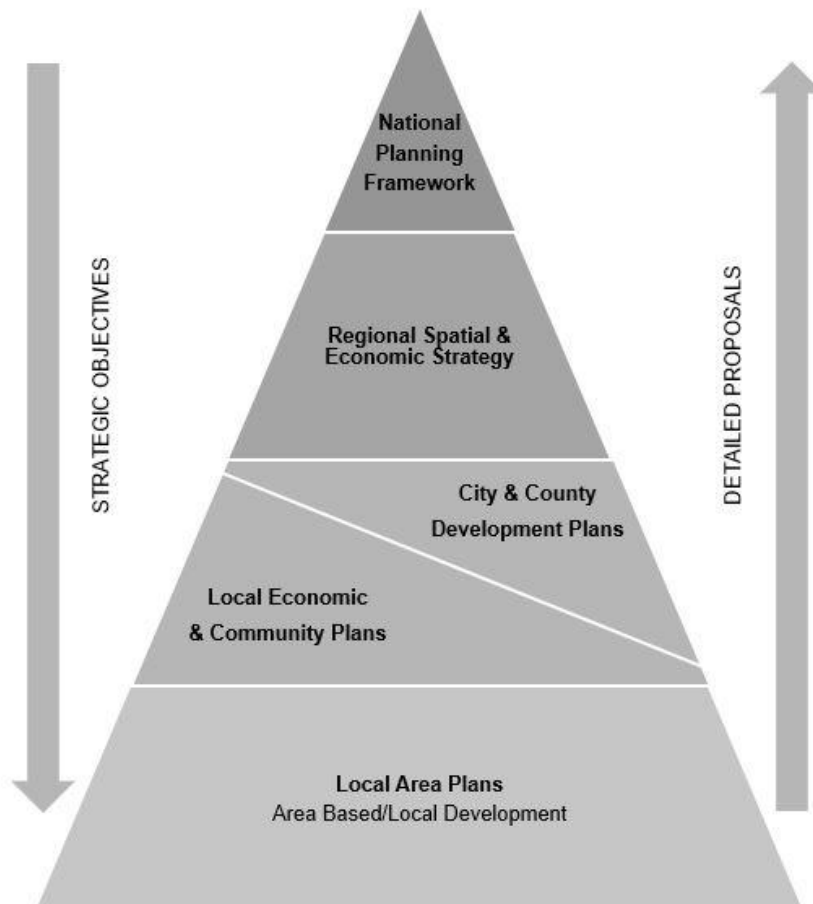


Figure 2-1 Planning Hierarchy context for the KCDP 2022-2028

Specifically, the CDP is guided by National policy - *Project Ireland 2040 – National Planning Framework* published in February 2018 (NPF) and recently updated, and by Regional policy - the *Regional Spatial and Economic Strategy for the Southern Region (2020)* (RSES). All three plans combine to provide a broad canvas to steer sustainable growth and prosperity of the country, region and county through the formulation of public policy integrating land-use, transport, economic growth and investment.

The NPF (as updated) outlines *National Strategic Outcomes (NSO)*:

- Compact Growth
- Enhanced Regional Accessibility
- Strengthened Rural Economies and Communities
- Sustainable Mobility
- A Strong Economy, supported by Enterprise, Innovation and Skills
- High-Quality International Connectivity
- Enhanced Amenities and Heritage
- Transition to a Low Carbon and Climate Resilient Society
- A Sustainable Management of Water, Waste and other Environmental Resources
- Access to Quality Childcare, Education and Health Services

The NPF recognises a national trend in rural decline and in seeking to address this supports the objective that a significant proportion of national population and economic growth will be targeted at building up the fabric of smaller towns, villages and rural areas. An emphasis will be placed on redeveloping derelict and under-utilised lands inside small towns and villages. Priority will be placed on renewing and developing existing built up areas rather than continual expansion and sprawl of cities and towns. To this end the NPF has a target of at least 40% of new housing to be delivered within the existing built up areas of cities/towns and 30% in towns and villages on infill and/or brownfield sites.

These NPF NSOs are in turn reflected in the *Regional Spatial and Economic Strategy for the Southern Region (RSES SR)* as published in 2020. The RSES includes Kerry, Cork, Limerick, Clare, Tipperary, Waterford, Kilkenny, Carlow and Wexford. The RSES outlines the vision for the sustainable development of the region over the lifetime of the strategy. It projects population growth and proposed housing growth in the region out to 2031. Kerry is included in these projections. The KCDP new *Core Strategy* is therefore required to be consistent with the projected population and housing growth as outlined in the RSES for the county. The new *Core Strategy* to be contained in the KCDP 2022-2028 will allocate populations and housing growth to towns, villages and settlements within the County consistent with the RSES as adopted in 2020. In so doing the KCDP has taken into account:

- The identification of Tralee and Killarney as *Key Towns* in the RSES
- Distribution of the existing population,
- Demand for housing,
- Available and planning infrastructure in particular drinking water and waste-water infrastructure as per Irish Water's Capital Investment Programme,
- Sustainable population growth in line with the NSO's of the NPF, and
- Achieving compact growth within existing settlements focusing on infill and brownfield sites and within the existing footprint of settlements

2.2.1. Local Policy Planning Policy Context of the KCDP

The KCDP provides greater detail of the local economic, social and environmental policy context of the CDP and all three are referenced through of the plan. Of note are the following policy documents.

2.2.1.1. Local Economic and Community Plan (LECP) 2016-2022

Further to the *Local Government Reform Act 2014* and *Putting People First: Action Programme for Effective Local Government*, economic, social and community development has become a key role of Local Government. The main vehicle to achieve the aims of this policy is the Local Economic and Community Plan (LECP). As indicated in Figure 2-1 LECPs now sit alongside a CDP providing a stronger and clearer role for local government in economic and community development. This framework underpins the vision set out in the *Action Programme for Effective Local Government*.

The Kerry LECP was published by KCC in 2016⁴. It sets out the objectives and actions needed to promote and support the sustainable economic and local community development of the County from 2016 to 2022. The aim is to focus the role of Local Government, State Agencies, Community Sector, Local Development Groups and other bodies that are involved in the development of County Kerry in a coherent manner. The LECP is guided by the Local Community Development Committee in co-operation with the Economic Development and Enterprise Strategic Policy Committee of KCC. The LECP is consistent with the then KCDP Core Strategy/Regional Planning Guidelines as contained in the KCDP 2015-2021. The plan is due for review over the lifetime of the CDP.

2.2.1.2. County Kerry Tourism Strategy & Action Plan 2016-2022

The Tourism Strategy forms an integral part of Kerry County Council's Local Economic and Community Plan 2016-2022⁵. The strategy set out to maximise, in a sustainable manner, tourism's contribution to the quality of life, economy, employment and local community development, paying particular attention to nurturing and protecting the natural, built, cultural and linguistic heritage of the county.

2.2.1.3. KCC Climate Change Adaptation Strategy 2019-2024

Kerry is located within the Atlantic Seaboard South Climate Action Region and is one of 4 Climate Action Regions. This region is considered the most climate susceptible of the four Climate Action Regions in Ireland, given its location with regards prevailing wind/storms and Atlantic weather fronts. Kerry's Climate Change Adaptation Strategy⁶ is the start of the process of adaptation planning in Kerry County Council and is the first step in increasing knowledge and understanding of our changing climate, growing resilience, and enabling effective responses to the threats posed by climate change.

Kerry County Council's Vision is to *fulfil a leadership role in assessing and responding to the impacts of climate change, be fully engaged with the risks and opportunities of a changing climate and build a resilient future for and together with, the communities of County Kerry*. The Vision is promoted through the implementation of actions set out under high-level goals.

2.2.1.4. County Kerry's COVID-19 Economic Recovery Plan 2021

The County Kerry's COVID-19 Economic Recovery Plan 2021 provides an overall framework for the economic development of the County in the short to medium term and has been developed as a

⁴ The LECP was screened for SEA and AA at the time of drafting. Further to both screenings, no significant effects on the environment and/or European Sites were identified from the implementation of the plan. A SEA and/or AA were not required.

⁵ The Tourism Strategy was screened for SEA and AA at the time of drafting. Further to both screenings, no significant effects on the environment and/or European Sites were identified from the implementation of the strategy. A SEA and/or AA were not required.

⁶ The Adaptation Strategy was screened for SEA and AA at the time of drafting. Further to both screenings, no significant effects on the environment and/or European Sites were identified from the implementation of the strategy. A SEA and/or AA were not required.

response to the challenges and opportunities facing the Kerry Economy. This document has been integrated into the KCDP, as appropriate.

The 9 pillars for Economic Recovery & Growth contained in the plan contribute to the county’s economic development and are shaped and influenced by the strategic objectives of NPF and the RSES for the Southern Region. Both the vision of the NPF and the RSES are led by the need for transformative change in a greater regional structural realignment of population and economic activity across the state and to achieve the ambitious targets set will require investment of an equally ambitious and targeted nature. The Economic Recovery Plan is also aligned with national, regional and local policy and plans, including the recently published National Economic Recovery Plan, which sets out a high-level framework outlining the Government’s priorities for a jobs-led sustainable and inclusive recovery; and the Government’s 5-year strategy for rural development ‘Our Rural Future’, that represents the Irish Government’s blueprint for a post-COVID-19 recovery and development of rural Ireland over the next five years.

2.3. Draft Kerry County Development Plan 2022-2028

2.3.1. Plan Content

The Kerry County Development Plan 2022-2028 incorporates aims, objectives, policies, and guidelines to provide for the proper planning and sustainable development of the county. It is a spatial planning framework that gives effect to the delivery of sustainable and planned economic and social development in a manner consistent with higher level plans and strategies such as Project Ireland, 2040 NPF and RSES for the Southern Region. Essentially it establishes a broad framework for the way in which the county’s economy, society, environment, and the use of land should evolve over its lifetime.

As noted the plan consists of a number of volumes. Volume 1 contains the main written statement supported by several appendices. A summary of each volume is provided below. Further information on each section of the plan is provided within the ER.

Section of the Plan	Content
Volume 1	
Chapter 1 Introduction	Sets out the legislative background to the KCDP review within International, European, National, Regional and Local policy. Its gives a brief overview of the County – <i>Kerry at a Glance</i> – at the start of the plan making process. It outlines the content of the KCDP which consists of 6 volumes. It defines the concept of sustainable development within the context of the plan as follows: <i>Throughout the Kerry County Development Plan 2022-2028 the term “Sustainable” is used widely. Sustainable development is defined as that which meets the needs of the present without compromising the ability of future generations to meet their own needs.</i>
Chapter 2 Climate Change & Achieving a Sustainable Future	Sets out broad principles to provide for the sustainable development of County Kerry. It supports people and employment while transitioning to a low carbon society and which safeguards and enhances the environment.
Chapter 3 Core & Settlement Strategy	Establishes the settlement and growth strategy for the County, indicating which settlements are to targeted for population growth.
Chapter 4 Towns & Villages	Builds on the core strategy by establishing the principles of development in the County’s towns and villages. It delivers on the vision of both the NPF and RSES in relation to compact growth, including the concept of regeneration of town and village cores, and the reuse of brownfield, vacant and derelict sites.

Section of the Plan	Content
Chapter 5 Rural Housing	Focuses on Rural Housing, the strengthening of rural communities, through the regeneration of rural towns and villages and providing policies for the specific needs of sustaining population in rural areas.
Chapter 6 Sustainable Communities	Targets the requirements for establishing and maintaining healthy, sustainable and inclusive communities through the provision of community and social infrastructure, appropriate housing and broader social inclusion policy across a range of sectors.
Chapter 7 Housing for All	Outlines the Housing Policy based on the housing needs identified in the Housing Needs Demand Assessment and Housing Strategy for Kerry in Volume 6 of the Plan.
Chapter 8 The Gaeltacht, Culture and Heritage	Contains the general planning policies and principles which recognises the importance of identifying, valuing, and safeguarding our linguistic, archaeological, architectural, and cultural heritage for future generations through appropriate protection, management, and enhancement measures or via the sensitive development of this resource. It includes a list of appendices attached in Volume 3 namely: Appendix (1) List of Public Rights of Way; Appendix (2) The Archaeology of Kerry - An Overview; Appendix (3) National Monuments & Registered Monuments; Appendix (4) Archaeological Landscapes; Appendix (5) Record of Protected Structures; Appendix (6) Proposed Additions to the Record of Protected Structures; Appendix (7) Architectural Conservation Areas.
Chapter 9 Economic Development	Sets out the planning policies and objectives in support of the economic development of the County and puts in place a spatial planning framework which will deliver the required development patterns that maximise the conditions for sustainable economic development in Kerry.
Chapter 10 Tourism & Outdoor Recreation	Outlines how land use policies seek to augment Kerry's position as an international tourism destination, with a focus on developing green and sustainable tourism.
Chapter 11 Environment	Contains the general planning policies and principles which will ensure that the natural environment, biodiversity and ecosystems are protected.
Chapter 12 Energy	Outlines the policy that supports and provides for the sustainable development of indigenous energy resources. There is an emphasis on renewable energy supplies, in the interests of economic progress and the proper planning and sustainable development of the county
Chapter 13 Water & Waste Management	Contains the general planning policies and principles for the provision and improvement of water, waste/surface-water and waste management services.
Chapter 14 Connectivity	Outlines key infrastructure to enhance regional and county connectivity through the implementation of the policies and objectives outlined in the chapter and the Development Management Standards and Guidance as provided in Volume 6, Appendix 1.
Appendices	Glossary of Terms & Abbreviations Development Plan Guidelines & Section 28 Compliance List of Mandatory Objectives Kerry County Council Submission to Irish Water – STVGP Natural Environment and Designations Wind Zoning Methodology Landscape Review of County Kerry Rural Area Types

Section of the Plan	Content
	Implementation and Monitoring
Volume 2	
Town Development Plans & Zoning Maps	Tralee; Killarney and Listowel
Volume 3	
Appendices	Appendix (1) List of Public Rights of Way Appendix (2) The Archaeology of Kerry - An Overview Appendix (3) National Monuments & Registered Monuments Appendix (4) Archaeological Landscapes Appendix (5) Record of Protected Structures Appendix (6) Proposed Additions to the Record of Protected Structures Appendix (7) Architectural Conservation Areas
Volume 4	
Maps associated with the Plan	Tralee, Killarney & Listowel Zoning Maps Rural Area Types Visually Sensitive landscapes & Views/prospects Wind Zoning Ballylongford Landbank and Tarbert Island
Volume 5	
Environmental Assessments	Strategic Environmental Assessment (SEA) Natura Impact Report (NIR) Strategic Flood Risk Assessment (SFRA)
Volume 6	
Strategies and policy documents	Development Management Standards & Guidelines Land-use zoning Housing Strategy/Housing Demand Need Assessment (HDNA) Biodiversity Action Plan

2.3.2. Settlement Hierarchy and Core Strategy outlined in the KCDP 2022-2028

The Draft Plan has been prepared in accordance with the requirements of the Planning and Development Act 2000 (as amended). A key element of the plan is the requirement to prepare a 'core strategy' for the County, which must be consistent, as far as practicable, with National and Regional development objectives as set out in the NPF and RSES.

Chapters 3-5 of the KCDP specifically outlines the *Core Strategy* which is the settlement and growth strategy for the entire County. It sets out, in line with the overarching hierarchy of national and regional plans, and the Development Plan Core principles, the quantum and location of development in the County over the lifetime of the Plan. The settlement and core strategy are discussed further in this ER, but briefly both are illustrated below in Figure 2-2 and Figure 2-3.

- Key Town
- Regional Town
- District Town
- Village
- Small Village Settlement

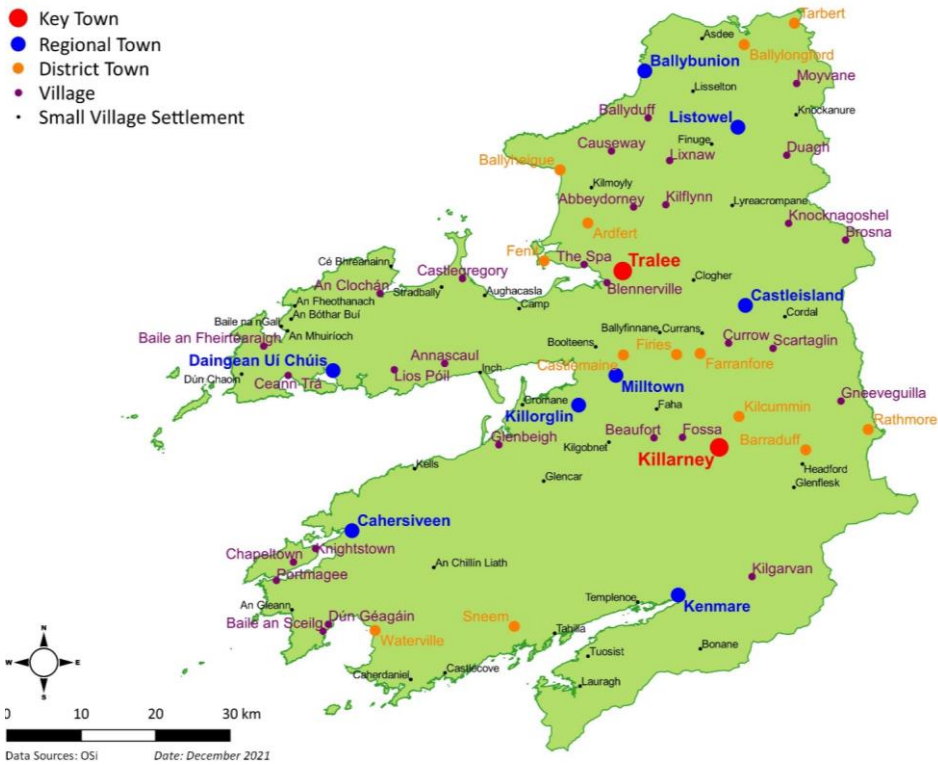


Figure 2-2 Settlement hierarchy in the KCDP 2022-2028

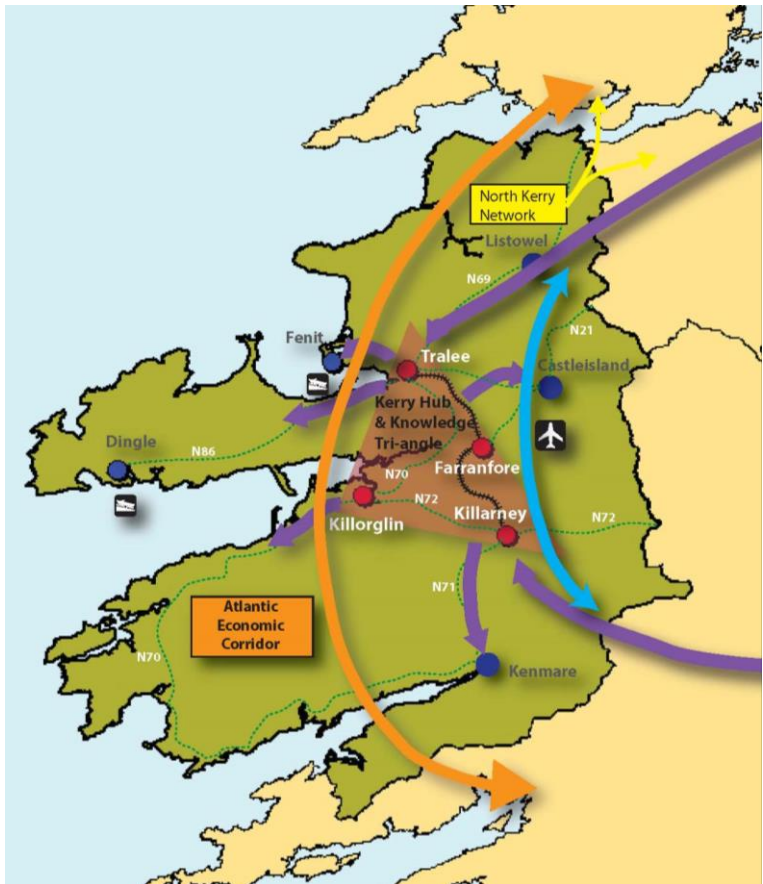


Figure 2-3 Core Strategy as outlined in the KCDP 2022-2028

3. METHODOLOGY FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE KERRY COUNTY DEVELOPMENT PLAN 2022-2028

3.1. Guidance

The Strategic Environmental Assessment of the KCDP 2022-2028 reflects the requirements of SEA Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment and Irish legislation through the SEA planning regulations. In a specific Irish legislative context, the following provide guidance on interpreting the SEA Directive and has informed this SEA:

- *Draft Strategic Environmental Assessment, Guidelines for Regional Assemblies and Planning Authorities*, Draft for Public Consultation Prepared by the Department of Housing, Local Government and Heritage, October 2021,
- *SEA of Local Authority Land Use Plans – EPA Recommendations and Resources, Version 1.6, 2020*,
- *SEA Pack*, EPA updated to Feb 2020, including the SEA Scoping Checklist.
- *Good practice guidance on Cumulative Effects Assessment in SEA*, EPA 2020,
- *Guidance on SEA Statements and Monitoring*, EPA 2020, as included as an appendix in the *Second Review of Strategic Environmental Assessment Effectiveness in Ireland (González, A.; Riki, T., Gaughran A. and Bullock C. 2020)*,
- *Integrating Climatic Factors into the Strategic Environmental Assessment Process in Ireland*, EPA, 2019
- *SEA Effectiveness Review in Ireland - Action Plan 2018-2020*, EPA 2018,
- *The Environmental Sensitivity Mapping (ESM) WebTool and User Manual**,
- *SEA Spatial Information Sources Inventory*, June 2019, EPA,
- *GISEA Manual Improving the Evidence Base in SEA*, EPA, 2015,
- *Local Authority Adaptation Strategy Development Guidelines*, EPA 2016,
- *Developing and Assessing Alternatives in SEA*, EPA 2015,
- *Implementation of SEA Directive 2001/42/EC: Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities*, Department of Environment Heritage and Local Government Guidelines (2004),
- *Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland*, Synthesis Report, Environmental Protection Agency.
- European Communities (Environmental Assessment of Certain Plans and Programmes (Amendment) Regulations 2011, (S.I. No. 200 of 2011), amending the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2001 (S.I. No. 435 of 2004), and
- Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (S.I. No 201 of 2011) and Planning and Development (Amendment) Regulations 2011 SI 262 of 2011, amending the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No.436 of 2004).

*The *Environmental Sensitivity Mapping (ESM)* has been developed by the EPA/UCD/AIRO/OSI. The ESM takes the form of a web-tool that provides spatial data sets on a range of environmental parameters of relevance to the SEA process. It has been developed as a decision-making support tool for environment processes in Ireland, including SEA, and was used as part of the SEA for the KCDP.

3.2. Key stages in Strategic Environmental Assessment

As discussed the SEA process consists of a series of steps or stages that need to be undertaken:

- **Screening** of P/P to establish whether it must undergo an SEA;
- **Scoping** of the details to be provided in the Environmental Report, in consultation with environmental authorities;
- **An Environmental Report** - containing the findings of the assessment on the likely significant effects on the environment of the P/P;
- **Consultation** on the Draft Plan and associated Environmental Report;
- **An SEA Statement** - identifying how environmental considerations and consultations have been integrated into the Final Plan; and
- **Monitoring Programme** of the significant environmental effects of the P/P

Based on the requirements of legislation and guidance the SEA has been carried out in the series of stages outlined above. The SEA has been informed by an assessment under Article 6 of the Habitats Directive (Section 1.5) and the Strategic Flood Risk Assessment (Section 1.6).

This report specifically addresses step 3 of SEA, the Environmental Report (ER) of the SEA for the Kerry County Development Plan 2022-2028.

3.2.1. Scoping

The purpose of scoping in the SEA process is two-fold – to “scope” possible environmental effects of the plan in consultation with key stakeholders. Scoping identifies the likely extent (geographic, temporal and thematic) and level of detail for the environmental assessment and the information to be included in the SEA Environmental Report. Key stakeholders are then consulted with and asked to comment on the key environmental issues and elements of the P/P. Scoping should identify issues that are of most importance so that these can be addressed in more detail and eliminate those that are not of significance.

3.2.2. Scoping Consultation Authorities

Under Article 13A(4) of the Regulations SI 436 2004, as amended in Regulations 2011, (S.I. No. 201 of 2011) and DoECLG Circular Letter PSSP 6/2011 dated 26th July 2011 in relation to “*Further Transposition of the EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA)*”, designated environmental authorities must be consulted in relation to the scope and level of detail to be included in the Environmental Report. Consultees to be consulted are the:

- EPA
- Minister for Housing, Planning and Local Government
- Minister for Agriculture, Food and the Marine, and
- Minister for Communications, Climate Action and Environment, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht, and
- any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, in this instance,
 - Limerick City and County Council,
 - Cork County Council and
 - Clare County Council.

In addition to the above, the following non-statutory consultees were consulted:

- Inland Fisheries Ireland,
- Local Authorities Water Programmes Office (LAWPRO)
- Climate Action Regional Office (CARO) Atlantic Seaboard South, and
- Geological Survey of Ireland.

The SEA scoping report for the draft Kerry County Development Plan 2022-2028 (here after referred to as the KCDP) was sent to the above statutory and non-statutory consultation bodies in July 2020.

3.2.3. Outcome of the Scoping Exercise

The findings and comments received as part of the scoping process are included and addressed in this ER and are summarised below:

Table 3-1 Consultee submissions on SEA Scoping Report

Statutory and non-Statutory Consultee	Submission Made	Addressed ER
EPA	Detailed submission on the need for the SEA to ensure that the KCDP will not cause a significant effect on the environment	Throughout the ER, specifically Section 5
Minister for Housing, Planning and Local Government	None received	-
Minister for Agriculture, Food and the Marine	None received	-
Minister for Communications, Climate Action and Environment	None received	-
Minister for Culture, Heritage and the Gaeltacht	Detailed submission on the SEA/KCDP needs to protect the archaeological, architectural and natural heritage of the county.	Sections 5, 7 and 8
Limerick City and County Council	None received	-
Cork County Council	None received	-
Clare County Council	None received	-
Inland Fisheries Ireland	None received	-
Local Authorities Water Programmes Office (LAWPRO)	Submission notes that collaboration with the council to further the water element of the plan is required.	See Section 5.5
Climate Action Regional Office (CARO) Atlantic Seaboard South	Detailed submission on how the SEA needs to consider the most recent developments on climate change policy including the Climate Action Plan; the Climate Action Plan Charter for LAs and the implications of the 2020 Programme for Government	Through ER but specifically Section 5.7
Geological Survey of Ireland	Detailed submission on how SEA/KCDP should acknowledge and seek to protect geological resources.	See Section 5.4

4. ALTERNATIVE DEVELOPMENT SCENARIOS

4.1. Introduction

The development and assessment of alternatives is a legal requirement under the SEA Directive. “Reasonable” alternatives should be considered “taking into account the objectives and the geographical scope of the plan or programme” (Article 5.1, SEA Directive 2001/EC/42). Guidance from the EPA in 2015 on alternatives within the SEA process – *Developing and Assessing Alternatives in the SEA* expands further on the requirements of the environmental assessment of alternatives in the plan making process. This guidance has been followed in the SEA of the KCDP and informs the discussion below.

Alternatives were considered for the county’s future settlement policy (four in total) and for the county’s future renewable energy policy (four in total)

4.2. Development of alternatives

As required by SEA, alternatives must be realistic (i.e. able to achieve the plan’s/programme’s objectives), reasonable (i.e. based on socio-economic and environmental evidence), viable (technically and financially feasible) and implementable (realisable within the plan’s/programme’s timeframe and resources). They should represent a range of different approaches within the statutory and operational requirements of a plan. The limits on alternative options considering in this SEA are discussed in more detail below.

4.3. Assessment of Alternatives

Alternatives are compared to each other to determine the scenario with the lowest levels of environmental impact as presented below. To assess the likely significant impacts of each alternative on the environment, a matrix is used. The matrix assesses the alternatives against the established environmental protection objectives outlined in Chapter 6. In assessing the likely significant effects alternatives, the full range of effects including ‘secondary, cumulative, synergistic, short, medium and long term, permanent, temporary and negative effects were addressed.

4.3.1. Alternatives for the County’s Settlement Policy

It is important to recognise that reasonable, realistic alternatives that are capable of implementation in the context of this plan are shaped by the position of the KCDP within the planning policy and decision-making hierarchy as outlined in Section 2.2 of this report. For the KCDP 2022-2028 the following considerations have to be taken into account when formulating alternatives:

- The geographical extent of the plan area is set, there is no scope for an alternative that expands or reduces the study area extent,
- the CDP is a landuse plan primarily concerned with the regulation of development in accordance with the proper planning and sustainable development of the area including any impacts this development may have on the environment. The content is predetermined by relevant sections of the PDA, (as amended).
- the CDP content is also governed by higher level plans specifically the NPF and RSES.
- These higher-level plans set strategic planning options for the CDP, a land use plan that is now recognised as being part of an integrated institutional and regulatory framework of national, regional and local planning tiers. Nationally, a clear hierarchy of statutory plans has been established, from the NPF at a national level, to the RSEs at regional level, to individual CDP at local authority level and then to the local area plan. As noted the plan assessed in this ER relates to the CDP level,

- The CDP, specifically relating to its settlement hierarchy, associated core strategy and housing requirements, must therefore be consistent with the related policies and objectives of the RSES and NFP as a core statutory requirement,
- Nationally, population projections for each county (including Kerry) are the population parameters for local authority development planning processes. The CDP must therefore plan for the identified population growth within these estimates and use them as the basis for strategic decision-making in the CDP process, specifically in determining the above strategies,
- The NFP and in turn the RSES have identified Tralee and Killarney as *Key Towns* in the Southern Region,
- Tralee is identified as a settlement that is a regional driver and has been targeted for growth of at least 30% by 2040,
- Killarney is identified as a settlement that will strengthen the urban structure of the region and has also been identified for significant growth,
- Therefore, there is no scope to look at an alternative settlement hierarchy that excludes Tralee/Killarney as *Key Towns*.
- The NFP also seeks to promote 30% of new homes in infill or brownfield sites in towns with populations greater than 10,000 (in Kerry Tralee and Killarney). This is required to achieve the objective of compact growth; the consolidation of urban centres and to facilitate a move away from a development pattern characterised by dispersed sprawl and unsustainable levels of long-distance commuting.
- In line with RSES and census data, population growth in Kerry over the lifetime of the plan area has been allocated at 9,363,
- Of this 4,293 has been allocated to Tralee (2,663) and Killarney (1,630),
- The remaining population growth has been allocated to other towns and settlements in the county and rural areas (Table 5-5).

The alternative scenarios to be considered in the SEA of this plan are therefore limited by the hierarchical policies/objectives outlined above. As noted in the EPA 2015 guidance on alternatives, the “do-nothing” option is not a viable alternative for a land use plan as there is a statutory requirement to make/and/or review land use plans.

4.3.1.1. Alternative 1: Equal settlement dispersed outside key towns

This alternative would see population growth targeted at Tralee and Killarney as per the NFP and RSES. Once population figures are allocated to the key towns, this alternative would see remaining population growth targeted equally at all other settlements within the County. Essentially there would be no adherence to the settlement hierarchy as such re-the prioritisation of certain settlements, and growth would be envisaged to be accommodated in all settlements. County environmental sensitivities as outlined in Chapter 5 (European Sites, water resources, sensitive landscapes etc.) would be subject to appropriate environmental protection measures in line with the existing regulatory framework ie proper planning and sustainable development and on a case-by-case scenario. Rural development policies would support agriculture, forestry, renewable energy and tourism in rural areas with potential for rural settlements, outside existing settlements, to occur.

Alternative 1: Equal settlement dispersed outside key towns				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	M1	S1 P1 HH1 L1 B1 W1 AQ1 C1	CH1 F1	

SEA Comments on Alternative 1:

- likely to result in negative impacts across several environmental EPOs,
- would see continuing strong demand for residential development in and around main urban areas notably Killarney and Tralee with pressures on these rural areas,
- possibly result in even stronger demand for one off rural housing,
- result in settlements in more peripheral areas of South, North and East Kerry being allocated a similar proportion of growth but may not be able to deliver on the growth allocated because of demand and infrastructure,
- by allocating growth equally result in longer commute times for those who need to move further from key employment towns (particularly, Killarney, Tralee and Killorglin with Dingle also facing specific pressures linked to tourism) to find housing supply whilst commuting to these towns for work, education and major retail,
- would also present significant challenges for the provision of required infrastructure, wastewater, water supply, sustainable land use and transport and for protection of biodiversity, soils, water resources and landscape with no clear support for compact growth/infill development,
- counter the provision of balanced services throughout the county, undermine the position of Key Towns, sustainable transport initiatives, possibilities to integrate spatial and energy planning at a community level and overall, likely to negatively affect the fruition of climate policy.

Conclusion: This Alternative is not considered a sustainable development scenario for the county.

4.3.1.2. Alternative 2: Strategic Sustainable Planning Approach.

This alternative is a strategic planned approach for the county where spatial planning is aligned with sustainable transport and emerging energy planning all driven by climate action policy. Population growth is targeted towards the key towns, Tralee and Killarney, as required by NPF/RSES. Below this tier an agreed settlement hierarchy of settlements is envisaged and supported. Development therefore will be focused within zoned and serviced areas where transport and ultimately energy planning are aligned in the context of an agreed county *Core Strategy*. This alternative sees a dual strengthening of rural villages, where infrastructure is either available and/or to be made available over the lifetime of the plan, and residential development targeted into designated settlements as per the *Core Strategy*. Appropriate environmental protection measures will be implemented for environmentally sensitive areas which will be under less pressure as consolidated growth in existing built areas will be encouraged. In this scenario particular rural development activities would be more strategic and certain areas identified to support agriculture (including carbon sequestration), tourism and renewable energy.

Alternative 2: Strategic Sustainable Planning				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	PP1 HH1 B1 W1 S1 AQ1 C1 M1 L1		CH1 F1	

SEA Comments on Alternative 2:

- Directing population growth into the key towns and other settlements identified in the settlement strategy as supported by the *Core Strategy*,
- see development focused within zoned and serviced areas promoting the reuse of brownfield and infill sites,

- concentrating development in zoned/serviced areas will allow for greater synergies with sustainable transport initiatives including active travel and the *modal shift* required to fulfil climate policy,
- concentrating development in zoned/serviced areas will allow for greater synergies with energy planning and spatial planning, particularly regarding the roll out of decarbonised zones and associated measures such as district heating schemes,
- see pressure for development move away from greenfield sites particularly residential developments in *areas under significant urban influence* outside certain towns and villages and associated environmental sensitivities including biodiversity, soil and water resources,
- ultimately allows for more public services to be provided to communities particularly for waste-water treatment; energy planning, sustainable transport all aligned with climate action policy.

Conclusion: This Alternative is the preferred development scenario for the county.

4.3.1.3. Alternative 3 Employment/Economic Led Approach

This alternative looks at an employment/economic-led growth. This focuses development into key locations where employment growth is more likely to be delivered. This would see potential economic development in areas around the *Kerry Hub and Knowledge Triangle* and the North Kerry/West Limerick/Shannon Estuary/Clare Network which includes the Shannon Estuary (Tarbert-Ballylongford Land Bank) as identified through the Shannon Integrated Framework Plan (SIFP). In addition, the identification and support of the *Atlantic Economic Corridor (ACE)* to attract investment, improve competitiveness and support job creation outside the settlement boundary of towns/villages along the county's entire southwest coast would be considered. Economic development in the more isolated peninsulas would be encouraged including initiatives for Gaeltacht areas in South and West Kerry.

Alternative 3: Employment/Economic Led				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	M1		P1 HH1B1 W1 S1 AQ1 C1 L1 CH1	F1

SEA Comments on Alternative 3

- Would see employment led opportunities focusing on the key urban settlements where activity is already occurring, this is positive as regards targets for Tralee and Killarney,
- However, the areas likely to benefit are already under pressures such as housing affordability/availability, traffic congestion and supply of retail, such as Killarney, Dingle and coastal areas in vicinity to Tralee while Listowel and Killorglin experience similar issues to a slightly lesser scale,
- In contrast, it is likely that towns that at present economically struggle could decline over time with fewer services provided,
- Focusing on geographical areas where employment opportunities arise irrespective of the availability and/or capacity of the existing physical infrastructure, could result in infrastructure becoming a constraint especially waste-water and transport,
- West Kerry for example has basic waste-water infrastructure in many settlements, villages are served with primary treatment units already exhibiting pressure particularly in the summer months. As noted in Chapter 5 of this ER, there are no imminent plans by IW to upgrade infrastructure in many of these settlements,
- Transport infrastructure also a key constraint, many villages and regional roads are narrow or a profile that effects traffic that can be safely carried. Often due to the natural topography of peripheral areas in the county and/or ecological and landscape constraints, there is limited

potential to improve via traffic calming measures etc to allow shared space active/sustainable travel options,

- Any economic development in rural areas outside settlement hierarchy, is likely to see continued associated ribbon residential development with a knock-on impact on commuting for future services/provisions.

Conclusion: While elements of this Alternative are considered beneficial and in part supported by the KCDP, overall an employment/economic only driven approach that is based primarily on economic development is not deemed “sustainable”. Due regard is not given to the other two pillars of sustainability -social and environmental. Therefore, this Alternative as a stand-alone option is not considered a sustainable development scenario for the county.

4.3.1.4. Alternative 4: Rural housing designations

In this alternative, once population growth has been allocated to the key towns of Killarney and Tralee as per the NPF/RSES and within settlements as identified in the settlement strategy. This alternative then looks at variations in the rural housing policy, ie where the allocated growth for rural areas would be directed. The alternative considers 2 options namely:

- A) Provide rural housing within a policy that differentiates between rural areas in the county namely *rural areas under significant urban influence; rural areas under urban influence and other rural areas,*
- B) Do not provide for the above rural housing designations and assess all applications on their merit.

Alternative 4: Rural housing designations				
Likely significant Effect	+	-	+/-	0
4A) Provide rural housing within designated areas Environmental Protection Objectives	P1 HH1 B1 W1 S1 AQ1 C1 L1 M1		CH1 F1	
4B) No specific rural housing designations/assess applications on their merit Environmental Protection Objectives		S1 P1 HH1 L1 B1 W1 AQ1 C1	CH1 F1 M1	

SEA Comments on Alternative 4	
Option 4A	Option 4B.
<ul style="list-style-type: none"> • Seeks to define rural parts of the county (outside main towns and settlement boundaries) that are under specific housing pressures due to proximity to major towns/villages; significant transport corridors and/or commuting distances to main centres for education, retail and/or leisure activities, • Following the above analysis, the alternative provides specific policy and objectives for each rural type, combatable with National/Regional policy, • a single dwelling for the permanent occupation of an applicant will only be considered for each rural type where a number of criteria can be demonstrated, • restricting residential development in rural areas that are under significant urban influence would 	<ul style="list-style-type: none"> • sees no designation of rural areas, therefore single applications for rural areas would be considered on their merits, • this would be subject to proper planning and sustainable development at a project/case-by-case level, in line with development management and standard guidelines • however, there would be no collective or strategic policy for rural areas, • likely to see even continued pressure on areas under significant urban influence adversely effecting a range of environmental parameters discussed in Chapter 5 of this plan, notably impacts to water resources, biodiversity and climate policy, • a lack of clear strategic policy for rural areas would result in increased levels of greenfield

<p>positively impact upon the protection and management of the environment and sustainable development,</p> <ul style="list-style-type: none"> the limitation would ultimately reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres, rural development would be directed towards appropriate rural areas and urban development would be directed towards established settlements with available infrastructure to support growth. This alternative would prevent low density urban sprawl and associated adverse effects upon biodiversity, water resources, sustainable mobility and climate action policy. 	<p>development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres,</p> <ul style="list-style-type: none"> This alternative would overall result in low density urban sprawl and associated adverse effects upon biodiversity, water resources, sustainable mobility and climate action policy.
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Conclusion: Alternative 4A is considered the sustainable development scenario for the county as it relates to rural areas. Alternative 4B is not considered a sustainable development scenario for the county as it relates to rural areas.

In conclusion, the preferred option for the county is Alternative 2 combined with a rural housing policy as outlined in Alternative 4A.

4.3.2. Alternatives for County’s Renewable Energy Policy.

As part of the KCDP 2022-2028, four alternatives for the future development of RE in the county were also assessed.

4.3.2.1. Alternative A To retain existing Renewable Energy Strategy as part of the KCDP 2022-2028.

This option involves continuing to implement the county’s existing *Renewable Energy Strategy* (RES) part of the Kerry County Development Plan 2015-2021 (as varied and extended). Existing objectives and policies in relation to renewable energy are set out in the RES and include maps identifying location of areas for wind development as Strategic Sites Search Areas (SA), areas open to consideration (OTC) and areas unsuitable for wind. In brief, SAs had economically feasible wind speeds, excellent access to the transmission network, relatively low ecological sensitivity and the receiving landscapes have the capacity to host wind development. OTC were areas with wind energy capacity and the environmental and infrastructural capacity to support wind development. They differed from SA in that there were fewer suitable sites with a recognised limited capacity and/or possible cumulative impacts.

The strategy also provides policy on other RE technologies including off-shore wind, hydro, solar, geothermal and bioenergy. The RES, adopted in 2012, recognised at the time that off-shore wind would become a viable RE source into the future as indicated by the then draft National Offshore Renewable Energy Plan (OREP). However, at the time (2012) off-shore wind technology was still a relatively undeveloped sector. Although off-shore wind was in operation on the east coast of Ireland, the industry was not considered a technically viable option for the west coast at the time of writing or likely to be technically viable over the expected lifetime of the RES. Notwithstanding this the RES supported the future development of the industry and noted that the seas off the Kerry coast had been identified as technically viable for off-shore in the then draft OREP.

As regards other RE technologies, at the time of drafting (2012) solar, specifically larger scale solar farms, were not a significant component of RE projects in the county. In fact, there was no solar farm

application at that time nor none particularly envisaged – the industry was not part of the county or indeed the country’s planning landscape at the time. Solar was regarded as the use of site-specific solar panels on buildings and/or other infrastructure and policy reflected these assumptions. Finally, the RES supported *enabling* infrastructure, notably the grid, substations etc. However, it did not reflect other advancing infrastructure needed to prepare the grid for the storage, transmission and distribution of RE electricity like battery storage systems.

At the time of its drafting (2012) the RES was subject to a robust environmental assessment with a SEA, AA and FRA undertaken which was iteratively integrated into the strategy. As stated, a significant outcome was the identification of the three zones for wind with each category subject to an assessment further to a range of constraints, notably proximity to European Sites; sensitive water catchments; landslide susceptibility; archaeological landscapes and other sensitive landscapes. The appropriate assessment of the RES specifically informed policy determining that European Sites in the county should be considered unsuitable for further wind development.

The RES had a commitment to monitor the RE policy and objectives over its lifetime. As the RES now reaches almost 10 years since its adoption, it is considered timely, particularly in the subsequent advances made in climate policy nationally, that the county’s RES be reviewed and updated accordingly.

Alternative A To retain existing Renewable Energy Strategy				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	B1 W1		CH1 S1 P1 HH1 L1 M1 AQ1 C1	F1
<p>SEA Comment and Conclusion</p> <p>This alternative would retain the existing RES as set out in Kerry CDP 2015-2021. Although the RES provides for the sustainable development of RE in the county, as discussed since the adoption of the RES there has been considerable technical advances in RE technology and policy in relation to climate action. This is presently not reflected in the RES and potential effects on the EPOs reflect same. Of note it the climate EPO could also be negatively affected due to the reduction in areas considered suitable for on-shore wind in the county’s new RE policy. However, on balance taking into account the changes in the RE technologies and the need to provide a strategic framework for the support and development of climate policy in the county as we move towards 2030, this alternative is not considered appropriate for the future development of RE in Kerry.</p> <p>Conclusion: This alternative is not deemed desirable, and RE policy for the county should be reviewed and updated to reflect the current energy needs of the county.</p>				

4.3.2.2. Alternative B Non-strategic approach to planning for renewable energy development

This option considers a non-strategic approach to RE development. Each application for wind and other RE developments would be made on a site-by-site basis. Assessing applications on a case-by-case basis would allow each proposal to be considered on its individual merits subject to the development management standards and guidelines as appropriate. However, such consideration at project level would be undertaken without the contextual factors which are important in decision making including cumulative impacts on a landscape level. Such a non-strategic approach would also lead to uncertainty for stakeholders and for those involved in the development of proposals. A development led approach would also see potential conflicts at a project level between proposed developments and the LAs obligations under the Habitats and Water Framework Directives.

In order to deliver the maximum development of RE a plan-led approach is necessary. This will need to bring together the economic, environmental and technical issues which dictate the degree to which RE can be sourced, harvested, stored and transmitted. The location of RE sources has to be matched with the location of the existing and planned transmission grid, and within the context of conserving and protecting the environment. This cannot be achieved without a plan-led, monitored approach.

Alternative B: Non-strategic approach to planning for renewable energy development				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives		S1 P1 HH1 L1 B1 W1 AQ1	CH1 F1 M1 C1	
<p>SEA Comment and Conclusion</p> <p>This alternative would result in the non-strategic planning of RE developments. There could be conflict with EPOs in relation to landscape, biodiversity, soil/geology and water as a RE development. For example, on-shore wind and hydro schemes could be inappropriately targeted in environmentally sensitive areas. There would be no strategic approach to the development of RE into the future, all applications would be looked at on a site-by-site basis. This non-strategic approach could have negative effects on a range of EPOs as it prevents cumulative or long-term assessment.</p> <p>Conclusion: This alternative is not deemed sustainable. RE policy for the county should follow a strategic, integrated and plan-led approach where technologies and enabling infrastructure to support RE can be aligned and located in technically and environmentally appropriate locations.</p>				

4.3.2.3. Alternative C Using renewable energy sources other than wind

This scenario looks at the potential of generating sufficient energy from renewables other than wind (bioenergy, hydro power, solar). There are three energy sectors – electricity, heating and transport. CAP21 sets out the envisaged contribution from renewable energy in each of these sectors. The electricity sector plays the most significant role with CAP21 requiring an 80% target of RE in the electricity sector by 2030 (up from 70% required in CAP19).

It is noted that all forms of RE will need provide a share of the RE targets. Kerry has significant natural resources other than wind, which as renewable technologies advance, can make a significant contribution to electricity generation. Bioenergy and micro generation for example will have a roll at local level. However, notwithstanding these technologies, nationally it is recognised that wind energy (on-shore and off-shore) and also solar provide the greatest technically opportunities for RE targets to be met and climate action to be implemented. Off-shore wind in particular, is seen as a significant rapidly advancing technology that will facilitate national RE targets for electricity to be achieved. Considering the county’s strategic location on the west coast and proximity to the strategically important Shannon Estuary and it’s potential as a future RE energy, a RE policy where wind is not considered in the mix of RE technologies is not considered a sustainable option for the county.

Alternative C: Using renewable energy sources other than wind				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	S1 B1 W1	P1 L1 HH1 AQ1 M1 C1	CH1	F1
<p>SEA Comment and Conclusion</p> <p>This alternative looks at the use of all other REs other than wind – namely solar, bioenergy and hydro. This alternative would improve the status of a number of EPOs including biodiversity; soil/geology and to a lesser extent water. The use of hydro schemes may also be in conflict with water EPO as energy proposals may target sensitive water resources. Landscape EPO would improve as wind energy has a significant impact on landscape values. Archaeology and architectural heritage EPOs might be conflicted from works in buildings/greenfield and/or brownfield sites to accommodate RE infrastructure. In reality the energy produced from RE other than wind would be relatively lower in scale and nature - providing energy for houses or residential areas; light industry and/or farm businesses. Although RE from these non-wind sources will play a part in delivering RE in the county it is not likely to generate a significant MW of energy and would negatively affect climate EPO.</p> <p>Conclusion: This alternative is not considered appropriate for the future development of RE in Kerry.</p>				

4.3.2.4. Alternative D Strategic plan-led approach to renewable energy development

This alternative assesses the county’s potential to generate RE from a combination of all energy sources - wind (on-shore and off-shore), solar, hydro and bioenergy. It recognises that in particular RE form wind requires a strategic plan-led approach where the areas considered suitable most align with enabling infrastructure. It is also noted that social and environmental capacity of the county to absorb wind development is not infinite. This approach therefore seeks to zone areas that are considered suitable for future wind developments-either future developments or within existing areas (repowering areas). Providing for a plan led approach for off-shore wind and potential associated evolving technologies is also outlined. Other RE such as solar and hydro require policy to ensure these sources are considered in line with climate policy but also in compliance with environmental provisions. In addition, RE technologies are rapidly advancing and energy policy should position the county to sustainably develop RE sources as they become technologically and economically viable particularly in off-shore RE production. Given national targets for the development of renewable heat and transport it is also necessary to sustainably develop these other renewables types and provide a clear plan-led framework.

Alternative D Strategic plan-led approach to renewable energy development				
Likely significant Effect	+	-	+/-	0
Environmental Protection Objectives	S1 P1 HH1 L1 B1 W1 AQ1 M1 C1 CH1			F1
<p>SEA Comment and Conclusion: This alternative would provide clear policy for the sustainable development of RE in the county that takes into account the natural environment; cultural heritage; landscape character and the individual technicalities of RE technologies. Areas for on-shore wind development are identified relative to various environmental, technical and landscape sensitivities. All other RE deemed appropriate for the county are considered, with objectives in place to support and/or facilitate where deemed sustainable -environmentally, socially and economically. This alternative is considered the most appropriate for the future development of RE in Kerry.</p> <p>Conclusion: This option is considered to be the most effective means of achieving renewable energy targets in a manner which is in accordance with the proper planning and sustainable development of the county.</p>				

In conclusion, the preferred option for the county’s RE policy is Alternative D.

5. EXISTING BASELINE ENVIRONMENT OF THE PLAN AREA

5.1. Introduction

A brief description of the geographical setting of the plan area – County Kerry - is included in Section 1.1 of this document. In line with the SEA Directive, a more detailed environmental baseline of the plan area is required. This includes a description of the state of the environment at present; discussion of the key problems/ issues currently being faced in the area; and a description of the expected evolution of the environment should the plan not be implemented, i.e. in the absence of the plan. This is undertaken in this Chapter. The section outlines the key environmental baseline data for the plan area under the factors outlined in Schedule 2B (f) of SI No 436/2004. They are:

- population/human health,
- biodiversity (flora, fauna),
- geology/soils,
- water,
- air quality/
- climatic factors,
- material assets
- cultural assets (architecture, archaeology),
- landscape, and
- the interrelationship between the above factors.

As noted in Section 1.6 a Strategic Flood Risk Assessment has inform the KCDP.

In Table 5-1 below is a non-exhaustive list of the information sources used to compile the environmental baseline for each environmental factor. In addition to the sources of information listed below, as discussed the *Environmental Sensitivity Mapping* (ESM) tool developed by the EPA/UCD/AIRO/OSI was used in compiling this section.

Table 5-1 Environmental Information Sources for use in the ER.

Environmental Parameters	Information Sources
Population/Human Health	<ul style="list-style-type: none"> • Central Statistics Office (CSO) – 2011 and 2016 data, • EPA – air quality and water quality data • WHO • HSE/Health Ireland/Health and Wellbeing Officer, KCC • Environment Section, KCC • Planning Department, KCC • TII, NRDO, KCC
Biodiversity (flora, fauna),	<ul style="list-style-type: none"> • National Parks and Wildlife Service (NPWS), • Inland Fisheries Ireland (IFI), • National Biodiversity Data Centre (NBDC) • EPA • WFD/Catchments.ie • Biodiversity Office, KCC • Kerry Heritage and Biodiversity Plan 2008-2012 • Bird Watch Ireland (BWI) • Irish Peatland Conservation Council (IPCC) • Wetlands Survey Ireland website and county survey • Invasive Species Ireland website • Bat conservation Ireland
Geology / Soils	<ul style="list-style-type: none"> • Geological Survey of Ireland (GSI) map viewer including bedrock, subsoil, soil datasets, sites from the Irish Geological Heritage Programme (IGH) & Landslide susceptibility mapping • CORINE (Landuse) database (2018),

Environmental Parameters	Information Sources
	<ul style="list-style-type: none"> • Teagasc Soil Map, • EPA map viewer
Water	<ul style="list-style-type: none"> • EPA map viewer/Catchments.ie • EPA Annual reports on water quality • GSI map viewer specifically aquifer and ground water vulnerability datasets • Environment Section, KCC • Local Authority Waters Programme • IFI • Irish Water
Air Quality	<ul style="list-style-type: none"> • EPA Annual reports on air quality • Real time data from air quality monitors • Department of Environment, Climate and Communication (DECC) • Climate Action Plan 2019 & 2021 • Environment Section, KCC • Enforcement Section, KCC
Climatic Factors	<ul style="list-style-type: none"> • EPA • DECC – Climate Action Plan 2019 & 2021 • Environment Section, KCC • Central Statistics Office (CSO) – 2011 and 2016 data • SW CARO Office • Energy Officer, KCC
Material assets	<ul style="list-style-type: none"> • Roads Section, KCC • Municipal District Offices, KCC • National Roads Design Office, KCC, • Transport Infrastructure Ireland (TII) • Environment Section, KCC • Broadband Officer, KCC • Irish Water • Planning Department, KCC
Cultural assets (architecture, archaeology)	<ul style="list-style-type: none"> • Register of PS & Architectural Conservation Areas (ACAs) listed in the KCDP 2015-2021 • NIAH for Kerry • Kerry SMR/RMP as listed in the KCDP 2015-2021 • Archaeological Special Protection Areas listed in the KCDP 2015-2021 • County Archaeologist, KCC • Conservation Officer, KCC • Arts Officer, KCC, • Irish Office, KCC
Landscape	<ul style="list-style-type: none"> • Existing landscape designations within KCDP 2015-2021 • Village Design statements/Public realm reports/Masterplans • Architectural Conservation Areas listed in the KCDP 2015-2021 • Archaeological landscapes listed in the KCDP 2015-2021 • Landscape Review in KCDP 2022-2028 • Wind Zoning Methodology in KCDP 2022-2028
SFRA	<ul style="list-style-type: none"> • SFRA of the KCDP 2022-2028 – see report for further details

5.2. Population and Human Health

5.2.1. Population

5.2.1.1. Population: Existing Trends

The 2016 census indicates the population of County Kerry stands at 147,704⁷. This represents a population increase of 1.5% (2,205 people) since the 2011 census. A comparison of population figures between 2011 and 2016 indicate a number of trends of interest to the KCDP and this ER:

- An increase in population around Tralee, Killarney, Kenmare and Killorglin,
- A decrease in population on parts of the Dingle and Iveragh Peninsulas and in parts of North Kerry since 2011,
- 1,840 new addresses were added to the *Geodirectory Register* between the census, with
- 59% of these new addresses located outside the county's main towns and villages.

The 2016 census therefore continues to indicate significant population increases in rural areas classified as *Rural Areas under significant Urban Influence* (Figure 5-1). Decline and population loss is evident in most urban centres in the county (see Table 5-2 below). In addition, more than 1 in 4 houses in the County (including holiday and second homes) were highlighted as vacant on census night (Figure 5-2).

Table 5-2 Population figures and % changes between the 2011 and 2016 census⁸

	2011 Population	2016 Population	% Change
Kerry	145,502	147,707	1.5%
Tralee	20,814	20,710	-0.5%
Killarney	12,740	14,205	11.5%
Listowel	4,205	4,260	1.3%
Castleisland	2,513	2,486	-1.1%
Kenmare	2,175	2,376	9.2%
Killorglin	2,082	2,199	5.6%
Daingean Uí Chúis	1,965	2,050	4.3%
Cahersiveen	1,168	1,041	-10.9%

County Kerry is essentially a rural County with 54.6% of the population recorded in the 2016 census as living in the rural area (i.e., outside of Key Towns, Regional Towns, District Towns & Villages), with the corresponding national figure for those living in the rural area being 30% (i.e. outside of cities, towns & villages).

Based on the GeoDirectory registers between 2015 and 2020, 1,840 new addresses were added to its register. Of these 1,079 (59%) have taken place outside of the County's urban areas including small Towns and Villages and consist of private housing. By comparison a significant portion of the development undertaken within the counties towns and villages comprises social housing (either direct build or turnkey).

This pattern of development contributes to a spatial and social imbalance and the decline in population of smaller settlements. As a result, many key services have closed, in part due to population decline and dropping income levels leaving more marginalised and vulnerable citizens without access to those services.

⁷ www.cso.ie

⁸ KCDP Issues Paper, June 2020

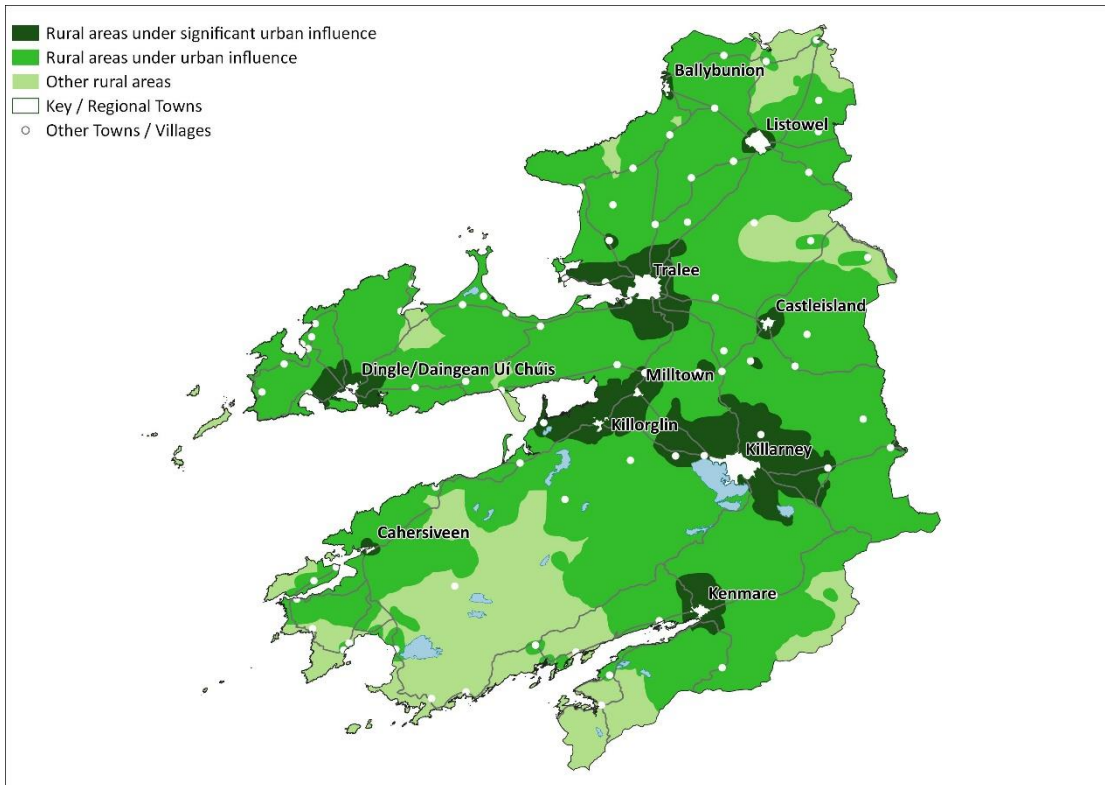


Figure 5-1 Rural area types in the county.

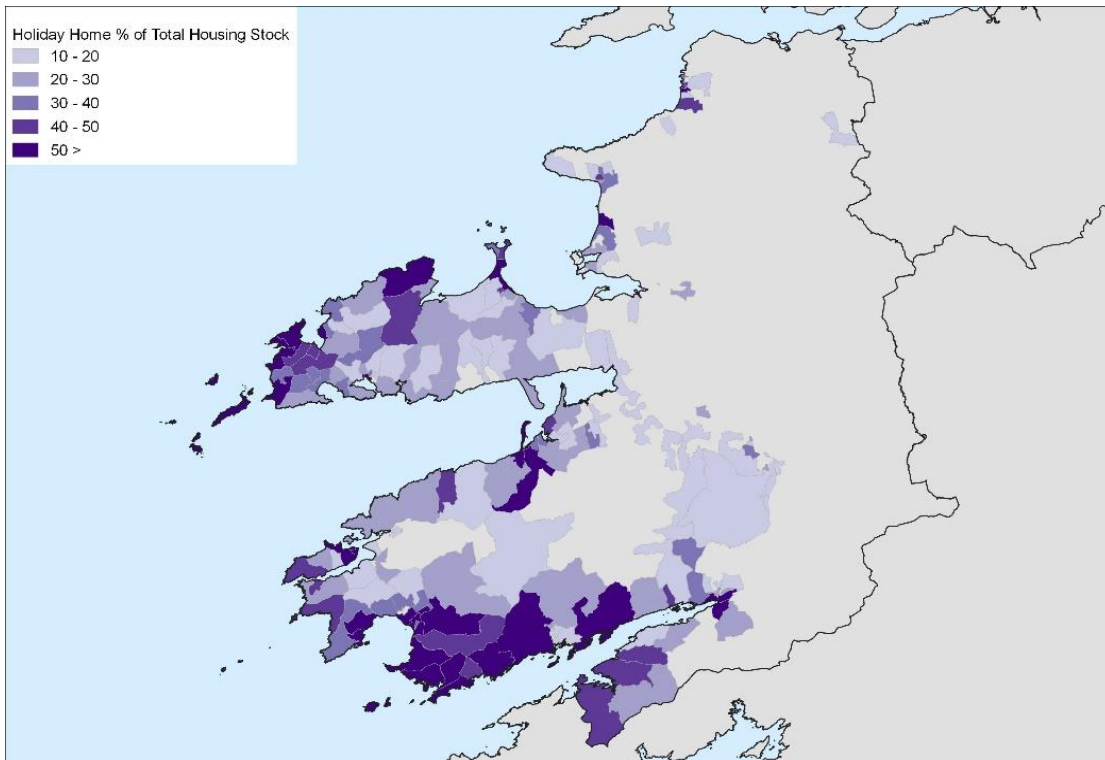


Figure 5-2 Holiday homes as a % of the *Total Housing Stock* by Electoral Division

As regards rural livelihoods 2016 census data indicates that agriculture is the predominant land use in rural areas with 8% of the population employed in agriculture / forestry / fishing. Other population trends of note are outlined in the KCDP 2020 *Issues Paper* providing a snapshot of the county at the commencement of the plan making process (Figure 1-4) and include:

- 69,000 people are at work in Kerry,
- The largest employment sectors are *Retail and Wholesale* and *Hotels / Restaurants* (accommodation / food services),
- Tourism and hospitality sectors (*Accommodation and Food, Transportation*) and *Agriculture, Forestry and Fisheries* sector are higher than the State average,
- This highlights the vulnerability of the Kerry economy post Covid-19,
- It is noted that the loss in income in respect of tourism & related industries from Covid-19 could be €400m to the county, and
- There is a need to build resilience into tourism product and diversify from over dependence.

Kerry overall has a strong internal economic core comprising of the linked hub towns of Tralee, Killarney and by extension Killorglin forming a knowledge triangle. All three offer a higher range of functions than similarly sized towns nationally. This includes a new third level Munster Technological University, infused with local job supported platforms and local industry, public and private hospitals and a strong and vibrant internationally renowned tourism industry.

In spite of Kerry’s proximity to the major adjacent urban metropolitan areas of Limerick and Cork, research based on commuting workflow patterns shows that Kerry residents remain largely dependent on economic activity within the county to generate employment opportunities.

The county is Ireland’s leading regional tourism destination attracting 2.3 million overseas and domestic tourists annually. While several well-known large companies are based in the county, the vast majority (93%) of active enterprises in Kerry are micro-enterprises and employ less than 10 people⁹. Small and Medium sized enterprises together account for 84% of the employment in the county. The Kerry Hub and Knowledge Triangle is identified in the RSES as an economic driver for the Region and its future growth is recognised as another key trend in the development of the County. Sustaining population growth in the county and retaining graduates is recognised as a key priority.

5.2.1.2. Population Growth: Future Trends

A key pillar of the KCDP is its *Core Strategy* the purpose of which is to set out an evidence-based strategy for the future spatial development of the County. The strategy includes details of the settlement hierarchy and where future growth is to be distributed in the County. It also includes details of population and household projections. This is undertaken within population projects envisaged by the NPF and RSES as outlined tables below.

Table 5-3 Population Projections for the County (NPF/RSES)

	2011 Census	2016 Census	2026	Uplift 2016 to 2026	2031
Population	145,502	147,707	161,000	13,500	166,500
			-	-	-
			163,500	16,000	170,500

⁹ KCDP *Issues Paper*, June 2020

Table 5-4 Population of Kerry County projected growth 2022-2028.

	2022	2028	Total Uplift 2022 to 2028
Population	156,902	166,265	9,363

Therefore, the population of the Kerry is predicted to increase by 9,363 people over the lifetime of the KCDP (2022-2028). The settlement hierarchy proposed in the *Core Strategy* outlined in the KCDP is summarised in Table 5-5 and Figure 2-3. Population distribution within this settlement strategy aims to consolidate growth into settlements where infrastructure has capacity or is identified for future works by IW over the lifetime of the plan.

Running parallel with population growth and distribution is demand for housing. In the *Housing Supply Target Methodology for Development Planning Guidelines* (December 2020), planning authorities must provide for housing in their development plan that is consistent with national and regional planning objectives, including the achievement of compact growth and the consolidation of towns and cities, in order to move away from a development pattern characterised by dispersed sprawl and unsustainable levels of long-distance commuting. Further to the advised methodology, the CDP notes the adjusted total plan demand as 7,000 – as outlined in Section 3.10.3 of the KCDP. As noted the availability of infrastructure to meet the population growth has been taken into account in the allocation of population and housing allocations within the defined settlement strategy with Tralee and Killarney identified as the *key towns* in line with the RSES.

5.2.1. Human Health

In relation to human health, individual and population health status is largely the result of the social, cultural and physical environment in which we live. Factors such as the state of the environment, access to resources to meet basic needs, exposure to risks and capacity to cope with these, income and education levels, social network of relationships with friends, family and neighbours all have considerable impacts on health and wellbeing. A deeper understanding around health and wellbeing has developed over the last number of years in Ireland. In 2013 the *Healthy Ireland – A Framework for Improved Health and Wellbeing 2013-2025* was published¹⁰. It defined “health” and “wellbeing” in an Irish context. *Health* is when everyone achieves their potential to enjoy complete physical, mental and social wellbeing. It is more than an absence of disease or disability, rather it is an essential resource for everyday life, a public good, and an asset for health and human development. *Wellbeing* is an integral part of health, reflecting the quality of life and the various factors which can influence it over the course of a person’s life. *Wellbeing* also reflects the concept of positive mental health¹¹.

The *Healthy Ireland Framework* ultimately aims to address the social, economic and environmental factors that contribute to the development of chronic disease and to address health inequalities in Ireland. It culminated in the publication in 2019 of *Healthy Ireland*¹². In Kerry the *Healthy Kerry* initiative is funded through the *Healthy Ireland Fund* as a collaborative project of the Kerry Local Community Development Committee (LCDC). It is supported by a range of cross-sectoral, interagency partners and stakeholders as outlined in the Kerry specific *COMPASS: Healthy Ireland Implementation Plan 2018 – 2022, Cork Kerry Community Healthcare*¹³.

¹⁰<http://health.gov.ie/wp-content/uploads/2014/03/HealthyIrelandBrochureWA2.pdf>

¹¹<https://www.hse.ie/eng/services/publications/corporate/hienglish.pdf>

¹²<https://www.gov.ie/en/campaigns/healthy-ireland/>

¹³<https://www.hse.ie/eng/about/who/healthwellbeing/healthy-ireland/community-healthcare-organisations/compass-healthy-ireland-implementation-plan.pdf>

Table 5-5 Settlement hierarchy, population growth and housing demand identified in the Core Strategy of the County Kerry in the KCDP 2022-2028.

Settlement		Population & Housing			
		Population 2016 (CSO)	Population 2022 (est.)	2022-2028 Pop. Growth	Housing Target
County		147,707	156,902	9,363	7,000
Key Town	Tralee	23,691	25,297	2,663	2,087
	Killarney	14,504	15,487	1,630	1,277
		38,195	40,784	4,293	3,364
Regional Town	Listowel	4,820	5,127	529	415
	Castleisland	2,486	2,644	359	281
	Kenmare	2,376	2,527	261	204
	Killorglin	2,199	2,339	320	251
	Dingle/Daingean Uí Chúis	2,050	2,181	282	221
	Ballybunion	1,413	1,503	204	160
	Cahersiveen	1,041	1,107	129	101
	Milltown	928	987	273	214
		17,313	18,417	2,357	1,847
District Town	Ardfert	749	797	78	61
	Ballyheigue	724	770	77	60
	Ballylongford	391	416	45	35
	Barraduff	170	308	57	45
	Castlemaine	176	187	37	29
	Farranfore	175	186	42	33
	Fenit	538	572	130	102
	Fieries	558	594	46	36
	Kilcummin	435	463	40	31
	Rathmore	790	840	73	57
	Sneem	288	306	27	21
	Tarbert	540	574	57	45
	Waterville	462	491	52	41
		5,996	6,505	761	596
Villages		6,698	7,125	552	432
Small Village Settlements		1,547	1,646	465	186
Rural Area		77,958	82,425	936	575

This plan, launched in 2018 by the Cork Kerry Community Healthcare, was the first Community Healthcare to develop a Healthy Ireland Implementation Plan. The focus of the plan, named COMPASS, is on all stakeholders working together to create an environment that improves health and wellbeing for all. In 2021 the *Healthy Kerry Framework (2021-2027)* was launched with Kerry joining the National Healthy Cities & Counties of Ireland Network¹⁴.

The plan is led by the Health and Wellbeing Officer at Kerry County Council, and is supported by the Healthy Kerry Committee, a multi-stakeholder working group of Kerry LCDC. The group has been fundamental in the response to Covid-19 and has facilitated local responses to the challenges being faced by individuals and communities through reoccurring lock downs. Known as the 'Keep Well'

¹⁴ <https://www.healthykerry.ie/wp-content/uploads/2021/04/Healthy-Kerry-Framework-FINAL.pdf>

campaign, builds on the 'In This Together' campaign as supported by the *Government Plan for Living with COVID-19: Resilience and Recovery 2020-2021*¹⁵.

Overall, as outlined in the aforementioned framework reports, health in Ireland is improving, however, as some groups in society continue to experience poorer health than others, the goal of *Healthy Ireland* is to increase the proportion of people who are healthy by reducing health inequalities. In Cork Kerry the plan will work through 14 community Healthcare Networks (CHNs) which will, overtime, be the fundamental unit of organisation for the delivery of services in the community. The CHNs are geographically based units which will consist of an average of five multidisciplinary Primary Care Teams (PCTs) who will deliver local accessible services to an average population of 50,000. Three are specifically located in Kerry – North, South and West. The report notes that many factors combine to affect health noting health inequalities are the differences in health status or in the distribution of health determinants between different population groups, due to the conditions in which people grow, live, work and age. Known as 'social determinants of health', such factors include amongst others, where we live and our physical environment. The importance of environmental conditions, such as water or air quality, in maintaining health is a particular focus of the SEA and is discussed in more detail below.

5.2.1.1. Health and the Environment

Health and the environment, in its broadest sense, comprises those aspects of human health that are determined or influenced by factors in the physical environment and their condition or quality. This includes not only the study of the direct pathological effects of various chemical, physical, and biological agents, but also the effects on health of the broad physical and social environment, which includes housing, urban development, land use and transportation, industry, and agriculture. The protection of human health is a fundamental aspect of environmental protection¹⁶. The EPA's most recent (2020) *State of the Environment Report* continues to augment the now well researched correlation between the benefits of a good quality physical environment to health and wellbeing. It is a key action in striving towards delivering environmental protection and sustainable development.

In the 2020 report, the EPA note national challenges faced in pursuing this aim with an emphasis on two key environmental quality factors that can be directly correlated to health - air and water quality. Air and water quality effects from the implementation of this plan including on human health, are discussed below but should be read in conjunction with the Sections 5.6 and 5.5 that address both parameters in more detail. This sections also recognises that noise in the physical environment affects health and well-being. It can cause stress anxiety and disruption of activities such as sleep. Noise as a potential threat or adverse effect on human health is specifically addressed below.

5.2.1.1.1. Water

Water is a key environmental factor and it discussed in detail in Section 5.5 of this ER. Water related infrastructure – drinking water and waste water infrastructure - are discussed in Section 5.8.1 as significant material assets in the County. Water however is also recognised in this section as integral to human health. This is directly through human consumption but also indirectly through supporting food production and amenity use. In relation to the former it is fundamental for the agri-sector and also in the aquaculture/shellfish industry two extremely important agri-food sectors in the county. Amenity use of our coastal and surface waters, eg, bathing waters is crucial to health and well-being. Amenity use is also an integral part of Kerry's tourism product.

¹⁵<https://www.healthykerry.ie/index.php/keep-well-campaign/>

¹⁶http://www.epa.ie/pubs/reports/research/health/ERC_15_Garavan_HumanHealthLinks_syn_web.pdf

As regards drinking water, abstraction, treatment and compliance with the EC Drinking Water Regulations 2014, has been highlighted as key issues in several water schemes – public and private. As detailed in Section 5.8.1 of this report four public water supply (PWS) schemes are on the EPA’s Remedial Action List (see Table 5-14). Reasons relate to inadequate treatment of Cryptosporidium; failure to meet the Trihalomethanes (THA) standard and operational inadequacies in treatment plants. In relation to private schemes/wells KCC issued 8 boil notices in 2019¹⁷. Of note is the Bonane private scheme. This scheme forms part of a formal infringement case against Ireland by the EU under a failure to comply with the EC Drinking Water Regulations 2014 due to exceedances in THMs¹⁸. At the time of writing IW/KCC had issued a boil notice for the Ardfert North (Ballyheigue) Public Water Supply due to the detection of Cryptosporidium in the public water supply. Finally, the upper Feale Catchment although located in Co Limerick, is one of seven priority catchment areas where exceedances of pesticides are persistent¹⁹. MCPA, which is commonly used to kill rushes on wet land, is the main concern. The Feale catchment ultimately flows through north Kerry.

As regards waste water treatment, the EPA’s *Urban Waste-Water Treatment Report (2019 & 2020)*, records a number of public waste water schemes that require improvement. Four urban areas are prioritised for improvements; while three other are identified where waste water discharges are the main significant pressure on WBs – Castleisland, Tralee and Abbeydorney (see Section 5.8.1.2 for a further discussion of same). Of note is that 2020 IW were prosecuted by the EPA for non-compliance of its discharge licence for the Abbeydorney WWT plant²⁰. In 2020 Kilgarven is identified for impacts on Freshwater Pearl Mussel while five shellfish waters need assessments of the impacts of waste water discharges – namely Cromane; Tralee Bay; Magharees; Valentia Harbour and Kenmare River.

Non-compliant waste-water discharges can have obvious potential impacts on human health - both direct and indirect. The latter includes food production notably the agri-food sector with aquaculture/shellfish a significant player in Kerry. The industry predominately based in estuarine waters is susceptible to poor water quality which the aforementioned EPA 2019/2020 report reflects.

Bathing water quality is also relevant in the context of human health regarding amenity use. Notwithstanding the overall high water quality of bathing waters in the county, one Kerry beach (Ballybunion North) lost its Blue Flag in 2020. Of note for coastal waters was the summer of 2020. Many beaches closed for swimming along the south/southwest coast including Kerry. This was due to bursts of very heavy rainfall and subsequent land run-off of contaminated water into coastal waters. In early 2021 one popular bathing spot in south Kerry was issued with a *bathing advisory notice* for the coming summer months. This is due to ongoing poor water quality from a land drain that discharges directly onto the beach.

5.2.1.1.2. Air

Air quality is well recognised as having a significant potential to impact on human health. As an environmental parameter air is discussed in detail in Section 5.6 including an overview of air quality in the county. While overall air quality is good due to the county’s geographical location and overall lack of heavy industry, key air quality issues have been highlighted from EPA research. Research undertaken in both Tralee and Killarney has shown peaks in poor air quality, including exceedances in air

¹⁷ Environment Section, KCC, Report to Environment, Climate Change and Emergency Planning SPC, December 2020.

¹⁸ Reference 7554/2015/ENVI, see *Focus on Private Water Supplies 2019*, EPA, 2021.

¹⁹<https://www.water.ie/news/national-pesticides-1/>

²⁰<https://www.epa.ie/our-services/compliance--enforcement/whats-happening/prosecutions-and-penalties/prosecutions-2020/epa-prosecutes-irish-water-abbeydorney-wwtp.php>

pollutants²¹. A notable conclusion of research was that for all of the measured parameters, the levels measured during the heating season were between two and four times higher than those for the non-heating season at each location. The reports suggest that space heating, in the form of coal, peat and wood, is the largest contributor to the observed air pollution levels in both towns.

A review of “real-time” data from a Tralee air quality monitoring site at the time of writing (Q1 2021) indicates the trends noted above continue. The EPA records show in January 2021 seven daily exceedances of PM10 levels, for example, occurred in Tralee town. To compare Dublin Port had 3 over the same time period²². In contrast the Valentia monitoring station does appear in the most recent exceedance data from the EPA²³. As a rural station located close to the coastal outside an urban centre, lower limits of air pollutants would be expected.

While trends between health in Kerry and air quality are not specifically researched, it is acknowledged that poor air quality and impacts on human health is widely accepted varying in its impacts on the degree of exposures short term (hours, days) – linked to respiratory effects such as aggravation of asthma while long term (months, years) exposure linked to mortality from cardiovascular and respiratory diseases and from lung cancer.

5.2.1.1.3. Noise

The EPA Act, 1992 identifies noise as a form of environmental pollution and contains provisions for dealing with noise “*which is a nuisance or would endanger human health or damage property or harm the environment*”. Noise is an important public health issue, increasingly recognised as having negative impacts on human health and well-being. The WHO recognises the growing understanding of health impacts from exposure to environmental noise as outlined in their 2018 *Environmental Noise Guidelines for the European Region*²⁴.

Existing noise legislation in Ireland provides for the strategic control of environmental noise from major infrastructure and industry. Legislation also provides for control of noise at specific sources and the method in which this can be undertaken. The Environmental Noise Directive (2002/49/EC) aims to put in place a European wide system for identifying sources of environmental noise, informing the public about relevant noise data and taking the necessary steps to avoid, prevent or reduce noise exposure. The Directive was transposed in Ireland by SI 549 of 2018 European Communities (Environmental Noise) Regulations 2018. Under the regulations, the preparation of Strategic Noise Maps and Noise Action Plans are required in respect of noise from the following sources:

- Sections of rail route above a flow threshold of 30,000 train passages per year;
- Major airports with more than 50,000 movements per year - a movement being a take-off or landing;
- Sections of major roads with a flow threshold of more than 3 million vehicles per annum;
- Agglomerations with more than 100,000 inhabitants.

All noise plans/maps are presented in terms of two noise indicators: Lden and Lnight [based on year long averages of the day (07:00-19:00), evening (19:00-23:00) and night (23:00-07:00) time periods]:

- Lden is the day-evening-night noise indicator and it represents the noise indicator for overall annoyance. It is ‘weighted’ to account for extra annoyance in the evening and night periods. The

²¹ *Assessing the Impact of Domestic Solid Fuel Burning on Ambient Air Quality in Ireland, Assessment of Particulate Air Pollution and Polycyclic Aromatic Hydrocarbons Associated with Solid Fuel Usage in Four Towns in Ireland*, 2015, EPA & *Source Apportionment of Particulate Matter in Urban and Rural Residential Areas of Ireland (SAPPHIRE)*, 2020 report to EPA.

²² <http://www.epa.ie/air/quality/reports/pm10/> (accessed 11/3/21)

²³ <http://www.epa.ie/air/quality/reports/pm10/> (accessed 11/3/21)

²⁴ https://www.euro.who.int/__data/assets/pdf_file/0009/383922/noise-guidelines-exec-sum-eng.pdf (accessed 12/3/21)

Environmental Noise Directive defines an Lden threshold of 55 dB for reporting on the numbers of people exposed.

- Lnight is the night time noise indicator and is used in the assessment of sleep disturbance. An Lnight threshold of 50 dB is defined for reporting on the numbers of people exposed.

Action planning authorities are responsible for the making and approval of Noise Action Plans, in consultation with the EPA and the noise mapping body for the noise map involved. Action plans must satisfy the minimum requirements set out in the aforementioned regulations.

Within Kerry there are no airports or rail routes above the threshold figures outlined and as the County has no agglomerations with more than 100,000 inhabitants, only noise from major roads is applicable under the regulations. The regulations apply to environmental noise to which people are exposed, but do not apply to nuisance noise which can be dealt with under the relevant legislation such as the EPA Act 1992. This includes environmental noise from IPPC sites and Waste Management facilities. The EPA's IPPC Licensing terms require that certain bodies must limit environmental pollution caused by industrial activities in order to obtain a license to operate. The criteria relating to noise pollution are outlined in the EPA publication "*Guidance Note for Noise: Licence Applications, Surveys and Assessment in Relation to Scheduled Activities (NG4)*", published in January 2016. This document recommends a "*Best Available Technique*" approach to the assessment and mitigation of noise pollution. The document contains typical limit values for daytime (55dB LAr,T), evening (50dB LAr,T) and night time (45dB LAr,T) noise, at sensitive locations, from licensed facilities.

As noted, the only environmental noise in Kerry that require a specific noise action plan under the regulations is road traffic. This is discussed below.

5.2.1.1.4. Transportation Noise

A Noise Action Plan²⁵ has been prepared by the Kerry National Road Design Office, KCC in 2019 to address environmental noise from major roads in the county. Transport Infrastructure Ireland (TII) as the Noise Mapping Body for national roads, prepared Strategic Noise Maps for all relevant motorways and national routes. TII also produced Strategic Noise Maps for non-national roads with more than 3 million vehicles per year on behalf of KCC. The roads considered in the plan are provided below in Table 5-6.

There are no existing specific limits for environmental noise in Ireland. The EPA recommends that proposed onset levels for assessment of noise mitigation measures for noise due to road traffic are as follows: 70dB, Lden and 57dB, Lnight. Suggested onset levels for measures to preserve the existing noise situation (quiet areas) are 55dB Lden and 45dB Lnight. These levels reflect an annual average 24 hour period. It should be noted however that these Lden and Lnight values do not represent desirable or recommended noise levels and are well above what might be considered an acceptable noise environment. They are a suggested threshold for prioritisation of assessment to determine if mitigation measures may be required.

Further to completion of the noise mapping exercise and use of geodirectory data, TII estimated that approximately 6,901 individuals and 5,132 individuals located within the action planning area in Kerry are located in areas where the noise levels exceed the Lden value of 55dB and Lnight value 50dB, respectively.

²⁵<https://www.kerrycoco.ie/kerry-county-council-noise-action-plan-2019/>

Where the noise levels are confirmed as being unacceptably high, these areas will be subject to further assessment as detailed in the Noise Action Plan. Potential noise mitigation measures are identified in the plan along with proposed roads projects which are likely to have a beneficial impact on the noise environment. The plan also outlines policy measures for consideration to prevent additional members of the community being exposed to excessive road noise. A review of actions taken under the 2013 plan is presented and a five-year programme for implementation of the 2019 plan has been set out.

5.2.1.1.5. Commercial Noise

IPPC and Waste Management facilities in the county are subject to compliance with EPA standards for noise emissions. IPPC and waste licences contain several conditions in relation to noise including separate daytime and night-time noise limits, monitoring and reporting protocols and site-specific noise monitoring locations. It is the responsibility of each licensee to ensure that the site is compliant with these conditions and does not have a detrimental effect on the local noise climate. IPPC and waste licences may also contain conditions to control site noise and the resultant noise impact. The overriding objective is to minimise or negate noise impact at noise sensitive locations (NSLs).

The EPA publication “Guidance Note for Noise in Relation to Scheduled Activities” contains suggested noise limits of 55dB(A)LA_{r,T} for daytime and 45dB(A)LA_{eq,T} for nighttime noise emissions relative to these sectors. As noted, under END no noise planning is required for the facilities in Kerry as they are below threshold.

Table 5-6 Road infrastructure highlighted in KCC’s 2019 Noise Action Plan

Road	Approximate Length (km)	Location
N69	23.63	Within Listowel to Tralee
N21	12.50	Tralee to Castleisland
N21	18.35	Castleisland to County Bounds
N86	5.39	Tralee to Blennerville
N70	25.72	Tralee to Killorglin
N22	49.00	Ballycarthy Cross to County Bounds
N71	6.80	Section South of Killarney
N72	0.45	Section West of Killarney
R551	1.68	From Mounthawk Roundabout to the Balloonagh Junction
R551	0.54	From Aquadome Roundabout to Dominican Church
R874	1.70	From N86 to the Railway Station
R876	0.85	Cleeny Roundabout to Garda Station
R919	1.00	From County Buildings to the Ballymullen Roundabout at N70
Total	147.60	

5.2.1.1.6. Noise and Wind Developments

Wind energy is particularly associated with the creation of environmental noise. Two noise sources are identified with wind energy- mechanical and aerodynamic.²⁶ Although a third potential source of noise from a wind energy development is noise associated with ancillary equipment such as electrical substations co-located with the wind energy development. Wind turbine and ancillary equipment noise can include special audible characteristics such as tonal noise, amplitude modulation and low frequency components²⁷.

²⁶ *Guidance Note for Noise Assessment of Wind Turbine Operations at EPA Licensed Sites (NG3)*, EPA, 2011

²⁷ Draft Revised Wind Energy Development Guidelines December 2019, Department of Housing, Planning and Local Government

Mechanical noise is created by the mechanical moving components of the turbine namely the gearbox, generator, cooling fans, oil pumps and other auxiliary equipment. Like most rotating machinery, associated mechanical noise may have tonal components, i.e. noise generated is within a specific pitch or frequency dependant on the speed of rotation.

In contrast aerodynamic noise is created by the speed at which the individual blade tip moves through the air. Technically referred to as amplitude modulation the noise pattern is commonly described as “blade swish”. Unlike mechanical noise, the character of aerodynamic noise is broadband, i.e. it is not dominated by any particular frequency. Broadband noise can thus spread across the audible frequency range.

Improved technology and design of wind turbines has partially mitigated environmental noise, particularly mechanical sources. In addition, mechanical noise due to its tonal nature can be monitored by quantifying and measuring noise outputs against standards. Aerodynamic noise however is more complex. Noise created from “blade swish” varies with wind speed. Wind turbines operated within a wind speed of 3-5m/s when it “cuts in” to 25m/s when the turbine “cuts out”. As distance from the turbine increases, amplitude modulation variation should decrease but this is not always the case.²⁸

Finally, human perception of noise is subjective and can depend on a range factors. Traditionally the noise associated with wind turbines has been mechanical in nature. More recently “blade swish” has become more prevalent. In areas with low background noise, this may be a significant source of noise causing disturbance.²⁹

The aforementioned WHO 2018 *Environmental Noise Guidelines for the European Region*³⁰ also specifically addressed wind energy, noise and potential for adverse effects on human health. They note that *‘that evidence on health effects from wind turbine noise (apart from annoyance) is either absent or rated low/very low quality’*³¹. The report however goes onto acknowledge that *further work is required to assess fully the benefits and harms of exposure to environmental noise from wind turbines*. The overall WHO 2018 recommendations for wind were as follows:

- For average noise exposure, the GDG conditionally recommends reducing noise levels produced by wind turbines below 45 dB Lden, as wind turbine noise above this level is associated with adverse health effects.
- To reduce health effects, recommended that policy-makers implement suitable measures to reduce noise exposure from wind turbines in the population exposed to levels above the guideline values for average noise exposure. No evidence is available, however, to facilitate the recommendation of one particular type of intervention over another.

In the 2019 *Draft Revised Wind Energy Development Guidelines* published by the then Department of Housing, Planning and Local Government, adapted the above recommendations from the 2018 WHO in their 2019 guidelines. Specifically, the 2019 draft guidelines are based on a rated noise exposure level of 43 dB(A) on an LA90 measurement basis. As noted the WHO, 2018 guidelines set a Conditional Recommendation for wind turbine noise of 45 dB on an Lden basis.

Ireland’s 2019 guidelines outline the noise assessment methodology that will be needed to be followed in supporting an application for a wind development, defining the applicable Relative Rated Noise Limit (RRNL)³² as:

²⁸Guidance Note for Noise Assessment of Wind Turbine Operations at EPA Licensed Sites (NG3), EPA, 2011

²⁹Ibid

³⁰Environmental Noise Guidelines for the European Region, WHO, 2018, see www.euro.who.int/en/env-noise-guidelines

³¹Environmental Noise Guidelines for the European Region, WHO, 2018, see www.euro.who.int/en/env-noise-guidelines, p84.

³²Draft Revised Wind Energy Development Guidelines December 2019, Department of Housing, Planning and Local Government, p74.

Relative rated noise levels (LA rated, 10min) resulting from wind energy development and taking into account the cumulative impact of noise levels resulting from other existing and approved wind energy developments shall not exceed:

- (1) Background noise levels by more than 5 dB(A) within the range 35-43 dB(A), or*
- (2) 43 dB(A).*

both measured as L90,10 min outdoors at specified noise sensitive locations.

The guidelines note that best available techniques must be used in selecting and implementing measures to predict and minimise the noise impact of wind energy developments. The draft guidelines will be applicable to wind energy projects applied for under the KCDP 2022-2028.

5.2.2. Existing Environmental Problems Relating to Population/Human Health Relevant to the Plan. Population

As regards population, as noted, the population in Kerry is increase by 1.5% (2,205 people) between 2011 and 2016. This was amongst the lowest in the State (3.8%) over the same period. These increases show a significant reduction in growth compared to the previous inter-census period where Kerry's population increased by 4.1% between 2006-2011 (compared to the State's population increase of 8.2%). The 2011/16 population increase is dispersed across the county. However, the census shows that 54.6% of the population were recorded living in rural areas (ie outside the settlements identified in the *Settlement Strategy* of the CDP). This contrasts with National figures of 30%. Population changes varied across the county, the more peripheral areas to the west and south west of the County and parts of the north and east experienced decline. In contrast the EDs adjacent to the towns of Tralee and Killarney, Kenmare and Killorglin experienced the highest levels of growth. Significant population increases have therefore continued in the rural areas classified as *Rural Areas under significant Urban Influence*. In contrast population loss and decline occurred in towns and villages. In addition, more than 1 in 4 houses in the County (including holiday and second homes) were highlighted as vacant on census night. Furthermore, this settlement structure is highly dependent on car use as a consequence of its highly dispersed nature. It is acknowledged that continuation of this pattern of population distribution and vacancy levels is unsustainable in terms of infrastructure provision, water quality and transport cost. The traditional settlement patterns in Kerry are now at variance with national and regional spatial planning policy as well as environmental and climate action policy.

Human Health

The aforementioned COMPASS report notes some of the health statistics of the entire Cork Kerry region, but trends can be extrapolated for Kerry:

- There are four principal causes of illness and death in the region (cancer; heart disease and stroke; respiratory disease; and accidents, injuries and other external causes).
- Deaths from heart disease and stroke have been steadily declining over the last ten years but still remain the largest cause of death across all age groups with cancer deaths greatest in those aged <75.
- The suicide rates for Kerry are 15.1% at a higher than the national rate of 9.6%.
- Overall, people are very positive about their health. In the 2016 census, 87.7% of the population in the region (87% nationally) reported that they perceived their health as being very good or good [Kerry County (86.3%)]
- self-perceived health is reported as bad or very bad by 1.5% of the population (1.6% nationally with Kerry at 1.5%)
- There is a recognised link between deprivation and chronic illness. In the regions there is variation in deprivation levels with deepened levels of deprivation in areas of Cork City. However, it is

noted that very often deprivation in rural areas is less visible. The specifics are often different from those seen in urban areas but equally as detrimental.

Broader and holistic approaches to mental health and/or well-being is a growing area of research in health policy. The importance of green and blue spaces for health and wellbeing, for providing quiet areas and for local biodiversity is now widely recognised. The CDP will play a key role in facilitating protection of existing natural green infrastructure and increasing levels of green and blue infrastructure in the towns and villages throughout county via informing local-level land use planning. The concepts of “place-making”, 10-minute towns, active travel, *healthy streets approach*, *live work communities* where greener more liveable urban settlements will make amenities more accessible as well as facilitating community facilities is a key objective of the CDP.

Water

As regards drinking water compliance with the EC Drinking Water Regulations 2014 is a key issue. As detailed in Section 5.8.1.4 of this report four public water supply (PWS) schemes are on the EPA’s Remedial Action List (see Table 5-14). Reasons relate to inadequate treatment of Cryptosporidium; failure to meet the Trihalomethanes (THA) standard and operational inadequacies in treatment plants. It is acknowledged that IW programme of works will need to address many of issues raised in relation to drinking water quality and compliance with the EC Drinking Water Regulations 2014.

As regards waste water treatment several public waste water schemes require improvement including the four urban areas prioritised for improvements; the three others identified where waste water discharges are the main significant pressure on WBs – Castleisland, Tralee and Abbeydorney (see Section 5.8.1.2 for a further discussion of same) and one other identified for impacts on Freshwater Pearl Mussel. Five shellfish waters need assessments of the impacts of waste water discharges – namely Cromane; Tralee Bay; Magharees; Valentia Harbour and Kenmare River.

In addition, Kerry’s dispersed rural settlement has resulted in much of the population relying on single septic tanks for waste water treatment. These systems are at varying standards and levels of compliance depending on installation and maintenance by the household.

Notwithstanding the overall high water quality of bathing waters in the county, estuaries and coastal waters in particular are under pressure from ongoing discharges of waste water from multiple sources including urban waste water and waste water discharges.

Air

As noted, overall air quality in the county is good. However, EPA research in both Tralee and Killarney has shown peaks in poor air quality, including exceedances in air pollutants³³ occur locally. The research concluded that space heating, in the form of coal, peat and wood, is the largest contributor to the observed air pollution levels along with traffic.

Noise

The other significant environmental linked pressure on human health relevant to the CDP is noise. The most significant noise pressure identified in Kerry is associated with traffic. As noted, further to a completion of the noise mapping exercise and use of geodirectory data, TII has estimated that approximately 6,901 individuals and 5,132 individuals located within the action planning area in Kerry are located in areas where the noise levels exceed the Lden value of 55dB and Lnight value 50dB, respectively. These noise issues are of relevance to the CDP which seeks to facilitate a number of key transport projects over the lifetime of the plan.

³³ *Assessing the Impact of Domestic Solid Fuel Burning on Ambient Air Quality in Ireland, Assessment of Particulate Air Pollution and Polycyclic Aromatic Hydrocarbons Associated with Solid Fuel Usage in Four Towns in Ireland*, 2015, EPA & *Source Apportionment of Particulate Matter in Urban and Rural Residential Areas of Ireland (SAPPHIRE)*, 2020 report to EPA.

Noise emissions from IPPC and Waste management facilities are monitored and fall within EPA standards. Localised environmental noise are regulated by the EPA or KCC, notices can be served and/prosecutions made where prevention or limitation of noise is required. In relation to wind farm applications, noise impact assessment form part of the Environmental Impact Assessment Report and applications are assessed on a site-specific basis. To date noise impact has not been a significant contributory factor in refusals.

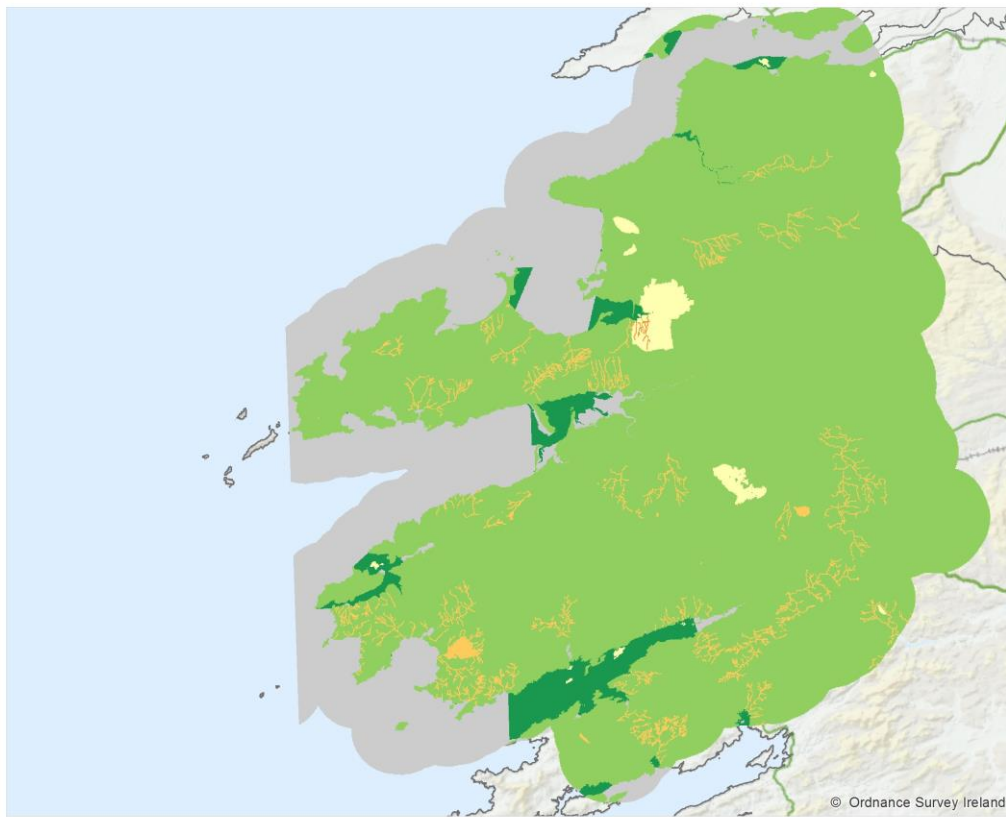


Figure 5-3 Key Challenges facing the population of Kerry at the commencement of the plan making process.³⁴

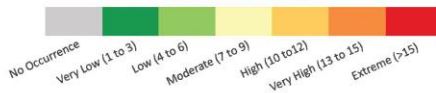
³⁴ KCDP Issues Paper, June 2020

Sensitivity Human Health/Populations

HumanHealth



ESM Sensitivity Index



Date: 4/21/2021 Time: 2:35:17 PM Author: SEA

*This map is an aggregate result based on the variables and user defined weights listed below.
Warning: Please note that weights are only to be used to emphasize the relative significance of an environmental aspect - applying weights to more than two themes would magnify, and possibly overstate, the overall sensitivity.

Air & Climactic **Weight: 1** **Variables:** Air Zones, Coal Restricted Areas

Biodiversity, flora and fauna **Weight:** **Variables:**

Cultural Heritage **Weight:** **Variables:**

Population and Human Health **Weight: 2** **Variables:** WFD RPA Groundwater Drinking Water, WFD RPA Surface Water Drinking Water (Lakes), WFD RPA Surface Water Drinking Water (Rivers)

Soils and Geology **Weight:** **Variables:**

Water **Weight: 1** **Variables:** Groundwater Source Protection Areas, WFD RPA Nutrient Sensitive Areas (Lakes, Coastal and Transitional Water Bodies), WFD RPA Nutrient Sensitive Areas (Rivers), WFD RPA Recreational Waters (Coastal and Transitional Water Bodies), WFD RPA Recreational Waters (Lakes), WFD RPA Shellfish Areas

Figure 5-4 Mapping of environmental data considered relevant to Population/Human Health, namely drinking water resources (weighted highest), aquifer sensitivity/groundwater protection areas, nutrient rich areas (including shellfish and bathing areas) and air quality

5.3. Biodiversity

5.3.1. Introduction

National policy relating to biodiversity in Ireland is heavily influenced by European environmental legislation. The Habitats Directive has a particularly strong legislative influence as transposed into Irish planning law. Ireland's key National policy document is the *National Biodiversity Strategy and Action Plan* (NBAP) published in 2017 and under review at the time of writing. It introduces and expands on the concept of "ecosystem services" provided by biodiversity and how these systems underpin economic, social, cultural and societal benefits. The plan goes on to outline and discuss the key pressures on biodiversity in Ireland. They are identified as increased damage to habitats, loss of species, reduced abundance of wildlife and degradation of our air, water and soils. This analysis is supported by a several by the EPA's most recently published 2020 *State of the Environment Report*. Similarly, the EPA's published reports on the Status of Water Quality in Ireland, 2013-2018 (published in 2019) indicates some worrying national trends on the ecological health and water quality of Ireland's rivers, lakes, estuaries, groundwater and coastal waters. International reports, including by the UN in 2019³⁵, outline an unprecedented decline in global nature. These reports have seen a growing awareness of the importance of both the intrinsic value of biodiversity but also associated "ecosystems services". In addition, biodiversity as a means to both mitigate and adapt to climate change has also recently gained momentum and continues to do so at pace.

In 2019 the EU adopted its future growth strategy. Called the *European Green Deal* this strategy will drive all economic, social and environmental policy within member states up to 2050. It is also an integral part of this Commission's strategy to implement the United Nation's 2030 Agenda and the sustainable development goals. The Deal is built on three core pillars: no net emissions of greenhouse gas (GHG) by 2050 (i.e. climate neutrality); economic growth decoupled from resource use with no one to be left behind (a just transition). The strategy acknowledges the dual and integrated challenges facing the EU from biodiversity loss and climate change and is underpinned by two core strategies published in 2020 - "*EU Biodiversity Strategy for 2030*" and the "*From Farm to Fork*".

European policy will have considerable implications for Ireland's national policy on biodiversity and climate change over the coming years. The *National Planning Framework* seeks to place biodiversity and climate action at the core of Ireland's future physical development and settlement pattern. This principle of compact, connected, and sustainable development was further acknowledged in Ireland's recent 2021 *Climate Action Plan, Securing our Future*. This principle is reflected in lower level plans namely Regional Spatial & Economic Strategies and must be reflected in the CDP and future Local Area Plans.

5.3.2. Biodiversity in Kerry

County Kerry contains a number of International, European, National and local sites of ecological interest with corresponding environmental designations. It includes several high-status watercourses that support salmonid species and the annexed species of Freshwater Pearl Mussel (FWPM). The plan area has extensive upland areas with associated habitats and birds of SCI most notably the Hen Harrier. Toward north and eastern Kerry several remnant bogs that show a transition from raised to blanket bog are designated as either SAC's and/or NHAs. Much of the coastline and coastal waters of the county are designated as both SACs and SPAs. Wintering waders/waterfowl visit these areas in vast numbers while large populations of seabirds inhabit the county's off-shore islands. Sand dune habitats found for

³⁵ *Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its seventh session being from the UN*, published in May 2019, that summarises nature is declining globally at rates unprecedented in human history – and the rate of species extinctions is accelerating, with grave impacts on people around the world now likely.

<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report> [access 25/9/19]

example at Inch and the Magharees are some of the most extensive in the southwest of Ireland and exhibit examples of priority annexed habitat, now rare across Europe. They also support rare plants and other species and many birds of SCI such as the Chough.

Much of Kerry's biodiversity is found in farmland, be it within High Native Value (HNV) farmland or within hedgerows and watercourses located of more intensively farmed areas. The biodiversity value of our farmland is dependent on appropriate agricultural management. Intensification of farming practices but also abandonment of naturally disadvantaged farmland (often of high nature value) are threats to some of our most valued habitats and species. Some of Kerry's most natural habitats also require active management to maintain or restore their conservation interest, for example Rhododendron management within Killarney National Park.

5.3.3. International and European Sites of Nature Conservation.

Under the EU Habitats Directive (92/43/EEC) and transposed into Irish law in the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 141 of 2011, as amended), 31 candidate Special Areas of Conservation (cSAC) are designated in Kerry due to their conservation value for habitats and species of importance in the EU. In addition, there are 9 cSAC's within 15km of the Kerry border located in neighbouring counties. Under the EU Birds Directive (79/409/EEC), transposed into Irish law in the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 141 of 2011, as amended), 14 Special Protection Areas (SPA) are designated in Kerry due to their conservation value for birds of importance in the EU. In addition, there are six SPAs within 15km of the Kerry border located in neighbouring counties. SPAs and SACs are collectively referred to as Natura 2000 sites (also called European Sites and the terms are used interchangeably in this report) and they form part of a network of protected areas across the EU, provided for by Article 3(1) of the Habitats Directive (92/43/EEC).

Ramsar Sites are those designated internationally for the conservation of wetlands, particularly those of importance to waterfowl, under The Convention on Wetlands of International Importance especially as Waterfowl Habitat, the so-called Ramsar Convention. There are two Ramsar sites in Kerry – Castlemaine Harbour (3IE016) and Tralee Bay (3IE015). The boundaries of both Ramsar sites in Kerry overlap with the SPA designations of the Tralee Bay Complex and Castlemaine Harbour.

Biosphere reserves are UNESCO internationally designated sites of conservation value. The designation aims to integrate the interests of nature conservation, sustainable development, research and education. The former Killarney National Park Biosphere Reserve has been redesigned, re-named and extended according to UNESCO Biosphere Reserve criteria. The Kerry Biosphere now includes Killarney National Park as its core, with the Macgillycuddy Reeks and other parts of the Special Area of Conservation (SAC) to the south and east of the National Park as a buffer, and with Killarney town and the Lough Leane catchment as a transition zone. Kerry County Council is an active partner in the management of the biosphere reserve.

5.3.4. National Sites of Nature Conservation

There are nine designated Natural Heritage Areas (NHA) in County Kerry. These are designated nationally under the Wildlife Amendment Act (2000) due to conservation value for ecological and/or geological/ geomorphological heritage at a national level. There are 61 proposed NHAs (pNHAs) in the county. pNHAs were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. These sites are of significance for wildlife and habitats. All but 13 pNHA in Kerry are also designated as a SAC or SPA.

Killarney National Park (KNP) forms part of the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC and Killarney National Park SPA. The KNP also forms part of the aforementioned Kerry UNESCO Biosphere Reserve.

Nature Reserves are areas of land, inland water or foreshore areas established under the Wildlife Act, 1976 and the Wildlife (Amendment) Act, 2000 (Section 2, sub-section (1)(m)) as *an area primarily managed for conservation of one or more species, communities, habitats or for any feature of geological, geomorphological or other natural interest which is provided for by the Minister in accordance with the Wildlife Acts, 1976 and 2000*. They are protected under Ministerial order. Nature Reserves are predominately owned by the State, but some are in private ownership. There are 14 Nature Reserves in Kerry.

5.3.5. Local Biodiversity and Ecological Networks

Article 10 of the Habitats Directive recognises the importance of local ecological networks in ensuring the coherence of Natura 2000 sites. The Article states that local biodiversity networks *by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species*.

5.3.5.1. Woodland

The NPWS's National Survey of Native Woodlands identifies 63 in Kerry. Other sites of local ecological value – hedgerows, wetlands, watercourses - that are undesignated but are protected in the KCDP 2015-2021 and/or under the Wildlife (Amendment) Act 1976, (as amended) act as stepping stones within the broader landscape and form an integral part of the existing and potential green and blue infrastructure of the plan area.

5.3.5.2. Wetlands including Peatlands.

According to the *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, the so-called Ramsar Convention, wetlands *are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.. Wetlands may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands*³⁶. Definitions vary but generally wetlands are distinguished by their hydrology, soil and vegetation.

Wetlands exhibit a complex interaction between water, soil, flora and fauna and by their nature fulfil many important functions and provide important ecological services. Examples of include³⁷: groundwater replenishment; flood control; shoreline stabilisation & storm protection; sediment & nutrient retention and export; water purification; reservoirs of biodiversity; wetland products; cultural values; recreation & tourism and climate change mitigation and adaptation. In relation to the climate action, National policy is now acknowledging that peatlands represent a large portion of Ireland's soil organic carbon stock, representing the largest store of carbon in the Irish landscape. Policies to protect these soil types are being actively pursued by the CAP 2019/21³⁸: It acknowledges that carbon sequestration through Land Use, Land-Use Change, and Forestry (LULUCF) measures will have an evolving but significant role in the future national land-use management policy. The CDP will provide for policy and objectives that support for example the afforestation targets and actions from the 2020

³⁶ <http://www.ramsar.org>

³⁷ http://www.ramsar.org/pdf/info/services_00_e.pdf

³⁸ <https://www.gov.ie/en/publication/ccb2e0-the-climate-action-plan-2019/>

road map for agriculture in *Ag Climatise*³⁹, namely, carbon sequestration through the aforementioned LULUCF measures - discussed in more detail in Section 5.7.1.4. However, these broader land uses namely forestry and agricultural, are predominately outside the scope of the CDP. Rather the CDP in practical terms will need to support key infrastructure and facilitate the capacity to integrate new technologies to achieve a county level response to the challenges in transitioning away from fossil fuel to 2030 and beyond.

Of note the CDP is the Planning and Development (Amendment) No.2 Regulations 2011 which starting a process of change in how Ireland is to assess the drainage/reclamation of wetland habitats at a local level⁴⁰. The regulations were amended to provide new thresholds for both applications for planning permission and for environmental impact assessment. Briefly, a mandatory EIA is now required for development consisting of drainage/reclamation of wetlands above 2ha and planning permission is required (and screening for EIA) for development consisting of drainage/reclamation of wetlands above 0.1ha⁴¹. Within the context of the PDR wetlands have been defined as: *natural or artificial areas where biogeochemical functions depend notably on constant or periodic shallow inundation, or saturation, by standing or flowing fresh, brackish or saline water*⁴². The definition implies at least 70 Fossil Habitats are considered “wetland” under planning law including lakes/reservoirs/ponds; turloughs; rivers/canals; swamps/marshes; floodplains; peatlands; wet woodlands; caves; cliffs; salt marshes; dune slacks/machairs; transitional waters and inter-tidal/sub-tidal habitats.

Data from the Irish Peatland Conservation Council record 29 peatland sites in the Kerry (Table 5-7). All, bar the site *Kerry Head*, are designated as a pNHA, NHA or cSAC/SPA and are therefore afforded protection under the relevant legislation. As discussed above the role that intact peatlands have in sequestering and storing CO₂ from the atmosphere has become a key issue in Ireland’s response to climate change. Conversely, it is recognised that degraded or dried out, peatlands become oxidised leading CO₂ emissions. Peat and other carbon rich soils are discussed in more detail in the context of Climate in Section 5.7.

5.3.5.3. Protected Species

In Kerry there are several rare, protected and/or threatened plant and animal species. Species are protected under a range of EU and National legislation. The current list of plant species protected by Section 21 of the Wildlife Act, 1976 is set out in the Flora (Protection) Order, 1999. Several of these species are found in Kerry including the plan area. The vulnerability status of other species is listed under Ireland’s Red Data Books.

Flora and fauna species are also protected under EU legislation, specifically through Annex II, IV and V of the Habitats Directive and Annex 1 of the Birds Directive. Many species are protected within designated sites, however when found outside designated areas these species are warranted protection under Articles 12 and 13 of the Habitats Directive.

Freshwater ecology species, including Salmonid species and *Margaritifera margaritifera* (Fresh Water Pearl Mussel) are also afforded protection under various EU Directives and Regulations. Freshwater dependent species of relevance to the plan area are discussed in more detail in Section 5.5.

³⁹ <https://www.gov.ie/en/press-release/a8823-publication-of-ag-climatise-national-climate-air-roadmap-for-the-agriculture-sector/>

⁴⁰ *Guidance for Planning Authorities on Drainage and Reclamation of Wetlands, Consultation Draft*, September 2011. Department of the Environment, Community and Local Government.

⁴¹ *Ibid*

⁴² *Ibid*

Table 5-7 Peatland Sites identified by IPC in Kerry

Name	Grid Ref	Area (Ha)	Designation	Site Description
Akeragh Lough	Q 760 270	10	Tralee Bay Complex SPA 004188; Akeragh, Banna and barrow Lough 000332 cSAC	This site lies within the SAC 332, Akeragh, Banna and Barrow Harbour . The coastal site consists of dunes, wet grassland, lagoon and cutover bog. The lagoon has undergone severe sedimentation and eutrophication. The site was once famous for its unusual bird visitors, it was once internationally important. There is fen vegetation around the small area of open water remaining. To the east of the road which lies outside of the SAC there is an area of cutover bog with fen vegetation also. The whole area has a large expanse of reeds (<i>Phragmites australis</i>).
Anna More	R 020 055	36	NHA 000333	The surface of the bog in general lacks a well developed hummock and hollow pattern being replaced by low hummocks and wet sphagnum lawns. The eastern half of the bog which has a good sphagnum cover of mostly <i>Sphagnum papillosum</i> and <i>S. subnitens</i> is occasionally quaky. The western half of the bog is drier with more well-developed hummocks and a prevalence of higher plants. The site represents one of the very few remaining raised bogs in the south-west of Ireland and as such may be of value to conservation at a local level.
Ballagh Bog	W 080 680	68	pNHA 001886	Ballagh Bog is comprises a series of small, slightly raised valley bogs situated in the bends of a mountain stream.
Caha Mountains	V 810 550	6861	Caha Mountains cSAC 000093	The Caha Mountains is of high scientific interest due to the presence of a large area of intact blanket bog. Knockastumpa Bog has been described as the best saddle bog in the country. It also supports wet heath and alpine heath. Many rare plant and animal species occur including the Kerry Slug, the Killarney Fern and the Hen Harrier. Total SAC: 6861.
Caher Barnagh Mountain / Killarney NP	W 190 870	5,192	Killarney National Park SPA 004038; Killarney National Park, Macgillcuddy Reeks and Caragh River Catchment 000365	"Complex of 25 sites". Area of upland east of the Paps and south west of Millstreet. Located within the Killarney National Park, Macgillcuddy's Reeks and Caragh River Catchment SAC 000365. Cumeragh River Bog is the most southerly intact lowland blanket bog in the country. Total SAC: 75,149.
Doughill	V 893 695	150	NHA 001948	
Dromlusk	V 765 720	143	pNHA 000352	Blanket bog containing much flush vegetation.
Emlagh East	Q 480 000	10	pNHA 001961	This is a coastal site which grades from a salt marsh to freshwater terrestrial conditions where fen habitat becomes evident through the presence of <i>Molinia</i> and <i>Schoenus</i> .
Gabbets	R 035 405	80	Bunnruddee Bog NHA 1352	It is being actively cut on all sides and several deep drains traverse the main body of the dome. The site has not been burnt in recent years. There is a good complement of <i>Sphagna</i> present with frequent hummocks of <i>Sphagnum imbricatum</i> and wet depressions with <i>sphagnum cuspidatum</i> . Gabbetts is one of the few remaining raised bogs in Kerry
Glanmore Bog	V 740 520	1,156	SAC 001879	Glanmore Bog is of conservation interest for its active blanket bog, which contains flushes and quaking areas. The dominant habitat of the site is wet heath, which often occurs with upland grassland, exposed rock, bog and dry heath. Some rare species recorded at the site include the Killarney Fern, Chough and Freshwater Pearl Mussel.

Name	Grid Ref	Area (Ha)	Designation	Site Description
Hungry Hill Bog	V 761 498	510	NHA 001059	"Complex of 2 sites". Hungry Hill Bog NHA contains a broad expanse of upland habitats, including blanket bog (both highland and mountain sub-types), heath, exposed rock, scree and precipitous cliffs. The altitude ranges from 200 m to 685 m and the predominant bedrock is Old Red Sandstone. There are several areas of intact blanket bog, the largest of which is within Derreen Upper bog, The blanket bog vegetation has quite a uniform appearance, but still contains an intact moss and liverwort cover. In many places sheep grazing has significantly reduced the quality of habitats and species diversity. Continued overgrazing is the main threat to the site. Peat cutting has taken place in adjacent areas of lowland blanket bog.
Kerry Head	Q 725 305		-	Grid Ref places this site close to the summit of Maulin Mountain, Kerry Head.
Knockatarriv / Knockariddera Bogs	Q 965 160	209	NHA 002448	Knockatarriv/Knockariddera Bogs NHA consists of upland blanket bog. The blanket bog grades into heath on the upper slopes by the boundary fence.
Knockroe	V 610 790	173	NHA 000366	
Lamb's Head	V 530 570	100	Darrynane Bay Islands and Marsh, Lamb's Head pNHA 001346	This site is situated on the south side of the Iveragh Peninsula, 2 km south-west of the village of Caherdaniel. The site comprises a complex of many habitats, including a variety of sand dune, salt marsh, ponds, freshwater marsh, marine islands, cliffs, heath, blanket bog, mixed woodland and scrub. The site is the most southerly area in the country from which the nationally endangered Natterjack Toad has been recorded.
Lough Gill	Q 600 140	60	Tralee Bay Complex pSPA 004188	Total site are: 350ha. Shallow base rich lake fringed with Phragmites reedbed. Important bird site and breeding ground of the Natterjack Toad.
Lough Yganavan & Lough Nambrackdarrig	V 70 95	332	pNHA 000370	Area of fixed dunes, wet heath, blanket bog. Habitat for the rare Natterjack Toad.
Maulagowna	V 870 640	20	SAC 001881	The site consists of a blanket bog and a corrie lake. A good example of an intact, head-water blanket bog, a type of bog that is rare in the south-west of Ireland.
Moanveanlagh	R 045 350	214.73	SAC 002351 NHA 000374	A soft and spongy terrain - frequently characterised by lawns and small hummocks of regenerating Sphagna. Two miles East of Listowel.
Mount Brandon	Q 460 110	3080	NNR SAC 000370	This bog contains wet heathland and a complex of lakes and streams. The neighbouring cliffs are noted for their rare artic-alpine plants.
Mount Eagle Bogs	R 093 104	449	NHA 002449; Stacks to Mullagherisk Mountains, west Limerick Hills and Mount Eagle SPA 004161	Mount Eagle Bogs NHA consists of four areas of blanket bog adjacent to Mount Eagle on the Kerry/Cork county boundary. Forestry plantations adjoin all four areas. The site ranges in altitude between 210 m and 451 metres and the bedrock geology consists of coal measures. In the western area a large expanse of intact bog occurs with features intermediate between raised bog and blanket bog. The summit of Mount Eagle supports a small intact blanket bog on deep peat. Sphagnum moss cover ranges from 30% to 50%. Mount Eagle is part of an extensive upland complex that extends from the Stacks Mountains in Kerry to the Mullaghareirk Mountains in Cork and Limerick. The upland complex is an important stronghold for the Hen Harrier population in Ireland. Site is one of six pSPA's for HenHarriers in 2008. Red Grouse and Irish Hare also occur here.
Mullaghanish Bog	W 220 820	70	SAC 001890; pNHA 001890	Mullaghanish Bog is a small area of mountain blanket bog which is intact and contains flushes. Site is one of six pSPA's for HenHarriers in 2008.

Name	Grid Ref	Area (Ha)	Designation	Site Description
Sheheree/Ardagh Bog	V 983 884	16.72	SAC 000382 Nature Reserve	A species rich kettle hole bog. Situated 2 km south east of Killarney it is a small nature reserve. The site is the most intact raised bog in the South West and the presence of a lagg adds great value to the site as does the suite of rare flora species present.
Sillahertane Bog	W 110 720	315	NHA 001882	Sillahertane Bog is located approximately 12 km east of the town of Kilgarvan, towards the southern end of the Derrynasaggart mountains. The site is, for the most part, flushed, as indicated by the predominance of Purple Moor-grass (<i>Molinia caerulea</i>). This appears to be a function of the shallow covering of peat on the site. Overall, this site is very intact, with little damage from drains and peat-cutting apparent.
Slaheny River	W 010 660	130	NHA 000383	
Slieve Mish Mountains	Q 75 07	2449	Slieve Mish Mountains SAC 002185	Situated on the Eastern side of Dingle Peninsula. The dominant habitat types are heath.
Smerwick Fens	Q 375 046	80	pNHA 001958	Total site area: 400ha. Within Smerwick Harbour Sandhills and Marshes NHA. Some of the site consists of flooded cutaway bog. Many rare plants in Kerry are found at this location.
Tullaha	W 000 870	106	Doo Loughs pNHA 000350	-
Ventry	V 365 985	15	pNHA 001384	Total site area: 150ha. There are two patches of reed-swamp within the NHA at each end of the strand. These grade into fen as one moves away from dunes.

BirdWatch Ireland maintains a list of bird species prioritised for conservation action in Ireland that it reviews every 7 years. The *Birds of Conservation Concern in Ireland* is published under three classifications Red, Amber and Green. Classifications are based on the conservation status of the bird and conservation priority. Red indicates birds are of high conservation concern, Amber of medium conservation concern and Green are not considered threatened⁴³. Several species from the red/amber and green lists are found in Kerry, notably key species such as the Hen Harrier, Curlew and many upland birds that have seen decline since the last BWI review⁴⁴. Of particular note in Kerry is the re-introduced White-Tailed Sea Eagle (WTSE)⁴⁵ into Killarney National Park.

5.3.6. Invasive Species

A baseline survey of invasive species in the county undertaken by the National Biodiversity Data Centre (NBDC) recorded the top twelve invasive species in Kerry⁴⁶ as: Japanese Knotweed; Himalayan Balsam; *Rhododendrum ponticum*; Giant Rhubarb; African Curly Waterweed; Parrot's Feather; Water Lily; Common Cord Grass; Wire Weed; Ruddy Duck and New Zealand Flatworm with the potential arrival of the Grey Squirrel and Muntjac Deer. The CDP recognises that invasive species need to be managed in compliance with the provisions of the EC (Birds and Habitats) Regulations (SI 477 of 2011), particularly Sections 49, 50 and the Third Schedule. Best practices, as produced and updated by relevant authorities, are to be adhered to in the management of invasive species particularly on sites proposed for development.

5.3.7. Existing Environmental Problems Relating to Biodiversity Relevant to the Plan.

Kerry has a diverse and varied biodiversity. Much of the county is designated under the Natura 2000 network highlighting the significance of the county's natural heritage. The primary threats to biodiversity both within and outside designated areas are from habitat loss, degradation and/or fragmentation. In the context of the CDP, pressures on biodiversity increase as populations grow. More resources are required and land use changes leading to urbanisation and associated infrastructure. In particular, urban water run-off is highlighted as a pressure on several of the county's waterbodies under the 3rd cycle of WFD. This includes discharges from waste water treatment plants. Water abstraction from both ground and surface water sources for domestic, agricultural and industrial use is a key environmental issue in the plan area linked also human health as many private sources are not regularly tested. Large scale infrastructure project such as wind farm development also pose a threats to water quality; sensitive peat habitats and annexed species such as the Hen Harrier.

Other land uses including changes to agricultural practices and forestry are two significant drivers of changes in our biodiversity. More intensive farming methods for example drive more intensive use of land while conversely land abandonment and a move away from traditional grazing practices results in undergrazing and a loss of local biodiversity linked to traditional agricultural practices. Although it is noted that these land uses are predominately outside the scope of a CDP, the CDP will need to support certain landuses that can promote biodiversity in the wider landscape, including actions from forestry policy and *Ag-Climatise*.

There is a growing awareness of the threat posed from invasive species in the county, particularly in the freshwater environment and associated riparian corridors. Tourism can facilitate the introduction of invasive species in aquatic environments. IFI note that Lough Leane is particularly vulnerable as one of the main boating/angling centres in the county where boats, engines, tackle etc converge. This can

⁴³ www.bwi.ie

⁴⁴ Birds of Conservation Concern, in Ireland, 4: 2020–2026. Gillian *et al*, *Irish Birds* 43:1-22, 2021.

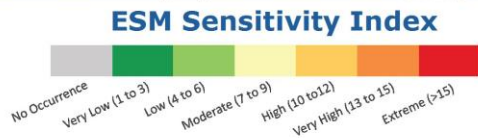
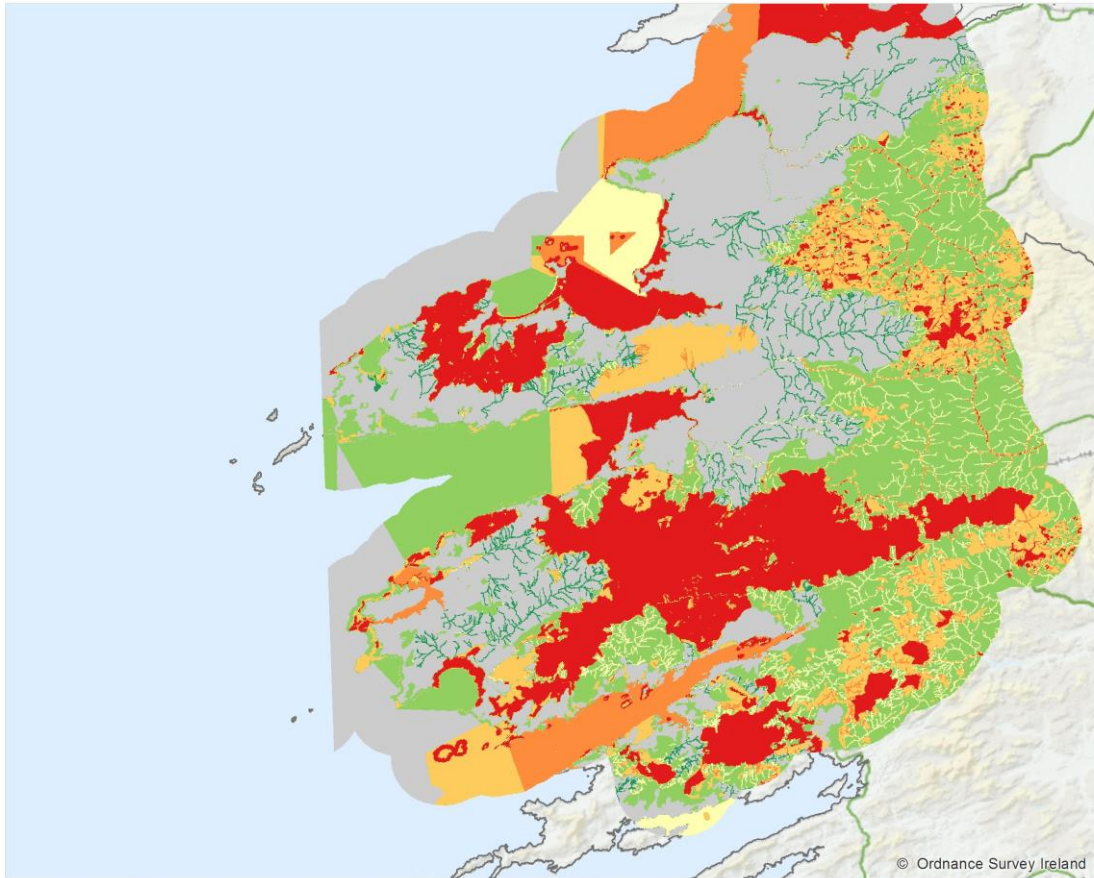
⁴⁵ www.goldeneagle.ie.

⁴⁶ O'Flynn C., 2010. *Report on the Dirty Dozen non-native invasive species- Co Kerry*, Unpublished Report by the National Biodiversity Database Centre.

create pathways for the introduction of invasive species as seen in Lough Derg and the Shannon system. Tourism and recreational activities have also an impact on biodiversity with increased numbers of people involved in recreational sports that can impact on sensitive habitats and species.

Climate change is also recognised as a serious threat to biodiversity into the future. Coupled with changes in weather patterns, such as more intense rainfall, impacts to ecosystems will only become apparent as species shift and alter their range or lifecycles in response to changing abiotic factors. Similarly, habitats are effected notably coastal habitats under threat from coastal erosion again exacerbated by climate change. In addition, infrastructural projects to protect against flooding can have impacts on biodiversity particularly when hard engineered solutions are considered such as rock armoury.

BiodiversityWater



Date: 4/21/2021 Time: 12:41:05 PM Author: Cf

*This map is an aggregate result based on the variables and user defined weights listed below.
 Warning: Please note that weights are only to be used to emphasize the relative significance of an environmental aspect - applying weights to more than two themes would magnify, and possibly overstate, the overall sensitivity.

Air & Climactic Weight: Variables:

Biodiversity, flora and fauna Weight: 2 Variables: Annex I Habitats, Margaritifera Sensitive Areas, Natural Heritage Areas, Proposed Natural Heritage Areas, Salmonid Waters (S.I 293 Only), Special Areas of Conservation, Special Protection Areas

Cultural Heritage Weight: Variables:

Population and Human Health Weight: Variables:

Soils and Geology Weight: Variables:

Water Weight: 1 Variables: Wetlands, WFD Coastal and Transitional Water Bodies Status, WFD Lake Status, WFD River Status

Figure 5-5 Mapping of environmental data considered relevant to Biodiversity (European and National designations weighted highest) and Water (status of waterbodies and inclusion of wetlands).

5.4. Soils

5.4.1. Geology

The geology of County Kerry varies in age and rock type across the county. The oldest geological formations date to the Ordovician period (490-450 million years ago (Ma)) and crop out on the Dingle Peninsula in a thin strip between Annascaul and Caherconree. Much of the county's geology was formed in the Silurian & Devonian period (444-359 Ma). Following the Ordovician, rocks dating from the Silurian period (450 -415Ma) were formed with evidence on the Dingle Peninsula, in Dunquin, Bull's Head, and Derrymore Glen.

The Old Red Sandstone that makes up much of the Iveragh and Beara Peninsulas, Kerry Head and an area to the east of the Dingle Peninsula was laid down in the Devonian period (415Ma). This period is associated with the famous Valentia trackway – the footprints of one of the first land-based vertebrates (tetrapod) that emerged from the sea. The Lower Carboniferous (360-326 Ma) period is represented in the limestones of central and parts of north Kerry with the Upper Carboniferous represented in the shales (326-300 Ma) of east Kerry and the Stacks mountains. Around 300Ma the Armorican/Hercynian earth movements resulted in the creation of the east-west trending tectonic grain strongly represented in the Iveragh Peninsula where a landscape of mountain ridges and valleys now dominate.

Kerry's geology has also been shaped by various periods of glaciation over the last 2 million years. The Weichsel or last glaciation is represented in north Kerry by a small area around Tarbert. In south Kerry it is represented by the Cork-Kerry Mountain Glaciation. This glaciation deposited thick drift in the Roughty valley and where it debouched on the Killarney lowlands. From Glenbeigh to the Cork-Kerry border there are lines of recessional moraines. From Glenbeigh to a little east of Killarney the moraines are derived from the Old Red Sandstone of the hills. Further east the moraines contain a progressively high proportion of Coal Measure shales and sandstones.

5.4.1.1. Geological Heritage

The Irish Geological Heritage Programme (IGH) of the Geological Survey of Ireland (GSI) is in partnership with the National Parks and Wildlife Service to identify and select important geological and geomorphological sites throughout the country. The aim is to designate the sites as Natural Heritage Areas (NHAs) and as County Geological Sites (CGS) for integration into the County Development Plan. Over a 100 sites have been identified by the GSI as sites of geological interest in Kerry and are in the CDP.

5.4.2. Soil and Land Use

Soil is a biologically active complex mixture of weathered minerals, organic matter, organisms, air and water. It is a very dynamic system which performs many functions and is vital to human activities and to the survival of ecosystems. As soil formation and regeneration is an extremely slow process, soil is considered a non-renewable resource. The main degradation processes to which soil can be subject to are erosion, decline in organic matter, contamination, salinisation, compaction, decline in biodiversity, sealing, floods and landslides. Provisions for soil protection are presently integrated into several existing EU environmental directives including the Nitrates Directive, Water Framework Directive and particularly the Habitats Directive through the protection of peat soils in blanket and raised bogs. An EU Soil Directive has been proposed by the EU for a number of years but to date has not materialised.

In Ireland protection of soil resources are therefore reliant on national policy relating to agriculture, forestry, waste and water etc. The potential of peat soils to sink carbon and thus aid Ireland's obligations in relation to climate action has gained support as discussed in the EPA's 2011 STRIVE

research paper – *Bogland: Sustainable Management of Peatlands in Ireland*⁴⁷. This is gaining particular momentum as Ireland seeks to sequester carbon through land uses.

In Kerry, soil types are broadly represented by lowland mineral soils; mountainous and hill soils and peat soils (Figure 5-6). This is reflected in land uses (Figure 5-7) which show active, managed lowlands with peat dominated uplands. Geographically North Kerry dominates in lowland soils while South Kerry and central Kerry exhibit mountainous/hill soil and peat soils. The soils of the lowland areas are mainly derived from Carboniferous shale and sandstone drift and are classified as well or poorly drained. Mountainous soil occurs throughout the south of the county and also extensively in the Iveragh and Dingle peninsulas. These soils occur on Devonian Old Red Sandstone rock and colluvium with smaller areas on glacial drift. They consist mainly of highly degraded soils (peaty podzols), skeletal mineral soils and blanket peat. Occurring under a high rainfall regime, these soils are associated with steep topography with more elevated areas exhibiting outcropping rock. Large areas of the south Kerry hills are occupied by soils which are shallow and organic or peaty.

Three types of peat soil have been identified in the county – fen; deep raised bog peats and blanket peat.

- Fen peats – occur along river valleys with or without a thin cover of river alluvium. They are widely scattered throughout the county; vary in depth from 45 cm to 2m.
- Deep Raised Bog Peats – limited to gently undulating topography of North and East Kerry. The surface layer is extremely wet, very acid and its vegetation is usually dominated by Sphagnum moss. They vary in depth from 2m to 4m.
- Blanket Peat (mountain and Atlantic type) - The greater proportion of peats occurring in Kerry are of the blanket type. Peat depth varies in relation to the degree of slope of the underlying soils. It varies from less than 30cm on slopes exceeding 25° to 3m on slopes of 2° to 3°.

All peat soil by its nature is an organic material formed by the accumulation of dead plants in waterlogged conditions. Water is the most important factor limiting decay. As peat soils consist mainly of water (upto 90%), hydrological processes play a central role in maintaining soil structure and function. The importance of peatlands in the provision of ecosystem services, including maintaining biodiversity, carbon storage, supporting agriculture and forestry, water regulation and flood attenuation is outlined by the EPA in their 2020, State of the Environment Report⁴⁸. As noted, the role of intact peatlands in sequestering and storing CO₂ from the atmosphere has become a key issue in Ireland's response to climate change. Peat and other carbon rich soils are discussed in more detail in the context of Climate in Section 5.7.

5.4.2.1. Landslide

The term "landslide" is very broadly defined as any downslope movement of earth materials under the force of gravity.⁴⁹ How the material "moves" is further classified as "flows", "slides", "falls", "topples" and/or "spreads". The materials moving can range from clay-sized particles through to stone or bedrock. A particularly significant material associated with landslides in an Irish context is peat. Often referred to as bog bursts in both raised and blanket bog, they make up a significant number of events in the Irish Landslides Database⁵⁰. Blanket bog failures are more common in the wetter autumn and winter periods, while those in raised bogs can occur at any time in the year.

⁴⁷ <http://www.epa.ie/pubs/reports/research/land/strive75.html> [accessed 22/07/20]

⁴⁸ <https://www.epa.ie/media/EPA-Ireland's-Environment-2020-Chapter5.pdf>

⁴⁹ *Landslides in Ireland, Geological Survey of Ireland, Irish Landslides Working Group, Department of Communications, Marine Natural Recourses*, Geological Survey of Ireland, 2005, Section 2.2 Landslide Movement Types, pg 4.

⁵⁰ *Landslides in Ireland, Geological Survey of Ireland, Irish Landslides Working Group, Department of Communications, Marine Natural Recourses*, Geological Survey of Ireland, 2005, Section 2.2 Landslide Movement Types, pg 6.

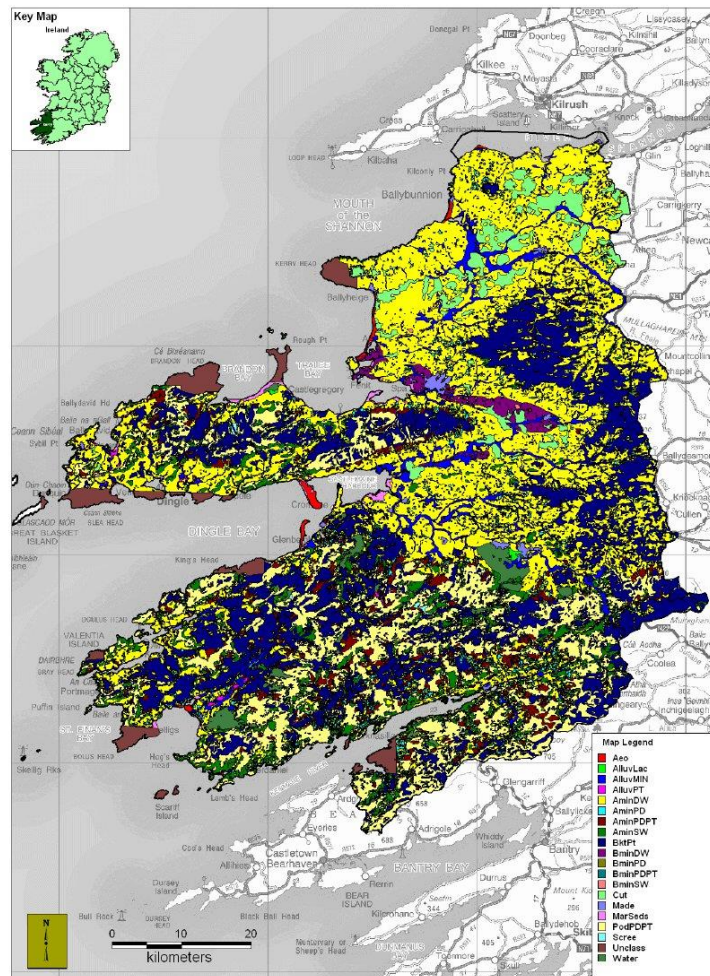


Figure 5-6 Soil types in the county

Causes of landslides are complex, but two general conditions associated with initiating landslides have been identified by the Geological Survey of Ireland (GSI). Firstly, the inherent nature of the slope in question, including rock type; the geotechnical properties; land cover; slope gradient and profile and the slope drainage and permeability. Secondly there are triggering factors which act on the slope to initiate a landslide. These vary from natural events such as heavy rainfall to man-made activities such as land drainage and undercutting of slopes.⁵¹

As a result of the 2003 landslide at Pollatomish in Co. Mayo and Derrybrien in Co. Galway, the GSI established a multi-disciplinary team in 2004 to look at the causes of landslides in an Irish context.⁵² This led to the establishment of the Landslide Susceptibility Map Viewer, housed by GWI and published in 2016⁵³. The landslide susceptibility maps identify areas which are subject to landslides and is measured from low to high. It takes into account where the landslides occur and what causes them (slope, soil type and the impact of the flow of water in an area). Ultimately the aim of this mapping is to identify areas predisposed to landslides. The approach taken to *landslide susceptibility* is through a four-band scale ranging from as stated 'Low' to 'High'. This uses the relatively simple concept of

⁵¹ *Ibid* Executive Summary, pg ii

⁵² *Ibid* pg iii

⁵³ <https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228>

doubling the number of landslides within each band, such that the upper band has just over half of all known events. Areas that have a high susceptibility of landslides are considered to be unsuitable for wind energy development. The physical geography of high areas is that the predominant soil type is Rock Near the Surface and to a slightly lesser extent Peat. Slopes are mainly in the 20-30° band with the remainder falling into bands 15-20° and 30-45° range and occasionally much steeper. In terms of landslide incidence, the highest number of landslides occurs in the 30-45° rock near surface class. It can be seen in the 30-45° range for peat and to a slightly lesser extent in rock near surface within the same slope range. This approach has been taken in the defining of wind zones in this plan – see Volume 1, appendix 6.

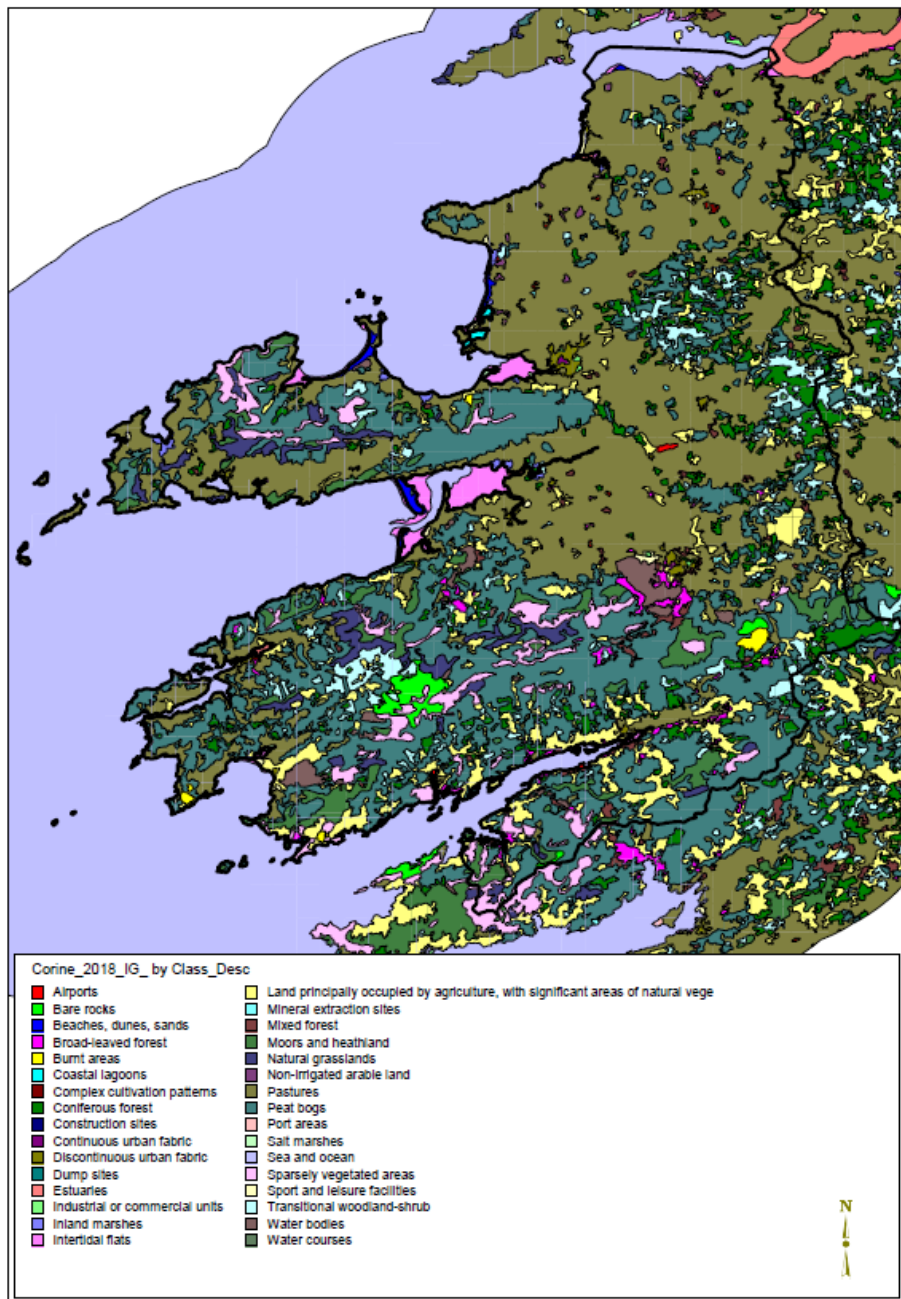


Figure 5-7 Land Uses in the County (CORINE 2018)

Kerry is represented in these landslide maps having experienced a number of land slippages. Of note is the 2008 landslide that occurred at Ballincollig Hill near Tralee. The landslide occurred, after a period of substantial rainfall, during the construction of a wind farm. Peat slurry travelled for nearly 2km cutting off access to a minor road and two bridges. On entering a nearby water course the River Smearlagh⁵⁴ was polluted and substantial fish kills were recorded by the then Shannon Regional Fisheries Board. More recently in 2020 a landslide occurred at Mount Eagle, near Castleisland within a private forestry plantation. A review of this incident by relevant authorities is ongoing at the time of writing.

5.4.3. Existing Environmental Problems Relating to Soil Relevant to the Plan.

The EPA in their most recent 2020 State of the Environment report, have identified the main environmental problems relating to soil at a national level⁵⁵. These include increasing pressures from land use changes, intensification of agriculture, erosion and overgrazing, disposal of organic wastes to soils, afforestation, industry and urban sprawl and urbanisation⁵⁶.

In the absence of regional data, these pressures can be assumed to be reflective, to varying degrees, of Kerry. Of relevance to the CDP is the recognition from the EPA report that Ireland's settlement patterns are proving at odds with the protection of the environment including soil. Ireland's traditional settlement patterns has relied on zoning of greenfield lands and/or one-off housing in rural areas near urban centres. This is often over brownfield development opportunities in and around our major cities and towns. The report goes on to note *typically, greenfield lands around Ireland's major cities and towns contain high-quality, highly productive soils that, once sealed under new developments, are lost forever*. This soil sealing relates to the covering of natural surfaces by impermeable materials and is one of the main causes of soil degradation. The report goes on to note that these settlement patterns are *reliant on mainly carbon-intensive greenfield development, which leads to biodiversity loss, soil loss and increased soil sealing, with potential impacts on water quality*. The report acknowledges recent policy from the NPF that seeks to direct at least 40% of new homes nationally within the built-up footprint of existing settlements. This will see use of brownfield sites over the continual expansion and sprawl into the countryside, at the expense of town centres and smaller villages.

Kerry has traditionally had and continues to have a dispersed rural settlement pattern. A review of the GeoDirectory register between 2015 and 2020 shows 1,840 new addresses were added over this time⁵⁷. Of these 59% have taken place outside of the County's urban areas including small towns and villages. This is supported by population trends that indicate there has been an increase in population around the towns of Tralee, Killarney, Kenmare and Killorglin⁵⁸.

Landslides from infrastructure schemes, most notably wind farm development in upland areas have occurred in Kerry. Such instances have significant impacts on soil and other resources, including water and biodiversity particularly freshwater ecosystems. As noted, the approach taken to categorisation of landslide susceptibility is through a four band scale ranging from 'Low' to 'High' and the approach has been taken in the defining areas open to be considered for wind development in this plan.

Protection of soils that are carbon rich has grown considerable traction in recent years as highlighted in the CAP 2019 and *Ag Climatise*. Research to inform the CDP's Chapter 12 on Energy indicates some of

⁵⁴ Long M. et al 2009. *Peatlands in Ireland, Causes and Prescriptions*. Presentation from UCD School of Architecture, Landscape & Civil Engineering.

⁵⁵ <https://www.epa.ie/media/EPA-Ireland's-Environment-2020-Chapter5.pdf>

⁵⁶ *Towards Setting Environmental Quality Objectives for Soil Developing a Soil Protection Strategy For Ireland, A Discussion Document*, EPA 2002, pg 6.

⁵⁷ Kerry County Development Plan 2022-2028, Issues Paper, June 2020

⁵⁸ Kerry County Development Plan 2022-2028, Issues Paper, June 2020

Kerry's granted wind farms have occurred on peat soils. The idea of protecting carbon rich soil from further development will be governed by evolving policy around climate action and land use, specifically the carbon sequestration measures proposed through Land Use, Land-Use Change, and Forestry (LULUCF). Notwithstanding this, developments within certain types of soils including the *drainage/reclamation of wetlands* falls within the remit of the planning authority and as such is governed by the Planning and Development Regulations, 2001 as amended and subsequently the CDP.

Sensitivity Soil/Geology

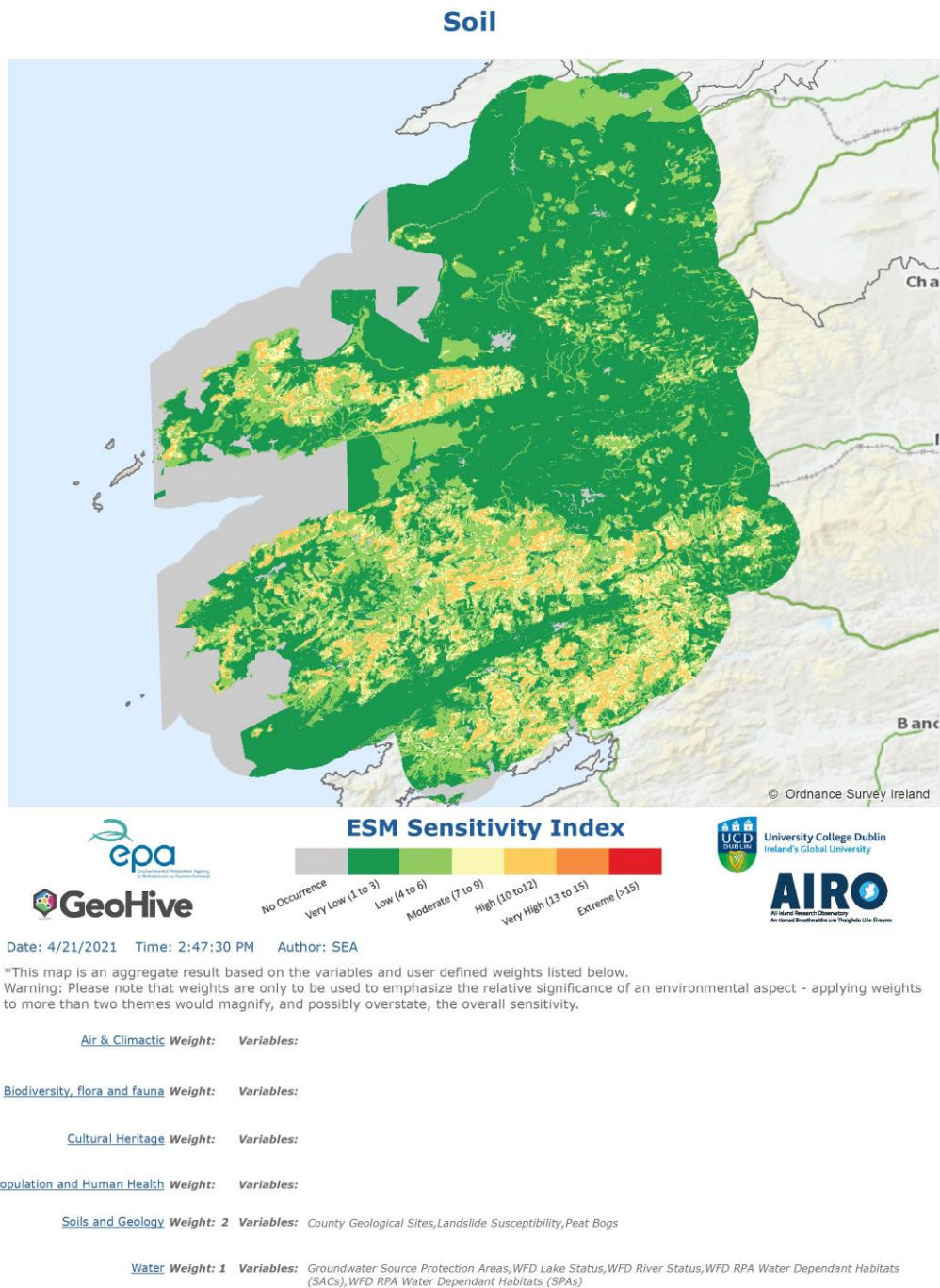


Figure 5-8 Mapping of environmental data considered relevant to Soil namely GCS; peat, land susceptibility (weighted highest) and water resources including water dependent habitats and species

5.5. Water

The Water Framework Directive (WFD) is key environmental legislation governing the management of water (surface freshwater – river and lake), groundwater, coastal and transitional (estuarine) in Ireland. At the time of writing the 3rd cycle of the WFD is underway (2022-2027)⁵⁹ with the National River Basin Management Plan (RBMP) on public consultation until March 2022. The 3rd cycle overlaps with the timeframe of the KCDP.

The challenges affecting Ireland's waters and possible solutions are outlined in the RBMP. The same priority areas for actions (PAA) that underwent further assessment as part of the 2nd cycle will continue to form part of the 3rd cycle with further catchments now added. In addition to the PAAs, the *blue dot catchments programme* and *red dot programme* are also being rolled out by LAWPRO⁶⁰. Kerry contains a number of *blue dot* catchments – essentially high-water status catchments that are to be either maintained or restored.

The drafting of the 3rd cycle is occurring within the context of the EPA's most recently published report on the *Status of Water Quality in Ireland, 2013-2018* published in 2019⁶¹ and *Water quality in 2020, An indictors Report*⁶². The reports provide an evaluation of the ecological health of Ireland's rivers, lakes, canals, groundwaters, estuaries and coastal waters against the standards and objectives set out in the WFD. Data used to inform the report extends over the period 2013-2018. The results and other data from the WFD relative to Kerry are discussed in more detail below.

5.5.1. WFD: Status at the time of the Drafting of the KCDP

The EPA's 2019 and 2020 report indicates some worrying national trends on the ecological health and water quality of Ireland's rivers, lakes, estuaries, groundwater and coastal waters. Several of these national trends are reflected in Kerry. The county maintains several high or pristine catchments; no waterbody dropped to poor or bad status while coastal waters maintain a good status. Nonetheless, other trends are worrying notably the continued loss of high-status waterbodies. These sites are important reservoirs of aquatic biodiversity and their loss is a concern. Figure 5-9 below provides an overview of the 2019 water quality results per each waterbody type – river, lake etc. As noted Kerry maintains a number of high status waterbodies. Good status waterbodies are also well represented and there are no bad waterbodies. Of note however is the results for transitional waterbodies where 25% are poor.

The aforementioned 2019 EPA report can be put into further perspective when data from previous cycles of EPA water quality monitoring is compared. Of note is the decline at the end of each monitoring cycle of high-status waterbodies. In the 2007-2009 monitoring cycle Kerry had 30% high status waterbodies which has dropped to 13% by 2018. Although good status has increased cycle on cycle this is due to high status waterbodies dropping into this category rather than moderate status waterbodies jumping up ie improving. One positive is that bad waterbodies were recorded in 2007 while none are recorded in 2018.

⁵⁹ <https://www.catchments.ie/public-consultation-timetable-and-work-programme-for-third-cycle-river-basin-management-plan-for-ireland-2022-2027/>

⁶⁰ The *blue dot catchment programme* forms part of the 2nd cycle of the WFD. The programme aims to protect and restore high status waters. It aims to prioritise these catchment for the implementation of supporting measures and for available funding.

⁶¹ <https://www.epa.ie/irelandsenvironment/water/>

⁶² https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/EPA_Water_Quality_2020_indicators-report.pdf

Water Quality Status (Monitored)

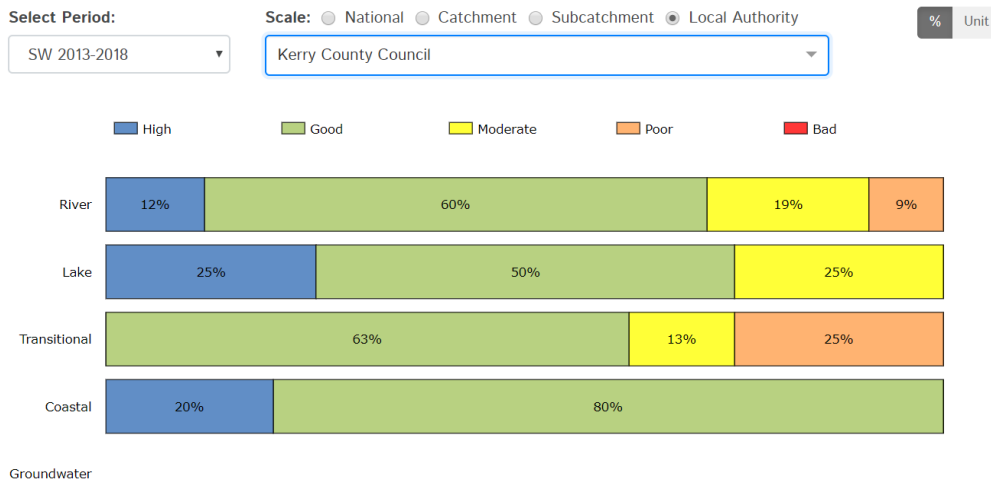


Figure 5-9 WFD Water Quality Status in Kerry 2013-2018

When data is reviewed per waterbody (WB) type – river; lake; transitional; coastal and groundwater, further observations can be made.

- River WB status trends reflect those discussed above, loss of high status waterbodies from 30% to 12%.
- Lakes WB status from moderate to good has seen improvements, from 29% in 2007-2009 upto 25% in 2018. However, again there was a decline in high from 29% to 25%, respectively with a particular downward jump from 47% in 2015 to 25% in 2019. Good status has remained at 43%-50%.
- Transitional WB status trends show worrying changes from no poor waterbody in 2009 to 25% in 2018. Good has increased from 50% to 63% with the increase due to moderate waterbodies moving up or improving.
- Coastal WB status trends show worrying changes from 75% high in 2009 to 20% in 2018. However, good was strong at 80% in 2018.
- Groundwater WB status again show worrying trends with the last 2 cycles of water quality data indicating 6% poor status. This was down from 100% good status in 2009.

Water Quality Status - Trend (Monitored)

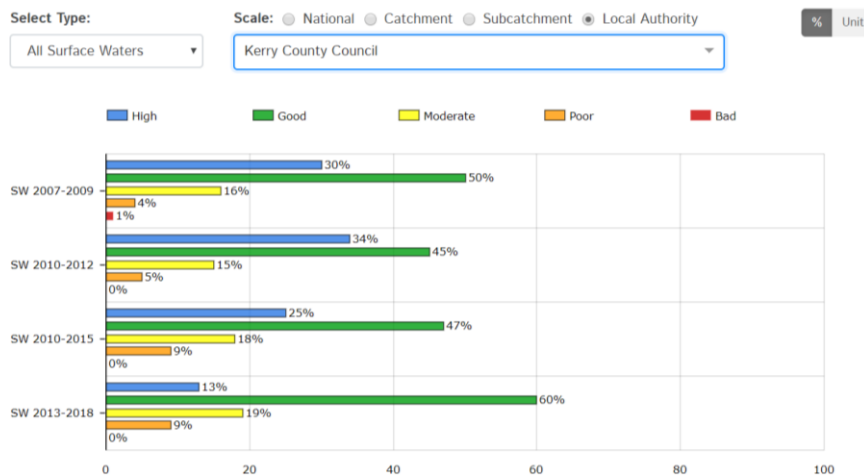


Figure 5-10 Trends in Water Quality Status in Kerry from 2007-2018

5.5.2. WFD: Risk at the time of the Drafting of the KCDP

In addition to the aforementioned 2019 EPA water quality data and status, the implementation of the WFD provides a further overview of the risks posed to WDs in the county and the significant pressures causing those risks. It also provides an overview of the significant impacts from the risks identified.



Figure 5-11 WFD Risk in Kerry, 3rd cycle.

A review of risk data from the third cycle as shown above indicates:

- River WB– only 39% are deemed not at risk, all others either under review or at risk. Nearly all of these are good or moderate status rivers.
- Lake WB - over 80% not at risk with 7% deemed at risk. As with rivers, nearly all lakes at risk are good or moderate status.
- Transitional WB – only 46% not at risk. Those at risk are moderate or poor WB.
- Coastal WB - 70% not at risk. All high and good are not at risk but several WBs under review.
- Groundwater WB – 18% at risk and these are good and/or poor WBs.

5.5.3. WFD: Pressures and Significant Impacts associated with At Risk Waterbodies at the time of the Drafting of the KCDP

The third cycle of the WFD continues to provide evidence-based results on the main pressures on WBs that have been identified as *at risk*. In Kerry significant pressures on WBs *at risk* are identified and collectively the evidence indicates that agriculture (25.5%); hydromorphology (22.7%) and forestry (16.3%) account for significant pressures on WB in the county.

Regarding activities overseen by the CDP, of note is that pressures on *at risk* WBs are predominately associated with discharges from waste water – municipal waste water (6.4%), urban run-off (4.3%) and/or domestic waste water (3.5%). The extractive industry (7.8%) and industry in general (1.4%) are also listed, as are other anthropogenic pressures (7.8% & 2.8%).

A review per WB type again provides more detailed observations to be made:

- River WBs *at risk* – main pressures are wider land uses, agriculture, hydromorphology and forestry.
- Lake WBs *at risk* – main pressures from urban run-off and waste water but agriculture and forestry still applicable.

- Transitional WBs *at risk* – main pressure (50%) is from urban waste water but also agriculture and hydromorphology
- Coastal WB *at risk* – no 3rd cycle data but 2nd cycle indicates main pressure from domestic waste water (40%) and agriculture (40%) with urban waste water also significant (20%).
- Groundwater WB *at risk* – no data available for 2nd or 3rd cycles.

As regards the significant impacts on WBs from the pressures identified, overall the main impacts are on habitat morphology and nutrient pollution. Again there are differences across the WB types.

- River WBs – main significant impacts are habitat hydromorphology and nutrient pollution.
- Lake WBs – main significant impact is nutrient pollution.
- Transitional WBs – main significant impact is nutrient pollution and organic pollution
- Coastal WBs - no third cycle data but second cycle indicates main significant impacts are organic pollution and nutrient pollution.
- Groundwater WB – chemical quality and impacts on groundwater dependent ecosystems.

5.5.3.1. Priority Areas for Action (PAA) in Kerry.

In addition to the existing PAAs considered under the 2nd cycle shown in Figure 5-12, the 3rd cycle of the WFD is proposing several new catchments to be added to the PAA list. The current approach outlined in the RBMP is designed to provide ‘a place in the plan for everyone’ by including a wider selection of PAAs for Protection, Restoration and Catchment Projects⁶³. Table 5-8 and Figure 5-13 shows the catchments proposed for Kerry under the 3rd cycle

Table 5-8 Proposed PAA in Kerry for the 3rd cycle of the RBMP⁶⁴.

Name	Lead Agency	Objective	Includes <i>Blue Dot</i>	Overlapping Project	Catchment
Deenagh	LAWPRO	Restoration	Yes	-	
Fahaduff and Upper Main	LAWPRO	Restoration	-	-	
Feale	LAWPOR	Restoration	-	-	
Finnow	LAWPRO	Restoration	-	-	
Gweestin	LAWPRO	Restoration	-	-	
Inny	LAWPRO	Restoration	-	-	
Lee (Tralee) and Estuary	LAWPRO	Restoration	-	-	
Lough Currane	LAWPRO	Restoration	Yes	IFI National Climate Change Mitigation Research	
Lough Gill	LAWPRO	Restoration	-	-	
Lougher	NFGWS	Restoration	Yes	-	
Milltown	LAWPRO	Restoration	Yes	-	
Owenmore	LAWPRO	Restoration	Yes	-	
Owenshagh	LAWPRO	Restoration	Yes	-	
Ross Bay	LAWPRO	Restoration	Yes	-	
Slaheny	LAWPRO	Restoration	Yes	-	
Smearlagh	LAWPRO	Restoration	Yes	-	
Upper Caragh	LAWPRO	Restoration	Yes	Pearl Mussel EIP	
Valencia Harbour	LAWPRO	Restoration	Yes	-	

⁶³ <https://www.gov.ie/en/consultation/2bda0-public-consultation-on-the-draft-river-basin-management-plan-for-ireland-2022-2027/#documents>

⁶⁴ <https://www.gov.ie/en/consultation/2bda0-public-consultation-on-the-draft-river-basin-management-plan-for-ireland-2022-2027/#documents>

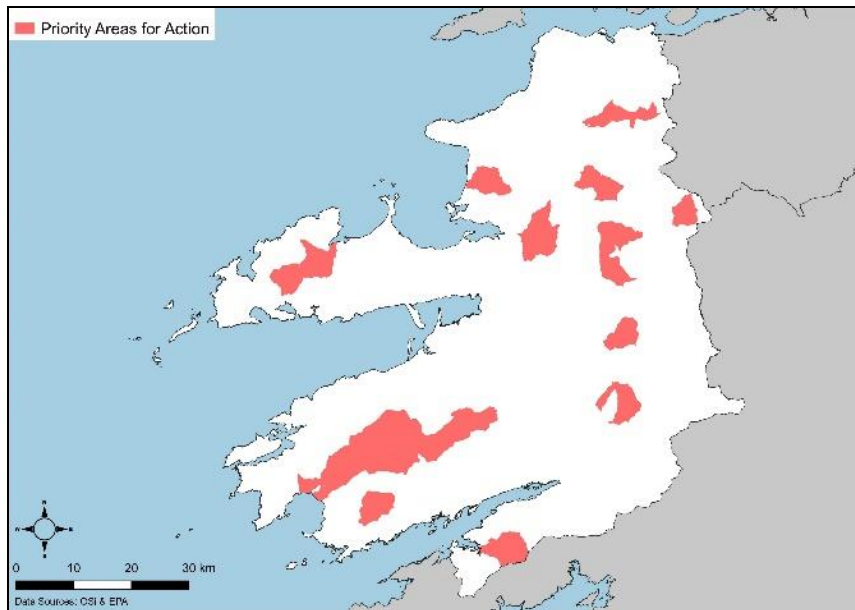


Figure 5-12 PAAs from the 2nd cycle of the WFD.

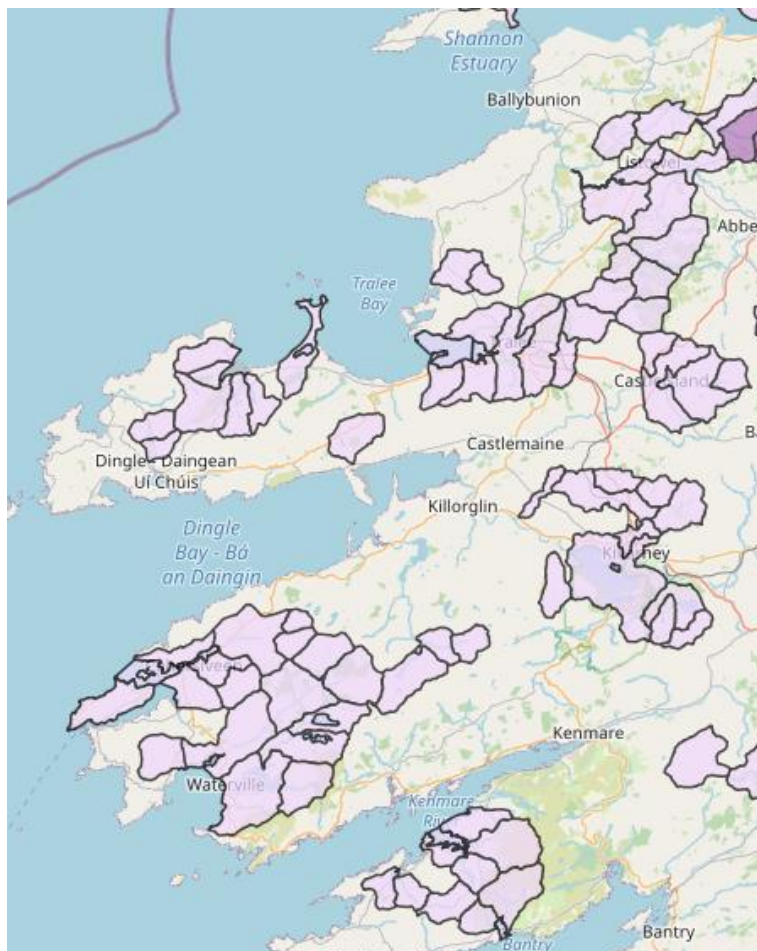
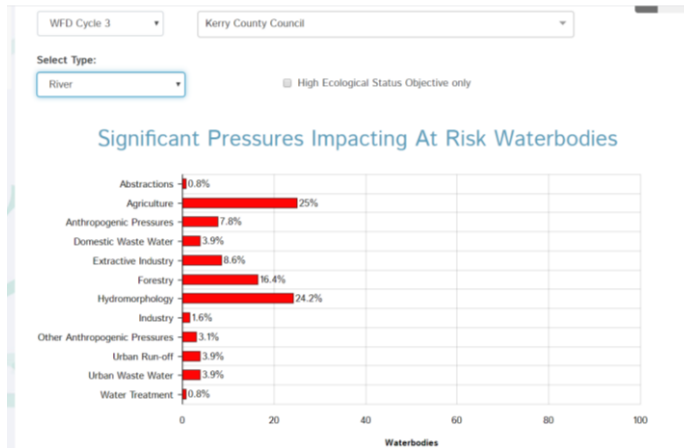
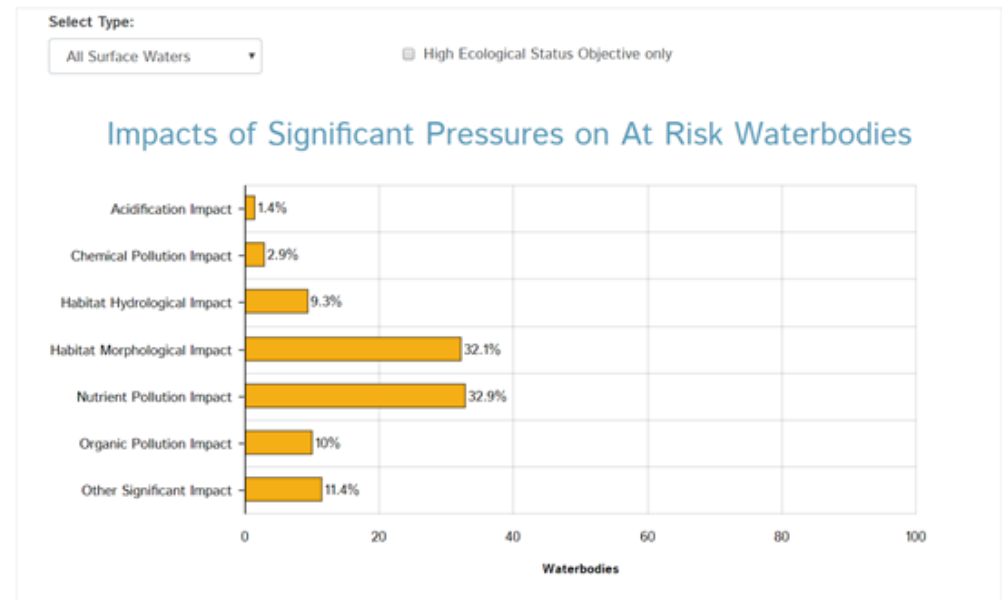


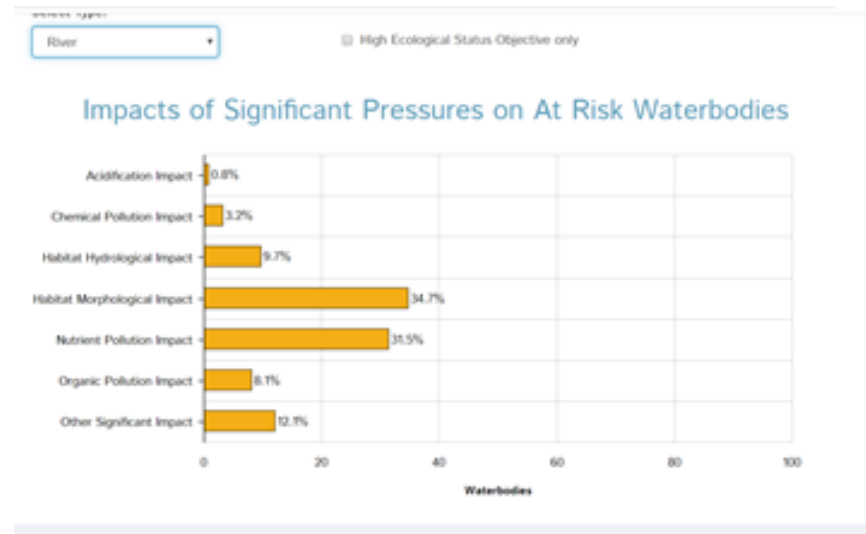
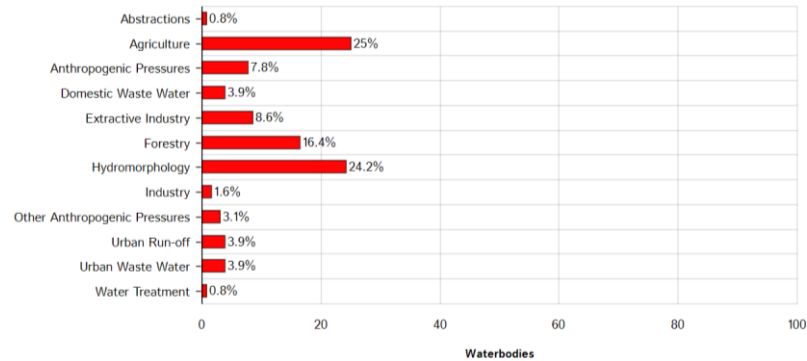
Figure 5-13 PAAs from the 3rd cycle of the WFD.



Select Type: River High Ecological Status Objective only



Significant Pressures Impacting At Risk Waterbodies



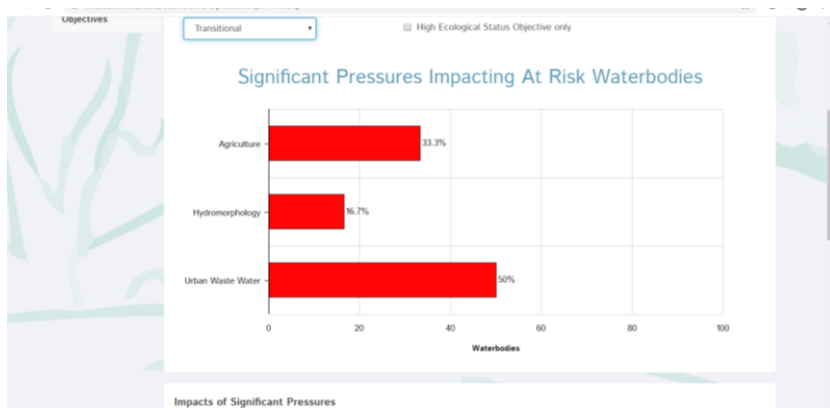
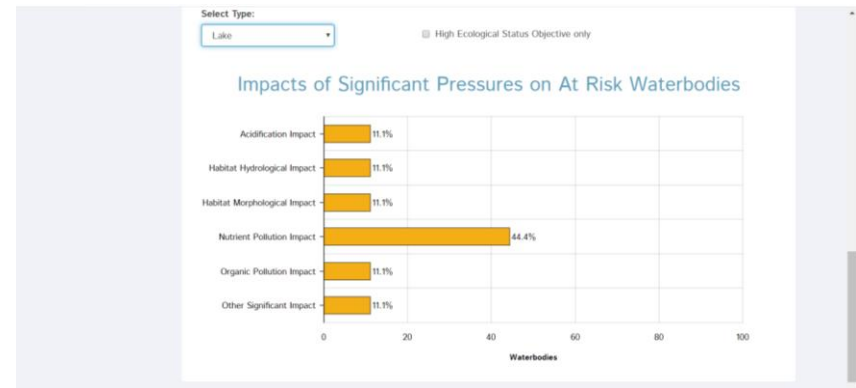
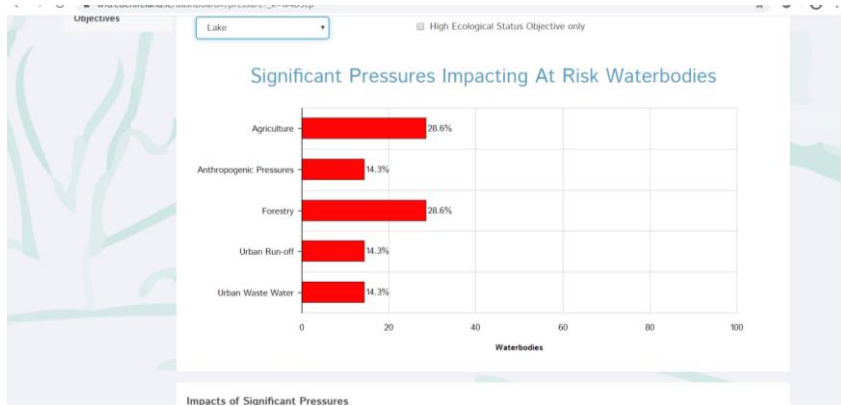


Figure 5-14 Pressures and associated significant impacts on WBs *at risk*, 3rd cycle of the WFD

5.5.3.2. Protected Areas and the 3rd Cycle of WFD

The 3rd cycle of the WFD sees a continued emphasis on WBs listed on the Register of Protected Areas. These are areas identified as those requiring special protection under existing national or European legislation, either to protect their surface water or groundwater, or to conserve habitats or species that directly depend on those waters, including:

- **Freshwater Pearl Mussel Catchments**

Six catchments in Kerry are designated under the European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations, 2009 (SI 296 of 2009) on account of the presence of significant pearl mussel populations. None of the populations are currently at good conservation status. The catchments are (Figure 5-15):

- Currane Catchment
- Gearhameen Catchment (Laune)
- Kerry Blackwater Catchment
- Carragh Catchment
- Munster Blackwater Catchment
- Owenmore Catchment

In addition to these 6 catchments, NPWS have detailed three other categories of catchments in relation to FWPM: catchments of other extant populations; catchments with pre-1970 live records (extant populations unlikely, but information insufficient to list as 'extinct') and catchments with presumed extinct populations but further survey required. In the plan area several catchments are recorded as having “other extant populations”. These are the: Feale, Maine-Brown Flesk, Laune-Gearhameen, Laune, Laune-Cottoners, Finnihy, Roughty, Dromoghty, Owenshagh, Sheen, Behy, Bunnow, Sneem-Owreagh, Tahilla, Sneem and Owenascual. The Feale-Galey catchment is recorded as having “pre-1970 live records”. No catchment under NPWS third category is found in the county at the time of writing

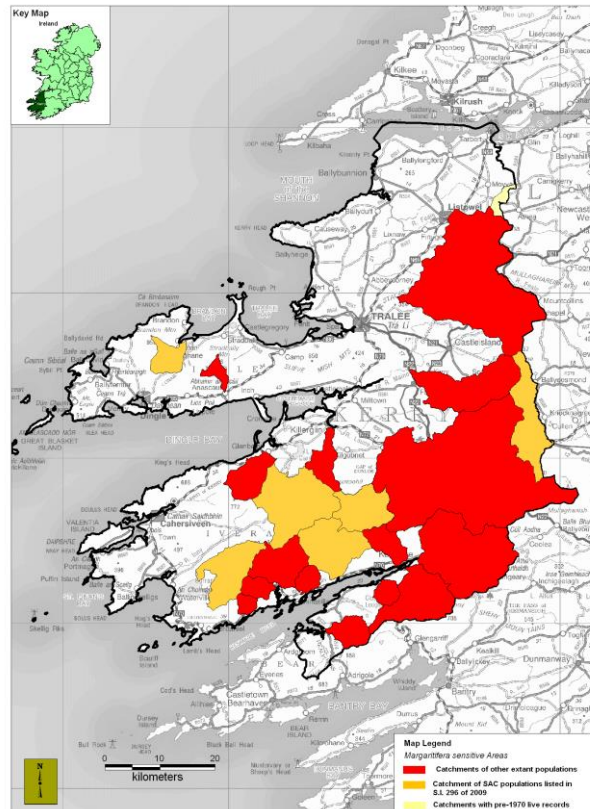


Figure 5-15 Freshwater Pearl Mussel in the plan area

- **Water Dependent Habitats and Species.**

Many of the cSAC within/adjacent to the plan area considered in this SEA contain habitats and/or species that are water dependent including freshwater, estuarine and marine/coastal waters.

- **Salmonid Waters**

Under the EC (Quality of Salmonid Waters) Regulations (S.I. 293 of 1988) salmon rivers recorded in Schedule One are afforded protection. In Kerry these include the Munster Blackwater; the Brown Flesk; Feale and the Maine. In addition to these protected water IFI have provided details on 34 other salmonid river catchments not listed on Schedule 1. These are the Tyshe; Lee (Tralee); Fineglas; Meenascarthy; Owenacashla; Scord; Feoheanagh; Milltown (Dingle); Garfinny; Owenalondrig; Owenascaul; Emlagh(Inch); River Maine tributaries; Brown Flesk tributaries; Behy, Ferta; Carhan; Inny (and tributaries); Coomnahorna; Staigue; Bunnaw; Owenreagh; Sneem, Ardsheelane; Tahilla; Reen; Finnihy; Roughty (and tributaries); Sheen; Dromoughty; Lehid; Owenshagh; Croanshagh and the Glashanninane .

- **Shellfish**

Under the Shellfish Water Directive 2006/113/EC, aquatic habitats designated for shellfish life/growth require protection of water quality in order to support shellfish production. In Kerry areas designated under the Shellfish Directive are (Figure 5-16):

- Ballylongford Shellfish Area
- Tralee Bay Shellfish Area and Magharees
- Cromane Shellfish Area
- Valentia Harbour Shellfish Area
- Kenmare/Sneem/Ardgroom Shellfish Area and Killmakilloge Shellfish Area.

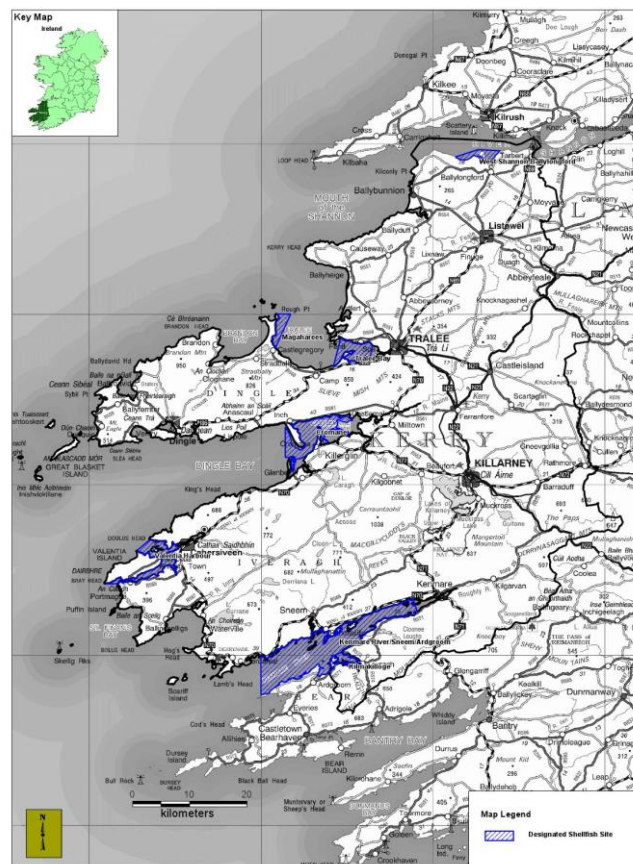


Figure 5-16 Shellfish designations in the plan area.

- **Coastal Water: Blue Flag; Green Coast and Bathing Waters**

In 2021 Kerry retained 12 *Blue Flag* beaches - Ballybunion South; Ballyheigue; Banna; Fenit Marina; Fionntrá (Ventry); Rossbeigh; Kells; White Strand, Cahersiveen; Baile an Scelige(Ballinaskelligs); Doire Fhionain(Derrynane); Maharabeg and Inch Strand.

A further 5 beaches are classed as *Green Coast* beaches Ballinskelligs; Beal Bán; Castlegregory; Littor and Waterville.

All the above beaches are monitoring for bathing water quality along with the Inny Strand (near Waterville) and from 2019 Cúas Crom, (Caherciveen). Finally, Derrymore (Tralee), Littor, Beal Ban and Waterville town beach although not official bathing water beaches, are monitored by KCC.

The most recent EPA report on *Bath Water Quality* relates to 2020. All beaches in Kerry monitored for bathing water quality achieved excellent status bar Cúas Crom (poor), Ballybunion North (good) and Inny Strand (good). Derrymore achieves what the EPA records as “meets minimal standards” while Littor, Beal Ban and Waterville reach “high standards”.

A review of coastal water quality trends in the summer of 2020 exhibit possible future trends, particularly if climate change predictions for rainfall are to eventuate. Heavy rainfall over a number of days saw the closure of beaches all along the southwest coast of Ireland, including Kerry. The heavy rainfall resulted in the run-off of contaminated land and storm water run-off. Many beaches were served with “prior notice” warnings and/or full “bathing prohibition” notices.

In 2020 the likely causes of pollution were attributed to urban wastewater (47%); diffuse pollution from agriculture (34%); septic tanks (4%); run-off from urban areas and misconnections, where waste pipes from households have been incorrectly connected to surface drains (12%). As stated, heavy periodic rain events during the summer months may be attributed to climate change and this could be exacerbated in the coming years.

- **Other**

- Drinking waters:

Annagh_10; Finglas_10; Owenclashla_10; Gowland_10; Feohanagh_10; Owenalondrig_20; Emlagh_10; Shanakeal_10; Feale_080/090/050; Smearlagh_030; Brick_010; Gaddagh; Flesk; Beheenagh; Ownekeagh; Owengariff; Lough Guitance; Lough Glannafreaghaun; Finglas (Tralee Bay)_10; Annagh 23_10; Emalagh_10; Brick_10; Feale_050; Smearlagh_030

- Nutrient Sensitive Areas:

Cashen/Feale Estuary; Lough Leane; Lee Estuary Upper (Tralee).

5.5.3.3. *Blue Dot* Catchments

In addition to PAA, the *blue dot* catchments programme is being rolled out by LAWPRO. The programme aims to maintain or restore *high* water status catchments. The plan area contains a number of blue dot catchments show in Figure 5-17.

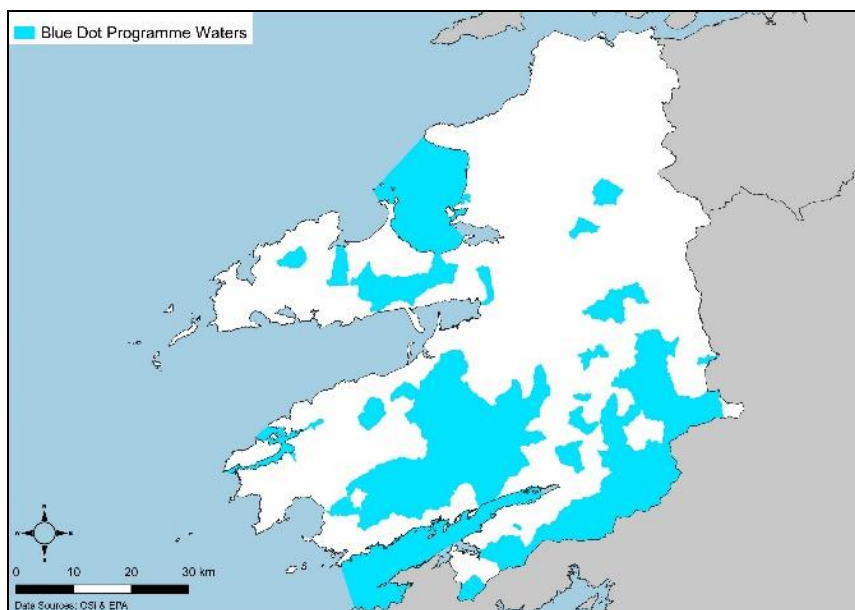


Figure 5-17 Blue dot catchments within the county.

5.5.4. Existing Environmental Problems Relating to Water Relevant to the Plan.

The KCDP has implications for the roll out of the 3rd cycle of the WFD and the plan’s ability to interact with and impact on freshwater, groundwater and coastal resources is noted. Kerry’s location in the west of the country has traditionally had less intensive land uses. It therefore has a number of high and good status watercourses that remain. The aforementioned water reports indicate Kerry has maintained many high-status sites. These watercourses are particularly significant for salmonid species and other freshwater species found within the area include FWPM (both designated and undesignated catchments). It is furthermore acknowledged that there is significant potential to deliver multiple benefits for human health and for the environment in terms of biodiversity and climate from measures to improve water quality. A review of data from the most recent EPA water quality data (2019/2020) and the implementation of the WFD (2nd and 3rd cycles), the existing environment problems related to water of relevance to this plan is from urban waste discharges; urban run-off; domestic waste water and discharges from developments such as the extractive industries. Other anthropogenic pressures are also recorded.

It is important to note that WFD data is indicating that significant pressures on WBs in the county, particularly rivers, are predominately outside the control of the CDP – namely land uses around agriculture and forestry. These practices in turn are impacting on the hydromorphology of waterbodies particularly in high status sites.

Notwithstanding this it is acknowledged that there are differences between WB types and pressures they experience. For example, transitional WBs in particular are under pressure from urban waste water and/or run-off which in turn influences coastal WBs. In contrast, pressures to surface WBs is predominately from agriculture and forestry with lakes showing a mix of both.

In Kerry the EPA’s *Urban Waste-Water Treatment Report (2019 & 2020)* indicates several public schemes require improvement including three where waste water discharges are the significant pressure on the WB – Abbeydorney (Brick_20); Castleisland (Maine_20) and Tralee (Lee K Estuary). One other, Kilgarvan, is a significant pressure for populations of FWPM. Five shellfish transitional catchments require further assessments as to the impact of waste-water discharges five - Cromane; Tralee Bay; Magharees; Valentia Harbour and Kenmare River. As noted

To focus on the environmental problems relating to water that are relevant to the CDP is therefore predominately linked to waste-water discharges – namely urban run-off; municipal waste water discharges and domestic waste water. The role of CDP in addressing these pressures, as identified in the WFD, is twofold - firstly, align population growth to settlements where there is existing waste water infrastructure to meet the demand and/or at least the proposals to upgrade infrastructure by IW, and secondly, facilitating population growth into settlements indirectly reducing a dispersed rural settlement pattern reliant on domestic septic tanks. Urban wastewater is also the most common source of pollution affecting bathing water and more improvements in operation, management and maintenance of plants and networks are still needed by IW over the lifetime of this plan. Measures such as SuDS and nature-based solutions in the treatment of urban waste water run-off treatment are acknowledged as solutions to localised pressures on WBs.

Infrastructure projects can also have localised impacts on water. Notably the development of windfarms has resulted in a number of impacts on water quality at both construction and operational stage. At construction significant civil engineering works are typically involved in the construction of a windfarm, the management of silts and sediment run-off can be a major challenge. At operational stage, developments traditionally in upland areas combined with other changes in land uses can cause changes in WB hydromorphology.

Freshwater dependent habitats and species such as freshwater pearl mussel populations can be negatively affected. FWPM eg are prone to pressure from sedimentation and siltation. The status of populations in the county is classified as “poor”. As noted, Lough Leane Catchment is also considered a sensitive catchment that has experienced serious water quality issues in the past.

Water abstraction is highlighted in the WFD as a pressure on WBs. A key issues for water abstraction is both municipal supply and storage but also single use. As noted many rural households rely on groundwater for water supply. Recent EPA data indicates many private wells however are not regularly tested.

5.6. Air Quality

5.6.1. Air Quality trends in Ireland 2019

The National Ambient Air Quality Monitoring Programme (AAMP) is monitored by the EPA and reported on annually. In these annual reports the EPA monitors air pollutants levels and compares and assesses them relative to EU legal limit values and the World Health Organization (WHO) guideline values. The European Union (EU) Clean Air for Europe (CAFE) Directive (EU, 2008) set specific limit and target values for air quality that were designed to protect human health and the natural environment in the EU. The WHO issue guideline values that are generally more stringent than the EU limit values and are based on protecting human health. The most recent AAMP report relates to 2019 data - *Air Quality in Ireland 2019*⁶⁵.

When assessing air quality, the EPA focus on the two main pollutants: 1) particulate matter – PM2.5 and PM10 (very small particles which can be solid or liquid) and 2) Nitrogen oxides (NO2 and NO - gases nitrogen oxide (NO) and nitrogen dioxide (NO2)). Nitrogen oxides are pollutants that are emitted in ambient air when petrol or diesel is burned in internal combustion engines. PM2.5 and NO2 are particularly important from a health perspective. Indeed, air quality reporting continues to acknowledge that air pollution has a significantly greater impact on human health than previously realised. In its 2019 report the EPA noted 1,300 premature deaths a year in Ireland are attributed to air pollution.

⁶⁵ <http://www.epa.ie/pubs/reports/air/quality/epairqualityreport2019.html>

The 2019 air quality report and *Ireland's State of the Environment Report, An Integrated Assessment 2020* details the main air quality trends based on monitoring from the national ambient air quality network. Reporting from 2019 states that air quality in Ireland is generally good. However, there are spatial variations mostly evident in urban areas. Ireland was above WHO air quality guidelines at 33 monitoring sites across the country – mostly due to the burning of solid fuel in our cities, towns and villages. The country was also above the European Environment Agency reference level for PAH, a toxic chemical, at 4 monitoring sites due to the burning of solid fuel. Nitrogen dioxide (NO₂) from transport emissions is found to be polluting our urban areas. The report goes on to note that there are indications that Ireland will exceed EU limit values for NO₂ at further monitoring stations in the future.

The EPA's report ultimately highlights the main challenges of reducing air pollution from key sources such as particulate matter emissions from solid fuel burning (e.g. peat, coal and wood) in the residential sector and NO_x emissions from vehicles in the transport sector. Also, of note is the emissions to air from agriculture activity. The 2020 *Ag Climatise* roadmap the *National Emission Ceilings Directive* establishes limit values for five air pollutants to help mitigate their impact on populations. One such pollutant is ammonia. In Ireland agriculture accounts for 99% of ammonia emissions linked to three main causes: the management of animal manures (housing, slurry storage and land spreading); grazing animals, and spreading of synthetic fertilizer⁶⁶.

In addition to regional air quality measurements, the EPA oversees an *Air Quality Index for Health (AQIH)* indicator. The index is based from one to 10. A reading of 10 means the air quality is very poor and a reading of one to three inclusive means that the air quality is good. The AQIH index is based on measurements of five air pollutants all of which can harm health - ozone gas, nitrogen dioxide gas, sulphur dioxide gas, PM_{2.5} particles and PM₁₀ particles. The index in giving real-time data indicates how air quality at a given time may affect a person's health.

5.6.2. Kerry Data

There are now two EPA national air quality monitoring stations in the country. One is located in the Valentia Observatory in Cahirciveen, Co Kerry and the other was installed in Tralee town in 2019 as part of the EPA's expansion of the AAMP. Real-time data can be viewed through the EPA's website airquality.ie.

Nationally it is known local air quality is influenced by car emissions and domestic/commercial heating and fuel consumption. Of interest to this ER is evidence from localised studies undertaken by the EPA and other research institutes on air quality. These studies particularly focused in urban areas typical of many counties outside of our main cities. One such report by the EPA was undertaken between 2011-2012 and reported in 2015 in *Assessing the Impact of Domestic Solid Fuel Burning on Ambient Air Quality in Ireland, Assessment of Particulate Air Pollution and Polycyclic Aromatic Hydrocarbons Associated with Solid Fuel Usage in Four Towns in Ireland*. The report included Tralee and Killarney where currently there are bans in place on the sale and use of bituminous coals. It provides an interesting insight in local trends in both towns.

Measurements of particulate air pollution were undertaken during 2011–2012, specifically Black Smoke (BS), PM_{2.5} and PM₁₀. All three were selected as they are associated with residential solid fuel burning. At no time during the monitoring did any of the measured pollution parameters exceed their respective EU air quality limits. However, Tralee was above the lower WHO guideline values for PM_{2.5} and close to the EU limit values for PM_{2.5}. It was also close to the WHO guideline values for PM₁₀. Of note at the time was that air quality at certain times were worse when compared to similar data taken

⁶⁶ <https://www.teagasc.ie/publications/2020/ammonia-emissions-in-agriculture-sources-importance-and-mitigation.php>

at a Dublin monitoring site. The report concluded that as traffic densities are significantly higher in Dublin than in any of the towns involved in this study, evidence clearly indicated that traffic was not the main driver of the higher particulate pollution levels. Rather they concluded it was heating systems. Furthermore, the fact that higher levels of pollutants were seen in the “heating season”, this supported the hypothesis that space heating was the main driver of the particulate pollution levels.

A notable conclusion of the report was that for all of the measured parameters, the levels measured during the heating season were between two and four times higher than those for the non-heating season at each location. The report suggests that space heating, in the form of coal and other solid fuel usage, is the largest contributor to the observed air pollution levels.

Another localised survey undertaken by the Centre for Research into Atmospheric Chemistry, UCC, continues to support the above conclusions. Their 2014 survey findings, which included Killarney, was presented in the 2020 *Source Apportionment of Particulate Matter in Urban and Rural Residential Areas of Ireland (SAPPHIRE)* report to the EPA. Results for Killarney noted levels of PM_{2.5} during evening hours were often an order of magnitude higher than those measured during the day. Significant spikes in pollution were regularly observed when wind speeds were low. The report found that almost 75% of PM_{2.5} was due to residential solid fuel burning. Importantly, due to available technology they were able to “fingerprint” ie distinguish between combustion particles produced from the main solid fuels – coal, peat and wood. Peat particles accounted for 31% of the PM_{2.5} mass in Killarney; wood was the second most dominant combustion source at 17% followed by coal at 16%. Based on Irish census data, the report noted that all three fuels appear to be popular choices for domestic space heating in Killarney. However, the results presented indicate that particles from the combustion of all three fuel types were nonetheless present in the town. As there was no one clearly dominant solid fuel combustion emissions source, the report notes that measures such as a smoky or low-smoke coal ban in these areas may be only partly successful in reducing PM_{2.5} concentrations. They finally note that any future efforts to improve air quality in towns similar to Killarney, will need to address how domestic residences are heated in general, rather than attempting to discourage the use of one specific fuel.

A review of “real-time” data from the Tralee monitoring site at the time of writing (2021) indicates the trends noted above continue. The EPA records show in January 2021 7 daily exceedances of PM₁₀ levels, for example, occurred in Tralee town. To compare, Dublin Port had 3 over the same time period⁶⁷. In contrast the Valentia monitoring station does appear in the most recent exceedance data from the EPA⁶⁸. As a rural station located close to the coastal outside an urban centre, lower limits of air pollutants would be expected.

5.6.2.1. EPA Licenced Facilities

The EPA is the competent authority for granting and enforcing Integrated Pollution Prevention Control (IPPC) licences for specified industrial and agriculture activities listed in the first schedule to the Environmental Protection Agency Acts, as amended⁶⁹. IPPC licences aim to prevent or reduce emissions to air, water and land, reduce waste and use energy/resources efficiently. Air, water and noise emission tests are conducted at locations in and around these facilities and they each must comply with conditions set out in their IPCC licence. There are several IPCC licensed facilities in Kerry and are listed in Table 5-9.

⁶⁷ <http://www.epa.ie/air/quality/reports/pm10/> (accessed 11/3/21)

⁶⁸ <http://www.epa.ie/air/quality/reports/pm10/> (accessed 11/3/21)

⁶⁹ www.epa.ie/whatwedo/licensing/ippc/whoneedsalicense/

Table 5-9 IPCC licenced facilities in Kerry

Name	Reg No.	Location
Astellas Ireland Company Limited	P0018-01	Glannagilliagh Landfill, Glannagilliagh, Killorglin, Kerry.
Astellas Ireland Company Limited	P0018-02	Glannagilliagh Landfill, Glannagilliagh, Killorglin, Kerry.
Liebherr Container Cranes Limited	P0146-01	Gortroe, Killarney, Kerry.
Liebherr Container Cranes Limited	P0146-02	Gortroe, Killarney, Kerry.
MMF Limited (Killorglin)	P0296-01	Anglont, Killorglin, Kerry.
Heiton Buckley Ltd t/a Heiton Buckley Builders Merchants	P0347-01	Edward Street, Tralee, Kerry.
Kerry Ingredients (Ireland) Limited	P0393-01	Islandmacloughry, Tralee Road, Listowel, Kerry.
Kerry Ingredients (Ireland) Limited	P0393-02	Islandmacloughry, Tralee Road, Listowel, Kerry.
Kerry Ingredients (Ireland) Limited	P0393-03	Islandmacloughry, Tralee Road, Listowel, Kerry.
Amann Industries Limited	P0509-01	Clash, Tralee, Kerry.
Sara Lee (Ireland) Ltd	P0551-01	Park Road, Killarney, Kerry.
Parknageragh Pig Breeders Company Limited	P0598-01	West Mein, Toureenmore, Knocknagoshel, Kerry.
Parknageragh Pig Breeders Company Limited	P0598-02	West Mein, Toureenmore, Knocknagoshel, Kerry.
Parknageragh Pig Breeders Company Limited	P0598-03	West Mein, Toureenmore, Knocknagoshel, Kerry.
SSE Generation Ireland Limited	P0607-01	Tarbert Generating Station, Tarbet, Listowel, Kerry.
SSE Generation Ireland Limited	P0607-02	Tarbert Generating Station, Tarbet, Listowel, Kerry.
Roughly Valley Co-op Society Limited	P0708-01	Meelick, Kilgarvan, Kerry.
Roughly Valley Co-op Society Limited	P0708-02	Meelick, Kilgarvan, Kerry.
Kerry Pig Producers Limited	P0727-01	Clouneen, Causeway, Kerry.
Kerry Pig Producers Limited	P0727-02	Clouneen, Causeway, Kerry.
Mondelez Ireland Production Limited	P0795-01	Shinnagh,, Rathmore,, Kerry.
Mondelez Ireland Production Limited	P0795-02	Shinnagh,, Rathmore,, Kerry.
Temmler Ireland Limited	P0813-01	Banshagh, Killorglin, Kerry.
Temmler Ireland Limited	P0813-02	Banshagh, Killorglin, Kerry.
Edwin & Freddy Stryker	P0952-01	Knocknagoshel Broiler Farm, Kilmanihan West, Knocknagoshel, Kerry.
Brandon Products Limited	P0957-01	Kilcolman, Asdee, Kerry.
Dairymaster	P1008-01	Causeway, Kerry.
Kerry Agri Business Trading Limited	P1025-01	Dromore, Farranfore, Kerry.
Kilfilum Limited	P1031-01	Nantinan, Milltown, Kerry.
Kilfilum Limited	P1031-02	Nantinan, Milltown, Kerry.
Kerry County Council	W0001-04	Muingnaminnane, Tralee, Kerry.

In addition to IPCC licenses, the EPA has licensed waste management facilities in the county, 10 of which are operated by KCC. These are shown in Table 5-10. In being granted a waste licence, KCC must satisfy legislative requirements that are largely set out in the Waste Management (Licensing) Regulations, amended.

Table 5-10 EPA licensed waste management facilities in the county

Location	Reg No.	Name
North Kerry Landfill Site, Muingnaminnane, Tralee, Kerry.	W0001-01	Kerry County Council
North Kerry Landfill Site, Muingnaminnane, Tralee, Kerry.	W0001-02	Kerry County Council
North Kerry Landfill Site, Muingnaminnane, Tralee, Kerry.	W0001-03	Kerry County Council
North Kerry Landfill Site, Muingnaminnane, Tralee, Kerry.	W0001-04 (IED)	Kerry County Council
Milltown Transfer Station, Ballyvirrane, Milltown, Kerry.	W0069-01	Kerry County Council
Coolcaslagh Transfer Station, Coolcaslagh, Killarney, Kerry.	W0072-01	Kerry County Council
Kenmare Transfer Station, Claddanure West, Kenmare, Kerry.	W0086-01	Kerry County Council
Caherciveen Transfer Station, Inchamacteige, Caherciveen, Kerry.	W0087-01	Kerry County Council
Killarney Waste Disposal Unlimited Company, Aughacurreen, Killarney, Kerry.	W0217-01	Killarney Waste Disposal Unlimited Company
Killarney Waste Disposal Unlimited Company, Aughacurreen, Killarney, Kerry.	W0217-02	Killarney Waste Disposal Unlimited Company
Listowel Civic Amenity Centre, Tanavalla Industrial Estate, Garryantanvally, Tralee Road, Listowel, Kerry.	W0224-01	Kerry County Council
Dingle Civic Amenity Centre, Flemingstown, Lispole, An Daingean, Kerry.	W0225-01	Kerry County Council
Kerry Central Recycling Facility Limited, Scart/Caherdean, Killarney, Kerry.	W0250-01	Kerry Central Recycling Facility Limited

5.6.3. Air Quality and effects on the natural environment.

In addition to direct effects on human health, air quality is increasingly recognised as having the potential to also impact on the natural environment. In particular, elevated atmospheric nitrogen deposition can result in changes to the plant communities of natural and semi-natural ecosystems. Two primary emitted pollutants that are highlighted as of concern are oxides of nitrogen (known as NOx) produced by combustion, and ammonia (NH₃). Ammonia is largely produced by agriculture (from both livestock and fertiliser) but also comes from other sources, such as some traffic, combustion of organic matter and industry. The physical effects of particulate matter (i.e. dust deposition) is also a consideration.

The changes that can occur in natural ecosystems from anthropogenic pollution can cause e.g. eutrophication or acidification depending on the nature of the pollutant – chemical or physical. Both effect habitats and/or species altering baseline or naturally occurring biotic and abiotic factors. These changes can be quantitative measured and include such trends as changes in species composition, impacts on soil nutrients, water and other abiotic factors. The ultimate culmination is an overall decrease in biodiversity. Research indicates that certain habitats and species are more sensitive than others. In an Irish context, although relatively under researched, a recent paper by the EPA⁷⁰ (2021) found that plant species in blanket bogs and heathlands are the most sensitive to total nitrogen deposition in an Irish context. This is significant for county Kerry which retains large quantities of peatland, particularly in the county’s uplands where blanket bog occurs (annexed habitats) often within designated sites.

⁷⁰ Aherne J., Wilkins K. and Cathcart H., 2021. *Nitrogen–Sulfur Critical Loads: Assessment of the Impacts of Air Pollution on Habitats (2016-CCRP-MS.43)*. EPA Research Report Prepared for the Environmental Protection Agency By Trent University

5.6.4. Existing Environmental Problems Relating to Air Quality Relevant to the Plan.

The existing environmental problem relating to air quality in the plan are the localised air quality issues that arise predominately in urban areas. Past research by the EPA in Tralee and Killarney indicates localised exceedance of air pollutants while the new monitoring station in Tralee provides real-time data on air pollutants. A notable conclusion from research is that space heating, in the form of coal, peat and wood, is the largest contributor to the observed air pollution levels in these towns. Tralee and Killarney are the county's largest towns. However, it could be extrapolated that other urban centres suffer from similar but unrecorded air pollution events. Kerry as a county is reliant on traditional fossil fuels for heating. Housing schemes that use district heating schemes based on bioenergy technology such as wood-chip burners are limited to date with the exception of Tralee.

The rural, dispersed settlement patterns of the county results in high car dependency and use. Pollutants from car emissions, although below EPA thresholds, can still be detrimental to human health and adversely impact the local environment, particularly in urban settings where car usage concentrates. Disperse settlement in the county also prevents the ability to roll out the aforementioned district heating schemes that use renewable energy technologies thereby improving air quality.

Finally, Kerry as an agricultural county is also likely to be prone to emissions of agricultural related air pollutants such as ammonia. Research indicates that this can negatively health but also the natural environment. Peat and heathlands are particularly susceptible to impacts from air pollutants in an Irish context.

Air quality and potential impacts on human health are discussed in Section 5.2.1 of this report.

5.7. Climatic Factors

Planning for climate change has become central to national policy in recent years further to the publishing of the *National Policy Position on Climate Action and Low Carbon Development* in 2014; the *Climate Action and Low Carbon Development Act* of 2015; the *National Energy and Climate Action Plan (NECAP) 2021-2030*, the *Climate Action and Low Carbon Development (Amendment) Act 2021*⁷¹ and most recently the publishing of Carbon Budgets and the *2021 Climate Action Plan, Securing our Future (CAP21)*⁷² (which expands targets from the 2019 CAP). The 2021 Act specifically require the State to pursue the "national 2050 climate objective", namely the transition to a *climate resilient, biodiversity rich and climate neutral economy* by the end of 2050.

A key challenge is to integrate (or mainstream) this climate objective into all levels of national, regional and local decision-making including policies, plans and programmes and strategies (PPPS). This is envisaged by the parallel national dual strategies of mitigation - of greenhouse gas emissions (GHG), and adaptation - to the impacts of climate change. Nationally responses are now being led by Government through evolving climate policy with Local Government identified as a key leader in driving climate action.

5.7.1. Mitigation

In line with international consensus, the key focus of mitigation is reduction of greenhouse gas (GHG) emissions. Internationally, energy-related emissions of carbon dioxide (CO₂) dominate global GHG emissions with methane (CH₄) and Nitrous Oxide (N₂O) also playing a significant role. Reducing emissions underpins the mitigation of climate change. In Europe the EU has set its member states

⁷¹ <https://www.gov.ie/en/publication/984d2-climate-action-and-low-carbon-development-amendment-act-2021/>

⁷² <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>

legally binding reductions, based on the Paris Agreements⁷³, in GHG emissions. Member States must reduce GHGs by 20% by 2020; 40% by 2030 and 80-95% by 2050 relative to 1990 levels⁷⁴. In 2019 the EU through the *European Green Deal* and subsequent *European Climate Law* has committed to more ambitious emissions cuts of 50-55% by 2030.

National policy laid out in CAP19 and now expanded in CAP21 outlines how Ireland will achieve its targets to 2030 while providing a trajectory towards achieving targets to 2050. Ireland is committed to three significant targets to 2030, since scaled up with the CAP21: (1) a 51%~~30%~~ cut in GHG emissions; that (2) 80%~~70%~~ of our electricity needs will come from renewable sources (up from 30% as of 2019) and (3) a 32.5% increase in energy efficiency. The *Programme for Government (2020)* commits Ireland to a 7% annual reduction in overall emissions from 2021-2030. In Ireland five key areas where GHGs are emitted are identified as Agriculture, Transport, Electricity, Built Environment, and Industry. Carbon budgets for each sector have now been issued to Government by the Climate Change Advisory Council⁷⁵.

Ireland's CAP19/21 identifies the significant challenges facing Ireland in reducing its GHG emissions in these 5 key sectors. All areas are of relevance to this CDP review however, in particular, the reduction in emissions needed in heat; transport and energy production are significant in the content of the CDP. It is acknowledged that carbon sequestration through Land Use, Land-Use Change, and Forestry (LULUCF) measures will have an evolving but significant role in the future national land-use management policy. The CDP provides for policy and objectives that support for example the afforestation targets and actions from the 2020 road map for agriculture in *Ag Climatise*⁷⁶, namely, carbon sequestration through the aforementioned LULUCF measures - discussed in more detail below. However, these broader land uses namely forestry and agriculture, are predominately outside the scope of the CDP. Rather the CDP in practical terms will need to support key infrastructure and facilitate the capacity to integrate new technologies to achieve a county level response to the challenges in transitioning away from fossil fuel to 2030 and beyond.

In supporting the CAP19/21 and future plans to cut emissions, it is envisaged the KCDP will need to provide policy and objectives that support three key areas:

- Settlement and boarder development policy specifically the *Core Strategy* and integrating energy planning with spatial planning,
- Renewable Energy Policy, and
- Other *Enabling* Policy required to bring about decarbonised heat, energy and transport sectors.

5.7.1.1. Settlement Policy and the *Core Strategy*:

A key function of the KCDP in responding to climate change via mitigation will be to support the NPF and RSES for compact and sustainable growth with a focus on urban infill and the re-use of brownfield lands. 'Brownfield' targets are to deliver at least 40% of all new homes nationally within the built-up footprint of existing settlements, comprised of at least 30% of all new homes in settlements in the county. It is envisaged this will deliver the following mitigation responses:

- Consolidate urban settlements requiring less land and with compact residential development makes renewables-based systems of energy distribution such as district heating, or area-wide technology upgrades, more feasible.

⁷³ The *Paris Agreement* (12 December 2015) commits 196 countries to the mitigation goal of limiting the increase in global temperature to well below 2°C above pre-industrial levels. The agreement also includes a long-term adaptation goal which refers to enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change in a manner that does not threaten food production.

⁷⁴ <https://www.seai.ie/about/irelands-energy-targets/>

⁷⁵ <https://www.climatecouncil.ie/>

⁷⁶ <https://www.gov.ie/en/press-release/a8823-publication-of-ag-climatise-national-climate-air-roadmap-for-the-agriculture-sector/>

- This concept of matching spatial planning with energy planning although well established in other parts of Europe is relatively new to Ireland. It is presently being reviewed in several counties, notably Dublin while Portlaoise is being piloted as a National Demonstration Project for Decarbonisation,
- Supporting "*A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives*,"
- Reduced travel distances and greater proximity to employment and services, which will enable a greater proportion of journeys by bike or on foot (zero emissions) and/or will ensure more viable public transport (less emissions per person than by individual vehicle),
- There is a need to combine measures to influence the spatial pattern of development, urban structure and overall mobility, with low carbon technology measures, such as a significant increase in EVs.
- Support the idea of *Sustainable Communities* ie where different sustainability measures are combined spatially, for example to match urban density with public transport accessibility and/or to focus on reducing energy demand and renewables, with the aim of reducing emissions,
- Support district heating and other measures into housing and commercial schemes on a localised basis.
- Making greener, more liveable urban spaces that will sequester carbon.

5.7.1.2. Renewable Energy Policy

RE and associated infrastructure will form a key role in mitigation. In particular, the role of RE in the generation of electricity will be pivotal to Ireland reaching its emissions targets. Decarbonising electricity is envisaged by harnessing significant renewable energy resources including wind (on-shore and off-shore), solar, hydro and bioenergy. This reflects the growing projected demands on electricity from the transport (electric cars) and heating sectors. Therefore, the KCDP as the main land use plan for the county will need to support the sustainable development of RE and ensure its alignment with supporting infrastructure. This is particularly relevant for the two key RE technologies of wind and to a lesser extent solar. Both particularly require strategic policies and objectives with on-shore wind requiring the identification of strategic zones. Aligning these zones with grid infrastructure is crucial and will need a plan-led approach. Bioenergy as a form of RE will also play a role in cutting emissions, possibly at a more local level. In particular, anaerobic digestion as an option for use of agricultural waste/feedstock and/or supply biogas and biomethane is envisaged. CHP and biomass for other renewable heating schemes, including district heating schemes, offers opportunities to cut emissions particularly in urban settlements. Again support for these initiatives and others such as decarbonised zones, low carbon centres, energy communities and micro-generation, is reflected in and supported by energy policy in the KCDP. In particular, the *Dingle Peninsula 2030* provides a template as to how RE policy can be implemented at a grass root level driven by the community.

5.7.1.3. Enabling Policy

In transitioning to a low carbon and climate resilient society, actions to address the spatial pattern and urban form of development as outlined above are required. However, in addition other actions that focus on the individual building envelope or other enabling infrastructure will also be required, such as

- The energy infrastructure needed to support the decarbonisation of electricity including the challenges for the move towards 80% renewable energy; energy storage required for RE; the grid transmission network and evolving and advancing new technologies such as off-shore wind and "green" hydrogen,

- At a regional/local level the KCDP supports energy efficiency in buildings, including local authority own developments; new buildings and in particular the renovation of existing built infrastructure to meet energy efficiency targets,
- EV infrastructure to be rolled in support of electric transport,
- Support the WFD including evolving policy on the Nitrates Directive and soil and nutrient management planning at farm level, and
- Support *Ag Climatise* actions and other land uses for mitigation, in particular evolving policy around the management of lands through LULUCF – see below.

5.7.1.4. LULUCF

As noted above the CAP 2019/21 acknowledges that carbon sequestration through LULUCF measures will also contribute to emissions reduction. Many of these activities will fall within the scope of agriculture and/or forestry policy and are outside the scope of the CDP. However, of particular focus is the reference made to peatlands. The CAP 2019/21 acknowledges that peatlands cover large areas of the country, a high proportion of which is under agricultural and other uses. Many of these areas are designated for nature conservation purposes and/or occur within lands traditional associated with low intensive farming – as exemplified in parts of Kerry.

National policy is now acknowledging that peat soils represent a large portion of Irelands soil organic carbon stock, representing the largest store of carbon in the Irish landscape. Policies to protect these soil types are being actively pursued by climate policy CAP 2019, as expanded by CAP21 including⁷⁷:

- Restore/rewet of specific peatlands
- Undertake further research to assess the potential to sequester, store and reduce emissions of carbon through the management, restoration and rehabilitation of peatlands,
- Realise the emissions reduction potential of grasslands on drained organic soils, includes areas of carbon-rich and drained organic agricultural soils suitable for water-table-management techniques to reduce carbon losses,
- Improve local land-use/habitat mapping systems to establish the baseline condition of wetlands and inform the development of best-practice guidelines for wetland management including the management of degraded sites and peatlands currently exploited for energy peat extraction
- Develop further measures to help rehabilitate exploited and degraded peatlands, including as part of national land-use planning and the new CAP, and recognising that strategies may need to differ between regions, and
- Strengthen policies to improve hedgerow management and co-beneficiary nature based solutions.

As the above policy evolves it is acknowledged that this may shape future national land-uses in the CDP area. This is deemed relevant in the context of the CDP as it ultimately the role of the PA to oversee consents for the drainage/reclamation of wetlands under the PDA and PDRs, as amended.

5.7.2. Adaptation

In line with national climate policy the statutory *National Adaptation Frameworks* (NAF) was published in 2018⁷⁸. It mandated the production of key, climate sensitive, sectoral adaptation plans – for e.g. forestry, energy, transport and also local government. The statutory plans are seen as dynamic, iterative processes that will need regular review as climate change policy evolves in the decades to 2030 and onto 2050. Of interest to this report is that the strategy acknowledges the role of the Planning Authority in responding to climate change via informed spatial and physical planning. It notes

⁷⁷ <https://www.gov.ie/en/publication/ccb2e0-the-climate-action-plan-2019/>

⁷⁸ *National Adaptation Framework, Planning for a Climate Resilient Ireland, 2018*, DCCAE available at <https://www.dccae.gov.ie>

that more compact, less energy-intensive forms of urban development are crucial in the adaptation to climate change specifically at a local level.

A number of technical supports have been produced to assist in the development of local level adaptation strategies including the Local Authority Adaptation Strategy Development Guidelines, commissioned by the EPA in 2016. This culminated with the drafting of KCC first Climate Change Adaptation Strategy (CCAS) in 2019. The strategy was adopted by KCC in September 2019 and runs until 2024.

The CCAS outlines 6 themes/high level goals around adaptation. These goals identify the desired outcomes anticipated through the effective implementation of the climate change adaptation strategy. They are supported by specific objectives and actions to achieve their desired outcomes. Nearly all the themes, corresponding objectives and action are applicable to the KCDP but specifically theme 3 and 6 as they relate to *Landuse and Development* and *Community Health and Well Being*, respectively. 'A Profile of Local Government Climate Actions in Ireland (2011 - 2018)' was published in early 2020. It outlines for the first time the range of actions Local Authorities have undertaken to tackle climate change and promote climate action.

Of note is that the *Climate Action and Low Carbon Development (Amendment) Act 2021* requires LAs to produce their own *Climate Action Plan*. This is to cover both mitigation and adaption. Further guidance on the form of the plan is to be provided by the Government at the time of writing.

As regards the CDP, it includes policy to support the KCC Adaptation Strategy, and future iterations. Specific relevant policy includes flooding objectives including objectives to support nature-based solutions; objectives for green and blue infrastructure; coastal management including coastal erosion and support for communities seeking to respond to climate change.

5.7.3. Existing Environmental Problems Relating to Climate Change Relevant to the Plan.

As noted in previous sections, soil, biodiversity and water quality, are indirectly effect by Kerry's traditional settlement pattern. The county has a diverse settlement pattern with over half of its residential development occurring outside urban areas between the 2011 and 2016 census. This implies high levels of single journey/individual transport for large proportions of the county including for work; education; shopping and amenity/leisure activity. The county has a dependence on fossil fuel for heating, with implications for emissions but also on human health from localised air pollution. Sparse settlement also reduces the options for communal RE heating schemes/infrastructure such as district heating schemes and places communities in sometimes conflicting scenarios with the infrastructure needed to move towards climate resilience.

Historic settlement patterns in the county are therefore at variance with the principles of compact, connected, and sustainable development as outlined in the CAP19, as supported in CAP21. CAP19/21 supports policy that sees further expansion in population growth grounded in compact, connected and sustainable spatial development and regionally balanced growth, aligned with energy planning.

Adaptation is also a key issue for communities living in coastal or riverine communities. "Soft" sand dune coasts for example are likely to continue to experience changes due to change weather patterns including coastal storms while rivers and inland waterbodies experience changes in flooding intensity. There is also a dual treat to infrastructure, along "hard" coastlines where coastal erosion is also occurring and/or inland infrastructure including roads, bridges and indeed urban settlements.

Climate change impacts on biodiversity and water have implications for human health and the broader economy for the county considering the reliance on the agri-food sector and tourism and hospitality. Cultural heritage in the county is also likely to be effected, eg coastal erosion, exacerbated by climate change, is likely to expose even more coastal and intertidal archaeological deposits and architectural heritage into the future.

5.8. Material Assets

In the context of the SEA, the EPA defines material assets as the critical infrastructure essential for the functioning of society. Material assets can be both natural and man-made. The former has been previously identified in other sections of this report – such as soil, water, ecology and landscapes of both scenic and cultural significance. In this section material assets will specifically focus on man-made infrastructure including: water infrastructure (supply & wastewater treatment), transportation infrastructure (road, rail, air and sea); communications infrastructure; and energy infrastructure.

Water supply and waste-water treatment are intrinsically linked to Section 5.5 and 5.2.1, water and human health. However, as infrastructure for both are identified as a material asset they will be discussed in this section.

In addition, the CDP contains a review of the county’s 2012 *Renewable Energy Strategy*. Chapter 12 of the KCDP 2022-2028 outlines energy policy envisaged over the lifetime of the CDP. This includes policy and objectives for on-shore wind. Specifically, it identifies areas considered open for consideration for wind development and areas where repowering of existing wind infrastructure is likely to occur.

5.8.1. Water Infrastructure

As outlined in the KCDP, KCC continues to provide water and wastewater services, as an agent of Irish Water (IW). IW in their response to the KCDP Issues Paper (2020) noted that at the time of writing their Draft Irish Water Investment Plan (IWIP) had been approved by IW’s regulator the Commission of the Regulation of Utilities (CRU). The IWIP sets out Irish Water’s budgetary plan from 2020-2024 and will align with IW’s Strategic Funding Plan (SFP). As such IW are to keep KCC informed of this process. Projects to be developed will be in partnership with IW and Kerry Water Services Regional Capital Office. IW have prioritised several waste-water infrastructure projects up to 2024. They are listed below in Table 5-11.

Table 5-11 Priority Waste Infrastructure Projects

Wastewater Above Ground (Treatment plant)	Wastewater Below Ground
Abbeydorney	Kilcummin Sewerage Scheme
Ballyduff	Listowel Wastewater Network
Castlegregory	Tralee Wastewater Network
Castlemaine	Killarney Wastewater Network
Fenit	Kenmare Wastewater Network
Glenbeigh	
Kenmare	
Killarney	
Killorglin	
Rathmore	

5.8.1.1. Waste-Water Infrastructure in the county

In Kerry wastewater is disposed of to either a public wastewater treatment system or to a private individual wastewater treatment system.

IW manage 47no. public wastewater treatment plants (WWTP) in the county (Table 5-12). As part of the planning making process IW provided KCC with a wastewater treatment capacity register for the county. The register outlines the available waste water capacity for all settlements with a public waste water treatment plant within the local authority area. This register outlines where capacity is available in the various settlements within the county.

IW are also progressing a *Small Towns and Villages Growth Programme (STVGP)* which is intended to provide growth capacity at WWTPs in smaller settlements which would not otherwise be provided for their current Investment Plan. IW has begun a process of consultation with the Local Authorities to identify and plan for appropriate projects in each Local Authority area. The proposed settlements listed for Kerry in the STVGP are likely to include Fenit, Castlegregory, Annascaul, Glenbeigh and Ballyduff.

IW also note that the wastewater network in the county is continuing to progress with sewer rehabilitation activities and capital maintenance activities. The performance of the networks is monitored to ensure that the most urgent works are prioritised. It is noted that *Drainage Area Plans* are being progressed for the wastewater networks in Tralee, Killarney, Listowel and Ballylongford. These DAPs will assess in detail the performance of the wastewater networks in these settlements.

Finally, the CDP acknowledges that outside the above IW WWTP, wastewater in the county is disposed via a private individual wastewater treatment system. Given the predominant rural nature of the county, according to Census 2016, the dominant form of wastewater disposal (55% of households) was 'individual treatment/private scheme'. The EPA's 2009 *Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. 10)* was updated and came into effect on 7th June 2021. Compliance with the Code of Practice is required under the Building and Planning Control systems.

5.8.1.2. EPA's Urban Waste-Water Treatment Report

The EPA's *Urban Waste-Water Treatment Report* is a national annual report. It identifies the priority areas where improvements are needed by IW to urban waste water infrastructure to prevent water pollution; eliminate discharges of raw sewage; meet EU treatment standards and protect bathing waters and freshwater pearl mussel catchments/populations.

Kerry appears in the 2019 EPA report for the following:

- **Priority Areas:** Four in Kerry - these are urban areas where improvements are needed by IW to resolve environmental priorities highlighted by the EPA.

Urban area	Sole Pressure on waters at risk of pollution	Improvements needed to protect pearl mussels
Abbeydorney	X	
Castleisland	X	
Kilgarvan		X
Tralee	X	

- **Urban Waste Water Treatment Directive non-compliance** – none in Kerry.
- **Areas discharging untreated waste water** – none in Kerry
- **Pressures on inland and coastal waters:** Three in Kerry. These are areas where the EPA has identified waste-water discharges as the main significant pressure on water bodies at risk of pollution.

Urban Area	Water Body Name
Abbeydorney	Brick_20
Castleisland	Maine_020
Tralee	Lee K Estuary

- **Impacts on bathing water:** none in Kerry
- **Improvements to protect freshwater pearl mussels:** one in Kerry – Kilgarvan.
- **Shellfish assessments** – IW is required to complete assessments of the impacts of waste-water discharges on 5 shellfish waters in Kerry to inform the need for any improvements, they are: Cromane; Tralee Bay; Magharees; Valentia Harbour and Kenmare River.
- **Priority Collection systems** – none in Kerry.

At the time of writing the EPA’s 2020 report has just been published. Kerry is noted for the following:

- the EPA prosecuted Irish Water in 2020 for discharging inadequately treated waste water from Abbeydorney WWTP, A Priority Area. IW were fined for breaching Condition 3.2 of its Waste Water Discharge Licence as *one or more specified discharges from the waste water works exceeded the emission limit values set out in Schedule A: Discharges and Discharge Monitoring, of the said Licence*⁷⁹.
- Tralee remained on the **Priority Area List**,
- Kilgarvan remained on the **Improvements to protect freshwater pearl mussels list**, and
- Cromane, Maharees, Tralee Bay, Valentia Harbour and Kenmare River remained on the **Shellfish assessment list**.

5.8.1.3. The KCDP 2022-2028 Core Strategy and waste water infrastructure

Volume 1 Chapter 3, Section 3.10 outlines the settlement strategy for the county. Table 3.5 indicating which settlements in the county fall into each of the settlement types– namely key town, regional town, district town, village and small village settlements.

Further to this the CDP goes onto allocate population figures into the settlement types and extrapolates housing demand based on the national guidance. In this process availability of existing waste water capacity – either existing or proposed over the lifetime of the plan – was a key consideration.

The subsequent *Core Strategy* as identified in Table 3.7 of Chapter 3 is provided below in Table 5-13. The WWTP capacity, as identified by IW, has been added to the table.

It should be noted that both Fenit and Kenmare WWTP both have planning consents and works are to commence on both proposed upgrades over the lifetime of the plan. Kenmare in particular has seen several refusals of planning permission due to the lack of availability in the existing network.

⁷⁹ <https://www.epa.ie/our-services/compliance--enforcement/whats-happening/prosecutions-and-penalties/prosecutions-2020/epa-prosecutes-irish-water-abbeydorney-wwtp.php>

Regarding the other settlements identified in the *Settlement Strategy*, ie the other district towns (not listed above), villages etc, IW have identified no capacity at many of these settlements including Ballyduff; Abbeydorney; Glenbeigh; Castlegregory; Knightstown; Annascual, Ballydauid; Ballyferriter; Causeway, Cloghane, Duagh, Dungeagan; Ballinskelligs; Gneeveguilla; Kilfenora; Knocknagoshel; Moyvane and Ventry.

Table 5-12 The 47 IW waste water treatment plants in Kerry and corresponding authorisation type

Agglomeration Name	Reg No.	Authorisation Type i.e. Licence or Certificate
Castlemaine	A0013-01	Certificate
Kilfenora	A0022-01	Certificate
Moyvane	A0026-01	Certificate
Kilflynn	A0027-01	Certificate
Portmagee	A0042-01	Certificate
Cloghane	A0049-01	Certificate
Kilgarvan	A0065-01	Certificate
Farranfore	A0073-01	Certificate
Anascaul	A0076-01	Certificate
Brosna	A0078-01	Certificate
Ventry	A0082-01	Certificate
Knocknagoshel	A0083-01	Certificate
Duagh	A0084-01	Certificate
Dungeagan/Ballinskelligs	A0087-01	Certificate
Rossbeigh	A0088-01	Certificate
Feohanagh	A0089-01	Certificate
Gneeveguilla	A0090-01	Certificate
Murreagh	A0092-01	Certificate
Ballydauid	A0093-01	Certificate
Ballyferriter	A0095-01	Certificate
Causeway	A0098-01	Certificate
Barraduff	A0230-01	Certificate
Killarney	D0037-01	Licence
Tralee	D0040-01	Licence
Listowel WWTP	D0179-01	Licence
Castleisland	D0180-01	Licence
Cahersiveen	D0181-01	Licence
Killorglin	D0182-01	Licence
Ballybunion	D0183-01	Licence
Kenmare	D0184-01	Licence
Dingle	D0185-01	Licence
Ballyheigue	D0186-01	Licence
Ardfert	D0282-01	Licence
Tarbert	D0283-01	Licence
Fenit	D0284-01	Licence
Sneem	D0285-01	Licence
Glenbeigh	D0286-01	Licence
Waterville	D0287-01	Licence
Milltown	D0331-01	Licence
Abbeydorney	D0417-01	Licence
Ballyduff	D0418-01	Licence
Rathmore	D0419-01	Licence
Knightstown	D0421-01	Licence
Ballylongford	D0459-01	Licence
Feries	D0460-01	Licence
Castlegregory	D0461-01	Licence
Lixnaw	D0462-01	Licence

5.8.1.4. Drinking Water Infrastructure

As noted, IW manage the provision of public drinking water in the county overseeing 28no. water resource zones. The largest water resource zone (WRZ) is the Central Regional-Lough Guitane WRZ. It serves the towns of Tralee, Killarney and Castleisland as well as a large rural hinterland and several villages. The Listowel Regional WRZ serves Listowel town, Tarbert, Ballybunion as well as various

smaller villages and rural hinterland in North Kerry. The Mid Kerry WRZ serves Killorglin and smaller local villages. The remaining water resource zones are smaller and are spread out throughout the county to serve towns, villages and rural areas.

IW note that the majority of the WRZs in the county may require some interventions to facilitate any new connections/developments to the network. They note in their submission to the CDP review that a full options assessment stage of the NWRP is progressing, in consultation with the water services department of KCC. This will identify the preferred interim and long-term interventions required to ensure a sustainable water supply in WRZs in the county.

They go to note that leakage reduction activities, mains rehabilitation activities and maintenance activities will continue over the lifetime of the plan. This will include monitoring the performance of the networks to ensure that the most urgent works are prioritised as required. IW go on to note that a priority water project for the county is the Mountain Stage Water Supply Scheme.

Outside of IW's public facilities, KCC also retains some functions relating to drinking water supply and their monitoring. Two 2019 reports have been issued by the EPA that relate to water supply. The *Drinking Water Quality in Public Supply* and *Focus on Private Water Supplies*.

Public Supply: The EPA maintains a register of public water supplies with serious deficiencies and known to be most at risk. Called the Remedial Action List (RAL), the EPA requires Irish Water to take corrective action in this supplies to ensure the safety and security of the supplies and compliance with the European Union (Drinking Water) Regulations 2014, as amended. The list is updated quarterly and since the aforementioned 2019 EPA report, 2021 information is available at the time of writing (April 2021). Public supplies in Kerry on the RAL and the reasons for same as of the end of January 2021 are listed below in Table 5-14.

Private Supply: In relation to private water supplies in Kerry, 2019 monitoring recorded⁸⁰:

- All Private Group Schemes were monitored for Ecoli
- 95 out of 98 small private schemes were monitored for Ecoli in 2019.
- In 2019, the EPA carried out audits of the monitoring plans in Galway, Kerry and Limerick.
- Kerry issued 6 Boil Water Notices during 2019 with 790 people affected.
- Bonane GWS is listed as a Private Scheme with THMs, albeit it was compliant in 2019.

Regarding the above, the level of monitoring of small Private Scheme at 95 monitored out of 98 registered schemes significantly exceeds the median value for the sector. The number of Private Water supplies being tested and monitored by Water Services staff continues to increase each year as new businesses register or through collaboration with the HSE. The EPA have now requested that small private supplies be tested thrice yearly including two check samples and one audit sample.

The number of Boil Water Notices (BWN) issued by KCC in 2019 was 8, slightly higher than that outlined in the aforementioned report⁸¹. These notices are outlined below in Table 5-15. At the time of writing a boil notice was issued by IW/KCC for the Ardfert North (Ballyheigue) Public Water Supply due to the detection of *Cryptosporidium* in the public water supply. The notice affects approximately 3,500 people supplied by Ardfert North (Ballyheigue) Public Water Supply serving Ballyheigue, Causeway, Ballinglanna, Kerry Head west of the Feanes road, Lerrig and surrounding areas⁸².

⁸⁰<http://www.epa.ie/pubs/advice/drinkingwater/drinkingwateraudits2021/Mountain%20Stage%20PWS%20EPA%20Audit%20Final%20Report.pdf>

⁸¹ Environment Section, KCC, Report to Environment, Climate Change and Emergency Planning SPC, December 2020.

⁸² <https://www.water.ie/news/boil-water-notice-issued-13/>

Table 5-13 Population and Housing growth and waste water capacity – existing and/or proposed in line with IW programme.

Settlement			Population & Housing		WWTP Capacity (as per IW register 4/5/20)	
	Population 2016 (CSO)	Population 2022 (est.)	2022-2028 Pop. Growth	Housing Target		
County	147,707	156,902	9,363	7,000		
Key Town	Tralee	23,691	25,297	2,663	2,087	Yes
	Killarney	14,504	15,487	1,630	1,277	Yes
		38,195	40,784	4,293	3,364	
Regional Town	Listowel	4,820	5,127	529	415	Yes
	Castleisland	2,486	2,644	359	281	Yes
	Kenmare	2,376	2,527	261	204	To be delivered over lifetime of plan
	Killorglin	2,199	2,339	320	251	Yes
	Dingle/Daingean Uí Chúis	2,050	2,181	282	221	Yes
	Ballybunion	1,413	1,503	204	160	Yes
	Cahersiveen	1,041	1,107	129	101	Yes
	Milltown	928	987	273	214	Limited
		17,313	18,417	2,357	1,847	
District Town	Ardfert	749	797	78	61	Yes
	Ballyheigue	724	770	77	60	Yes
	Ballylongford	391	416	45	35	Yes
	Barraduff	170	308	57	45	Yes
	Castlemaine	176	187	37	29	Yes
	Farranfore	175	186	42	33	Yes
	Fenit	538	572	130	102	To be delivered over lifetime of plan
	Fieries	558	594	46	36	Limited
	Kilcummin	435	463	40	31	Yes (Killarney)
	Rathmore	790	840	73	57	Limited
	Sneem	288	306	27	21	Yes
	Tarbert	540	574	57	45	Yes
	Waterville	462	491	52	41	Yes
	5,996	6,505	761	596		
Villages	6,698	7,125	552	432		
Small Village Settlements	1,547	1,646	465	186		
Rural Area	77,958	82,425	936	575		

Table 5-14 Water supplies on the EPA’s RAL as of January 2021⁸³

Supply	Proposed Action & Completion Date	Reason
Ballyheigue ⁸⁴	Install UV disinfection September 2021	Ballyheigue was added to the Remedial Action List at the end of 2019 by the EAP as the supply has no treatment barrier in place for Cryptosporidium.
Caherciveen 017h ⁸⁵	To be submitted	Elevated levels of Trihalomethanes above the standard in the Drinking Water Regulations & Inadequate Treatment for Cryptosporidium
Caragh Lake 022A ⁸⁶	Upgrade of pressure filtration To be submitted	Elevated levels of Trihalomethanes above the standard in the Drinking Water Regulations but since 2020 that has been resolved. However, it remains on the RAL list due to a problem identified with backwashing of the pressure filters which resulted in aluminium exceedances in the supply, as notified to the the EPA in 2019 and 2020. The PWS will remain on the EPA's RAL under the category EPA Audit Observations - Treatment and Management Issues.
Mountain Stage 062 ^{87A}	Upgrade of treatment plant Jan 21	Inadequate Treatment for Cryptosporidium

As noted the Bonane private scheme forms part of a formal infringement case against Ireland by the EU. This relates to a failure to comply with the EC Drinking Water Regulations 2014 due to exceedances in THMs⁸⁸. The European Commission started infringement proceedings against Ireland in 2015 for failure to comply with the THM standards. In May 2020, the Commission issued a Reasoned Opinion that it considers that Ireland has failed to take the measures necessary to ensure THM compliance. The Department of Housing, Local Government and Heritage has responded to and is engaging with the Commission. Bonane GWS has been included in the Rural Water Programme 2019 – 2021.

⁸³<http://www.epa.ie/water/dw/ral/> [accessed 21/4/21]

⁸⁴ <http://www.epa.ie/water/dw/ral/> [accessed 21/4/21]

⁸⁵ <http://www.epa.ie/pubs/advice/drinkingwater/drinkingwateraudits2019/Audit%20Report%20Cahersiveen%2009.09.19.pdf>

⁸⁶ <http://www.epa.ie/pubs/advice/drinkingwater/drinkingwateraudits2020/Caragh%20Lake%20PWS%20EPA%20Audit%202029.07.20%20due%2027.11.20.pdf>

⁸⁷ <http://www.epa.ie/pubs/advice/drinkingwater/drinkingwateraudits2021/Mountain%20Stage%20PWS%20EPA%20Audit%20Final%20Report.pdf>

⁸⁸ Reference 7554/2015/ENVI, see *Focus on Private Water Supplies 2019*, EPA, 2021.

Table 5-15 Private Supplies monitored by KCC and subject to compliance

Boil Water Notice Issued	Action taken
Inch/Foildaun Private GWS – BWN issued on 30/01/19	Inch / Foildaun will be fully supplied by Central Regional water in Q1 2021
Kells Private GWS – BWN issued on 23/07/19	Water Services, are in discussions with Irish Water about connecting the Kells Scheme to Cahersiveen.
Stepping Stones B&B and Cookie Monster Café, Glencar – BWN issued on 31/07/19	Premises have been requested to put action plans in place to ensure the water is potable.
Gap of Dunloe National School, Black Valley, Glencar – BWN issued on 06/09/19	
Glanleam House, Valentia Island – BWN issued on 06/09/19	
Paulines Pantry Kells – BWN issued on 26/09/19	
Kielduff Community Centre, Tralee – BWN issued on 29/10/19	
Sheila Hami, Kilgarvan – BWN issued on 19/12/19	
Ardfert North (Ballyheigue) Public Water Supply issued on 11/10/21	In place at the time of writing until further notice.

5.8.2. Transport

5.8.2.1. Road

The road network in the county is a key asset. The total road network in the County comes under the four classifications: National Primary, National Secondary, Regional and Local roads measure approx. 4,880km. The low density of population in County Kerry and the relatively low level of urbanisation accounts for a high dependency on the County's road infrastructure. In this context the Council recognises its role in providing, or facilitating the sustainable provision of physical infrastructure essential to support the existing and future population of the County. Economic growth also requires improving links between the key towns of Tralee and Killarney; Gateways in the Region (Cork and Limerick), the Knowledge triangle, other towns in the County and the Tarbert / Ballylongford Industrial Land bank. Specific strategic transport projects listed in the plan are provided in Table 5-16.

5.8.2.2. Rail, Air and Bus

The Dublin/Cork-Mallow-Tralee railway route is a vital connection between Kerry and the cities of Dublin and Cork and provides connectivity for the people of Kerry and tourists visiting the County.

Kerry Airport located at Farranfore has been in operation since 1969. The airport is located mid-way between the two main population centres of Tralee and Killarney and is adjacent to the National Primary Road network.

The plan acknowledges while some larger towns in the county are serviced by Bus Eireann, there is a relatively inadequate service to most of the minor towns/ rural areas are. KCC now has a role in organising rural public transport under the revised Rural Transportation Programme which operates local routes.

5.8.2.3. Ports and Ferries

There are 58 pier and harbours located along the Kerry coastline and under the remit of Kerry County Council. This includes the inter-county ferry port at Tarbert. This Tarbert-Killimer Ferry is an important link between Kerry and Clare. The main tourist routes of the West of Ireland's Shannon Region and the Wild Atlantic Way are linked via this car ferry. The majority of the other piers support local mariculture, leisure and tourist activities. The major commercial ports are Fenit and Dingle/Daingean Uí Chúis.

These are of strategic importance in terms of amenity, commercial and as transport links to facilitate growth and connectivity in the region.

Table 5-16 Infrastructure schemes in the plan

Infrastructure Project	Non National Roads
N21/N22 Tralee to county bounds	Tralee Northern Relief Road (Phase 1 & 2)
N22 Farranfore-Killarney Realignment / Bypass	Killarney Inner relief road
N23 Castleisland to Farranfore	Daingean Uí Chúis Relief Road (Phase 5)
N21 Abbeyfeale Bypass	Kenmare Inner Relief Road (Phase 2)
N22 Killarney Junction Improvements	Killarney Strategic Links Road
N69 Listowel By-Pass	R558 Tralee to Fenit (Phases 2 and 3)
N70 Milltown Bypass	Tralee Inner Relief road- Clash to Ballymullen Phase 2
N70/N72 Killorglin By Pass	R561 Castlemaine to Annascaul
N67 Tarbert Ferry	R549/R559 Slea Head Tourist route
N69 Tralee to Tarbert	
N70 Tralee to Killorglin & N70 Killorglin-Cahersiveen-Kenmare	
N71 Killarney-Kenmare (Tunnels)	
N72 Killorglin to Rathmore	
N86 Dingle/Annascaul N86 Gortbreagoge/Camp	

5.8.2.4. Greenways and Blueways

Part of the Governments sustainability development strategy, *Sustainable Development – A Strategy for Ireland*, identifies the increased provision of cycle lanes and safer facilities for pedestrians as a key priority. Kerry already has a number of greenways at construction or at other various stages of design and/or consent. There is also potential for the future development of other projects as identified in Table 5-17 below.

Table 5-17 Greenways identified in the KCDP

From	To
Listowel	Ballybunion
Tralee	Abbeyfeale (Co. Limerick) via Listowel
Tralee	Fenit
Tralee	Dingle/Castlegregory
Gortatlea	Castleisland
Farranfore	Cahersiveen/Renard
Headford	Kenmare

Blueways are also identified in the plan, although more as a tourist product than commuting. One potential blueway is identified along the existing former Ship Canal on the outskirts of Tralee. Other blueway objectives are strategic in nature.

In general, it should be acknowledged that the prioritising of active walking and cycle infrastructure is a feature of the plan to support active health initiatives and healthy communities, encourage transition to sustainable modes of travel, promote sustainable mobility and significantly assist our transition to a lower carbon society.

5.8.3. Communications/Digital Connectivity

5.8.3.1. Broad Band

The CDP continues to support the delivering of high-speed broadband services to all businesses and households in line with the National Broadband plan for Ireland. The plan notes that while Kerry is a county with reasonable broadband availability the quality of this broadband service is unsatisfactory and inadequate.

The first major deliverable for NBI will be to connect approximately 300 Broadband Connection Points (BCPs). The BCP initiative will allow rural communities to quickly get free public access to high speed broadband while the larger NBP deployment continues. The 12 selected locations in Kerry are a mixture of Community Centres, Schools and Tourist sites and are concentrated in the 'Amber' or NBI areas where the EIR fibre rollout did not occur in order to maximise their potential. These sites will be open to the public to allow access to high speed broadband. Each site, depending on its particular context will offer a range of options from hot desking for remote working to always on free wifi for connectivity. This offers opportunities for remote working, relocation from busy city areas in the state, and education.

In addition, a fibre optic infrastructure known as the Metropolitan Area Networks (MANs) is operated by Enet on behalf of the Irish government. These networks are capable of delivering virtually unlimited bandwidth. Tralee, Killarney, Listowel, and Castleisland formed part of Phase 2 of the project.

The provision of these facilities helps to support growth in innovative local enterprises and they provide technology enabled working spaces, whilst also focusing on supporting local industries and the community.

5.8.3.2. Digital Hubs

Údarás na Gaeltachta has developed a national network of digital hubs in all Gaeltacht areas known as 'Gteic'. As part of the network there is space for enterprise, offices and ancillary activities. These hubs provide a wide range of facilities and services, for example, private office space, shared office space, meeting rooms, and online conference facilities. This network is important in the context of enterprise development in Gaeltacht areas, and also offers facilities/services for remote working.

5.8.4. Energy

Kerry, in particular, North Kerry, has long been associated with energy infrastructure from the traditional energy visible at Tarbert Island to the development of grid infrastructure and renewable energy particularly associated with on-shore wind. Kerry's existing *Renewable Energy Strategy (RES)* was adopted in 2012 and supported a strategic approach to the development and management of renewable energy in the county over the lifetime of the strategy.

5.8.4.1. Renewable Energy

Renewable energy comes from natural, inexhaustible sources such as the sun (solar), wind, falling water (hydro), oceans (wave and tidal), plants (biomass) and the earth (geothermal heat pumps). Renewable energy can also be derived from a range of waste products including sewage sludge, municipal solid

waste and agricultural waste. Traditionally on-shore wind has been a significant component of the county's RE production.

- **Wind**

To date, a total of 362 wind turbines have been constructed in the County (Figure 5-18). Planning permission exists for the construction of 12 additional turbines (24 turbines are the subject of appeals to An Bord Pleanála, and a 12 turbine Strategic Infrastructure application is currently being considered). This potentially could result in a total of 374 wind turbines in the County⁸⁹. The 362 constructed wind turbines, made up of c.25 wind farms, can generate approximately 742MW of electricity. This equates to approximately 18% of the National wind generation total. County Kerry is making a substantial contribution towards meeting national renewable energy targets considering its land mass and population comprises 6.8% and 3.1% of the national totals respectively.

- **Solar**

To date, a total of 13 solar farms have been permitted in the County (1 application is currently being assessed) (Figure 5-19). There is an increased number of a planning applications being made by homes, businesses and farms to install photovoltaic panels on roofs or within the curtilage of the premises. These will help meet their individual energy demands.

- **Hydro**

There are four hydro-electric schemes, small scale, in operation in the county, with three connected to the national grid.

- **Bioenergy**

Bioenergy requires biomass as a raw material. In Kerry forestry has played a significant role but there are other feed stocks available notably in the area of food waste; slurry and silage. The North Kerry Landfill at Muingnaminane is an existing bioenergy system in the county which has the capacity to generate 0.33MW of electricity and is connected to the grid. There is scope to increase the size of this system in the future. Bioenergy is used in other parts of the economy and Tralee town uses a local bioenergy source (wood chip) in a district heating scheme. The expansion of bioenergy in the decarbonisation of heat, particularly in district heating schemes, is now a key pillar of CAP21.

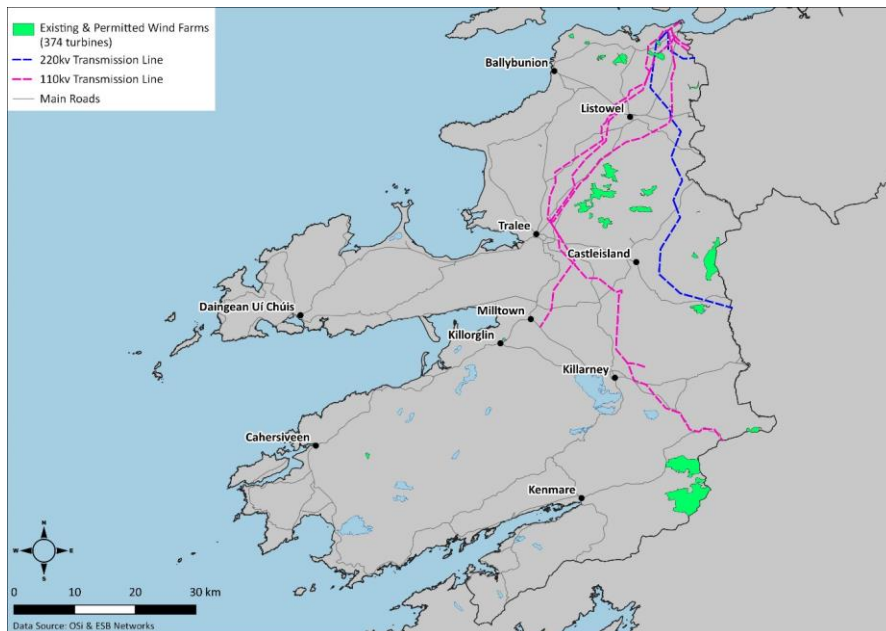


Figure 5-18 Existing/Permitting Onshore wind in the county (July 2021)

⁸⁹ Position as of July 2021

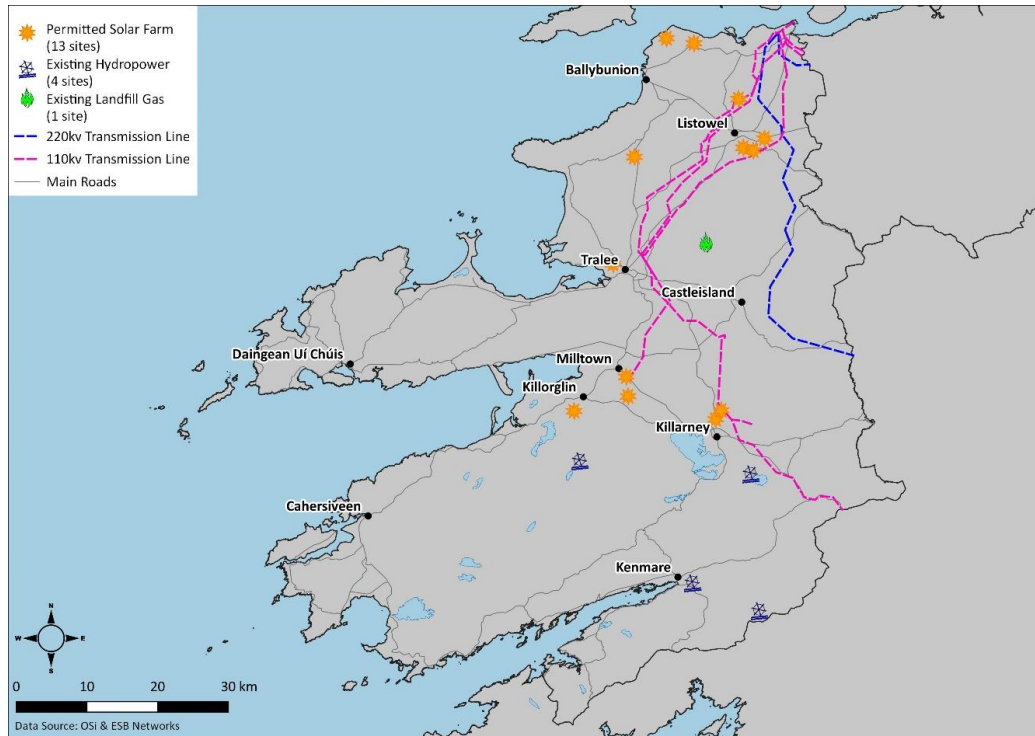


Figure 5-19 Permitting RE in the county (other than onshore wind) (July 2021)

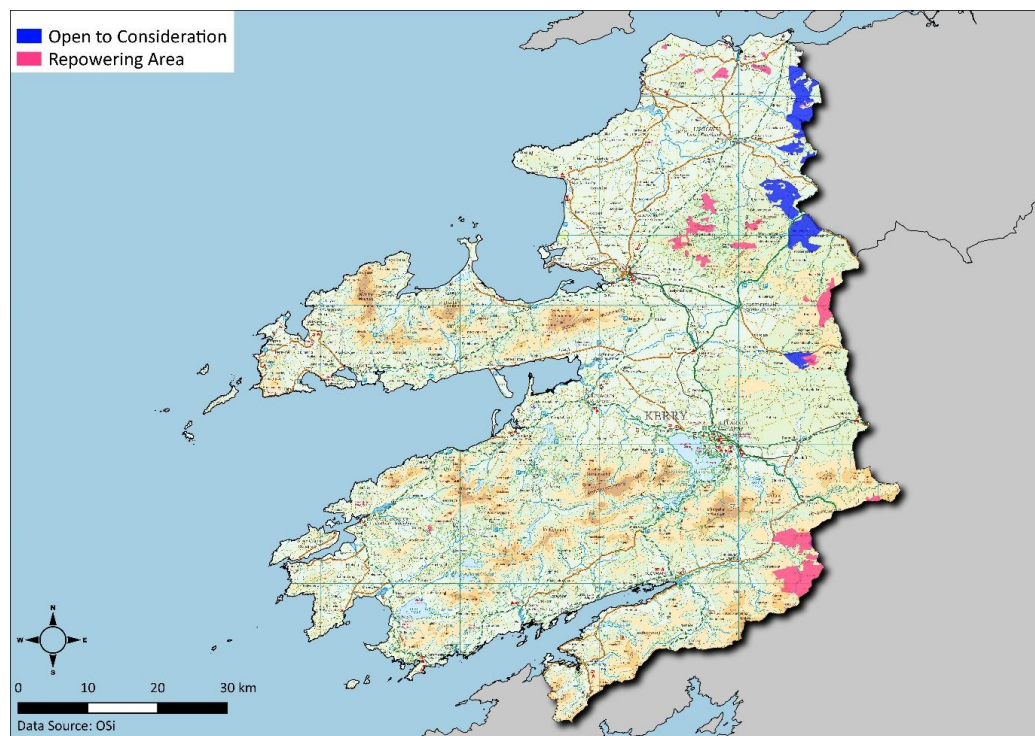


Figure 5-20 Areas open for consideration for onshore wind and repowering areas as proposed in the KCDP 2022-2028

5.8.4.2. Enabling/Supporting Energy Infrastructure

As more RE energy has been produced over the last decade, considerable investment has been made in supporting infrastructure in the county (Figure 5-21). This is predominately located in the east and north. This includes grid transmission and distribution lines; sub-stations and battery storage systems.

In particular parts of North Kerry strategically located on the Shannon Estuary opposite Moneypoint in Clare, saw the historic development of energy infrastructure. As these old fossil fuel industries transition to RE technologies the potential for further investment in this part of the county in recognised notably off-shore wind and synergies with rapidly evolving new technologies like “green hydrogen”.

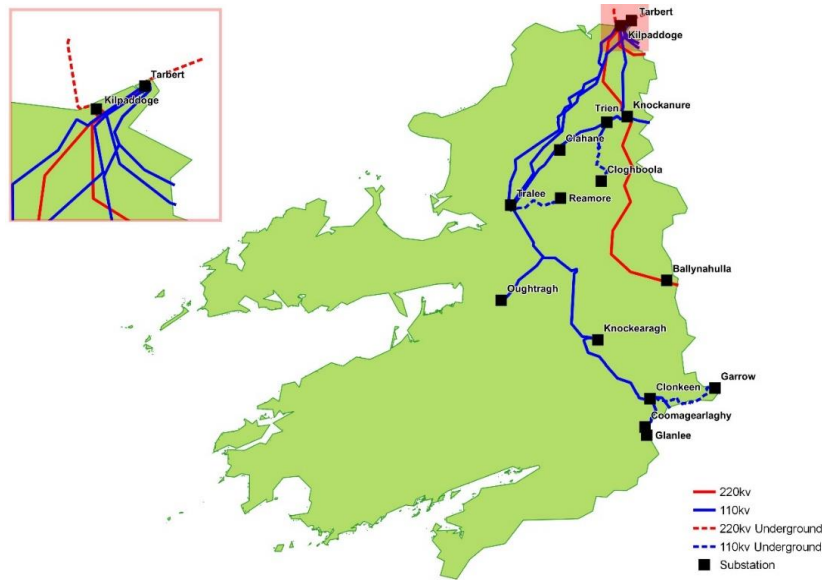


Figure 5-21 Grid Infrastructure and substations in the county.

5.8.5. Shannon Estuary and the Tarbert-Ballylongford Landbank (Ballylongford Landbank and Tarbert Island)

North Kerry’s strategic location on the Shannon Estuary has long been recognised. The existing Tarbert-Ballylongford land bank in the current KCDP reflects its historic zoning for many years in the county’s land use plans. In 2013 the entire estuary was subjected to an inter-jurisdictional land and marine based framework plan to guide its future sustainable development and management. Commissioned by Clare County Council, Kerry County Council, Limerick City and County Councils, Shannon Development and the Shannon Foynes Port Company, it culminated in the publication in 2013 of the *Strategic Integrated Framework Plan (SIFP)* for the Shannon Estuary (here after called the SIFP). The SIFP sets out an overall strategy for the proper sustainable growth, development and environmental management of the Shannon Estuary Region for the next 30 years.

SIFP identified Strategic Development Locations (SDL). Two were identified in Kerry - at Site G: Tarbert Power Plant (Tarbert Island) and Site H Tarbert-Ballylongford land bank. Combined these now offer 437 Hectares of zoned lands available for development with access to deep water (up to 23m). More recently with the evolution of climate policy, particularly in the off-shore sector, the area is further recognised for its potential as an Energy Hub at a regional and national level.

5.8.6. Quarries

There are several quarries within the Plan area. Extraction ultimately leads to the total removal of a resource within a given area and can lead to localised environmental problems. Section 261 of the Planning and Development Act 2000 (as amended) provides for the registration and control of quarries.

5.8.7. Commercial Forestry

Commercial forestry and associated industries are an economically significant sector in Kerry. Forestry is divided principally between private and public forestry with the former being higher in Kerry than the national average. Traditionally species composition of commercial forestry in the county was dominated by Sitka Spruce. Although, still a dominant species, diversification has occurred with other conifer species and broadleaves (e.g birch, ash, oak) now planted. It is noted that under the CAP19/21 there is a national afforestation target of 8,000ha. This will see a rolling out of a more diverse nature and function of forestry over the coming years which coupled with targets in *Ag-Climatise*, will seek to provide other co-benefits particularly for biodiversity and water quality but also the bioenergy economy.

5.8.8. Marine Resources

The marine economy and associated infrastructure plays an important role in the county particularly in rural coastal communities. Here infrastructure such as ports, industries such as fisheries/aquaculture and the tourism sector are all interlinked often using the same resources. Fenit Sea Port and Dingle Harbour are particularly important providing amenity, commercial and important transportation links.

Fishing, fish distribution, processing, aquaculture⁹⁰ and related activities generate significant levels of employment in the county. The plan acknowledges that in recent years while there has been a decline in the marine fishing industry due in part to the EU quota restrictions, there has been an expansion in the aquaculture and secondary sectors of the industry. Fishing therefore remains an important sector in the rural economy of the county. In South Kerry e.g there are a.300-400 Irish and foreign fishing vessels operating off the coastline.

In addition to commercial fishing and aquaculture the aquatic environment (marine, estuarine and freshwater) supports smaller scale fishing and angling activities. Eco-tourism and/or amenity use of our coastal waters has also increased.

Climate policy supports the development of significant offshore renewable energy (ORE) in Ireland and Kerry is well placed to service future developments in the sector.

5.8.9. Existing Environmental Problems Relating to Material Assets Relevant to the Plan.

Transport

The county's national and regional network is relatively adequate, considering the county's peripheral location, and is capable of transporting goods from main town centres. Car ownership in the county is high with many reliant on private car journeys for their transport needs. Kerry's dispersed population also implies a high car dependency and usage among the population. This can also put pressure on the existing infrastructure and causes bottlenecks in several towns at key times in the day.

Piers and harbours in the county are used by a diverse range of user groups – including the fishing sector, industry; commercial and tourist ventures; ferry operators and leisure activities. This puts pressure on pier/harbour infrastructure and can lead to conflicts in user needs. The range of uses can also impact on local coastal and transitional water quality.

Water Infrastructure

Key environmental problems in relation to water infrastructure is the adequacy of that infrastructure to ensure compliance with applicable EU regulations. As noted several WWT plants in the county require significant improvements. Of note is the Abbeydorney WWT plant, IW being prosecuted by the EPA for

⁹⁰ Aquaculture includes the culture or farming of fish, aquatic invertebrates, aquatic plants or any aquatic form of food suitable for the nutrition of fish.

none compliance of its discharge licence in 2020⁹¹. Similarly, for drinking water, abstraction, treatment and compliance with the EC Drinking Water Regulations 2014, has been highlighted as key issues in several water schemes – public and private. As detailed in Section 5.5 of this report four public water supply (PWS) schemes are on the EPA’s Remedial Action List (see Table 5-14). In relation to private schemes/wells KCC issued 8 boil notices in 2019⁹² with a recent boil notice issued in October 2021 for the Ardfert north public water supply. Also of note is the Bonane private scheme. This scheme forms part of a formal infringement case against Ireland by the EU under a failure to comply with the EC Drinking Water Regulations 2014 due to exceedances in THMs⁹³.

Environmental problems relating to water infrastructure as a material asset that are relevant to the CDP is therefore predominately linked to the infrastructure being fit-for purpose for the population allocated to use that infrastructure. The role of CDP in addressing these pressures is twofold - firstly, align population growth to settlements where there is existing waste water infrastructure or the likelihood of its improvement over the lifetime of the plan - to meet the demand, and secondly, facilitating population growth into settlements indirectly reducing a dispersed rural settlement pattern reliant on domestic septic tanks/private water supply.

Energy

Kerry at present is contributing significant quantities of RE (wind generated) to the national grid, producing over 30% of wind energy in the Southern region. As wind developments have moved from higher ground to more lowland areas conflicts have arisen within the community to on-shore wind development. In addition, providing the supporting infrastructure (such as battery storage and grid infrastructure) required to support a RE feed-in into the energy system envisaged at 80% by 2030 is also challenging. Solar farm and more recently bioenergy infrastructure is facing similar challenges.

Notwithstanding these challenges, Kerry is well positioned to sustainable development a RE sector notably in the area of the county’s natural resources and location. Off-shore wind will play a significant role if Ireland is to meet its 2030/50 targets with solar, on-shore wind including repowering areas and local bioenergy production all playing a part. The county’s location on Shannon estuary, which is quickly transforming to a RE hub, will see the county again well positioned to play a role in future RE generation.

Quarry

Section 261a of the PDA has regularised historic quarry activity in the county. While the localised pressures and possible impacts from quarrying are noted, they are likely to be addressed at a project level through proper planning and sustainable development and/or enforcement if required. Quarry/quarrying is therefore not identified as a strategic environment problem for the CDP.

Other

Other material assets identified including forestry; fisheries/aquaculture and the other significant land in the county namely agriculture, are predominately outside the scope of the CDP. Notwithstanding, the CDP supports the sustainable development of these industries which are particularly recognised as being crucial to the rural economy of the county. However, as regards environmental pressures it is noted that agriculture and forestry are two significant land uses in the county with both sectors are acting as significant pressures on water *status* and *risk* under the 3rd cycle of the WFD.

⁹¹<https://www.epa.ie/our-services/compliance--enforcement/whats-happening/prosecutions-and-penalties/prosecutions-2020/epa-prosecutes-irish-water-abbeydorney-wwtp.php>

⁹² Environment Section, KCC, Report to Environment, Climate Change and Emergency Planning SPC, December 2020.

⁹³ Reference 7554/2015/ENVI, see *Focus on Private Water Supplies 2019*, EPA, 2021.

5.9. Cultural Heritage including Archaeological and Architectural Heritage

Cultural heritage within the plan area predominately includes archaeological heritage; built heritage but also the county's linguistic heritage and heritage associated with literature, music and the arts.

5.9.1. Archaeological Heritage (including Volume 3 Appendices 2-4).

Recorded archaeological remains are found throughout the county ranging in date from the Mesolithic (c.6,000 BC) at Ferriter's Cove on the Dingle Peninsula to the late medieval churches that occur in many of the county's graveyards. There are 8,221 individual monuments listed in the Record of Monuments & Places for County Kerry. Since the Record of Monuments & Places was compiled 1997 on foot of the provisions of the National Monuments (Amendment) Act 1994 many further monuments and features have come to light and the Sites & Monuments Record (SMR) lists 11,388 individual monuments in the county. The true total is likely to be in excess of 12,000.

These recorded monuments include a number of monuments that have been afforded special protection by being in the ownership or guardianship of the state; subject to a preservation or registration order: 64 monuments in state ownership; 12 monuments in state guardianship; 29 monuments subject to a preservation order; 135 monuments subject to a registration order and three further National Monuments in local authority ownership. The county also contains the UNESCO World Heritage Site of Sceilg Mhichíl and three monuments that are included in the Western Stone Forts nomination on Ireland's 'Tentative Listing' – Staigue, Caherconree & Benagh.

Further to this archaeological heritage there are a number of very significant archaeological landscapes around the county. These landscapes are of regional, national and in some cases international significance. The eighteen landscapes/archaeological special protection areas are shown provided protection under the CDP.

Kerry has a rich underwater cultural heritage in its marine, coastal and inland waterways. Marine sites include well-known shipwrecks such as the Armada vessels *Santa Maria De La Rosa* and *Trinidad*; the French naval vessels *La Bayonnesse* and *La Vipere*. There are no verified crannóg sites in the county but that does not mean that the numerous lakes do not contain finds or features relating both to sites located onshore and activity within/on the lakes and rivers themselves – bridges, fish-traps, platforms etc. Artefacts may be deposited in lakes and rivers as part of a ritual deposition or may end up there as a result of accidental loss, particularly at crossings or fording points. Indeed a number of artefacts including a sunflower pin were recovered from a fording point on the River Laune, a hoard of copper axes was recovered from the Carhan river near Cahersiveen, bronze horns from Lough Leane, while there is a long history of artefacts washing out of the dunes at Ballyeagh near Ballybunnion. Indeed, increasing levels of erosion due to climate change are likely to expose even more coastal and intertidal artefacts and features in the future.

The Underwater Archaeology Unit (UAU), Department Arts, Heritage & the Gaeltacht is engaged in the compilation of an inventory of shipwrecks recorded in Irish waters. The Shipwreck Inventory of Ireland includes all known wrecks for the years up to and including 1945 and approximately 12,000 records have been compiled and integrated into the shipwreck database thus far.

5.9.2. Architectural Heritage (including Volume 3 Appendices 5-7)

Architectural Heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act, 1999 *as structures and buildings together with their setting and attendant grounds, fixtures and fittings; groups of such structures and buildings and sites which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.* Section 51(1) of the

Planning & Development Act 2000 states *“for the purpose of protecting structures, or part of structures, which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, every development plan shall include a record of protected structures, and shall include in that record every structure which is, in the opinion of the Planning Authority, of such interest within its functional area.”*

Kerry has a rich architectural heritage, spanning many centuries, such buildings as Gallarus Oratory and Ardfert Cathedral are an important component not only of the heritage of Kerry but also of our national heritage. The county has many fine examples of architecturally designed buildings but it also has a rich heritage of vernacular architecture characterised by a large diversity of structures of special interest, from churches to old mills, farm buildings, lighthouses etc. There are of course a large number of structures which contribute to the architectural heritage of the county but which may not be included in the RPS. The National Inventory of Architectural Heritage (NIAH) also provides additional information on the architectural heritage of the county related to many of these sites.

As required, a Register of Protected Structures is included in the KCDP 2022-2028. The elements of a Protected Structure, which are protected under the relevant legislation, include the exterior and interior fixtures, fittings, and curtilage and attendant grounds of the structure. Also included are other structures within that curtilage and their exteriors and interiors and attendant grounds. Curtilage refers to the *“parcel of land immediately associated with that structure and which is/ was in use for the purpose of that structure.”*⁹⁴ The KCDP proposed 8 new PSs as discussed appendix 6.

In addition to the RPS, a place, an area or a group of structures or streetscape of special interest is eligible for designation as an Architectural Conservation Area (ACA). An ACA is a *place, area, group of structures or townscape taking account of building lines and heights, that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or that contributes to the appreciation of a protected structure.* Appendix 7 of the KCDP 2022-2028 provides details on each of the ACA designated in the KCDP.

5.9.3. Linguistic and Cultural Heritage.

The county has significant linguistic heritage with the Gaeltacht covering an extensive area. There are two official Gaeltacht areas in Kerry—Gaeltacht Chorca Dhuibhne on the Dingle Peninsula and Gaeltacht Uíbh Ráthaigh on the Iveragh Peninsula. These areas constitute an important part of the linguistic, social, and cultural tradition of the county. This area is also rich in traditional ways, folklore, writing, music, and historic and archaeological sites.

In addition, the plan area includes an Blascaod Mór, located off the Sleá Head coast of Corca Dhuibhne. It is the largest of seven islands collectively known as Na Blascaodaí. The island’s significance lies in its historical, cultural and ecological value and has a significant influence on Ireland’s cultural heritage. The island has long been associated with the essence of Irish language and culture and has a particularly strong Irish literary heritage, it is an aim of the KCDP to preserve and maintain Gaeltacht traditions.

5.9.4. Existing Environmental Problems Relating to Cultural Heritage Relevant to the Plan.

Although protected under legislation, development can impact on archaeology and architectural heritage. If unmitigated, development in greenfield and brownfield sites has the potential to disturb archaeological remains. More recently the challenges from climate change has in some cases exposed archaeological sites and placed others at risk.

⁹⁴ DoEHLG, *Architectural Heritage Protection, Guidelines for Local Planning Authorities.* Stationary Office, Dublin, 2004:191.

Re-development of Protected Structures or redevelopment with Architectural Conservation Areas has the potential to impact on cultural heritage. Development undertaken that is inappropriate to the PS can have a significant affect. Similarly, vernacular architecture including stone walls; gate posts; traditional farm buildings can be threatened further to changes in land uses.

5.10. Landscape

Kerry has a unique and characteristic landscape with highly scenic views of rivers, lakes, mountains and bogs. With over 1,000km of coastline and several off-shore islands, seascapes are another important feature of the County.

5.10.1. Landscape Review (Volume 1, Appendix 7)

The KCDP contains a *Landscape Review* undertaken in 2021. The review informed the KCDP in defining landscape sensitivity and informed areas open to consideration for future windfarm development. The review forms an appendix in the CDP. It provides a detailed report on how the methodology undertaken to carry out the assessment. In brief it aimed to:

1. To examine the landscapes around the county,
2. To determine to what level these landscapes have been altered, and
3. Assess their visual sensitivity to further development.

Further to this the review identified 40 separate landscape character areas in the county, listed below in Table 5-18 and shown in Figure 5-22 Landscape Character Areas in the county.

Table 5-18 Landscape Character Areas identified in the plan area.

1. Beal Hill and Ballybunion	15. Garfinny and Owenalondrig River Valleys	29. Glencar, Caragh Lake and The Bridia Valley
2. The Shannon Estuary	16. Tralee Bay, The Maharees and Northern Slieve Mish Mountains	30. MacGillycuddy Reeks and The Black Valley
3. Bunnaruddee Bog and Galey River	17. Annascaul, Inch and Southern Slieve Mish Mountains	31. Cahersiveen
4. Kerry Head and Ballyduff	18. Milltown and Castlemaine	32. Valentia Island and Saint Finan's Bay
5. Listowel and The Cashen River	19. Gweestin River Valley	33. Lough Currane and Máistir Gaoithe
6. Banna and Ardfert	20. Deenagh and Glanoragh River Valleys	34. Derrynane and Castlecove
7. Smearlagh River Valley	21. The Brown Flesk River Valley	35. Sneem and Ardsheelhane River Valley
8. River Feale Valley	22. Quagmire and Owneskeagh Rivers	36. Blackwater and Ballaghbeama
9. Stack's and Glanaruddery Mountains	23. River Blackwater and Rathmore	37. Kenmare
10. Mount Eagle and Owveg River Valley	24. Rossbeigh and Cromane	38. Kilgarvan and Roughty River Valley
11. Tralee and Castleisland	25. Killorglin and Beaufort	39. Healy Pass, Kilmakilloge Harbour and Lough Inchiquin
12. Blasket Islands, Smerwick Harbour and Mount Brandon	26. Lough Leane and Killarney National Park	40. Bonane and Sheen River Valley
13. Ventry and Dingle Harbours	27. Clydagh River, The Paps and the Derrynasaggart Mountains	
14. Brandon Bay	28. Coomasaharan Lake and Mountain Stage	

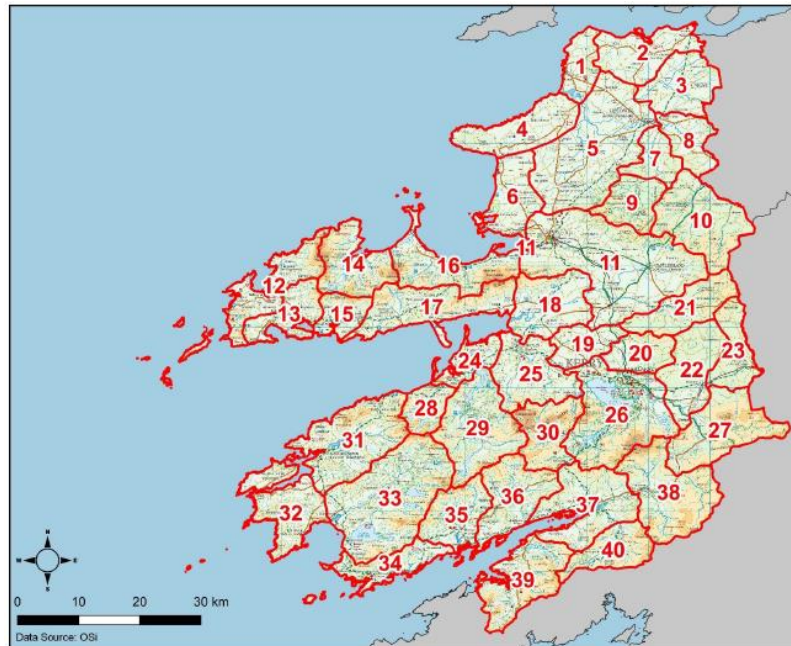


Figure 5-22 Landscape Character Areas in the county

Each of these areas subsequently underwent a visually sensitivity assessment considered under the criteria set out in the methodology of the review. The results are summarised in Section 6 of the review. It contains the individual assessments for each area. All forms of development including residential, renewable energy, agricultural and forestry have a cumulative effect on the landscape. It also indicates additional areas of the landscape where sensitivity could be considered in any future planning policy review. This resulted in the identification of areas of sensitivity as low, medium or high, as shown below in Figure 5-23.

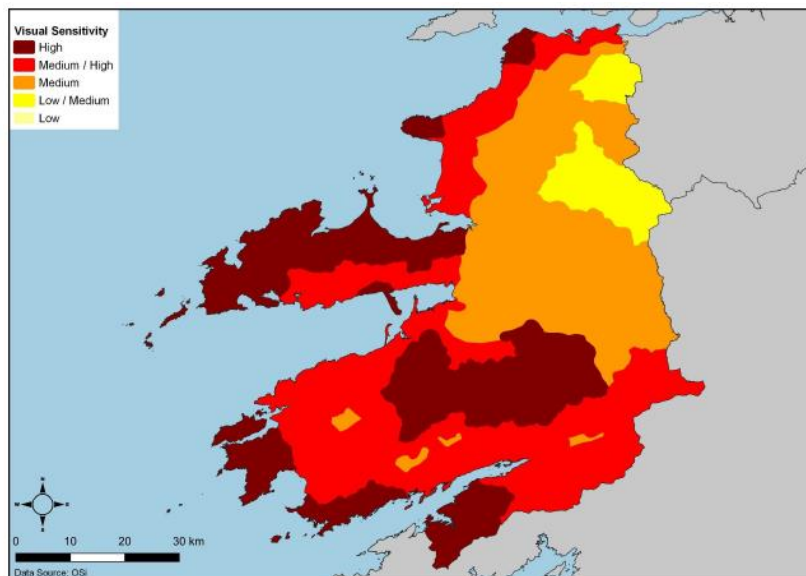


Figure 5-23 Visual Sensitivity within the county.

Based on the above methodology, the review culminated in a *proposed landscape designation* for each of the 40 areas, namely the identification of *visual sensitive areas* and *views and prospects*. The review records this process and Volume 4, Appendix 4 presents the mapping/visual information. The KCDP now includes objectives regarding the protection of these landscape designations and amenities.

5.10.2. Landscape and Wind Development - *Wind Zoning Methodology* in Volume 1, Appendix 6

It is proposed to update Kerry's energy policy and in the draft KCDP 2022-2028 this is contained in Chapter 12 Energy. Chapter 12 is further supported by a number of reports also included in the CDP namely the *Wind Zoning Methodology* Volume 1 Appendix 6 and the *Landscape Review* Volume 1 Appendix 7.

The methodology undertaken to review the county for areas deemed suitable to on-shore wind is outlined in detail in Volume 1, Appendix 6 culminating in the zoning of (a) Areas Open to Consideration for Wind Energy Developments and (b) Areas Unsuitable for Wind Energy Developments and repowering areas. The methodology, involving a *sieve mapping analysis* of key Ecological, Environmental, Archaeological, Landscape and technical areas, took cognisance of Section 3.6 of the *Draft Revised Wind Energy Development Guidelines* (DHPLG, 2019) and the *Methodology for Local Authority Renewable Energy Strategies* (SEAI, 2013). The process is provided in detail in the aforementioned Appendix 6 and is discussed in greater detail in this report in Section 7.4.3.

The results of this analysis were subsequently overlapped by the outputs of a comprehensive Landscape Character Assessment as informed by the aforementioned *Landscape Review* in Volume 1, Appendix 7. Finally, the cumulative effects of constructed and permitted but not yet constructed wind energy developments are taken into consideration. Landscape therefore informs the zonings identified in the KCDP for future wind development. They are shown in Volume 4, Appendix 4, outlined in *Wind Methodology Zoning* report presented in Appendix 6 (Figure 5-24).

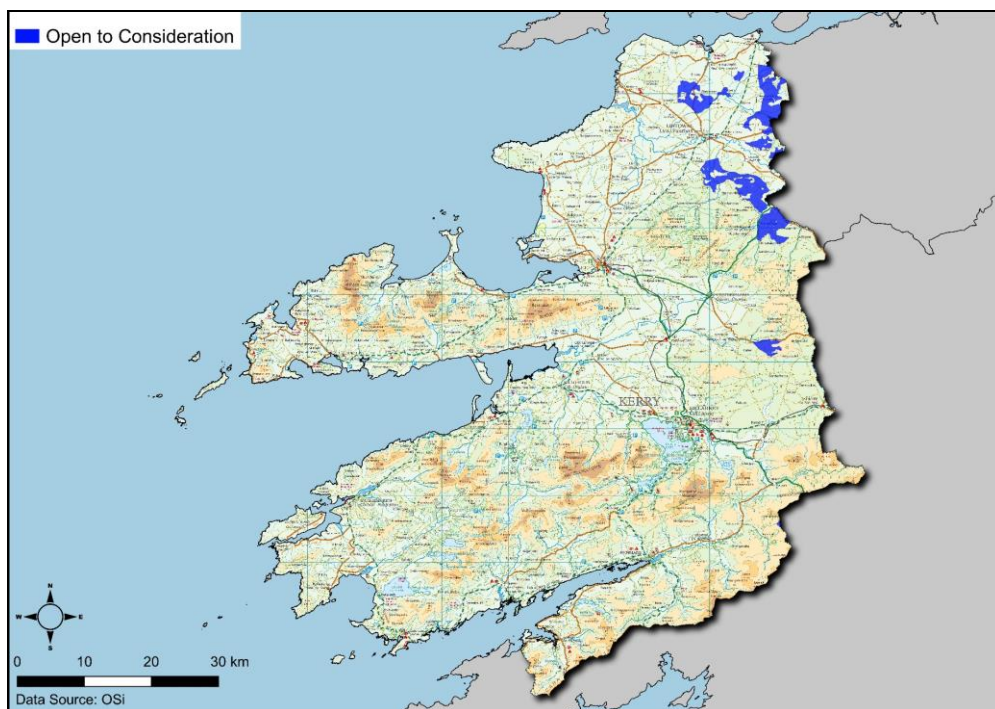


Figure 5-24 Areas identified for open to consideration for wind further to *sieve mapping analysis* including landscape sensitivity

5.10.3. Existing Environmental Problems Relating to Landscape Relevant to the Plan.

Kerry is traditionally renowned for landscapes of significant National value including those associated with the iconic seascapes and mountain ranges of Dingle, Iveragh and Beara Peninsulas. Archaeological and cultural landscapes include iconic panoramic seascapes out to the Skelligs and Blasket Islands, but also lesser known archaeological landscapes which includes cluster of sites, as identified in the KCDP. These landscapes are sensitive to inappropriate developments, which further to scale, nature and location can detrimentally impact sensitive landscapes. Rural settlement patterns has also seen interventions in the rural landscape. The separation between urban and rural becomes blurred with the further encroachment of urban infrastructure into rural areas. Large scale infrastructure projects, including on-shore wind development and associated energy infrastructure has also the potential to significantly affect landscapes and associated views and prospects and visual amenity.

5.11. Evolution of the Environment Baseline without the KCDP 2022-2028

SEA legislation requires that consideration is given to the likely evolution of the current environment baseline where implementation of the draft plan/programme does not take place. This is presented below in Table 5-19.

5.12. Interrelationships between Environmental Factors

The environmental factors assessed in the preceding sections are populations and human health; biodiversity (flora and fauna); soil; water; air quality; climatic factors; material assets; cultural assets and landscape. All factors are interlinked with many depending on or influencing other factors in complicated and complex interrelationships. This is particularly evident in the interrelationship between water; biodiversity, soil and climatic factors. More recent research has heightened an awareness of the linkage between air quality and human health. Air quality in turn is heavily influenced in Ireland (including Kerry) by air pollution – specifically from transport and burning fossil fuels for heat. Sprawling developments with increased dependence on car travel is significant in Ireland’s challenges for climate action. As the KCDP has the potential to affect these parameters – specifically in promoting more sustainable, compact development, the Environmental Report assesses the implications of the CDP on the interrelationships identified below in Table 5-20.

Table 5-19 Likely evolution of the environmental baseline in the absence of the plan (KCDP 2022-2028).

Environmental Parameter	Likely Evolution in the Absence of the Plan
Population/ human health	<ul style="list-style-type: none"> • As regards settlement patterns in the county, in the absence of the plan, settlement patterns would continue to follow the existing <i>Core Strategy</i> outlined in the KCDP 2015-2021, • While the existing core strategy supports matching population growth with settlements identified in the settlement hierarchy and has a rural housing strategy, the new KCDP strengthens these provisions by using the most up to date population figures and trends as identified in the RSES, • Guiding principles for a “town centre-out approach” “10 minute towns” and “placemaking” are strengthened in the new KCDP as informed by the most recent climate policy including consolidated growth; infill of brownfield sites; and an emphasis on housing in settlements with sufficient infrastructure – existing or proposed over the lifetime of the plan, • A <i>modal shift</i> in transport that seeks to align or integrate spatial planning with transport is unlikely to evolve as significantly in the absence of the plan, • The new KCDP also has an updated <i>Rural Housing Policy</i> and supports the latest National rural development policy and housing policy including the national <i>Housing for All</i>. Again although the existing CDP makes provisions for rural housing and other housing needs it is noted that housing policy continues to evolve and the county will need to respond accordingly, this may not occur as fluidly in the absence of the plan, • In the absence of the plan the <i>Healthy Ireland</i> programme will continue to roll out by stakeholders and is not specifically dependent on the KCDP, • Similarly, certain activities that require licences for emissions to air, water, noise/odour are governed by specific waste legislation which will still be applicable in the absence of the plan, • However, it is noted that the new KCDP will strategically guide where development is to be considered, further to proper planning and sustainable development. It will include updated development management guidelines that will oversee developments that could give rise to activities that require licensing, • Air quality as a significant human health issue identified in the plan is caused by both space heating and traffic. Although the existing plan provides measures to mitigate these causes, the new plan reflects the growing science of “co-benefits” that is evolving from climate policy, where long-term efforts to tackle GHG emissions will also have co-benefit for air quality and therefore human health, • In the absence of the plan trends identified in Chapter 5 as regards settlement patterns could continue causing a disconnect between population growth and protection of water resources which in turn is strongly linked to human health. This is particularly relevant in both water abstraction and waste water management, impacts on water resources from mis-aligned population growth and infrastructure capacity is identified in Chapter 5, the new KCDP aims to strengthen settlement policy particularly in rural areas.
Biodiversity	<ul style="list-style-type: none"> • European and National legislation in relation to the protection of biodiversity would still be applicable in the absence of the plan, the Natura 2000 network for example would remain in place, • the KCDP does however play an integral part in the spatial planning of the county and the new plan seeks to direct future population growth and physical and economic development into an updated settlement hierarchy strategy that aligns with the NPF and RSES, • Notwithstanding the existing core strategy, it is noted in this ER that population growth in the county between census has predominately

Environmental Parameter	Likely Evolution in the Absence of the Plan
	<p>occurred in rural areas in the county with settlements declining,</p> <ul style="list-style-type: none"> • This implies development in greenfield sites, often on the outskirts of our towns and village settlements, this can impact on biodiversity, particularly sites of local ecological importance such as semi-natural grassland habitats, loss of hedgerows due to sightlines and both construction and operational impacts on water resources, • In particular, one-off housing with a reliance on septic tanks/onsite WWTUs is identified in the WFD as a diffuse pressure on several waterbodies in the county, • In the absence of the plan, these trends may continue, with associated pressures on both aquatic and terrestrial species and habitats which leading to habitat loss and/ or fragmentation. • In the absence of the plan the county's Biodiversity Action Plan, would not be integrated into planning policy, as it is drafted after the adoption of the present plan in 2015.
Soils	<ul style="list-style-type: none"> • There is currently little or no legislation relating directly to soils and soil protection in Ireland • Certain legislation relating for example to the Nitrates Directive; reclamation/drainage of wetlands; Habitats Directive and EIA Directive are applicable and will continue to be applicable in the absence of the plan, • however, the new KCDP aims to reflect evolving policy in relation to the protection of soil, particularly in the evolving sciences around soil as a sink/sequester of carbon, • the new KCDP seeks to consolidate growth in areas with existing infrastructure, with % growth in brown/infill sites being targeted in the KCDP. This will prevent loss of soil resources in green field sites and in the absence of the plan, these targets may not be achieved.
Water	<ul style="list-style-type: none"> • In the absence of the plan, the 3rd cycle of the WFD would continue to roll out and this framework relates to the protection of all waterbodies –surface, ground, estuarine/transitional and coastal. • However, it is noted the KCDP will play an integral part in planning sustainable settlements, including settlements that have sufficient water capacity – both waste water and drinking water, • The new KCDP is drafted with the most recent population figures and the most recent programme of works by IW, • Although the existing KCDP provides comprehensive objectives and policies that seek to protect water resources, the new plan reflects the growing science of “co-benefit” that is evolving from climate policy, where long-term efforts to tackle water quality will also have co-benefit for biodiversity, air quality, human health and well-being, • Integration of protection of watercourses -water dependent habitats and species – integral to proper planning and sustainable development has also been updated and strengthened in the new plan with a particular strengthening of support for nature based solutions to addressing waste water/water run-off from development.
Air Quality	<ul style="list-style-type: none"> • Air quality in the county is good overall and applicable air licencing requirements for legislated activities will continue in the absence of the plan, • The KCDP however will in the long-term impact on air quality through the provisions for spatial planning effecting settlement patterns, principles that are supported in the new plan via such policy as “10 minute towns”, • In the context of a land use plan, travel times/commuting distances to work and amenity/recreational activities is heavily influenced by settlement strategies. Sustainable settlements where people work and live in close proximity is a pre-requisite for reduced transport times this coupled with the promotion of active travel and sustainable transport will see a reduction in emissions,

Environmental Parameter	Likely Evolution in the Absence of the Plan
	<ul style="list-style-type: none"> As regards space heating, it also allows for sustainable forms of energy to be used, such as district heating schemes, that will see a reduction in emissions as we transition away from fossil fuels. This will improve air quality particularly at a local town/street level.
Climatic factors	<ul style="list-style-type: none"> Spatial planning is now a central pillar of a national response to climate change – both mitigation and adaptation. In the absence of the plan the strengthening of climate policy as it relates to spatial planning; the <i>modal shift</i> in transport, sustainable transport initiatives and alignment with energy planning may not occur as rapidly, In the absence of the plan policy for compact, less energy-intensive forms of development in the county including the promotion of the re-use of existing built stock – infill/brownfield sites – and energy efficiency, may not be realised, Aligning development with the ever evolving technologies around RE would not occur while the new plan reflects the most recent national climate policy on targets for emissions as well as support the National Climate Action Plan 2021 and the future LA Climate Action Plans, It is noted that in the absence of the plan, the county’s existing policy on RE, the RES adopted in 2012, would continue to guide RE development. The RES has more areas considered open for consideration for on-shore wind. However, the new plan provides policy and objectives that support repowering in existing area, the support for off-shore energy and evolving technologies such as “green hydrogen”, In the absence of the plan the enabling infrastructure required to support RE particularly the decarbonisation of electricity via the provision may not be as strongly supported, In the absence of the plan the county’s Climate Adaptation Strategy would not be integrated into planning policy, having been adopted after the existing 2015 KCDP plan.
Material assets	<ul style="list-style-type: none"> In the absence of the KCDP there would be no updated framework, aligned with the NPF and RSES, directing development and associated requirements such as active travel infrastructure, public transport investment and new roads to the appropriate locations, protecting the land needed to safeguard such infrastructure and provide new infrastructure or for balanced the competing demands of different activities in an area, New emerging RE technologies particularly in the sustainable development of the Shannon Estuary may not be realised as rapidly in the absence of the plan.
Cultural assets (architecture, archaeology and culture)	<ul style="list-style-type: none"> National legislation applies to both archaeological and architectural heritage and will continue to apply in the absence of the plan. However, architectural heritage in particular is promoted in the CDP through a number of measures including the promotion of the re-use of existing building stock in town centres; village renewal schemes that seek to promote historic centres and masterplans that aim to rejuvenate sites. Although the expression of the arts is unlikely to be directly affected by the CDP plan, land use planning can support development that provides places where creative practice and engagement with arts, culture, heritage and creativity can be established Irish language requirements are provided for in legislation that will apply in the absence of the plan, however the CDP has updated policy in relation to housing in the Gaeltacht areas further to recent publication of National housing policy.
Landscape	<ul style="list-style-type: none"> Landscape is protected by the policies and objectives contained in the KCDP, and this has been reviewed and updated in the new CDP, In the absence of the plan existing policy would apply and while this supports landscape protection, the proposed policy framework has been updated to reflect current landscape conditions culminating in defining visually sensitive areas in the county, including those sensitive to cumulative impacts.
Flooding	<ul style="list-style-type: none"> Flood Risk Assessments would continue to apply, but the incorporation into the KCDP would ensure a strategic approach in planning policy.

Table 5-20 Interactions between environmental factors

Cause	Biodiversity	Population/ Human Health	Soil	Water	Air	Climate	Material Assets	Cultural Heritage	Landscape	Flood
Biodiversity		X	X	X	X	x			X	X
Population/ Human Health	X		X	X	X	x	X	X	X	X
Soil	X	X		X		x	X			X
Water	X	X	X			x	X		X	X
Air		X				x				X
Climatic s	X	X	X	X	X					X
Material Assets		X	X	X				X		
Cultural Heritage		X					X		X	X
Landscape	X	X		X				X		
Flood	X	X	X	X		X	X	X		

6. ENVIRONMENTAL PROTECTION OBJECTIVES (EPO), TARGETS AND INDICATORS

6.1. Introduction

SEA uses a combination of objectives, targets and indicators to describe and monitor change and predict impacts of proposed plans and programmes on the environment. Objectives and targets set aims and thresholds that should be taken into account when assessing the impact of proposed plans on the environment. Targets usually underpin objectives and have a timeline and/or threshold which once breached, would trigger remedial action and thereby providing an early warning signal. Indicators are used to illustrate and communicate impact in a simple and effective manner. Indicators can also be used to form the basis of a monitoring programme for the plan, the results of which will inform the next review. Guidance from the EPA in 2020 on monitoring within the SEA process – *Guidance on SEA Statements and Monitoring* expands further on best practices in relation to monitoring. This guidance is followed in the SEA of the KCDP. As the plan is implemented the way in which monitoring data is or will be available and from where is outlined in more detail Chapter 9.

6.2. Development of SEA environmental protection objectives (EPO) and targets

The list of environmental protection objectives (EPO) and targets used in this environmental report is outlined in Table 6-1. The list is based on the environmental topics set out in Annex 1 (f) of the SEA Directive, which might be significantly affected by the Plan. These include: population and human health, biodiversity (flora & fauna), water, soil, air quality, climatic factors, material assets, cultural heritage, landscape and the interrelationship between these factors. Flooding is also included. The effects on these topics addresses the positive and negative, short, medium and long-term, permanent and temporary, cumulative and synergistic impacts.

6.3. Development of SEA indicators

The purpose of indicators is to monitor the effectiveness of the Plan in meeting the SEA environmental protection objectives and targets. The methodology for the development and selection of the SEA indicators is based on:

- Overarching policies from plans/programmes of relevance to each environmental parameter,
- Identifying existing environmental problems, which will inform the development of SEA objectives and indicators,
- A limited number of objectives and indicators will be used, which will keep the assessment and monitoring manageable and strategic.

The decided indicators for this SEA are based on the collection and assessment of baseline data and consultation with statutory consultees as part of the scoping process (see Section 3.2.1). The EPOs, objectives, targets and indicators used in this environmental report are outlined in Table 6-1.

Table 6-1 SEA environmental protection objectives (EPO), targets and indicators of the KCDP 2022-2028.

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)
Population	P1: Guide the future development of the county in a sustainable manner that reflects the existing character and amenities of the area and improves the quality of life for the existing and future populations.	That populations in the plan area have access to high quality residential, amenity and public infrastructure with sustainable travel patterns	<ul style="list-style-type: none"> Population growth of settlements identified in the <i>Core Strategy</i>, Number of new houses within settlement boundaries Number of derelict houses/vacant properties in use Housing delivered for the Travelling Community. Housing delivered for special needs groups such as older people or disabled. Travel patterns and modes of transport within the county in comparison to 2016 baseline Number of new addresses in rural areas as per the Geodirectory Register, Economic growth in plan area in various sectors supported by CDP Monitor vacancy rates in settlement boundaries, Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways Footfall within both the town centre and the retail core/core shopping areas of main settlements Number of regeneration sites progressed. Number of public realm strategies/town centre health checks carried out over the lifetime of the plan Number and usage of digital working hubs
Human Health	HH1: Protect the public from threats to health and wellbeing across the functions of relevance to the KCDP	That the quality of the local environment that is governed by the KCDP protects the health and wellbeing of the population	<ul style="list-style-type: none"> Compliance of waste-water infrastructure to legislation/regulations/conditions for relevant licences, permits etc for discharges, Compliance of water supply schemes with relevant legislation/regulation/conditions for abstraction and consumption, Compliance of infrastructure projects to relevant legislation/regulation/conditions re-noise, odour and/or air quality. Compliance of waste management sites Health clusters from any activities facilitated by CDP Implementation of the Noise Action Plan Health trends from <i>Healthy Ireland</i> linked to the CDP
Biodiversity (Flora/Fauna)	B1: Protect biodiversity including ecosystem services	That biodiversity is integrated into all decision making across the functions of the KCDP	<ul style="list-style-type: none"> Completion of a Biodiversity Action Plan for the county and number of actions completed Compliance with Article 6 of the Habitats Directive for land use plans and other plans/programmes supported in the CDP Integration/provision of green/blue infrastructure <i>All Ireland Pollinator Plan</i> projects logged by biodiversity office Public realm plans; village design statements/Masterplans that support biodiversity initiatives; Developments permitted in proximity/within European sites/sites of ecological importance. Status/risk of waterbodies under the WFD that reflect pressures from land use governed by the CDP. Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways
Soil	S1: Protect soils	That the soil/geology and	<ul style="list-style-type: none"> Audit of GSC

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)
	against pollution, and prevent degradation of the county's soil resource	the geological heritage of the county is protected	<ul style="list-style-type: none"> • Changes in land uses/soil types in CORINE • Status/risk of groundwater waterbodies under the WFD • Status of Geopark and geotourism projects • % brownfield sites developed compared to greenfield sites • Geohazards from activities/developments supported in plan including flooding • Number of application granted for soil importation/inert waste facilities, • Number of planning permissions granted and area of land permitted for excavation and extraction of non-renewable sand, gravel and rock deposits. • Number of landslides linked to land uses governed by the CDP
Water	W1: Ensure waterbodies are protected, maintained and improved in line with the objectives of the WFD	That the functions governed by the plan ensure compliance with the objectives of the WFD for all waterbodies within the plan.	<ul style="list-style-type: none"> • Status/risk of waterbodies under the WFD with pressures associated with land uses governed by the CDP • Status/risk of <i>blue dot</i> catchments where pressure identified from land uses governed by the CDP • Compliance of water treatment plants and waste water infrastructure for settlements with targeted population growth • Compliance with existing legislation/regulations/conditions for relevant licences, permits etc for discharges, • Number of households served by urban wastewater treatment plants/ septic tanks/ individual WWTP or other systems, • Number of existing septic tanks inspected, and remediation works undertaken located within designated WFD Priority Areas for Action and/or Blue Dot/high status catchments, • Number of households served by public water supplies • Number of plants exceeding the Emission Limit Values (ELVs) for Wastewater Treatment Discharge licence set by the EPA, • Implementation of flooding projects, • No of blueways developed
Air Quality	AQ1: Protect local air quality from emissions that are harmful to human health and the local environment	That the quality of the local environment governed by the functions of the plan protects local air quality	<ul style="list-style-type: none"> • Compliance with existing legislation/regulations/conditions for air quality e.g. IPCC • Population/growth of settlements identified in the <i>Core Strategy</i> • Travel patterns and modes of transport within the county • Number of new addresses in rural areas as per the Geodirectory Register, • Changes in the sources of space heating used by populations • Number of new air monitoring stations in the county • Air quality trends particularly in Tralee and Killarney • Integration/provision of green and blue infrastructure
Climatic Factors	C1: Ensure the plan supports a transition to a climate resilient, biodiversity rich and climate neutral economy and society	That mitigation and adaptation to climate change inform the functions/decision making governed by the plan	<ul style="list-style-type: none"> • Population/growth of settlements identified in the <i>Core Strategy</i> • Travel patterns and modes of transport within the county • Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways • Number of new addresses in rural areas as per the Geodirectory Register, • % brownfield sites developed compared to greenfield sites

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)
			<ul style="list-style-type: none"> • Number of new houses within settlement boundaries • Number of derelict houses/vacant properties in use • Establishment of a decarbonising zone, • Establishment of a low-carbon/low-emissions towns centres, • District heating schemes identified and/or development • Roll out of EV infrastructure • Number of Sustainable Energy Communities (SEC) established in the county • Number of buildings with a BER rating of B2 or more as a % of overall building stock • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • RE projects granted in the Tarbert-Ballylongford land bank, • Micro-generation projects in the county over lifetime of the plan, • % change of land uses for bioenergy production • Flooding/coastal protection schemes undertaken • Other actions from the Kerry Climate Change Adaptation Strategy (and future LA CAP) completed.
Material Assets	M1: Protect the material assets of the county while optimising new assets to match proposed growth and sustainable development.	To promote sustainable development that matches existing and new infrastructure with the proposed population growth for the county.	<ul style="list-style-type: none"> • Completion of infrastructure projects identified in the KCDP • Amount of (Km) new greenways, cycleways and footpaths provided, • km of long distant walks available in the County. • Growth in settlements with sufficient water infrastructure –drinking and waste water treatment • Completion/upgrade/improvements of water infrastructure, • Roll out of National Broadband Plan - Number of households serviced and % of households with the minimum broadband speed of 30Mbps and % of households with the target broadband speed of 100Mbps • Creation of innovation/creativity/co-working hubs/digital centres • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • Projects granted in the Tarbert-Ballylongford land bank, • % brownfield sites developed compared to greenfield sites • % of waste going to landfill and recycling when compared with 2020 figures, • Progress of bus shelter upgrade programme
Cultural Heritage	CH1: Protect the cultural heritage of the county	The cultural heritage of the plan area, including setting and curtilages are protected	<ul style="list-style-type: none"> • Archaeological Impact Assessments, and/or archaeological investigations undertaken • PS/ACAs identified and any new additions • Recording of non-designated built heritage e.g. vernacular buildings • Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites • Visitor numbers for iconic cultural heritage sites. • Number of literary, musical, artistic and other cultural initiatives undertaken in the county • Implementation and outcomes of the KCC Scéim Gaeilge IV, 2018-2021

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)
			<ul style="list-style-type: none"> • Changes in number of Irish speakers within Gaeltacht areas
Landscape	L1 Protect the landscape of the county	That landscapes identified in the plan, including seascapes, are protected from negative visual impacts	<ul style="list-style-type: none"> • Developments permitted within/in proximity to areas of high value landscape or visual sensitive areas, • Number of houses/permissions on approach roads into towns and villages or within a certain radius of same, • Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites
Flooding	F1 Protect the public and infrastructure from inappropriate development in areas at risk of flooding	That sustainable flood risk management practices are implemented in the plan area in adherence to DOEHLG's <i>Guidelines on Flood Risk Management</i>	<ul style="list-style-type: none"> • Local Area Plans that undergo SFRA • Integration/provision of green and blue infrastructure • Development within areas identified as at flood risk • Implementation of CFRAMs and flood relief schemes identified in the county • Incorporation of specific nature based solutions at plan/project level

7. LIKELY SIGNIFICANT EFFECTS FROM THE IMPLEMENTATION OF THE KCDP 2022-2028

7.1. Introduction – *likely significant effects*

This section gives an overview of the assessment of the implementation of the preferred alternative outlined in Chapter 4 for the KCDP 2022-2028 for possible likely significant effects on the environment. The environment is defined as per the topics listed in the SEA Planning Regulations and as outlined in Chapter 5. The assessment of the plan for likely significant effects is undertaken by assessing each volume of the KCDP (ie various chapters; strategies; policies; objectives; zonings appendices etc contained therein) against the EPOs presented in Chapter 6.

Potential *environmental effects* are classed as being:

- i. a potentially positive environmental effect (+),
- ii. a potentially negative environmental effect (-),
- iii. uncertain i.e. potentially both positive and negative environmental effect or in the absence of further the detail the effect is unclear (?) and
- iv. a neutral or no significant environmental effect (0).

In assessing the likely significant effects of the KCDP using the above methodology the full range of effects as set out in Annex I of the SEA Directive are considered. These are secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive, negative, indirectly positive, neutral, negative, indirectly negative and uncertain.

It is acknowledged that due to the strategic nature of the CDP there will be scenarios where aspects of the plan can have multi-environmental effects (negative and/or positive) across the range of environmental topics considered in the SEA. Policies that promote development for example can by their nature cause effects on biodiversity, water and/or soil. At the same time if the development e.g. promotes consolidated growth of our towns and villages in compliance with higher level plans, the environmental effects can be positive for health and well-being, air quality and climate change/action.

It is acknowledged at the onset that many policies/objectives of the KCDP will fall into (iii) above. Chapter 8 therefore identifies in the plan where applicable mitigation measures are embedded in the plan to ensure no significant effects are likely. Where in addition more detailed or specific mitigation is required from this SEA and where the SEA has actively changed/amended the plan as appropriate is also outlined in Chapter 8.

This section also includes an assessment of the amendments proposed by the appropriate assessment of the plan (detailed in the NIR) and the SFRA.

Section 7 of this report is structured as follows:

- Section 7.2 Evaluation of the policy contained in the KCDP: This section aims to evaluate the specific policies within the draft KCDP 2022-2028 against the EPOs established in Chapter 6.
- Section 7.3 Evaluation of the objectives contained in the KCDP: This section aims to evaluate the specific objectives of the draft KCDP 2022-2028 against the EOs established in Chapter 6. This includes Tralee, Killarney and Listowel Tralee Town Development Plans.
 - Appendix 2 provides the screening of specific objectives. For ease of presentation, those considered likely to have a - or ? effect on the environment are specifically highlighted in red. Those highlighted in red are discussed in more detail in Section 8 where mitigation is outlined.

- Section 7.4 Evaluation of the zoning contained in the KCDP: This section evaluates the specific zonings within the draft KCDP 2022-2028 against the EPOs established in Chapter 6. The CDP contains the following zoning maps:
 - Tralee town
 - Killarney town
 - Listowel town
 - *Areas open to consideration for wind energy developments and repowering areas* as identified in the *Wind Zoning Methodology* (Volume 1, Appendix 6 and indicated in Volume 4, Appendix 4) and
 - Tarbert-Ballylongford Landbank (Ballylongford Landbank and Tarbert Island) as identified in Volume 4, Appendix 5.
- Section 7.5 Evaluation of the specific infrastructure schemes contained in the CDP: This section evaluates specific infrastructure schemes included in the draft KCDP 2022-2028.
- Section 7.6 Evaluation of Cumulative Effects/In-combination effects
- Section 7.7 Evaluation of the changes made to the KCDP by Elected Members in meetings held on the 22nd and 23rd of November, 2021.

7.2. Evaluation of KCDP 2022-2028 Policy for likely significant effects on the environment

7.2.1. Chapter 1 Introduction Volume 1

This chapter sets out the legislative background to the KCDP review within International, European, National, Regional and Local policy. It gives a brief overview of the County – *Kerry at a Glance* – at the start of the plan making process. It outlines the content of the KCDP which consists of 6 volumes. It defines the concept of sustainable development within the context of the plan as follows: *Throughout the Kerry County Development Plan 2022-2028 the term “Sustainable” is used widely. Sustainable development is defined as that which meets the needs of the present without compromising the ability of future generations to meet their own needs.*

For the purposes of this plan, the conservation of species and habitats in accordance with the requirements of the EU Habitats and Birds Directives is considered to be a vital component of sustainable strategies, policies, and objectives. Similarly, where the term ‘at appropriate locations’ is used within this plan, the protection of the Natura 2000 network inherently applies. Therefore, all policies and objectives supported by the plan are required to be carried out in a manner which does not adversely affect Natura 2000 sites. In addition, the plan only supports strategies plans and projects or aspects of same which are compatible with the requirements of the Habitats Directive.

7.2.2. Chapter 2 Climate Change & Achieving a Sustainable Future Volume 1

This chapter sets out broad principles to provide for the sustainable development of County Kerry. It supports people and employment while transitioning to a low carbon society and which safeguards and enhances the environment.

Topic	Likely Significant Effect of Policy				Comments
	+	-	?	0	
Population /Human Health	+				Embeds climate action of <i>mitigation</i> and <i>adaptation</i> into plan. Many co-benefits for environmental protection (incl. air and water) and health and well-being (improved housing standards/energy efficiencies and heating). Prepares the county for adaptation to climate, building in resilience to possible future weather events and consequences of public and private infrastructure.
Biodiversity	+				Climate Action policies linked to biodiversity/water and soil protection/restoration. Co-benefits possible for each
Soil	+				

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Water	+				environmental parameter at local and catchment level. See also assessment relating to <i>Chapter 12 Energy</i> and associated RE plans/policies/zonings supported in the plan.
Air Quality	+				Policies linked to improved internal and external air quality for house holders/communities and natural heritage sensitive to high emissions. Supports nature based solutions likely to support improved air quality. Supports measures in the country's evolving LULUCF sector and agriculture that seeks to address emissions especially those linked to methane/nitrates.
Climate	+				Embeds all national targets for climate action within the plan including NAF, CAP 19/21 and Kerry' s owns CCAS and future county CAP. Embeds local resilience, community responses/actions and adaptation. Seeks to support <i>Decarbon Zones</i> in the county and move towards decarbonisation targets to 2030 in energy/electricity/heat and transport.
M. Assets	+				Embeds adaptation into plan, the need to ensure all infrastructure is resilient to climate change, in line with Kerry's CCAS and future CAP. Supports the bioeconomy and particularly the possibilities for local energy production and distribution.
Heritage			?		Noted potential significant effects on heritage/landscape from e.g adaptation infrastructure and energy infrastructure supported in this chapter. Policy requires further assessment for mitigation. See also assessment relating to <i>Chapter 12 Energy</i> and associated RE plans/policies/zonings supported in the plan.
Landscape			?		
Flooding	+				<i>Mitigation</i> and <i>Adaptation</i> measures to mitigate future climate change while adapting to projected flooding scenarios in how existing infrastructure is protected and future infrastructure is made climate resilient.

7.2.3. Chapter 3 Core & Settlement Strategy Volume 1

Chapter 3 establishes the settlement and growth strategy for the County, indicating which settlements are to targeted for population growth.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health			?		Targeting populations to existing settlements with available infrastructure capacity. Is in accordance with National and Regional hierarchical plans. Provides projections on population growth and housing demand in line with capacity of infrastructure existing and/or proposed over life time of the plan. Promotes creation of vibrant urban public realm for attractive settlements to reside. Proposes population figures and associated housing targets for key towns Tralee and Killarney – see Section 8.2.2 for an assessment of same. Bar Tralee, Killarney and Listowel, the plan does not set out a quantum of lands to be zoned residential proposed to meet population growth. This is being and will be undertaken at LAP level. Allocates population growth to other settlements with infrastructure availability and/or to be improved over the lifetime

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					of the plan. Allocation further to IW programme of works and capital infrastructure improvements/upgrades. Notwithstanding this it is noted in Chapter 5 that there are plan associated pressures on water resources/material assets in the county. Policy requires further assessment for mitigation.
Biodiversity	+				Promotes future growth of towns, villages and settlements in line with infrastructure, especially water/waste water, available for growth; reduction in urban sprawl/development into green field sites.
Soil			?		Use of brownfield sites identified as both positive and negative for soil, loss of soil function to urban development in urban settings. However, noted consolidation of development in brownfield sites preferred to loss of greenfield/rural sites which provide other ecosystems services such as carbon sequestration, biodiversity and water protection. Policy requires further assessment for mitigation.
Water			?		Noted potential for positive benefits with the <i>Core Strategy</i> to allocate population growth into established settlements/urban centres and therefore less likely to place additional pressures on waterbodies. However, population growth targeted to specific settlements within the county, infrastructure capacity especially water supply and waste water infrastructure highlighted in Chapter 5 as a key environmental consideration in the plan for water. Policy requires further assessment for mitigation.
Air Quality	+				Principles of consolidated growth; town centre first/10 minute towns; <i>placemaking</i> and regeneration of urban core are all underpinned by climate policy; spatial planning to reduce emissions by facilitating <i>modal shift</i> in transport and improved heating systems at community and household level (e.g district heating). Co-benefits of improved air quality at local and household level.
Climate	+				
M. Assets	+				Promotes regeneration of urban areas and existing building stock; alignment of growth with existing infrastructure and where infrastructure is proposed for upgrades especially water infrastructure.
Heritage			?		Consolidation of urban centres potential for effects on cultural heritage including architecture, archaeology, existing places and identity including landscape. Policy requires further assessment for mitigation.
Landscape			?		
Flooding			?		Several towns, villages and settlement centres historically development in areas prone to flooding. Also possible climate change impacts likely to augment existing flooding patterns coastal and fluvial. Policy requires further assessment for mitigation.

7.2.4. Chapter 4 Towns & Villages Volume 1

Chapter 4 builds on the core strategy by establishing the principles of development in the County's towns and villages. It delivers on the vision of both the NPF and RSES in relation to compact growth, including the concept of regeneration of town and village cores, and the reuse of brownfield, vacant and derelict sites.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Principles of consolidated growth; town centre first/10 minute towns; <i>placemaking</i> ; regeneration of urban core; urban design and improved public realm to improve places where people work and live – all identified as positive effects. Urban design as a means to promote access for all. Principles of compact growth/mix use developments in settlements including new residential options. Residential densities and building heights in line with national guidance supported in the plan for more compact growth and energy efficiencies potential especially for communal heating such as district heating schemes. Retail policy outlined with a focus on a hierarchy of retail development and land use in the county – linked to the settlement hierarchy and core strategy. Noted that Tralee and Killarney, in line with RSES are focus for significant retail development. No retail zoning in the CDP but land zoning to apply at LAP level will use mixed use zoning to facilitate diversity of uses in town centres. Policy on fast-food, takeaways and betting offices within the plan that seek to prevent oversupply in certain areas.
Biodiversity	+				Promote future growth of towns, villages and settlements with infrastructure, especially waste water, available for growth; reduction in urban sprawl/development into green field sites. Noted emphasis on public realm, potential to incorporate biodiversity and other nature based solutions into urban centres.
Soil			?		Use of brownfields site both positive and negative, loss of soil function to urban development. However, noted consolidated development preferred to loss of greenfield/rural sites which provide other ecosystems services such as carbon sequestration, biodiversity and water protection. Policy requires further assessment.
Water	+				Population growth targeted to settlements with infrastructure capacity especially water supply and waste water infrastructure. Less reliance on single onsite waste water units. Public realm to include nature based solutions, co-benefits for water and biodiversity.
Air Quality			?		Focus on urban growth, significant effects on air quality due to traffic/space heating. However, noted climate policy seeks to address via promotion of renewable energy and energy efficiencies and a move to electric heating. Policy requires further assessment for mitigation.
Climate	+				Principles of consolidated growth; town centre first/10 minute towns; <i>placemaking</i> and regeneration of urban core are all underpinned by climate policy including reduction in traffic and development of circular economy; spatial planning to reduce emissions by facilitating <i>modal shift</i> in transport and improved heating systems at community and household level (e.g district heating). Co-benefits of improved air quality at local and household level. Re-use of existing buildings stock promoted (embedded carbon) reducing need for further development.
M. Assets	+				Promotes regeneration of urban areas and existing building stock; alignment of growth with existing infrastructure and where infrastructure is proposed for upgrades especially waste water; promotes opportunity sites in several towns including Tralee,

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					Killarney and Listowel; promotes new public transport options especially for cycling/pedestrian use.
Heritage			?		Consolidation of urban centres potential for effects on cultural heritage including architecture, archaeology, existing places and identity including landscape. However, noted policies aim to protect and enhance existing infrastructure including specific policy in relation to shop fronts/vernacular development; adaptation reuse of historic buildings. Policy requires further assessment for mitigation.
Landscape			?		
Flooding			?		Several towns, villages and settlement centres historically development in areas prone to flooding. Also possible climate change impacts likely to augment existing flooding patterns coastal and fluvial. Policy requires further assessment for mitigation.

7.2.5. Chapter 5 Rural Housing Volume 1

Chapter 5 focuses on Rural Housing, the strengthening of rural communities, through the regeneration of rural towns and villages and providing policies for the specific needs of sustaining population in rural areas.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Policy seeks to sustainably manage rural settlement patterns in the county. Supports National and Regional spatial planning policy for rural areas with objectives that outline policy for three <i>rural area types</i> – <i>rural areas under significant urban influence</i> ; <i>rural areas under urban influence</i> and <i>other rural areas</i> . Seeks for sustainable growth of rural communities against urban generated demand. Acknowledges the need for development in rural areas and seeks to support the <i>Housing for All</i> as it relates to rural areas and <i>New Homes in Small Villages</i> . Supports cluster development in existing settlements. Includes objectives to support holiday/second homes within existing settlements.
Biodiversity	+				Seeks to manage development patterns in rural areas under three rural area types; seeks to discourage both urban sprawl into greenfield sites and one-off developments in rural area, likely to reduce significant effects on biodiversity and soil resources.
Soil	+				
Water			?		Policy for three rural area types seeks to promote development with settlement strategy and outlines opportunities for small settlements to accommodate rural housing. Noted that settlements identified often have little or no waste water infrastructure, possible impacts on water resources. Policy requires further assessment for mitigation.
Air Quality	+				Policy seeks to sustainably develop rural areas and is underpinned by future settlement patterns that need to promote sustainable living and travel patterns; reduce emissions from transport; provide for more opportunities for public services including waste water infrastructure and heating schemes. The policy is supported by National and Regional climate action policy which seeks to reduce the climate impacts of one-off housing developments particularly when generated due to proximity to urban centres.
Climate	+				

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					Policy also supports the reuse of existing building stock, in line with climate policy/bioeconomy.
M. Assets	+				Promote infrastructure in rural areas particularly communications/smart technology sectors including National Broadband Plan, working hubs, remote working facilities.
Heritage	+				Seeks to promote use of traditional/vernacular building stock for a variety of uses. Potential effects on historic building stock although overall deemed positive to ensure the adaptive reuse of existing buildings.
Landscape	+				Seeks to manage development in rural areas urban sprawl specially in recognised areas under urban influence and holiday home ownership
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.6. Chapter 6 Sustainable Communities Volume 1

Chapter 6 targets the requirements for establishing and maintaining healthy, sustainable and inclusive communities through the provision of community and social infrastructure, appropriate housing and broader social inclusion policy across a range of sectors.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Supports community and social infrastructure in consultation with a wide range of stakeholders; promotes “live work” communities; <i>placemaking</i> and 10 minute towns. Health and well-being supported via <i>Healthy Kerry Programme</i> and through spatial policy such as green infrastructure. Promotes climate action including decarbonising of heating space and improved building standards – better health outcomes. Aims to build capacity and resilience within the community including climate action. Promotes access for all; diverse communities and age-friendly communities. Outlines the appropriate housing and social inclusion policy over the lifetime of the plan as aligned with <i>Housing for All</i> national plan (see also Chapter 7).
Biodiversity	+				Continues to embed consolidated growth of benefit to biodiversity, water and soil; promotes green infrastructure for health and wellbeing, climate action and sustainable communities.
Soil	+				
Water	+				
Air Quality	+				Supports spatial planning policy, such as <i>Healthy streets</i> that is likely to see <i>modal shift</i> away from car usage to cycling; walking and public transport; promotes climate action including decarbonising of heating space and improved building standards.
Climate	+				Promotes climate action, building capacity and resilience within the community to climate change
M. Assets	+				Supports the provision of social, sporting, educational and community based infrastructure. Supports energy efficiency in building stock.
Heritage			?		Continues to promotes consolidated growth, “live work” communities– advocates the reuse of existing building stock within existing settlements. Consolidation of urban centres potential for effects on cultural heritage including architecture, archaeology, existing places and identity including landscape. Policy requires further assessment for mitigation.
Landscape			?		

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.7. Chapter 7 Housing for All Volume 1

Chapter 7 section deals with Housing Policy based on the housing needs identified in the Housing Needs Demand Assessment and Housing Strategy for Kerry in Volume 6 of the Plan.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Supports the recently published <i>Housing for All</i> and its key aims of the provision of suitable and affordable housing, built to a high standard in the right place. This chapter outlines the policy as it relates to Kerry with a focus on the provision of housing for people with disability; older generations; traveller and other ethnic communities; refugees and the homeless.
Biodiversity				0	Policy specifically relates to strategic aims of <i>Housing for All</i> and National and Regional spatial planning policy for housing in the right place. No specific policy identified as likely to significantly affect biodiversity, water or soil.
Soil				0	
Water				0	
Air Quality	+				Policy for <i>Housing for All</i> is aligned with National and Regional climate action policy specifically focusing on energy efficiency in new design and retro-fits; reuse of existing building stock; housing in the right place aligned with settlement strategy.
Climate	+				
M. Assets	+				Seeks to improve social housing stock at new build and/or retro-fit, improve energy efficiency and universal design.
Heritage			?		Reuse of historic structures/vacant buildings and consolidation of urban centres potential for effects on cultural heritage including architecture, archaeology and landscapes at street/town level. Policy requires further assessment for mitigation.
Landscape			?		
Flooding				0	Policy specifically relates to strategic aims of <i>Housing for All</i> and National and Regional spatial planning policy for housing in the right place - potential flooding risk likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.8. Chapter 8 The Gaeltacht, Culture and Heritage Volume 1

This chapter contains the general planning policies and principles which recognises the importance of identifying, valuing, and safeguarding our linguistic, archaeological, architectural, and cultural heritage for future generations through appropriate protection, management, and enhancement measures or via the sensitive development of this resource. It includes a list of appendices attached in Volume 3 namely: Appendix (1) List of Public Rights of Way; Appendix (2) The Archaeology of Kerry - An Overview; Appendix (3) National Monuments & Registered Monuments; Appendix (4) Archaeological Landscapes Appendix (5) Record of Protected Structures; Appendix (6) Proposed Additions to the Record of Protected Structures; Appendix (7) Architectural Conservation Areas.

Likely Significant Effect of Policy (including Appendix 1-7)					
Topic	+	-	?	0	Comments
Population /Human Health			?		Supports cultural heritage of communities including archaeological, architectural and linguistic heritage. Seeks to address housing need versus holiday home ownership coupled with the need to support Irish language policies. Noted that policies seek to balance housing need with the protection and promotion of the Irish language, possible conflicts identified. Migration of non-Irish speakers' potential to affect viability of the language. Policy requires further assessment for mitigation. ROW listed in the CDP with 2 new additions identified.
Biodiversity			?		Noted the chapter supports a range of economic development in the area. There is the potential for physical developments to significantly affect biodiversity, soil, and/or water depending on location. Also seeks to promote tourism/visitors to the area and forms part of the <i>Wild Atlantic Way</i> which can place pressure on natural resources. Policy requires further assessment for mitigation.
Soil			?		
Water			?		
Air Quality	+				<i>Dingle Hub</i> is supported which is a significant community based initiative that seeks to address a number of challenges on the peninsula notably a community based response to climate action. Range of multi-stakeholder initiatives being rolled out across the peninsula driven by the local community. Policy towards built heritage promotes re-use in line with <i>Renovation Wave</i> policy and climate action.
Climate	+				
M. Assets	+				Supports development of Gaeltacht areas via collaboration with a range of stakeholders. Includes digital hubs <i>Gteic</i> being rolled out within Dingle and other settlements. Supports Gaeltacht stakeholders such as Údarás na Gaeltachta that seek to promote economic development in the region.
Heritage	+				Supports cultural heritage of communities including archaeological, architectural and linguistic heritage notably policy relating to the county's Gaeltacht areas, the Basket Islands and Skellig Michael, existing and future UNESCO site's. Provides the framework for Gaeltacht Service Towns (GST) and Language Planning Areas (LPA). Also includes positive policy towards built heritage listing updated PSs and ACA whilst promoting adaptive reuse/regeneration of existing building stock. Several new PS are proposed for inclusion (8) and ACAs – see volume 3. Archaeological landscapes also listed – see volume 3 – for protection/preservation of archaeological monuments and their setting including inter-visibility. Aligns use of Irish Language with architectural heritage particularly in local streetscapes. Supports culture and the arts promoting the supporting/enabling creative and vibrant communities and artistic engagement.
Landscape	+				
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.9. Chapter 9 Economic Development Volume 1

This chapter sets out the planning policies and objectives in support of the economic development of the County and puts in place a spatial planning framework which will deliver the required development patterns that maximise the conditions for sustainable economic development in Kerry.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health			?		Policy supports a range of plans and specific projects that have the potential for both potential positive and negative effects. Noted that plans/projects are to align with higher level National and

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					<p>Regional Plans. Noted the policy seeks to promote sustainable development in settlements/communities to create critical mass for population; infrastructure, skills and connectivity. Identified as key factor to drive economic growth. Particular focus on attracting inward investment and driving future economic growth through the development of growing knowledge and technology-based industries and balanced regional development – particular focus on <i>Kerry Hub and Knowledge Triangle</i> and the <i>North Kerry/West Limerick/Shannon Estuary/Clare Settlement Network</i>. Higher level education to meet the needs within a dynamic knowledge-based information/communication technology driven economy.</p> <p>County specific Economic Recovery Plan 2021 supported – aligns with national economic plan and <i>Our Rural Future</i>. Noted provision of social infrastructure including amenity/public realm of benefit to local communities. Strong emphasis on climate action across all sectors of society and focus on a <i>just transition</i> to a low carbon future. Policy to support social enterprise especially in rural communities with emphasis on remote/blended working. Policy requires further assessment for mitigation.</p>
Biodiversity			?		<p>Noted the chapter supports a range of economic development in the area. There is the potential for physical developments to significantly affect biodiversity, soil, and/or water depending on scale, nature and location, eg emphasis placed on County’s tourism promotes facilities in our blue flag beaches, greenways, amenity trails, outdoor dining and recreation facilities. Noted that protecting urban and rural areas, including environment, natural and built assets underpins the policy. Also noted that land use zoning for development seeks to place economic development within lands that are suitable and have infrastructural capacity, noting focus on brownfield/infill sites.</p> <p>Policy for Tarbert/Ballylongford landbank and the overall Shannon Estuary (SIFP) including off-shore wind are included – estuary is in proximity to European Sites.</p> <p>Policy supports natural resources including agri-sector, agriculture; fisheries and marine/aquaculture, forestry and extractive industry along with associated their supporting industries. In particular agriculture and forestry noted as key pressures on waterbodies as reported in the 3rd cycle of the WFD. Policy requires further assessment for mitigation.</p>
Soil			?		
Water			?		
Air Quality			?		<p>Noted the chapter supports a range of economic development in the area. There is the potential for development to have positive and negative effects on local air quality and climate action.</p> <p>Strong emphasis on “green and blue economy”; “bioeconomy”; “circular economy” and transition to low carbon economy- all strengthen and align with climate action policy. Policy in support of National and Regional sustainable development of the Shannon Estuary, specifically the Tarbert/Ballylongford Land Bank as an energy hub with potential to support for off-shore wind highlighted. Policy seeks to make LA a key driver of climate action – mitigation and adaptation.</p> <p>Policy to support connectivity – physical and digital. Number of transport projects supported with objectives to support Kerry’s</p>
Climate			?		

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					International Airport at variance with climate policy which seeks to reduce emissions. Supports other land uses such as agriculture, forestry and the blue economy with potential positive and negative effects on climate action. Policy requires further assessment for mitigation.
M. Assets	+				Economic policy attracting inward investment and driving future economic growth through the development of growing knowledge and technology-based industries and balanced regional development. Policy supports economic development across a range of sectors that are likely to improve material assets in the county with social, economic and environmental infrastructure proposed. Provides frameworks for land use zoning and economic development including policy for the strategic Tarbert/Ballylongford landbank and the overall Shannon Estuary. Supports use of natural resources including agriculture, forestry and the marine and linked strategic food hubs.
Heritage			?		Policy supports <i>placemaking</i> and urban/rural regeneration/renewal to enhance business investment/job creation. Linked to protection of local landscapes, townscapes and streetscapes. Policy also supports industry including agriculture, fisheries, forestry, RE and extractive industry which can significantly affect landscapes/heritage at a project/development level. Policy requires further assessment for mitigation.
Landscape			?		
Flooding	+				Policy on climate action supported. Kerry Climate Adaptation Strategy supported which includes specific policy and objectives relating to flooding and future flood relief schemes proposed in the county in line with OPW's CFRAM programme.

7.2.10. Chapter 10 Tourism & Outdoor Recreation Volume 1

This chapter outlines how land use policies seek to augment Kerry's position as an international tourism destination, with a focus on developing green and sustainable tourism. The policies outlined in the Development Plan are supportive of aligning the growth of the tourism industry with the principles of protecting the environment, safeguarding the needs of host communities, job creation and working with the industry in developing practices that promote the circular economy and climate action.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Policy seeks to promote amenities; leisure facilities and other tourist products to both visitors and existing communities in the county. Noted tourism plays a key role in the employment trends in the county either directly or indirectly via hospitality; services and arts/culture sectors. Associated amenity infrastructure such as greenways, blueways etc provide opportunities for health and well-being of local communities. Post-Covid the plan supports <i>Safe Destination programmes</i> in partnership with key stakeholders.
Biodiversity			?		Policy promotes a particular focus on eco and/or green tourism including active holidays such as walking; hiking; kayaking and other outdoor pursuits. Promotes water based tourism and potential for spread of invasive species. In addition, these activities can place pressure on associated habitats and species marine and terrestrial including disturbance of a range of sensitive terrestrial
Soil			?		
Water			?		

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					and aquatic species. Policy requires further assessment for mitigation.
Air Quality				0	None specifically identified.
Climate			?		Policies promote domestic and international travel, growth of the tourism industry and increasing visitor numbers especially around such projects as the <i>Wild Atlantic Way</i> . Associated emissions from travel and transport likely to conflict with climate policy particularly mitigation which seeks to reduce emissions. Policy requires further assessment for mitigation.
M. Assets	+				Promotes integration of tourism with transport links, EV infrastructure; existing and new attractions; key accommodation hubs and well signed/interpreted landscapes/geographical areas such as the <i>Wild Atlantic Way</i> template.
Heritage			?		Promotes arts/culture and local heritage events and festivals including linguistic culture. Promotes access to and increased visitor numbers to many heritage sites, particularly international sites such as Skellig Michael, the Blaskets and Killarney National Park. Potential for increased access provision and/or associated facilities such as parking, signage and interpretation centres with potential effects on cultural heritage sites and/or local landscapes. Policy requires further assessment for mitigation.
Landscape			?		
Flooding				0	None specifically identified, likely to be addressed further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.11. Chapter 11 Environment Volume 1

This chapter contains the general planning policies and principles which will ensure that the natural environment, biodiversity and ecosystems are protected. The chapter aims to deliver benefits essential for all sectors of society and contributes to efforts to reverse the loss of biodiversity and the degradation of ecosystems and the environment. This Chapter is complimented by Chapter 13 Water and Waste Management.

Likely Significant Effect of Policy (includes Appendix 7 – Landscape Review & Maps A-U, Volume 4)					
Topic	+	-	?	0	Comments
Population /Human Health	+				Promotes protection of the environment including environmental parameters directly linked to health namely air quality, noise and water. Also promotes protection of biodiversity and water quality. Supports blue flag and green flag coastal beaches and associated coastal communities. Promotes protection of landscapes.
Biodiversity			?		Promotes protection of biodiversity, water quality and soil including policy for wetlands; peatlands and soil resources. Promotes ecosystem services approach to resource management of terrestrial and marine ecosystems. Outlines specific support for coastal areas including protected sand dune habitats. Promotes protection of geological heritage including the detailed auditing of known geological sites in partnership with GSI. Possible negative effects however also identified particularly from flooding interventions which can have significant effects on biodiversity
Soil	+				
Water			?		

Likely Significant Effect of Policy (includes Appendix 7 – Landscape Review & Maps A-U, Volume 4)					
Topic	+	-	?	0	Comments
					and water resources. Policy requires further assessment for mitigation.
Air Quality	+				Promotes policy for air quality protection at local level particularly linked to fuel/heating space while supports other policy that seek to address air emissions. Promotes climate action policy including mitigation and adaptation. Promotes carbon sequestration/sinks.
Climate	+				
M. Assets	+				Supports evolving Marine Spatial Planning including off-shore energy potential and associated infrastructure.
Heritage	+				Provides specific guidance on protection of landscapes, this includes Appendix 7 in Volume 1 which provides a <i>Landscape Review</i> of the county. The review describes landscapes in terms of type and areas, their visual sensitivity and an impact assessment of various types of developments on these landscapes. This culminates in the identification of <i>visually sensitive areas</i> and <i>views and prospects</i> to be protected in the CDP. They are shown in Volume 4 Maps A-U.
Landscape	+				
Flooding	+				Coastal erosion noted as a key feature of Kerry's coastline and promotes the protection public infrastructure potentially impacted. Supports two coastal cell studies to inform any future infrastructural schemes along the associated coastlines. Promotes adherence to the OPW Flood Risk Guidelines re-sequential approach and justification test; CFRAMs and associated AFA's and the ICPS Programme in the county.

7.2.12. Chapter 12 Energy Volume 1

The availability of energy is of critical importance to the continued development and expansion of employment in the County. This chapter outlines the policy of the Council to support and provide for the sustainable development of indigenous energy resources. There is an emphasis on renewable energy supplies, in the interests of economic progress and the proper planning and sustainable development of the county.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health			?		Supports energy production of importance in the economic development of the county. Supports micro-generation, district heating schemes and community based energy projects such as the <i>Dingle Peninsula 2030</i> and SEAI SEC. Also supports principles of <i>just transition</i> , community consultation for energy projects and active involvement of communities/individuals in future energy systems. Supports RE projects and enabling infrastructure including on-shore wind. Associated potential significant effects on local communities in relation to location and scale. Residential amenity impacts, noise impacts and health and safety associated with RE notably wind and enabling infrastructure such as battery storage systems. Policy requires further assessment for mitigation.
Biodiversity			?		Policy supports a range of RE developments in the county. There is the potential for RE developments to significantly affect biodiversity, soil, and/or water depending on location, scale and nature. On-shore wind has potential for impacts on European Sites including re-powering areas while developments in sensitive
Soil			?		
Water			?		

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					catchments could impact waterbodies – particularly surface waterbodies. Policy for Tarbert/Ballylongford landbank and the overall Shannon Estuary (SIFP) including off-shore wind are included – estuary is in proximity to European Sites with an extension proposed to existing land bank. Noted potential loss of productive lands/soils and/or peat to RE such as solar and/or wind. Policy requires further assessment for mitigation.
Air Quality	+				Promotes RE energy and a move away from fossil fuels with associated reductions in GHG emissions. Supports National policy in achieving 2030 emissions targets. Supports decarbonisation of the electricity network and grid. Supports enabling infrastructure required to facilitate RE being introduced into the grid as more RE comes online. All deemed as positive for air quality and climate.
Climate			?		Supports energy efficiency and conservation and community based energy projects such as district heating schemes, solar PV and micro-generation. However, noted that areas proposed as open to consideration for on-shore wind have been reduced relative to existing RES. This could have a negative effect RE targets and climate policy. Policy requires further assessment for mitigation.
M. Assets			?		Supports the further expansion of RE and enabling infrastructure. Acknowledges and supports the future development of RE sources including wind (on and off-shore), solar, bioenergy, hydro and ocean (wave and tidal). Supports existing energy infrastructure including the local gas network and recognises the potential for bioenergy to form part of the energy mix in the county coupled with anaerobic digestion at a local level. Supports the electricity transmission network and future requirements to support a decarbonised electricity supply. However as noted above areas proposed as open to consideration for on-shore wind have been reduced relative to existing RES. This could negative effect RE development as a material asset for the county. Policy requires further assessment for mitigation.
Heritage			?		Promotes physical RE infrastructure that can impact on heritage sites and landscape values depending on nature, scale and location.
Landscape			?		On-shore wind has the potential to have significant effect on landscape values. Noted that impact on landscapes specifically addressed in the <i>Wind Zoning Methodology</i> to determine the sensitivity and capacity of landscapes to absorb wind development. Other RE such as solar can have visual impacts on PS, ACAs or landscapes depending on siting and location. Policy requires further assessment for mitigation.
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.13. Chapter 13 Water & Waste Management Volume 1

This chapter contains the general planning policies and principles for the provision and improvement of water, waste/surface-water and waste management services. This is required to facilitate development, support the delivery of population, housing and growth targets. Policy also seeks to prioritised the protection of public health and protect, restore and improve the receiving environment and water quality. Wider Environmental Management including Flood Risk Management policies are contained in Chapter 11 Environment.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Promotes the sustainable use of water in line with the WFD. Promotes sustainable waste management. Seeks to align population and housing growth/targets with existing infrastructure and/or where infrastructure is to be improved. Water as key requirement for human health acknowledged. Promotes the provision of waste water infrastructure that is in compliance with environmental legislation re-compliance with licencing/permits where applicable. Promotes protection of water resources especially for drinking, notably groundwater in rural areas. Supports the bio-economy and possible new employment opportunities.
Biodiversity	+				Promotes the protection biodiversity and water resources in line with the WFD that seeks good ecological status for water waterbodies by the end of the 3 rd cycle. Promotes SuDs and nature based solutions
Soil			?		Waste management includes deposition within suitable sites that can impact on soil resources. Noted that policy of reuse, promoted. Supports the Nitrates Action Programme and role of LA is overseeing pollution events from farming activities. Policy requires further assessment for mitigation.
Water			?		Promotes the protection of all waterbodies in line with the WFD now in its third iteration. Promotes integrated catchment approach to water management seeking to promote nature based solutions such as SuDs. Supports PoMs in all waterbodies with a particular focus on PAAs in the county as identified in the RBMP. Promotes water conservation and protection of water assets/infrastructure. Potential significant effects also identified on water further to waste management. Policy requires further assessment for mitigation.
Air Quality			?		Waste facilities are subject to licencing requirements re-emissions to air, can impact local communities including odour and noise. Policy requires further assessment for mitigation.
Climate	+				Nature based solutions supported linked to climate action. Supports EU policy on waste management and water protection. Promotes technologies that seek to use waste as a potential form of energy including CHP and Anaerobic Digesters.
M. Assets	+				Promotes protection of and improvements in water infrastructure namely waste water and drinking water – public and private. Supports a circular economy and principles of prevent; reuse; recycle and recover over disposal to landfill.
Heritage				0	None specifically identified, likely to be addressed at project level and further to policy outlined in Chapter 8.
Landscape				0	None specifically identified, likely to be addressed at project level and further to policy outlined in Chapter 11.
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					and commitment to the <i>Sequential Approach Justification Test</i> .

7.2.14. Chapter 14 Connectivity Volume 1

The aim of this chapter is to maintain and provide additional key infrastructure and to enhance regional and county connectivity through the implementation of the policies and objectives outlined and the Development Management Standards and Guidance as provided in Volume 6, Appendix 1.

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
Population /Human Health	+				Supports connectivity – physical and digital – across the county. Supports green/blue and other amenity infrastructure for community and tourism use. Promotes communication, digital and smart technology important in economic activity especially in <i>knowledge triangles</i> and connected smart hubs networks. Promotes associated remote working. Supports the ICT network across the county. Aligns connectivity between population growth, infrastructure and economic growth. Smarter travel seeks to improve infrastructure for cyclists and pedestrians including road safety. Co-benefits of improved air quality a known local health risk and promoting exercise for health and wellbeing. Lists and protects RoW in the county that provide access to recreational and other areas of community use.
Biodiversity			?		Promotes physical infrastructure that can impact on local environment depending on nature, scale and location. Amenity infrastructure and increased usage can disturb natural environment/sensitive habitats and species. Policy requires further assessment for mitigation.
Soil			?		
Water			?		
Air Quality			?		Seeks to reduce individual travel/car dependency in favour of walking, cycling and other public transport implying less emissions from local traffic. However, also supports road infrastructure projects over the lifetime of the plan. Policy requires further assessment for mitigation.
Climate			?		Supports physical connectivity including several road scheme and associated infrastructure. Supports Kerry Airport and international travel inbound and outbound, possible effects on climate policy which seeks to reduce emissions. Also supports sustainable travel initiatives; smarter travel policy and improving public transport networks with a <i>modal shift</i> in favour of public transport, cycling and walking and <i>active travel</i> . Supports EV infrastructure and move to decarbonise transport. Digital connectivity also seeks to support <i>smart homes</i> where controlling energy usage linked to climate action especially cutting emissions. Policy requires further assessment for mitigation.
M. Assets	+				Seeks to align transport initiatives with land use planning. Seeks to improve public transport initiatives. Supports the production of Local Transport Plans for Killarney and Tralee. Supports the ongoing protection and safeguarding of existing road infrastructure and sustainable development of new proposed road developments, including access onto county's national road network. Supports marine/coastal infrastructure including ports, piers and ferry terminals/access points. Supports public transport hubs rail and bus services. Supports ICT, digital connectivity, telecommunications and national broadband infrastructure including MANs .
Heritage			?		Promotes physical infrastructure that can impact on heritage sites and landscape values depending on nature, scale and location. Telecommunications infrastructure can impact on landscape values further to
Landscape			?		

Likely Significant Effect of Policy					
Topic	+	-	?	0	Comments
					location and scale.
Flooding				0	None specifically identified, likely to be addressed at LAP scale and further to existing flood risk guidelines at project level.

7.2.15. Evaluation of other Strategies, Plans and Development Management in the KCDP 2022-2028

The KCDP Consists of a number of other Strategies and policy documents which also form part of this Plan. This are assessed below for likely significant effects.

Table 7-1 Other Strategies/Plans/Policy contained in the KCDP 2022-2028

Strategy/Plan/Policy	Likely significant Effect
Volume 1 – Appendices 1-5	Includes factual lists of glossary; abbreviations; submission to IW and European and National designations in the County as designated by the NPWS (and not KCC). The inclusion of this information is an administrative or factual presentation of information/data. <u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this information in the KCDP.</u>
Volume 1 – Appendices 6-8	These appendices outline methodologies, as per best practices and where applicable Section 28 guidelines, the PA used in its <i>Wind Zone Methodology; Landscape Review</i> and defining <i>Rural Types</i> . The information presented in factual, identifying the approaches taken. The implication of these methodologies in corresponding policy, objectives and zonings is assessed separately throughout this ER. However, this section presents the methodology, while as stated the outcomes of that methodology is assessed elsewhere in the ER, namely in Section 7. <u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this information in the KCDP.</u> Rather its inclusion provides the evidence based approach of the decision-making process undertaken by the PA in defining key areas of rural types, undertaking a landscape review and zoning areas deemed appropriate for wind.
Volume 1 – Appendix 9	This appendix provides details on the how the KCDP is to be monitored. It includes reference to the SEA monitoring as detailed in Chapter 9 of this report. The inclusion of this information is an administrative or factual presentation of information/data. <u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this information in the KCDP.</u>
Development Management Standards & Guidelines (Volume 6, Appendix 1)	DM is required to ensure the implement of the policies and objectives of KCDP occurs at projects level. While the DM are seen as mitigation to ensure no likely significant effects on the environment are likely from the implementation of the plan, the SEA (and NIR) has recommended a number of additions/rewording as appropriate. See section 8.2.1 for same.
Land-use zoning (Volume 1, Appendix 2)	This section explains the Myplan.ie General Zone Types (GZT) classification scheme. <i>Myplan</i> is an initiative of the Department of Housing, Planning and Local Government on behalf of all the planning authorities across the country. It aims to create a one stop shop for information about plans to assist with coordination between local authorities and more generally with the delivery of

Strategy/Plan/Policy	Likely significant Effect
	<p>public services. The GZT are essentially 8 pre-determined types of zoning which are used as a template for existing or proposed zoning in settlements. The chapter lists the pre-determination, nationally derived explanation of these zonings types. The inclusion of the zoning types is an administrative or factual inclusion of information.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this information in the KCDP.</u></p>
<p>Housing Strategy/Housing Demand Need Assessment (HDNA) (Volume 6)</p>	<p>National Policy Objective 37 of the National Planning Framework (NPF) provides for a Housing Need and Demand Assessment (HNDA) to be undertaken in each local authority area in order to ensure long-term strategic housing needs are met. This appendix is the HNDA for Kerry, it addresses the following key issues:</p> <ul style="list-style-type: none"> • Identification of housing need within the county • Identification of social and specific housing needs within the county • Identification and estimation of supply requirements to satisfy identified future needs within the county. <p>All relevant and up-to-date legislation, publications, and data resources, all of which have been analysed in detail to provide a robust and evidenced base for future policy development and implementation, in accordance with the Guidance on the Preparation of a Housing Need and Demand Assessment. This HNDA meets the relevant statutory requirements for its production and provides for housing needs estimates in accordance with existing and future population projections, which will ensure the proper planning and sustainable development of the county. The Housing Strategy will also be informed by the Housing Delivery Action Plan which is currently being prepared.</p> <p>The information presented in factual, presenting the methodology undertake and its inclusion provides the evidence based approach of the decision-making process undertaken by the PA in drafting the HNDA.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this information in the KCDP.</u></p>
<p>Biodiversity Action Plan (Volume 6, Appendix 3)</p>	<p>The Biodiversity Action Plan (BAP) will be Kerry County Council's (KCC) second BAP. It will now form part of the Kerry County Development Plan (KCDP) and will also run from 2022-2028.</p> <p>This BAP acknowledges the key role of biodiversity in meeting the challenges faced by climate change. In particular, the dual strategies of <i>Mitigation</i> and <i>Adaptation</i> will allow for nature-based solutions in seeking to achieve the "national 2050 climate objective" as set out in the Climate Action and Low Carbon Development (Amendment) Act of 2021. This objective underpins the plan.</p> <p>Six strategic objectives, linked to the functions/roles/responsibilities of KCC, are identified in this KBAP. Flowing from objectives are several targets. Finally, actions required to achieve the objectives and targets are outlined. Actions will require collaboration with key partners and stakeholders including local communities and will be measured by key performance indicators. The BAP goes on to provide further details on how this will be achieved and provides further information on KCC can support biodiversity through its own functions as a Local Authority.</p> <p>The BAP is a strategic document that supports action that have been iteratively integrated into the KCDP. The BAP is seen as a positive contribution to biodiversity and climate action and the completion of the BAP has been a long standing objective of the existing KCDP.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant</u></p>

Strategy/Plan/Policy	Likely significant Effect
	effects on the environment are identified further to the inclusion of the BAP in the KCDP and/or its implementation. Rather the addition is seen as a positive benefit to the environment particularly for biodiversity, water and climate action.

7.3. Evaluation of KCDP 2022-2028 Objectives for *likely significant effects on the environment*

This section aims to evaluate the objectives of the draft KCDP 2022-2028 against the EPOs established in Chapter 6. This process of evaluating the detailed policies/objectives enables the likely significant effects of implementing the KCDP 2022-2028 to be identified. In assessing the likely significant effects secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive, negative, indirectly positive, neutral, negative, indirectly negative and uncertain effects are considered (as required under Schedule 2B, SI 436 of 2004).

As noted the screening of all the objectives proposed in the KCDP including the three town plans are provided in Appendix 2. For ease of presentation, those deemed likely to have a significant effect on the environment are specifically highlighted in red. Those highlighted in red are discussed in more detail in Chapter 8, with mitigation outlined for each.

7.4. Evaluation of KCDP 2022-2028 Zonings for *likely significant effects on the environment*

This section evaluates the specific zonings within the draft KCDP 2022-2028 against the EPOs established in Chapter 6. This process of evaluating the zonings enables the likely significant effects of implementing the KCDP 2022-2028 to be identified. In assessing the likely significant effects secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive, negative, indirectly positive, neutral, negative, indirectly negative and uncertain effects are considered (as required under Schedule 2B, SI 436 of 2004).

7.4.1. Zoning in the proposed KCDP 2022-2028

The CDP contains the following zoning maps:

- Tralee town
- Killarney town
- Listowel town
- *Areas open to consideration for wind energy developments and repowering areas* as identified in the *Wind Zoning Methodology* (Volume 1, Appendix 6 and indicated in Volume 4, Appendix 4) and
- Tarbert-Ballylongford Landbank (Ballylongford Landbank and Tarbert Island) as identified in Volume 4, Appendix 5.

7.4.2. Zonings for Tralee, Killarney and Listowel Towns - Volume 2 and Volume 4 Appendix 1

In relation to Tralee, Killarney and Listowel towns, as noted the KCDP includes updated land use and zoning frameworks in respect of the three towns and consolidates their associated written texts. The CDP therefore sets out the policies and objectives for the future development of the towns of Tralee, Killarney, and Listowel, including compliance with the core strategy for the County.

It should be noted that these zonings were previously assessed for SEA, AA and SFRA for the variations made to each Town Development Plan at the time they were varied in 2018 (Tralee and Killarney) and 2020 (Listowel). This is discussed in more detail below. Objectives and policies are however now being

amended/consolidated in the KCDP 2022-2028. For ease of assessment all policy and objectives in the three town plans are therefore screened anew in this ER. The policy/objective screening of the three town development plans, is outlined in appendix 2 with any mitigation proposed in Chapter 8.

Besides these three towns, the KCDP plan does not otherwise set out a quantum of lands to be zoned *residential* in order to meet the proposed population growth of the county. The zoning of residential land will occur as part of the relevant LAP in line with the new *Core Strategy* presented in the KCDP 2022-2028.

Tralee: as stated the Tralee town zonings were previously assessed in the SEA (and NIR and SFRA) of the Fifth Variation to the Tralee Town Development Plan as adopted on the 17/9/2018. No changes are proposed to these zonings further to the incorporation of the Tralee town zoning maps into the KCDP 2022-2028. All mitigation relating to the zonings that was recommended in the SEA/NIR/SFRA of the Tralee Town Development as adopted are included in the KCDP 2022-2028.

It is noted that the *opportunity sites* identified in Tralee town were previously assessed in the SEA of the Fifth Variation to the Tralee Town Development Plan as adopted on the 17/9/2018. There are however a number of minor changes now proposed to some opportunities sites previously assessed in the fifth variation. Therefore, opportunities sites are re-assessed in this ER for possible significant effects as detailed in Table 7-2 below.

Killarney: As stated the Killarney town zonings were previously assessed in the SEA (and NIR and SFRA) of the Fourth Variation to the Killarney Town Development Plan as adopted on the 17/12/18. No changes are proposed to these zonings further to the incorporation of the Killarney zoning maps into the KCDP 2022-2028. All mitigation relating to the zonings that was recommended in the SEA/NIR/SFRA of the Killarney Town Development as adopted are included in the KCDP 2022-2028.

It is noted that the *opportunity sites* identified in Killarney were previously assessed in the SEA of the Fourth Variation to the Killarney Town Development Plan as adopted on the 17/12/2018. There are however a number of minor changes now proposed to some opportunities sites previously assessed in the fourth variation. Therefore, opportunities sites are re-assessed in this ER for possible significant effects as detailed in Table 7-3 below.

Listowel: As stated the Listowel town zonings were previously assessed in the SEA (and NIR and SFRA) of the Third Variation to the Listowel Town Development Plan as adopted on the 21/9/2020. No changes are proposed to these zonings further to the incorporation of the Listowel zoning maps into the KCDP 2022-2028. All mitigation relating to the zonings that was recommended in the SEA/NIR/SFRA of the Listowel Town Development as adopted are included in the KCDP 2022-2028.

It is noted that the *opportunity sites* identified Listowel were previously assessed in the SEA of the Third Variation to the Listowel Town Development Plan as adopted on the 21/9/2020. There are however a number of minor changes now proposed to some opportunities sites previously assessed in the third variation. Therefore, opportunities sites are re-assessed in this ER for possible significant effects as detailed in Table 7-4 below.

Table 7-2 Screening for significant effects on the environment from the opportunity sites identified in Tralee town and SEA Conclusions

OPPORTUNITY SITE TRALEE	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
Tralee town square	<p>Central location in Tralee town; wide open pedestrian space that acts as a thoroughfare/link to the town’s main retail streets including the recently pedestrianised Mall.</p> <p>Proposal to improve the public realm which already provides for open space and outdoor dining with potential for greater use for events/ festivals such as the Rose of Tralee.</p> <p>Improved linkages to the other public realm projects ongoing in the town including <i>the Island of Geese</i>.</p> <p>No significant negative impacts identified on environmental parameters- noted no watercourses in the vicinity, no designated sites, promotes the re-generation of a key public space in the centre of Tralee town. Possible local impacts on archaeology / architectural heritage. Traffic management to be considered although noted the area is already pedestrianized with specific hours/traffic sharing arrangements already in operation in adjacent streets.</p>	<p>No specific mitigation required further to the proposed use of the site. Any future redevelopment will be subject to proper planning and sustainable development in compliance with the with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact as part of the overall objective to regenerate town centres and aligns with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Market Quarter	<p>A block of lands c.3.6 ha’s of town centre commercial and residential property. The area is defined largely by narrow laneways and streets. The removal and realignment of vehicular traffic together with public realm investment will help realise the potential of the area and build on recent small locally based and Kerry County Council supported community streetscape improvement initiatives.</p> <p>No significant negative impacts identified on environmental parameters- noted no watercourses in the vicinity, no designated sites, promotes the re-generation of an area north of the town’s main retail street with existing lanes and narrow roads that would facilitate public realm improvements. It includes a number of derelict/underutilized buildings and spaces that have retained 19th century form and scale. A number of existing eateries/pubs are located here and there is the potential to expand to a “creative” or “cultural” quarter. Possible local impacts on archaeology / architectural heritage and traffic with the potential re-configuring of parking.</p>	
John Joe Sheehy Road including the Austin Stack Plaza; Casement Plaza and Boherbee	<p>This large mixed use urban area is located adjacent to the Town centre core. It’s located between Boherbee and John Joe Sheehy Road and includes key infrastructure namely the bus and rail stations (Casement Plaza) and the Austin Stacks Stadium.</p> <p>The properties along John Joe Sheehy Road includes some vacant properties and sizable gardens to the rear and side of houses.</p> <p>This area is located to the west of Tralee town and provides one of the main thoroughfares in to the town for vehicular and public transport. The significance of this <i>Transport Hub</i> to the sustainable growth of Tralee and Kerry as a whole is noted. As society shifts to alternative modes of transport, this Transport Hub will act as gateway for the town and the County. The hub is directly adjacent to the Tralee-Fenit Greenway with a potential extension (subject to environment assessment) onto Listowel where it would met the Listowel-Abbeyfeale greenway under construction.</p> <p>The site is therefore a strategic gateway on the eastern entrance to the town. There is significant site adjacent to Austin Stack Stadium presently vacant (Austin Stacks</p>	<p>No specific mitigation required further to the proposed use of the site. Any future redevelopment will be subject to proper planning and sustainable development in compliance with the with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>

OPPORTUNITY SITE TRALEE	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	<p>Plaza).</p> <p>The zoning aims to sustainably develop this large area as a new mixed use urban streetscape providing new residential, commercial outlets and office use in close proximity to the town centre and providing a new direct access onto Boherbee. The proposal also seeks to re-develop the vacant site opposite the stadium into a creative and civic use. The new public realm has the potential to transform the pedestrian linkages and permeability of the entire area for local residents and for attendees from around the county and country on matchdays.</p> <p>The likelihood for significant effects are deemed overall positive with the opportunity to improve this area of the town for a variety of mixed uses associated with its prominent location on the outskirts of the town centre and closeness to existing public transport hub.</p> <p>No significant negative impacts identified - no watercourses in the vicinity, no designated sites, promotes the re-development of a site in close proximity to the town centre and existing transport hub for appropriate uses. Possible local impacts on archaeology, townscape/streetscape and traffic.</p>	
Town Regeneration Areas		
Island of Geese	<p>The Island of Geese was formerly known as the Old Denny Bacon Factory Site. It is located on the western edge of Tralee town centre. It comprises of 2.3 acres of derelict buildings and concrete yards. Due to its size and location it is regarded as strategically important to the regeneration of Tralee Town Centre.</p> <p>The site forms a significant part of the Tralee Town Centre West Masterplan area. Kerry County Council in partnership with the RSES is working on the development of the site as part of the <i>Designated Urban Centre Grant Scheme</i> which is part funded by the European Regional Development Fund through the Southern Regional Operational Programme 2014 - 2020.</p> <p>The site is located to the west of Tralee town centre within an urban setting. The likelihood for significant effects are deemed overall positive with the opportunity to improve this area of the town centre for a variety of mixed uses associated with its prominent location.</p> <p>No significant negative impacts identified - no watercourses in the vicinity, no designated sites, consists of the development of a brownfield site, promotes the sustainable use of the town centre, promotes access and walking within town and aims to provide/improve community space. Archaeological and industrial heritage assessed as part of the ongoing management of the site. The site forms part of the Tralee Town West Master Plan. The plan includes a recognition of the area's archaeological potential; industrial heritage associated with the former Denny factory and local biodiversity associated with bat use of the site and incorporating swift nesting sites.</p>	<p>The site is presently under construction with public realms works being undertaken. This will tie in with complete public realm works in the Mall, Russel Street and Lower Rock Street.</p> <p>Any future projects will be in line with the <i>Tralee Town Centre West Master Plan</i> and will be subject to proper planning and sustainable development in compliance with the with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the regeneration of the area is deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this regeneration site into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Mitchells Regeneration	<p>In 2004, Tralee Town Council identified the Mitchells/Boherbee area of the town as being in need of major regeneration in order to deal with the underlying physical, economic and social problems that have affected the area. The regeneration is an</p>	<p>The Mitchells area has been identified since 2004 as an area requiring regeneration. The regeneration has been ongoing for a number of years with several projects identified already completed, are commenced or have been granted Part 8.</p>

OPPORTUNITY SITE TRALEE	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	<p>ongoing project overseen by a master plan for the regeneration area. It includes the following major projects to be delivered;</p> <ul style="list-style-type: none"> • Gaelscoil 600 pupils • Ballymullen to Clash Inner Relief Road • Voluntary Housing Projects • Community & Enterprise Building • Sporting facilities (Boxing Club) • Public Realm upgrade • Parks & Open Space enhancement <p>The Master Plan will continue to be updated in consultation with the local community and its implementation and delivery will be supported by this plan.</p> <p>The area is located to the southeast of Tralee town. It is an urban setting and is an area of existing residential and community use. Most likely significant effects are identified as positive as the regeneration relates to social, economic, educational and amenity improvements for local communities and town.</p>	<p>Any future regeneration projects will be subject to proper planning and sustainable development in compliance with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the regeneration of the area is deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this regeneration site into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Opportunity Sites		
Balloonagh Convent	<p>The site is located close to town centre and adjacent to the ring road and includes the buildings of the former convent, a protected structure and associated surrounding lands. The former convent and adjacent lands occupies a strategic location on the northern edge of Tralee.</p> <p>The zoning aims to sustainably preserve and develop this large landmark building and associated brownfield site as a new mixed use urban area in order to ensure a sustainable urban extension to existing facilities and infrastructure.</p> <p>The site is located to the north of Tralee town centre within a residential and educational use area. The likelihood for significant effects are deemed overall positive with the opportunity to redevelop a site close to the town centre; educational facilities and other local amenities. Any proposals recognize the cultural heritage of the site.</p> <p>No significant negative impacts identified - no watercourses in the vicinity, no designated sites, promotes the re-development of a site in close proximity to the town centre and existing community and educational facilities. Cultural heritage of the site recognized in the policy.</p>	<p>None required – the zoning already recognizes the cultural heritage of the site and no other specific mitigation required further to the proposed use of the site.</p> <p>Any future projects will be subject to proper planning and sustainable development in compliance with the with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact. Local populations of swift known to occur at the nearby Balloonagh School, any re-development can incorporate new nest sites.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this opportunity site into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Dan Spring Road	<p>This large site is located adjacent to The Rose Hotel. This site which has river frontage is also within close proximity to the town park. This site has the potential to be a focal entrance point for the south-eastern approach to the town. There is an opportunity to redevelop this site with new structures incorporating a conference centre and other tourism/ leisure related uses centred on a civic/amenity space adjacent to the river. The aim is to sustainably develop this large riverfront brownfield site as a new mixed use urban streetscape providing new Conference Hall facilities in close proximity to the riverfront and town centre.</p>	<p>Specific mitigation required in relation to the location of the sites in an identified flood risk zone – specifically Zone B. As detailed in the SFR that accompanies the MD plan, within the areas identified by the Indicative Flood Risk Mapping as being at risk (Zone A or B), all proposals for development will need to comply with the Ministerial Guidelines–The Planning System and Flood Risk Management. Therefore any proposed development of the sites will require a site specific flood risk assessment, i.e. verification of indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test and detailed site specific assessment, as appropriate, in accordance with the objectives as detailed in Chapter 11 of the County</p>

OPPORTUNITY SITE TRALEE	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	<p>The site is an existing brownfield site disturbed from previous development in the area – hotel, access road and local road infrastructure. The potential for significant effects relate to the close proximity of the River Lee designated further downstream as a Natura 2000 sites. Part of the site is also identified as at risk of flooding in the SFRA – specifically Zone B.</p> <p>In relation to possible significant effects on the river Lee, at this location the river is protected by an existing bank and existing river walk. The river is also buffered by an existing access road to the site (into the nearby Rose Hotel) so limited potential for disturbance to the Lee. Main potential for significant effects relate to flood risk.</p>	<p>Development Plan 2022-2028.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Ballymullen Road about	<p>This site which has a large river frontage is also within close proximity to the town park. This site in conjunction with the adjacent lands have the potential to be a focal entrance point for the south-eastern approach to the town. There is an opportunity to redevelop this site with a new landmark building incorporating a mix use of residential and office space. Retail outlets will not be permitted. The aim of the zoning is to sustainably develop this large landmark riverfront brownfield site as a new urban streetscape providing a landmark building with mixed use facilities in close proximity to the riverfront and town centre.</p> <p>The site is an existing brownfield site disturbed from previous development in the area – houses, roundabout on existing road infrastructure. The potential for significant effects relate to the close proximity of the River Lee designated further downstream as a Natura 2000 sites. Part of the site is also identified as at risk of flooding in the SFRA – specifically Zone B.</p> <p>In relation to possible significant effects on the river Lee, at this location the river is protected by an existing bank and existing river walk. The river is also buffered by an existing access road to the site (into the nearby Rose Hotel) so limited potential for disturbance to the Lee identified. Main potential for significant effects relate to flood risk.</p>	
John Joe Sheehy road	See above	
Other opportunity sites		
James St, Basin View	<p>A number of small opportunity sites have been identified, the development of these are of importance to the regeneration of the urban fabric and public realm in the town. The sites listed over are smaller brownfield sites. The TDP encourages the redevelopment of these sites throughout the town on a case by case basis.</p> <p>All the sites identified are located within Tralee town. The likelihood for significant effects are deemed overall positive with the opportunity to improve these areas of the town for a variety of uses appropriate to their locations.</p>	<p>No specific mitigation required further to the proposed use of the site. Any future redevelopment/change of use will be subject to proper planning and sustainable development in compliance with the TTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive</p>
Pembroke Street		
Godfrey Place		
Kelliher's Mills		

OPPORTUNITY SITE TRALEE	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	No significant negative impacts identified - no watercourses in the vicinity, no designated sites, promotes the sustainable re-development/re-use of sites in proximity to the town centre.	impact. <u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Tralee Town Development Plan as consolidated in the KCDP 2022-2028.</u>

Table 7-3 Screening for significant effects on the environment from the opportunity sites identified in Killarney town and SEA Conclusions

OPPORTUNITY SITE KILLARNEY	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
1 Aras Padraig	The Áras Phádraig building which is located on Lower Lewis Road occupies an important location in very close proximity to the town centre. The site also offers an opportunity to redevelop the existing car/coach park to sustainably provide additional parking spaces. The feasibility of the provision of a multi-storey carpark with increased pedestrian permeability needs to be assessed. No significant negative impacts identified - no watercourses in the vicinity, the Deenagh is the closest watercourse designated as the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC, but it is buffered by built infrastructure, the policy promotes the re-development of a site in close proximity to the town centre.	Any future projects will be subject to proper planning and sustainable development in compliance with the with the KTDP and KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management). Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.
2 St Finians	The site to the north of the town and adjacent to the ring road includes the buildings of the former St Finian's Hospital, a protected structure and associated surrounding lands. The former hospital and adjacent lands occupies a strategic location on the northern edge of Killarney. The location, siting and design of any future development on the site will need careful consideration and have to be carried out to a high quality architectural design. Any future development will need to protect and enhance the existing character and views of the hospital building. The site is located to the north of Killarney town centre within a residential area close to the town centre. The likelihood for significant effects are deemed overall positive with the opportunity to redevelop a site close to the town centre and other local amenities. Any proposals recognize the cultural heritage of the site. No significant negative impacts identified - no watercourses in the vicinity, the Deenagh is the closest watercourse designated as the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC, but it is buffered by built infrastructure, the policy promotes the re-development of a site in close proximity to the town centre and existing community facilities. Cultural heritage of the site recognized in the policy.	<u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Killarney Town Development Plan as consolidated in the KCDP 2022-2028.</u>
3 Green Lane/Pond Lane	These lands are located off Green Lane and to the rear of properties on New Street. This includes a large greenfield site and a number of under utilised rear residential gardens This area retains potential for significant further development, particularly with respect to improvements to the public realm and the development of civic amenity. This site is considered to be suitable location for a mixed-use development with commercial/retailing functions dominating ground floor activity with a high density residential element. High quality public spaces conducive to pedestrian activity should also form an integral part of any redevelopment proposal. The main environmental sensitivity and likely significant effect is the proximity of the site to the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC/Killarney National Park SPA. Possible archaeological deposits. Positive impact also identified in the re-development of key town centre site for various uses	None required – the plan recognizes the location of Natura 2000 sites in direct proximity to Killarney town. Any future projects on the site will be subject to proper planning and sustainable development in compliance with the with the KTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management). Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.

OPPORTUNITY SITE KILLARNEY	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	including public realm.	
4. Ballycasheen Road Junction	<p>This is a strategic gateway site adjoining Musgraves Food depot on the south-eastern entrance to the town. The site is bounded by the N22 to the north and the Ballycasheen Road to the south. The design and massing of new proposals at this location is important and the use of perimeter blocks is encouraged. Development proposals will need to relate positively to the established residential area in proximity to the site, while ensuring a high quality public realm at this location. Retail use on this site is not permitted.</p> <p>The main environmental sensitivity and likely significant effect is the proximity of the site to the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC, notably the River Woodford to the north/northwest.</p> <p>Possible archaeological deposits.</p> <p>Positive impacts in the development of the site for housing and other uses associated with the key location near the town centre.</p>	<p>Mitigation as outlined in the NIR also included in the plan.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Killarney Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Other opportunity sites mainly smaller brownfield sites situated off: New Road, New Street, Msgr. O'Flaherty Road and Sunnyhill.	<p>A number of small opportunity sites have been identified, the development of these are of prime importance to the economic and residential regeneration of the town. The local authority will encourage the redevelopment of these sites throughout the town on a case by case basis.</p> <p>No significant negative impacts identified - no watercourses in the vicinity, the River Deenagh is the closest watercourse designated as the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC, but it is buffered by built infrastructure, the policy promotes the re-development of a site in close proximity to the town centre.</p> <p>Possible archaeological deposits and architectural heritage</p>	<p>Any future projects will be subject to proper planning and sustainable development in compliance with the with the KTDP and KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p>Mitigation as outlined in the NIR also included in the plan..</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Killarney Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>

Table 7-4 Screening for significant effects on the environment from the opportunity sites identified in Listowel town and SEA Conclusions

OPPORTUNITY SITE LISTOWEL	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
The former Mart site	<p>The former mart site is located in the centre of the town. It comprises of 1.2ha of derelict buildings and concrete yards. Due to its size, central location and proximity to the river it is regarded as strategically important to the regeneration of Listowel Town Centre</p> <p>The location, siting and design of any future development on the site will need careful consideration and must be carried out to a high-quality architectural design cognisant of its historical background and riverside location.</p>	<p>None specifically required – the zoning already recognizes the cultural heritage of the site, the need for strong design/architectural standard and proximity to the SAC. No other specific mitigation required further to the proposed use of the site.</p> <p>Any future projects will be subject to proper planning and</p>

OPPORTUNITY SITE LISTOWEL	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	<p>The site has potential for significant mixed-use development, including residential/hotel accommodation. Development on the site should incorporate a strong social and community element. Future uses for the site must be complementary to the Town Centre.</p> <p>The main environmental sensitivity and likely significant effect is the proximity of the site to the Lower Shannon cSAC namely the River Feale which runs to the south of the site. The site itself is of low ecological potential due to the disturbed/built nature of the its former use. Possible archaeological deposits considering the cultural heritage of Listowel.</p> <p>The site has potential to add positively to the overall urban fabric of the town and is a prime location for development options in town centre. Visual impacts on the townscape would have to be considered by any proposal along with possible traffic impacts. However, overall the site is well placed within the existing townscape and provides a prime location for various development options.</p>	<p>sustainable development in compliance with the LTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of these opportunity sites into the Listowel Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Rear of Church Street	<p>This large backland greenfield site is located in the centre of the town. It comprises of 4.2ha of land currently used for agricultural use. The site also includes the Listowel garden centre property. Access to these lands is limited and restricted.</p> <p>The redevelopment of this site is seen as a major priority for the future development of the town centre. It will give the opportunity to create an attractive and vibrant extension to the town centre with a mix of uses and a new street.</p> <p>The site has potential for significant mixed-use development, including residential/hotel accommodation. Development on the site should incorporate a strong social and community element. Future uses for the site must be complementary to the Town Centre.</p> <p>The site is located to the east of the town centre close to other residential areas and other amenities. No specific environmental sensitivities identified. No designated sites in proximity and/or watercourses. The Feale, designated as part of the Lower Shannon cSAC is a considerable distance away. The lands are in agricultural use with extent hedgerows surviving.</p> <p>The likelihood for significant effects are deemed overall positive with the opportunity to redevelop a key site close to the town centre and other local amenities for varied uses. Possible archaeological deposits considering the cultural heritage of Listowel.</p>	
Former Convent site	<p>The site has potential for significant mixed-use/tourism/educational development, including residential/hotel accommodation. Development on the site should incorporate a strong social and community element.</p> <p>The main environmental sensitivity identified with this site is the cultural heritage of the site's former use and its associated built/architectural heritage. Adaptive re-use of former religious buildings is a challenge for many provisional towns including Listowel. This site has a prime location on the outskirts of the town.</p> <p>In relation to other environmental sensitivities the nearest designated site is the River Feale, part of the Lower Shannon cSAC. However, it is a distance away and buffered by town infrastructure.</p>	

OPPORTUNITY SITE LISTOWEL	LIKELY SIGNIFICANT EFFECTS	SEA COMMENT AND CONCLUSION
	<p>Possible archaeological deposits considering the cultural heritage of Listowel.</p> <p>The likelihood for significant effects are also identified as being positive with the opportunity to redevelop a key site close to the town centre and other local amenities for varied uses.</p>	
Castleinch	<p>The development of the Castleinch lands is identified in the plan as an opportunity site for regeneration. The area is recognized as being along the river edge, contiguous to the town centre.</p> <p>The plan supports the drafting of a masterplan/design brief prior to the redevelopment of the Castleinch lands for the development of a landmark riverfront site, providing new mixed use/ tourist facilities. The Castleinch lands could be developed to supplement the tourist offerings in the Square and c In particular, the lands are identified as having the potential for creating a link between the square and the outdoor activity facility hub at the former Neodata site.</p> <p>Several potential significant effects have been identified including flood risk and proximity to the Lower Shannon cSAC. Potential traffic impacts are also highlighted.</p>	<p>Master plan to be prepared as provided for in Section 1.5.3 specifically LIS34.</p> <p>Specific mitigation required in relation to lands being identified at flood risk zone. As detailed in the SFR that accompanies this plan, within the areas identified by the Indicative Flood Risk Mapping as being at risk (Zone A or B), all proposals for development will need to comply with the Ministerial Guidelines –The Planning System and Flood Risk Management. Therefore, any proposed development of the sites will require a site-specific flood risk assessment, i.e. verification of indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test and detailed site-specific assessment, as appropriate, in accordance with the objectives as detailed in Chapter 11 of the County Development Plan 2022-2028.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this opportunity site into the Listowel Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>
Regeneration sites	<p>A number of other sites have also been identified in Listowel town, the development of which are of significant importance to the regeneration of the urban fabric and public realm in the town. These sites include number of brownfield sites situated at the rear of Market Street and Charles Street (see Vol 4, appendix 1).</p> <p>The local authority will encourage the redevelopment of these sites throughout the town on a case by case basis.</p> <p>No significant negative impacts identified - no watercourses in the vicinity and/or environmental sensitivities. The closest designated site – the Lower Shannon cSAC – consists of the River Feale and associated riparian habitat. However, it is buffered by built infrastructure and no specific impacts identified.</p> <p>The policy promotes the re-development of sites in close proximity to the town centre – this implies positive impact also identified in the re-development of key town centre sites for various uses including public realm.</p>	<p>None specifically required – the zoning already recognizes the cultural heritage of the site, the need for strong design/architectural standard and proximity to the SAC. No other specific mitigation required further to the proposed use of the site.</p> <p>Any future projects will be subject to proper planning and sustainable development in compliance with the LTDP/KCDP 2022-2028. Mitigation of possible significant effects therefore addressed in existing planning policies and objectives at strategic (DP) and project level (development management).</p> <p>Any future developments are likely to be site-specific, localised impacts and mitigated at project level, if applicable. Overall the development of the lands deemed a positive impact aligned with National and Regional spatial planning policy.</p> <p><u>Having regard to the reasons outlined above, it is concluded that no significant effects on the environment are identified further to the inclusion of this opportunity site into the Listowel Town Development Plan as consolidated in the KCDP 2022-2028.</u></p>

7.4.3. Areas Open to consideration for wind energy developments and repowering areas

In 2012 KCC drafted a Renewable Energy Strategy (RES) that was adopted as a variation to the current KCDP 2012-2021, as extended. The RES was subject to a SEA and AA at the time of its drafting.

It is now proposed to update Kerry's energy policy. The draft KCDP 2022-2028 contains this updated policy in Chapter 12 Energy. Chapter 12 is further supported by a number of reports also included in the CDP namely the *Wind Zoning Methodology* Volume 1 Appendix 6 and the *Landscape Review* Volume 1 Appendix 7. In addition, this SEA and the AA of the KCDP has informed policy in Chapter 12 iteratively as the plan developed. In particular, the AA of the *Wind Zoning Methodology* included an addendum which provides the evidence based reasoning behind the policy that has informed *repowering areas* included in the KCDP.

This section of the ER will specifically focus on assessing the potential significant effects on the environment from the wind zonings proposed in the KCDP (see Figure 5-20). Significant effects in relation to the policy and objectives detailed in Chapter 12 Energy is undertaken in Section 7.2.12 of this report.

7.4.3.1. Wind Zoning Methodology in Volume 1, Appendix 6

The methodology undertaken to review the county for areas deemed suitable to on-shore wind is outlined in detail in the *Wind Zoning Methodology* as contained in Volume 1, Appendix 6. The *Wind Zoning Methodology* takes cognisance of Section 3.6 of the *Draft Revised Wind Energy Development Guidelines* (DHPLG, 2019) and the *Methodology for Local Authority Renewable Energy Strategies* (SEAI, 2013).

The approach involves a *sieve mapping analysis* of key ecological, environmental, archaeological, landscape and technical areas. The document outlines how this methodology was used to zone (a) Areas Open to Consideration for Wind Energy Developments and (b) Areas Unsuitable for Wind Energy Developments. In addition, the document provides in an addendum strategic policy recommendations from the Environmental Assessment Unit of KCC in relation to wind energy in SPAs designated for Hen Harrier (the Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA and indirectly the Mullaghanish to Musheramore Mountains SPA which is within proximity to the county boundaries with Cork) (Figure 7-2 and Figure 7-3). The addendum provides an evidence based reasoning for policy in relation to (c) Repowering Areas as part of the iterative appropriate assessment of the methodology as it was being drafted (see NIR for further details).

The results of analysis were subsequently overlapped by the outputs of a comprehensive Landscape Character Assessment as informed by the aforementioned *Landscape Review* in Volume 1, Appendix 7. Finally, the cumulative effects of constructed and permitted but not yet constructed wind energy developments in the county were taken into consideration. How this entire stepped process (Table 7-5) informed the zoning shown in the KCDP 2022-2028, Volume 4, Appendix 4, is outlined in detail in *Wind Methodology Zoning* report presented in Appendix 6. Briefly, the report:

1. Identifies 25 areas for further assessment for their potential to support wind development. The 25 areas are shown previously in Figure 7-1,
2. Each of the 25 areas were further assessed with regards to their visual sensitivity to wind energy development having regard to:
 - a. Size of Area
 - b. Infrastructure
 - c. Population
 - d. Landscape Sensitivity

3. Following the assessment of the area a conclusion was reached as to whether the area is sensitive to wind energy development or has wind energy potential,
4. Further to this process four areas were identified with potential for further wind energy, these are shown in Figure 5-20.

Table 7-5 Steps undertaken to identify areas suitable for wind development.

Step 1	Areas of wind potential having regard to wind speeds and the national grid.
Step 2	Overlay mapping of wind energy constraints: <ul style="list-style-type: none"> • Settlements • Lakes • Elevated Areas • Kerry Airport • Areas of Prime Special Amenity • Archaeology • UNESCO World Heritage Site • Hen Harrier Areas • Other Ecologically Important Areas • Catchments & Water Framework Directive • Soils & Geology
Step 3	Undertake an analysis of cumulative impact of wind energy developments include a zone of theoretic visibility analysis.
Step 4	Analyse the areas not subject to constraints, including the sensitivity of the landscapes in these areas to wind energy development.
Step 5	Overlay Steps 1-4 to ascertain areas open to consideration for wind energy development.

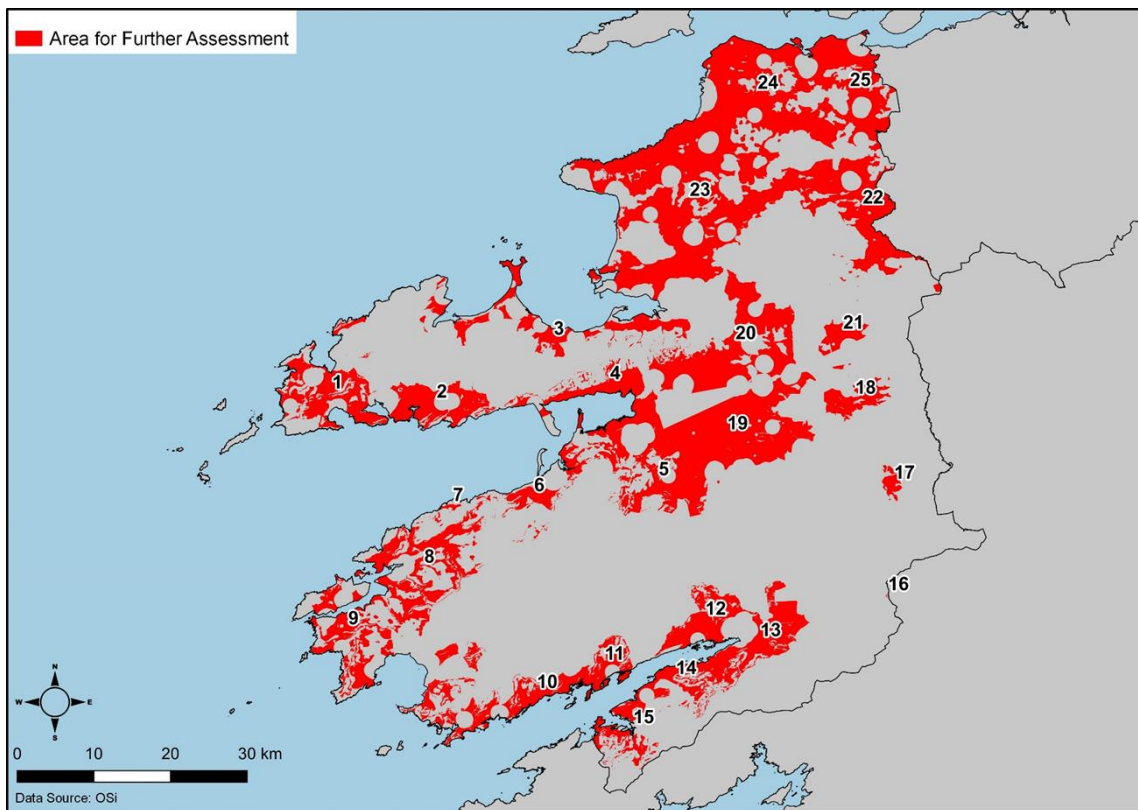


Figure 7-1 Areas (25) considered for further assessment for potential onshore wind development

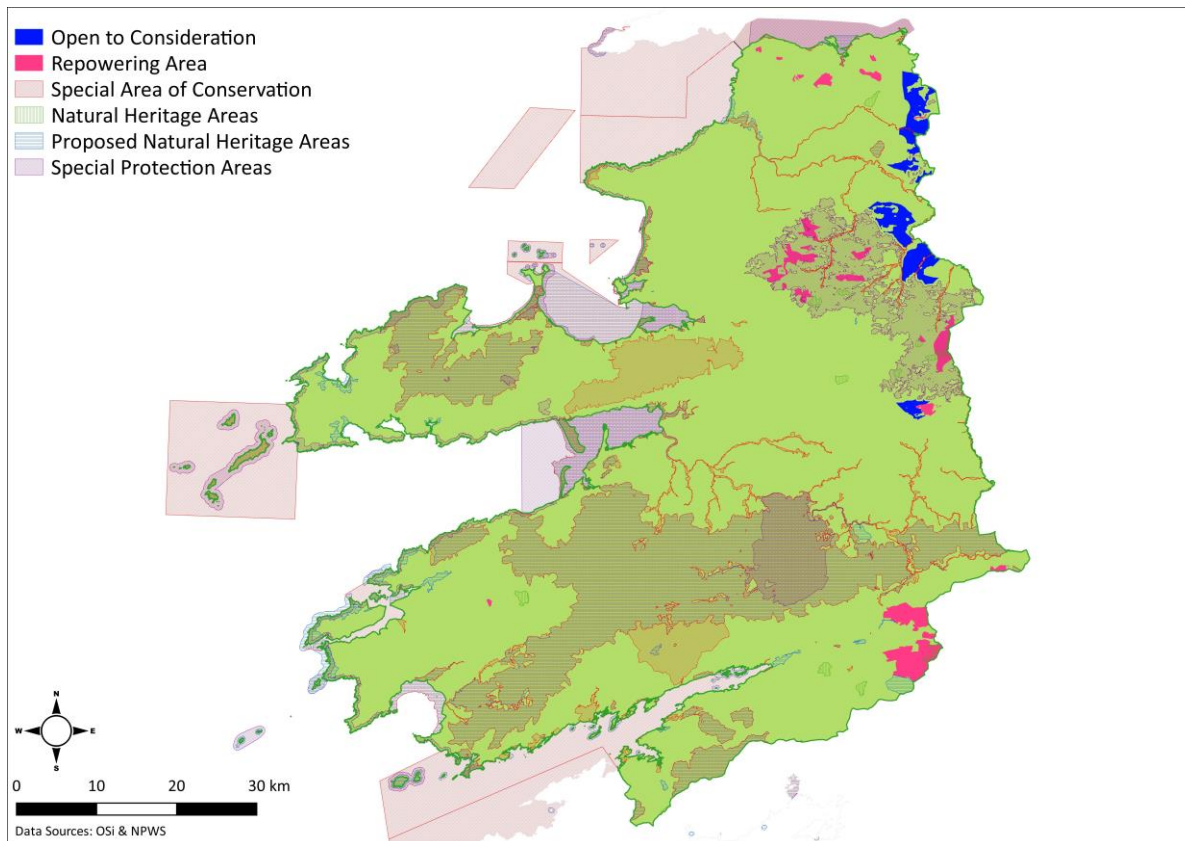


Figure 7-2 European sites relative to areas open to consideration and repowering areas.

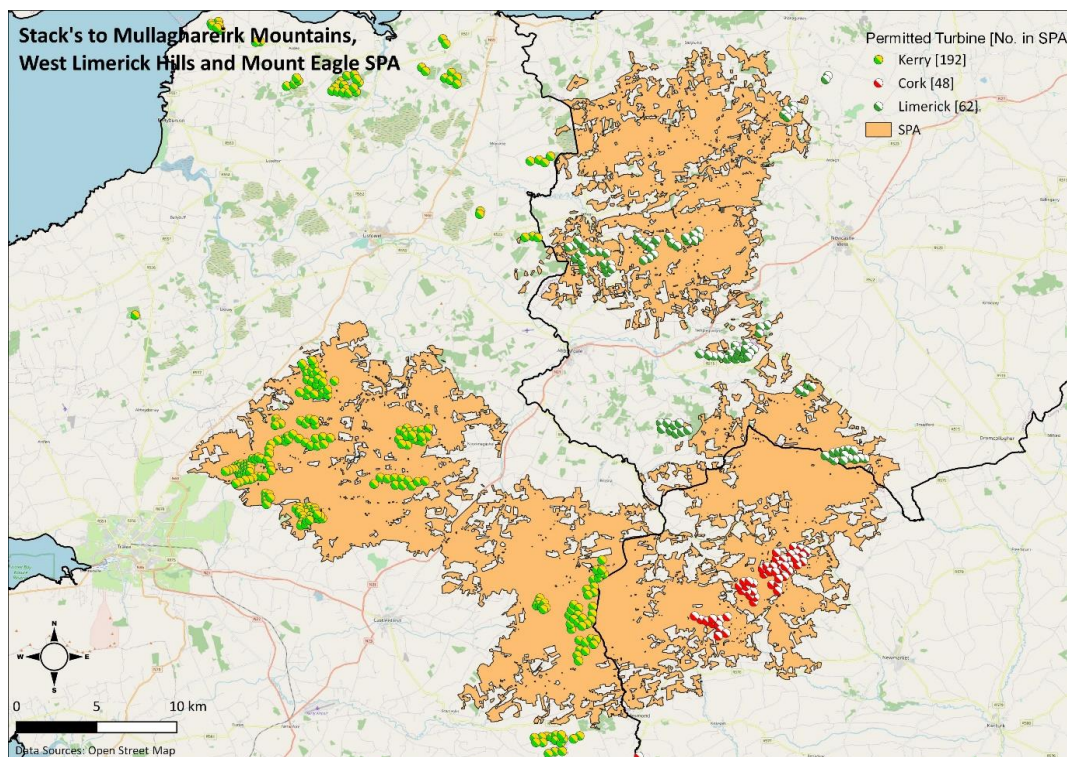


Figure 7-3 Permitted wind turbines in the vicinity of the Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Hen Harrier) SPA in-combination with Limerick and Cork.

Likely Significant Effect of Zonings					
Topic	+	-	?	0	Comments
Population /Human Health			?		<p><i>Sieve mapping analysis</i> has removed urban areas densely populated; with a 1km buffer zone applied.</p> <p>However, noted due to dispersed nature of settlement in the county there are one-off houses within areas identified for wind.</p> <p>Policy 12.5.4.1.5 notes no specific separation distances between proposed wind development and single houses. This is to be assessed at project level further to national wind energy guidelines and will be used case by case in relation shadow flicker/potential noise impacts, in line with National guidelines.</p> <p>Traffic/visual amenity/landscape impacts and impacts at construction/operational phases such as noise/air quality from dust, works etc. all have potential for significant effect on population/human health.</p> <p>Zonings identified requires further assessment for mitigation.</p>
Biodiversity Water			?		<p>Areas open to consideration are located outside European Sites/NHAs and pNHAs,</p> <p><i>Repower areas</i> with the Hen Harrier SPAs are only considered for upgrades/improvements of existing wind developments, otherwise the evidence based reasoning presented in addendum to the Wind Zone Methodology has excluded SPAs from future developments.</p> <p>However, other zones are in proximity to European sites designated for habitat and species which can be sensitive to large scale infrastructure developments at construction and operational phase, Zones also upstream of designated waters particularly the upper reaches of the River Feale,</p> <p>WFD as detailed in Chapter 5 identifies accumulative pressures on many waterbodies in the county further to land uses such as forestry and agriculture,</p> <p>Sensitive catchments have been excluded from wind zone including FWPM, <i>blue dot</i> and PAAs under the Habitats and/or Water Frameworks Directives.</p> <p>Zoning requires further assessment for mitigation.</p>
Soil			?		<p><i>Sieve mapping analysis</i> also removed lands over 500m and areas with landslide susceptibility,</p> <p><i>Sieve mapping analysis</i> has removed peat soil,</p> <p>However, noted considerable civil works required at construction phase of wind development,</p> <p>Noted works in greenfield sites have potential to result in emissions further to the life cycle of the entire project including manufacturing and transport of materials.</p> <p>Zoning requires further assessment for mitigation.</p>
Air Quality				0	<p>Noted that air quality impacts are predominately linked to construction works relating to dust, odour and other potential construction impacts – see population/human health for assessment of same,</p> <p>Noted works in greenfield sites have potential to result in emissions further to the life cycle of the entire project including manufacturing and transport of materials – see soil for assessment of same,</p> <p>Overall noted that wind zonings will provide for RE which seeks to reduce emissions to air in the long-term out to 2030, a likely positive effect for air quality into the future as energy is decarbonised.</p>
Climate			?		The <i>sieve mapping analysis</i> has resulted in the reduction of areas open

Likely Significant Effect of Zonings					
Topic	+	-	?	0	Comments
M. Assets			?		to consideration for wind in the county. This will limit future onshore RE production in the county which will pose challenges in meeting RE targets and will see result in loss of a material asset for the county. Zoning requires further assessment for mitigation.
Heritage	+				The <i>sieve analysis mapping</i> has excluded parts of the county due to archaeological landscapes of local and national importance. This will ensure protection of these landscapes from inappropriate developments/visual impacts.
Landscape			?		<i>Sieve mapping analysis</i> was significantly informed by landscape review and the areas identified for wind development were specifically informed by this process, Notwithstanding, noted that wind developments by their nature and scale have the potential for significant effects on landscapes. Zoning requires further assessment for mitigation.
Flooding				0	None specifically identified, likely to be addressed further to the implementation of existing flood risk guidelines as outlined in Section 11.5.2 of Chapter 11 specifically <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i> .

7.4.4. Tarbert-Ballylongford Landbank (Ballylongford Landbank and Tarbert Island)

The zoning for the Tarbert-Ballylongford Landbank (Ballylongford Land and Tarbert Island – here after called the “land bank”) that is included in the draft KCDP 2022-2028 (Volume 4, Map 5) is shown below in Figure 7-4. The proposal consists of 437ha of land hashed grey in Figure 7-4.



Figure 7-4 Proposed Tarbert-Ballylongford Landbank (Ballylongford Land and Tarbert Island) shown in the Draft KCDP 2022-2028.

7.4.4.1. Existing Land Bank Zoning: The Current KCDP 2015-2021 and the Strategic Integrated Framework Plan (SIFP)

In the current KCDP 2015-2021 there is an existing zoning in this area of North Kerry called the *Tarbert/Ballylongford land bank*. It comprises of c.390ha and is shown hashed yellow in Figure 7-5.

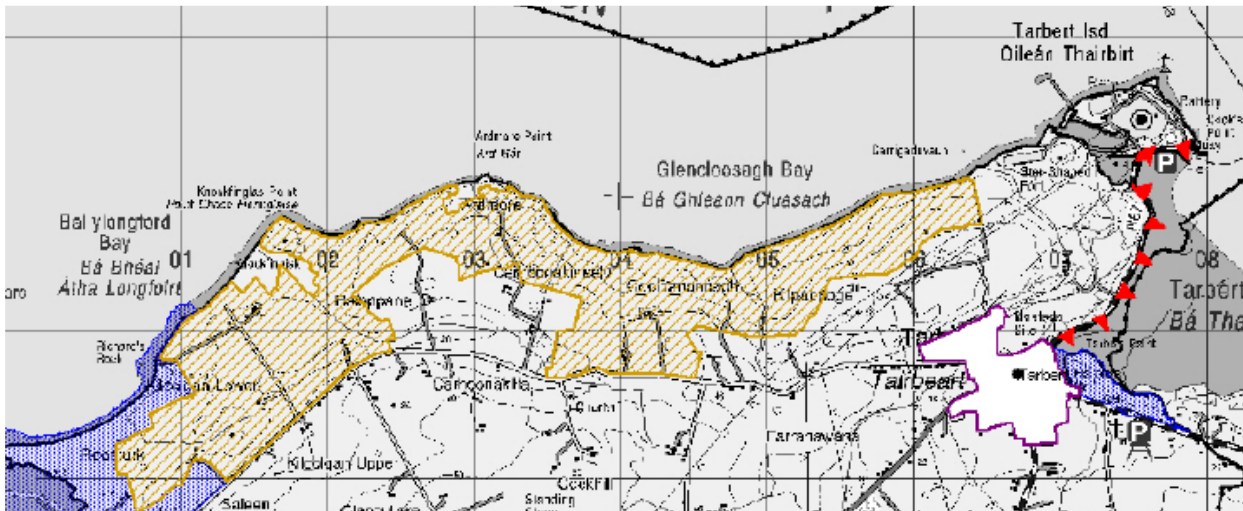


Figure 7-5 Existing Tarbert/Ballylongford land bank in the current KCDP 2015-2022.

It is zoned for marine-related industry, compatible or complementary industries and enterprises which require deep water access. Tarbert Island located to the east of the current Tarbert/Ballylongford land bank zoning shown in Figure 7-4 is not included in the land bank zoning, it is “Rural General”.

As regards current use, at the time of writing a 10-year permission for a proposed *Shannon Technology and Energy Park* has been received by An Bord Pleanála under Section 37E of the Planning and Development Act 2000, as amended. The proposed development consists of a power plant, battery energy storage system, floating storage and regasification unit, jetty, onshore receiving facilities, above ground installation and all ancillary structures/works. The proposed development is located within the existing *Tarbert/Ballylongford land bank* zoned in the current KCDP.

Planning approval has also been granted for a 400kV cross Shannon submarine cable between Moneypoint in Clare and Kilpaddoge in North Kerry to facilitate flow of electricity from Kerry to the East of the Country. A previously granted 220 kV substation and a battery energy storage system are located at Kilpaddoge – which forms part of the Tarbert / Ballylongford landbank.

The existing zoning in the current CDP reflects the land bank’s location within the Shannon Estuary and its zoning for many years within the County’s land use plans. However, in 2013 the entire estuary was subjected to an inter-jurisdictional land and marine based framework plan to guide its future sustainable development and management. Commissioned by Clare County Council, Kerry County Council, Limerick City and County Councils, Shannon Development and the Shannon Foynes Port Company, it culminated in the publication in 2013 of the *Strategic Integrated Framework Plan (SIFP)* for the Shannon Estuary (here after called the SIFP). The Shannon Estuary, as defined in the SIFP, extends west from Limerick City to its juncture with the Atlantic Ocean. It incorporates the Fergus, Deel and Maigue Rivers and crosses the administration boundaries of Limerick, Kerry and Clare.

7.4.4.2. SIFP

The SIFP sets out an overall strategy for the proper sustainable growth, development and environmental management of the Shannon Estuary Region for the next 30 years. As it was drafted it underwent a comprehensive SEA, AA and SFRA as part of the plan-making process. The ongoing implementation of the SIFP is now being overseen by a multi-agency steering group comprised of the above partners together with other key stakeholders with an interest in the estuary.

The SIFP recognises the sheltered nature of the Shannon estuary which combined with its deep water makes the estuary a natural port with potential for significant growth opportunities with the estuary and adjacent lands in the three counties⁹⁵. However, environmental assessments of the SIFP notes that while the estuary has considerable economic potential it is also designated as a cSAC and SPA under the Habitats Directive as the Natura 2000 network. The SIFP therefore aims to *encourage, facilitate and promote a balanced approach to harnessing the estuary's economic growth potential, while simultaneously ensuring the protection, management and enhancement of the natural environmental resources of the area over a 30 year timeframe*⁹⁶.

In Kerry the significance and potential of the Shannon Estuary as a natural and economic asset to the county is identified in the SIFP as follows:

- **Landward and Marine related industry (MRI) Strategic Development Location Sites (SDL)** where sustainable development, including marine related industry, can be accommodated on appropriate zonings or designations that reflect the principal existing and potential uses. Two such sites are found in Kerry: Strategic Site/Marine Related Industry *Site G Tarbert Power Plant* and Strategic Site/Marine Related Industry *Site H Ballylongford Land Bank*;
- **Energy related Strategic Sites where the:**
 - existing relationship with energy production in the estuary is acknowledged and further opportunities for both renewable and non-renewable energy production is identified. Of the key three energy sites identified in the SIFP, two are in Kerry: *Tarbert Power Plant* and the *Ballylongford Land Bank*.
 - In addition, renewable energy potential was identified in the estuary. Tidal energy potential was identified at Kilconly Point; Carrig Island and Tarbert Bay. The potential for the Shannon Estuary in general to support the growing industry of off-shore renewable energy is also noted in the SIFP.

The two specific SDLs as outlined in the SIFP are shown below in Figure 7-6 and Figure 7-7.



Figure 7-6 SDL Tarbert Power Plant (Site G) as identified in the SIFP

⁹⁵ *Shannon Integrated Framework Plan for the Shannon Estuary (2013-2020)*, Volume 1:Written Statement, Sept 2013, pg 1

⁹⁶ *Ibid*, pg 4



Figure 7-7 SDL Ballylongford Land Bank (Site H) as identified in the SIFP

Both sites and their potential uses formed part of the aforementioned environmental assessments of the SIFP. The SIFP specifically records the process whereby these Strategic Sites were identified, noting: *the Strategic Sites have been identified as the most suitable locations along the Estuary, with the most potential, in terms of site suitability, environmental considerations, infrastructure provision, and compatibility with existing uses, for marine related industry. These have resulted from an extensive Multi-Criteria Analysis of a range of sites within the Estuary, under various themes, which involved consideration of the potential of the sites from a planning, environmental, technical and social perspective, including consideration of the key issues in terms of the Natura 2000 network. Information relating to the likely qualifying features within the Strategic Sites has been provided, however this should be used for guidance only, and not taken as definitive. It does not negate the requirement for a full and robust ecological evaluation of the site with regard to the detailed development proposals at Project Level in support of an assessment under the Habitats Directive.*

The SIFP goes on to note that in order to assist with the implementation of the objectives and future development of these SDLs, a number of *guiding principles* have been outlined, namely:

- Cultivation of an integrated and coordinated consultation process including all key stakeholders (Public and Private),
- Delivery of a Thematic Spatial Plan which provides direction on the future sustainable development of the Estuary, by appraising the interrelationship between activities and the environmental habitats & species, and identifying potential development opportunities,
- **Use of Strategic Environmental Assessment & Habitats Directive Assessment as an optimisation tool to safeguard critical environmental interests, resolve conflicts, add value and promote sustainable decision-making** (emphasis added), and
- Establishment of a robust approach to Implementation & Monitoring Based on the Vision, these guiding principles are designed to help the planning process achieve the aims that created the need for the Framework Plan at the outset.

Guiding principles for the Kerry SDLs H and G are reproduced in Table 7-6.

Table 7-6 Guiding Principles for each Strategic Site identified in the SIFP further to the SEA and AA assessments undertaken as part of the SIFP making process.

Strategic Site	Guiding Principles including SEA input	AA Input
<p>Tarbert (Site G) (Figure 7-6)</p>	<ul style="list-style-type: none"> • This site is identified primarily for energy uses. Alternative land uses, in particular marine related industry within the underutilised or surplus areas, which creates a synergism or are compatible with the primary anticipated use may be acceptable, where the ability to deliver the primary use is not compromised. • All development proposals likely to have significant effect on the Natura 2000 network will be subject to compliance with the objectives and requirements of the Habitats Directive • The role of Tarbert Power Plant (including the Strategic oil reserves) shall be safeguarded within the Region, ensuring that its power generation, transmission capability and distribution functions are protected, as well as those core assets required for their operations. • All proposals for development should provide a Concept Masterplan which includes an: <ul style="list-style-type: none"> o Analysis of site features, opportunities and constraints o Explanation of the design, its component parts, and how these are compatible and integrate with the site characteristics • Tarbert Power Plant facility is a SEVESO Upper Tier site, due to the presence of hazardous substances. The Strategic Oil Reserves are also an Upper Tier site. This should be taken into account when considering future proposals for energy or marine related industry, particularly those uses which may also include hazardous substances, which will require rigorous evaluation of the combined risks and potential consequences to the environment. Early consultation with the Health & Safety Authority is strongly advised • Based on the Preliminary Flood Risk data carried out by OPW, a considerable portion of the site is subject to risk from coastal flooding. All proposals will be subject to a detailed flood risk assessment to identify the exact nature and extent of flood risk, and ensure they are developed and designed in accordance with the DOECLG and OPW Guidelines for Flooding and the Planning System. The assessment should include consideration of the existing flood embankments, future flood protection, climate change and sea level rise • The extent of improvement / enhancement to the surrounding transport network will be subject to the detail of any future proposal at detailed design stage. However, a full Traffic and Transportation Assessment in accordance with NRA DMRB Guidelines will be required. It should be noted that extensive improvements to the road network in the area have been approved as part of the proposed LNG facility • All proposals should ensure adequate water supply: • All proposals should consider adequate provision for wastewater treatment. • Foreshore consent and planning permission will likely be required, in addition to any other environmental permitting relevant at Project level, in additional to legal agreements relating to ownerships etc 	<ul style="list-style-type: none"> • The site is adjacent to the SAC and SPA, therefore proposals which are likely to have significant effects on the qualifying features of these designations will require an Assessment under the Habitats Directive. • Key features of the SAC in the vicinity of the site will include: <ul style="list-style-type: none"> • Large shallow inlets and bays • Presence of sea lamprey • Atlantic salmon • Bottlenose dolphin • Otters • With regard to the River Shannon and Fergus Estuaries SPA, Site is located within or adjacent to an SPA and pSPA. The sub-site OH516 which is adjacent to the Tarbert site has been given a moderate rating from the assessment of low-tide sub-sites based on the identification of 8 of the qualifying species being recorded at this site coupled with 274 waterbirds recorded based on the sum of the peak counts over 2010/2011. This implies the sub-site OH516 is moderately sensitive to future development at a strategic level. The sub-site OH425 which is adjacent to the Tarbert Site has been given a moderate rating from the assessment of low-tide sub-sites based on the identification of 8 of the qualifying species being recorded at this site coupled with 562 waterbirds recorded based on the sum of the peak counts over 2010/2011 This implies the sub-site OH425 is moderately sensitive to future development at a strategic level.
<p>Ballylongford (Site H) (Figure 7-7)</p>	<ul style="list-style-type: none"> • This site is identified for marine related industry and energy uses. Alternative land uses, which creates a synergism or are compatible with the primary anticipated uses may be acceptable, where the ability to deliver the primary use is not compromised. • All development proposals likely to have significant effect on the Natura 2000 network will be subject to compliance with the objectives and requirements of the Habitats Directive 	<ul style="list-style-type: none"> • The site is adjacent to the SAC and SPA, therefore proposals which are likely to have significant effects on the qualifying features of these designations will require an Assessment under the Habitats Directive. • Key features of the SAC in the vicinity of the site will

Strategic Site	Guiding Principles including SEA input	AA Input
	<ul style="list-style-type: none"> • The strategic role of the land bank shall be safeguarded within the Region, ensuring that its development potential for energy and marine related industry is protected, maintained and enhanced where required. • All proposals for development should provide a Concept Masterplan which includes an: <ul style="list-style-type: none"> o Analysis of site features, opportunities and constraints o Creation of linkages and connection within and around the site o Explanation of the design, its component parts, and how these are compatible and integrate with the site characteristics o A small port of this site (marine element) overlaps with an active aquaculture license. Early consultation with the license holder to determine the detail of any issues / concerns. • Upon commencement of operations within the landbank the Shannon LNG facility⁹⁷ is likely to become a SEVESO site. At this point HSA have not been notified. However, upon notification all future proposals should take account of this designation, particularly those uses which may also include hazardous substances. These proposals will require rigorous evaluation of the combined risks and potential consequences to the environment. Early consultation with the Health & Safety Authority is strongly advised • Based on the Preliminary Flood Risk data carried out by OPW, a small portion of the site is subject to risk from coastal flooding. All proposals will be subject to a detailed flood risk assessment to identify the exact nature and extent of flood risk, and ensure they are developed and designed in accordance with the DOECLG and OPW Guidelines for Flooding and the Planning System. The assessment should include consideration of the existing flood embankments, future flood protection, climate change and sea level rise • The extent of improvement / enhancement to the surrounding transport network will be subject to the detail of any future proposal at detailed design stage. A full Traffic and Transportation Assessment in accordance with NRA DMRB Guidelines maybe required. It should be noted that extensive improvements to the road network in the area have been approved as part of the proposed LNG facility, which will be implement upon commencement of the project. • All proposals should ensure adequate water supply. • All proposals should consider adequate provision for wastewater treatment. • Tarbert WWTP is a priority for upgrade • Foreshore consent and planning permission will likely be required, in addition to any other environmental permitting relevant at Project level, in additional to legal agreements relating ownerships etc 	<p>include:</p> <ul style="list-style-type: none"> • Presence of brook & sea lamprey • Atlantic salmon • Bottlenose dolphin • Otters <p>• With regard to the River Shannon and Fergus Estuaries SPA, The Carrig Island sub-site OK509 which is adjacent to the covers a portion of the Ballylongford site to the west nearest the Ballylongford estuary has been given a high rating from the assessment of low-tide sub-sites based on the identification of 20 of the qualifying species being recorded at this site coupled with 7087 waterbirds recorded based on the sum of the peak counts over 2010/2011. This implies the sub-site OH516 is highly sensitive to future development at a strategic level</p>

⁹⁷ Note the permission on this facility has since lapsed. At the time of writing a 10-year permission for a proposed *Shannon Technology and Energy Park* has been received by An Bord Pleanála under Section 37E of the Planning and Development Act 2000.

It should be noted therefore, the existing zoning in the KCDP, were previously environmentally assessed for SEA, AA and SFRA three times, namely as part of an extensive and robust assessment undertaken in the drafting of the SIFP, the KCDP 2015-2021 and more recently the Listowel Municipal District Local Area Plan 2020-2026, as adopted in 2020. Further to each environmental assessment under the SEA, Habitats and Flood Directives mitigation measures were included in all three land-use plans, where applicable. The current KCDP (Chapter 4, Section 4.7) contains objectives to support the ongoing implementation of the SIFP *further to compliance with the environmental reports prepared in support of the SIFP, where appropriate*. The Listowel MD LAP 2020-2026 in objective OS-08, also supports the SIFP while policy *recognises the on-going potential of the Tarbert/Ballylongford landbank to be sustainably developed for industry in compliance with the EIA and Habitats Directives*. This continues in the assessment now outlined below for the KCDP 2022-2028.

7.4.5. Proposed land bank zoning in the Draft KCDP 2022-2028

As noted a proposed extended “land bank” zoning is now included in the draft KCDP 2022-2028. It is shown in Figure 7-4 and consists of 437ha of land. Therefore, the new KCDP seeks to extend the zoning from the 390ha in the current plan to 437ha as shown in Figure 7-4. The extension of c.47ha, presently “Rural General” in the current CDP, consists of the existing energy and transport facilities at Tarbert Island, and a portion of land, c.2ha, that adjoins the eastern boundary of the current Tarbert/Ballylongford land bank to Tarbert Island – see Figure 7-4. It is noted that the former consists of the existing infrastructure in Tarbert Island that includes additional lands.

The policy and objectives for the land bank zoning are outlined in Chapter 9 of the KCDP 2022-2028, it states in Section 9.6.1.1:

Tarbert-Ballylongford Landbank

The Strategic Development Location (SDL) at Tarbert/Ballylongford in North Kerry is recognised for its potential as an Energy Hub and for industrial development at a regional and national level. There are 437 Hectares of zoned lands available for development on the Southern shore of the Shannon Estuary with access to deep water (up to 23m). It is the policy of the council to support the development of the Shannon Estuary and recognise its potential as an Energy Hub.

KCDP 9-22	<i>Support and promote the delivery of the Strategic Development Locations (SDLs) as set out in the SIFP for the Shannon Estuary subject to the implementation of mitigation measures outlined in the SEA and AA undertaken on SIFP and zoned in the Local Authority Development Plans.</i>
KCDP 9-23	<i>Support the promotion, marketing and seeking of financial and expert support for the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary and specific projects emerging from the plan. Projects shall be subject to the relevant environmental assessment requirements including SEA, EIA SFRA and AA as appropriate.</i>
KCDP 9-24	<i>Promote and facilitate the sustainable development of the Tarbert-Ballylongford landbank for industry, utilising the presence of deep water, existing infrastructure, natural resources, and waterside location to harness the potential of this Strategic Location. Proposals for marine related industry, general industrial development, and particularly those industries creating a synergism with existing uses and contributing to the development of a strategic energy hub at this location will also be encouraged.</i>
KCDP 9-25	<i>Safeguard the role and function of the Power Plant Hub at Tarbert, including the NORA Strategic Oil Reserves Plant, as a key driver of economic growth in the Region, encouraging its sustainable growth and diversification, in accordance with Regional and National Energy Objectives.</i>

As assessed in the SIFP the most significant environmental sensitivity in the area (including the proposed extension) is the proximity to European Sites within the Shannon Estuary.

However, as noted the extension to the land bank now proposed in the KCDP 2022-2028 includes additional lands around Tarbert Island. The NIR that accompanies the KCDP notes that this extension overlaps with parts of the Tarbert Bay pNHA (see Figure 7-8 below and also NIR for assessment of same).

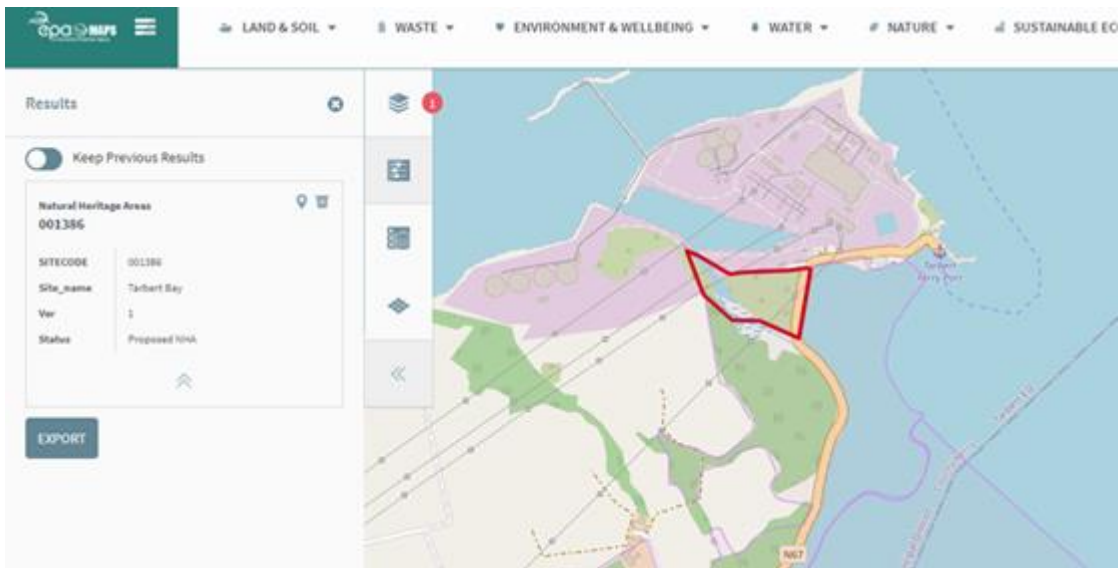


Figure 7-8 Environmental sensitivity highlighted in NIR of the KCDP 2022-2028 in relation to the proposed extension to the landbank namely the overlapping (outlined red) with the Tarbert Bay pNHA.

This potential effect on each environmental assessment is outlined below in more detail. It should be noted this assessment is strongly guided by the extensive environmental assessment undertaken for the SIFP as it was being drafted, including the aforementioned guiding principles and suite of mitigation measures integrated into the SIFP prior to its adoption

Topic	Likely Significant Effect of Zoning				Comments
	+	-	?	0	
Population/ Human Health			?		<p>The zoning proposed has been highlighted in the SIFP for possible significant effects on populations/human health. This includes the existing Tarbert Power Plant facility which is a SEVESO Upper Tier site, due to the presence of hazardous substances. The Strategic Oil Reserves are also an Upper Tier site. Furthermore, as regards the Ballylonford site, its notes that its strategic role and the likely industries to be located there it is likely to become a SEVESO site.</p> <p>The main settlements in the area are Ballylongford, Tarbert and Listowel Town. Dairy farming is the predominant land use in the area with forestry and peatbogs also present. Otherwise the area has a relatively scattered rural settlement pattern of farm houses and one-off rural dwellings.</p> <p>There are a number of existing traditional energy facilities in the area along with more recent energy infrastructure (existing and proposed). A 885MW coal-fired power station is in operation at Moneypoint on the opposite side of the Shannon Estuary (which is expected to close in 2025). As noted an oil storage facility of strategic national importance is located at Tarbert. This was upgraded in 2012 and is managed by the National oil Reserve Agency (NORA). Planning approval has been granted for a 400kV cross Shannon submarine cable between Moneypoint in Clare and Kilpaddoge in North Kerry and a 220 kV substation and a battery energy storage system are located at Kilpaddoge – which forms part of the Tarbert / Ballylongford landbank.</p> <p>Zoning requires further assessment for mitigation.</p>
Biodiversity			?		SEA and AA of the SIFP provides detailed analysis of potential for

Likely Significant Effect of Zoning					
Topic	+	-	?	0	Comments
					<p>significant effects on the environment (biodiversity) and European Sites relatively to both the Ballylongford land bank and Tarbert Island. The most sensitive ecological constraint at the location is the proximity to European Sites and also pNHA designates namely the Ballylongford Bay pNHA and Tarbert Bay pNHA.</p> <p>As regards potential for adverse effects on European Sites, this is outlined in the NIR that accompanies the SIFP and is further assessed the NIR that accompanies the KCDP.</p> <p>It should be note that the proposed zoning in the KCDP does not overlap with European Sites but is in direct proximity/directly adjacent to both the SAC and SPA, as identified in the SIFP (see below for comments in relation to the Tarbert Bay pNHA).</p> <p>The SIFP NIR expands on this further but of particular note is;</p> <ul style="list-style-type: none"> • Possible impacts (disturbance/displacement/loss of habitat) on birds of SCI and • Proximity to annexed habitats and annexed species for which the cSAC is designated. <p>In addition, as noted in the NIR of the KCDP 2022-2028, the extension of the landbank zoning to incorporate Tarbert Island, overlaps with the Tarbert Bay pNHA located to the south (Figure 7-8). The NIR is recommending the removal of this overlap from the zoning.</p> <p>This recommendation has not been included in the draft KCDP now on display.</p> <p>Zoning requires further assessment for mitigation.</p>
Soil				0	<p>No significant soil impacts identified from the proposed zoning. The lands are predominately agricultural grassland with mixed grazing. No geological heritage sites are located with the zoning.</p> <p>Groundwater variability varies across the zoning predominately <i>moderate</i> to the south and <i>extreme/rocky</i> moving towards the coast. Aquifer is identified as <i>Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones</i>.</p> <p>Soil types across the land bank predominately are <i>Till derived chiefly from Namurian rocks - Acid Brown Earths, Brown Podzolics and Surface water Gleys, Ground water Gleys</i>. Pockets of <i>Alluvium</i> are dispersed within the zoning with <i>built ground</i> around Tarbert Island.</p>
Water			?		<p>The proposed zoning does not contain a significant waterbody. There are three surface waterbodies of the Ralappane_10 flowing south-north through the bank from east-west. Tarbert_10 located to the south and outside the zoning discharges into Tarbert Bay. Under the 3rd cycle of the WFD Ralappane_10 is <i>unassigned</i> and <i>under review</i>. Tarbert_10 is <i>good</i> and <i>not at risk</i>.</p> <p>The entire zoning is adjacent to the Lower Shannon Transitional Waters, classed <i>good</i> and <i>not at risk</i>. Groundwater is the</p>

Likely Significant Effect of Zoning					
Topic	+	-	?	0	Comments
					<p>Ballylongford waterbody, classed <i>good</i> and <i>not at risk</i>.</p> <p>No Blue Flag or Green Coast beaches occur in along the coast line at this location. West Shannon Ballylongford shellfish designations in proximity to the west within Ballylongford Bay/Carrig Island. Notwithstanding the above, as noted the coastal waters are designated with the Natura 2000 network, policy required further assessment for mitigation.</p>
Air Quality			?		It is noted that further to the industries proposed there may be local impact to air quality further to the nature of emissions likely.
Climate	+				Zoning seeks to support RE production, distribution and ultimately support the CAP 2021 and climate policy. The location of the zoning relative to existing energy infrastructure both in Kerry and Clare the possible synergies as the role of RE increases to 2030 particularly in the context of off-shore wind. The potential for the area nationally and regionally is recognised in the RSES.
M. Assets	+				Zoning seeks to promote the development of this key strategic site in the county which already co-existing with energy and transport infrastructure namely the Ferry; location on the Shannon Estuary and road access to Limerick.
Heritage			?		Noted the zoning is in proximity to Tarbert Lighthouse that is now being proposed as PS in the CDP (see Volume 3, Appendix 5). Policy requires further assessment for mitigation.
Landscape			?		<p>As part of the drafting of the CDP, <i>Landscape Review</i> was undertaken and is provided in Volume 1, Appendix 7. The review includes the area that is now proposed as the land bank. Called the <i>Shannon Estuary</i> the landscape is outlined on page A-187 of the review. The methodology undertaken in outlined in the report. It culminates within the classification of <i>visually sensitive areas</i> and <i>views & prospects</i>. A portion of the land bank at the western end as it borders with Ballylonford Bay is identified as a <i>visually sensitive areas</i>. There are no <i>views & prospects</i> located within the land bank zoning. The nearest is located along the coast road from Tarbert village to the Ferry Terminal looking south/south east towards Tarbet Bay while other lands west of Carrig Island are identified as visually sensitive. Policy requires further assessment for mitigation</p>
Flooding			?		In addition to the SFRA undertaken for the SIFP, the land bank was assessed again as part of the SFRA for the KCP 2022-2028. Mitigation as recommended in Section 5.2 of the SFRA is summarised in Chapter 8 of this report. Further details as stated can be reviewed in Section 5.2 of the SFRA.

7.5. Infrastructure Schemes supported in the KCDP 2022-2028

Table 7-7 Infrastructure projects listed in the KCDP

Infrastructure Project	SEA Comment and Conclusion
N21/N22 Tralee to County Bounds	No specific project identified, route existing which is to be maintained/upgraded as required. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N22 Farranfore-Killarney Realignment / Bypass	<ul style="list-style-type: none"> • This project was previously assessed as part of the Killarney Municipal District Local Area Plan (MD LAP) 2018-2024 and previous County Development Plans. • The SEA of the RSES notes the inclusion of the scheme in PRO 167 of the RSES and assesses in Chapter 8, Section 8.3.3.3 the “investment of the improved Strategic Road Connectivity” outlined in the RSES. • TII have since commenced a review of the scheme in accordance with National Guidelines to consider and assess all alternative modes and options which could potentially improve the transport connectivity between Farranfore and Killarney and onwards to Tralee and Cork. The outcome of the assessment will lead to the identification of the best performing option.
N23 Castleisland to Farranfore	No specific project identified, route existing which is to be maintained/upgraded as required. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N21 Abbeyfeale Bypass	<p>Limerick City and County Council is working in partnership with Kerry County Council, Transport Infrastructure Ireland (TII), and the Department of Transport are developing a scheme to relieve congestion on the N21 Limerick to Tralee Road through Abbeyfeale. This project is called the N21 Abbeyfeale Road Scheme. At present a preferred route has been identified and this project is continuing on for environmental assessment to inform an application to ABP. Further to the preferred route selection⁹⁸, the project is not within county Kerry with an option to the south of Abbeyfeale being pursued.</p> <p>The SEA of the RSES notes the inclusion of the scheme in PRO 167 of the RSES and assesses in Chapter 8, Section 8.3.6.2 the “investment of the improved Strategic Road Connectivity” outlined in the RSES.</p>
N22 Killarney Junction Improvements	<p>These projects were previously assessed as part of the Killarney Municipal District Local Area Plan (MD LAP) 2018-2024 and Fourth Variation to the Killarney Town Development Plan, as adopted in 2018.</p> <p>See also comments above for N22.</p>
N69 Listowel By-Pass	The scheme was subject to an appropriate assessment and environmental impact assessment and was approved by ABP. It is due to commence construction in 2022.
N70 Milltown Bypass	<p>This project was previously assessed as part of the Corca Dhuibhne Electoral Area Local Area Plan 2020 – 2026.</p> <p>The project is advancing with details announced in early 2021⁹⁹ and the preferred route is progressing towards a consent process.</p>
N70/N72 Killorglin By Pass	A specific route has not been identified, a strategic objective to support a by-pass of the town. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N67 Tarbert Ferry	No specific project identified, routes are existing to be maintained/upgraded as required. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N69 Tralee to Tarbert	

⁹⁸ <https://n21abbeyfeale.virtualeventspace.io/>

⁹⁹ <http://docstore.kerrycoco.ie/KCCWebsite/roads/schemes/milltownvirtual.pdf>

Infrastructure Project	SEA Comment and Conclusion
N70 Tralee to Killorglin & N70 Killorglin-Cahersiveen-Kenmare	No specific project identified, routes are existing which are maintained/upgraded as required. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N71 Killarney-Kenmare (Tunnels)	No specific project identified, route existing which is to be maintained/upgraded as required. Noted that object KCDP 14.25 requires the sustainable provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
N72 Killorglin to Rathmore	
N86 Dingle/Annascaul N86 Gortbreagoge/Camp	The SEA of the RSES notes the inclusion of the scheme in PRO 167 of the RSES and assesses in Chapter 8, Section 8.3.6.2 the “investment of the improved Strategic Road Connectivity” outlined in the RSES. N86 has been upgraded with associated cycleway, route is existing to be maintained/upgraded as required. Noted that object KCDP 14.25 requires the sustainable provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required
Non National Roads	
Tralee Northern Relief Road	<ul style="list-style-type: none"> • A section of the Northern Relief Road scheme from the N69 to the R556 Abbeydorney Road has been approved. It was subject to a screening for EIA and an AA screening. No significant effect on the environment/European sites were identified. • The project was also previously assessed as part of the Tralee Municipal District Local Area Plan (MD LAP) 2018-2024. • The SEA of the RSES notes the inclusion of the scheme in PRO 168 of the RSES and assesses in Chapter 8, Section 8.3.2.6 the “investment of the improved Regional and Local Roads” outlined in the RSES.
Killarney Inner relief road	This project were previously assessed as part of the Killarney Municipal District Local Area Plan (MD LAP) 2018-2024 and Fourth Variation to the Killarney Town Development Plan, as adopted in 2018.
Daingean Uí Chúis Relief Road (Phase 5)	<ul style="list-style-type: none"> • This project was previously assessed as part of the Corca Dhuibhne EA LAP 2021-2027. • The SEA of the RSES notes the inclusion of the scheme in PRO 168 of the RSES and assesses in Chapter 8, Section 8.3.2.6 the “investment of the improved Regional and Local Roads” outlined in the RSES.
Kenmare Inner Relief Road	A specific route has not been identified, this is a strategic objective to support an inner relief road for the town. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required
Killarney Strategic Links Road	This project were previously assessed as part of the Killarney Municipal District Local Area Plan (MD LAP) 2018-2024 and Fourth Variation to the Killarney Town Development Plan, as adopted in 2018.
R558 Tralee to Fenit (Phases 2 and 3)	<ul style="list-style-type: none"> • This project was previously assessed as part of the Tralee Municipal District Local Area Plan (MD LAP) 2018-2024. • The SEA of the RSES notes the inclusion of the scheme in PRO 168 of the RSES and assesses in Chapter 8, Section 8.3.2.6 the “investment of the improved Regional and Local Roads” outlined in the RSES
Tralee Inner Relief road- Clash to Ballymullen Phase 2	This project was previously assessed as part of the Tralee MD LAP 2018-2024 and partially under construction.
R561 Castlemaine to Annascaul	No specific project identified, route existing which is maintained/upgraded as required. Noted that object KCDP 14.25 requires the <i>sustainable</i> provision of all infrastructure listed in Table 14.3. Implies compliance with proper planning and sustainable development, including provisions for assessment under EU Directives as required.
R549/R559 Sleah Head Tourist route	

Table 7-8 Greenways Supported in the KCDP - assessment of likely significant effects and SEA Conclusion

Infrastructure Project	Stage	Likely Significant Effects	SEA Comment and Conclusion
Listowel- Ballybunion	Policy and Objective to support a greenway in the LAP	<p>This project has been assessed as part of the SEA and AA of the Listowel MD LAP 2020-2026.</p> <p>No significant effects on the environment were identified and no adverse effects on the integrity of a European site.</p>	<p>All projects were previously assessed for significant effects on the environment in the SEA and possible adverse effects on the integrity of European Sites in the AA of the Listowel MD LAP 2020-2026 and/or Tralee MD LAP 2018-2024.</p>
Tralee - Abbeyfeale (Co. Limerick) via Listowel	Listowel-Abbeyfeale approved	<ul style="list-style-type: none"> •Listowel-Abbeyfeale has been approved further to Section 179 of the PDA. •Project was screened for EIA and AA, no significant effects on the environment and/or European Sites were identified. •Tralee-Listowel – at route selection phase. The route is presently undergoing preliminary environmental assessments to inform a possible consent process. 	<p>No significant effects on the environment were identified and no adverse effects on the integrity of a European site was identified further to the inclusion of the projects in the MD LAPs.</p> <p>It was concluded that as per any proposed infrastructure development the greenway projects will be subject to project level assessments further to proper planning and sustainable development in compliance with the relevant land use plan, now the KCDP 2022-2028 and associated Development Management and Standard Guidelines.</p>
Tralee- Fenit	Approved & under construction at the time of writing	<p>This scheme was approved further to Section 179 of the PDA.</p>	<p>Under construction.</p>
Tralee- Dingle/Castlegregory	Policy and objective to support in the Corca Dhuibhne Electoral Area LAP 2021-2027.	<ul style="list-style-type: none"> •Project at concept stage. No route selection/preferred route has been selected. •Several European sites in proximity. •The area has a number of designated waterbodies that are designated as European sites and/or are upstream of European Sites. •Cross WBs of varying <i>status</i> and <i>risk</i> under the WFD •Possible local impacts on archaeology, built heritage particularly industrial heritage associated with the former railway line. •Other possible impacts re-trail head locations; facilities and traffic/parking. However, it is noted that Tralee, Dingle and Castlegregory could facilitate same further to proper planning and sustainable development. •Positive benefits for potential project include health/well being; climate action; economic leverage and tourism 	<p>Both projects were previously assessed for significant effects on the environment/possible adverse effects on the integrity of European Sites in the SEA/AA of the Corca Dhuibhne Electoral Area LAP 2021-2027. No significant effects on the environment were identified and no adverse effects on the integrity of a European site were further to the inclusion of the project in the plan.</p> <p>It was concluded that as per any proposed infrastructure development the greenway projects will be subject to project level assessments further to proper planning and sustainable development in compliance with the relevant land use plan, now the KCDP 2022-2028 and associated Development Management and Standard Guidelines.</p>
Gortatlea- Castleisland	Policy and objective to support in the LAP	<p>Project at concept stage. No preferred route has been selected.</p> <ul style="list-style-type: none"> •The former railway ran west from Castleisland towards the townland of Gortatlea located to the east of Tralee town. •The local landscape is predominately intensive agricultural with some marginal lands. •No European sites in proximity. •The main sensitivity is the River Maine that runs east-west through the landscape. •Possible local impacts on archaeology, built heritage particularly industrial heritage associated with the former railway line. •Other possible impacts re-trail head locations; facilities and traffic/parking especially at the Gortatlea end. Castleisland town however would be deemed suitable for trail head where existing facilities occur. 	<p>Project was previously assessed for significant effects on the environment/possible adverse effects on the integrity of European Sites in the SEA/AA of the Killarney MD LAP 2018-2024.</p> <p>No significant effects on the environment were identified and no adverse effects on the integrity of a European site was identified further to the inclusion of the project in the plan.</p> <p>It was concluded that as per any proposed infrastructure</p>

		<ul style="list-style-type: none"> •Positive benefits for potential project include health/well being; climate action; economic leverage and tourism. 	development the greenway projects will be subject to project level assessments further to proper planning and sustainable development in compliance with the relevant land use plan, now the KCDP 2022-2028 and associated Development Management and Standard Guidelines. .
Farranfore- Cahersiveen/Renard	Glenbeigh – Renard, approved with amendments by ABP in November 2020 further to an application to ABP with a EIAR and NIR.	<ul style="list-style-type: none"> •Project was approved further to an application to ABP. The scheme was accompanied by a EIAR and NIS. 	-
	Glenbeigh- Farranfore	<ul style="list-style-type: none"> •Project from Glenbeigh to Farranfore at conceptual stage, with no route defined to date, •the former railway ran east from Glenbeigh, towards Killorglin, Milltown and Castlemaine, east to Firies and onto Farranfore. •The landscape changes from less intensive agriculture of south Kerry to more intensive farmed landscapes of mid-Kerry with marginal lands. •Several European sites in proximity. •The area has a number of designated waterbodies that are designated as European sites and/or are upstream of European Sites. •Cross WBs of varying <i>status</i> and <i>risk</i> under the WFD •Possible local impacts on archaeology, built heritage particularly industrial heritage associated with the former railway line. •Other possible impacts re-trail head locations; facilities and traffic/parking. However it is noted that both Glenbeigh and Farranfore would facilitate same further to proper planning and sustainable development. •Positive benefits for potential project include health/wealth being; climate action; economic leverage and tourism. 	<p>Noted for both projects no definite route proposed at this stage. Projects are strategically supported in the plan. Noted the support of greenways is in line with national and regional strategy. RSES specifically notes the importance of greenways in the future development of sustainable tourism.</p> <p>Also that nature of these developments along brownfield sites often with existing infrastructure implies reduced potential for impacts on the local environment. In addition, the KCDP has been embedded with mitigation to ensure the sustainable development of these projects in line policy from the RSES.</p> <p>Finally, it is noted any specific development of these greenways will be subject to project level environmental assessment which will inform any proposed consent permission, further to proper planning and sustainable development.</p>
Headford- Kenmare	Policy/Objective in the KCDP	<ul style="list-style-type: none"> •Project at concept stage. No route selection/preferred out has been selected. •The former railway line ran east from Kenmare north of the R569 towards Kilgarvan, continued north to the west of the R569 towards Loo Bridge where a pre-existing bridge crosses the River Flesk. The route continues north towards Headford passing north of Glenflesk. •Several European sites in proximity. •The area has a number of designated waterbodies that are designated as European sites and/or are upstream of European Sites. •Cross WBs of varying <i>status</i> and <i>risk</i> under the WFD •In proximity to the River Flesk with undesignated populations of FWPM, •Possible local impacts on archaeology, built heritage particularly industrial heritage associated with the former railway line. •Other possible impacts re-trail head locations; facilities and traffic/parking. •However it is noted that both Killgarvan and Headford would facilitate same further to proper planning and sustainable development. •Positive benefits for potential project include health/wealth being; climate action; economic leverage and tourism. 	<p>Having regard to the reasons outlined above, it is <u>concluded that the potential for significant effects on the environment from the inclusion of these projects are satisfactorily mitigated in the KCDP.</u></p>

7.6. In-combination – Cumulative Effects Assessment

‘In combination’ is taken to refer to the cumulative effect from all plans and projects in the context of existing environmental conditions. Traditionally associated with landscape and visual impacts, cumulative effects are also relevant in the context of natural heritage and a range of other social and economic factors. The consideration of cumulative effects is a requirement of the SEA Directive (2001/42/EC). It states under Article 5(1) that an Environmental Report shall be prepared and relevant criteria is provided in Annex 1: “The likely significant effect (these effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”. Under Article 3(5) of the SEA Directive the determination of likely significant effects is addressed and within this it is stated that Member States shall take into account the relevant criteria within Annex II. Under Annex II (2) it is stated that “characteristics of the effects and of the area likely to be affected, having regard, in particular, to the cumulative nature of the effects”.

Recent EPA guidance¹⁰⁰ defines *cumulative effects* as resulting from a combination of two or more individual effects on a receptor. Such effects can occur as a result of plans, programmes, projects and other actions in the past, present and the reasonably foreseeable future. They can result from impacts that may be individually insignificant, but collectively significant.

Other plans and programmes that were reviewed in order to identify in-combination effects likely in the implementation of the KCDP 2022-2028 is outlined below in Table 7-9. Of particular note is RE policy, notably wind development. Significant plans considered likely to have an in-combination effect are the wind energy policies/zonings of the bordering counties of Limerick and Cork as shown in Figure 7-9 below. This is discussed in more detail in the following section.

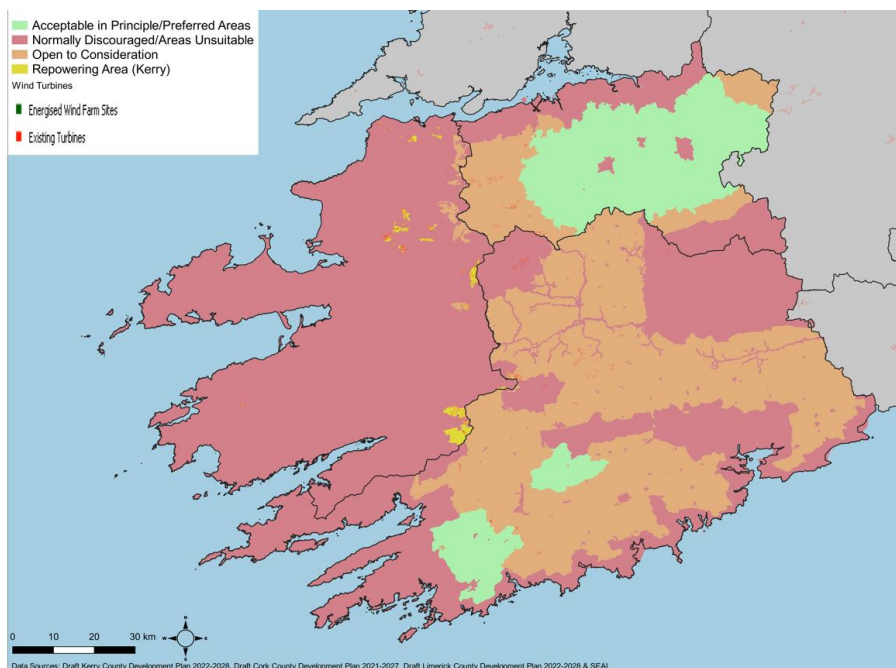


Figure 7-9 Wind zoning identified in the CDP of Kerry, Cork and Limerick.

¹⁰⁰Good Practice Guidance on Cumulative Effects Assessment in Strategic Environmental Assessment, EPA 2020

In recent years ‘in combination’ or ‘cumulative effects assessment’ has become a significant issue particularly in relation to wind energy. The EU Commission’s 2020 *Guidance document on wind energy developments and EU nature legislation* defines cumulative environmental effects as *effects on the environment caused by the combined action of past, current and future activities*. It goes on to note that *although the effects of one development may not be significant, the combined effects of several developments together can be significant. Cumulative effects are very relevant to wind energy deployment, given the continuously growing number of applications for wind energy production and the expected increase in capacity over the coming years*. Policy therefore acknowledges that cumulative effects should be considered both at project/development management level but also at a strategic planning level.

In Kerry, considering the number of granted wind farms, cumulative effects are a particular issue in relation to key receptors - the capacity of landscapes to absorb wind development and the capacity of SPAs designated for Hen Harrier, in combination with other land uses to also absorb additional wind development. Under the Habitats Directive and the appropriate assessment of the KCDP, the need to assess the cumulative effects of wind farm development in combination with other land use changes in the Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA has become a significant issue. Here in-combination effects of wind farms, forestry and other land use practices on the breeding status of Hen Harrier populations has become a key concern. The Addendum that accompanies the *Wind Zoning Methodology* outlines the evidence-based reasons for the exclusion of further new applications for wind development in the HH SPA. Repower areas however can be considered with the Addendum noting that *repowering proposals are likely to differ from new applications in so far as they may be able to avail of the existing infrastructure and accordingly may not result in direct habitat loss of value within the HH SPAs*. It concludes that such proposals should be assessed on a case-by-case basis.

Limerick County Development Plan 2022-2028 is also presently under review having passed the public consultation phase. Limerick CDP includes policies and objectives for wind energy in Chapter 8, Section 8.5.4¹⁰¹. It outlines *preferred areas*, generally those with more stable mineral soils, closer to grid connections and outside designated sites; *areas open to consideration*, principally in the west and also areas which are *not considered suitable* for wind energy due to either scenic or ecological concerns. Almost the entire border of Kerry/Limerick border is deemed open to consideration in Limerick, bar the northern boundary near the Shannon Estuary. This only partially corresponds with Kerry’s zones. On the Kerry side the Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is excluded. On the Kerry side towards the northern end (south of the Shannon Estuary), areas are identified that can facilitate wind. These areas in Kerry were zoned further to a landscape assessment outlined in the *Wind Zoning Methodology*. The area specifically relates *Area 25*. However, lands to the west of *Area 25* were deemed unsuitable, while lands immediately around Tarbert Island were also excluded (Figure 7-10). As noted, the Stacks SPA has been deemed unsuitable for wind development in Kerry, bar repowering areas. The area remains predominately open to consideration in Limerick, subject to compliance with the Habitats Directive (Figure 7-9).

¹⁰¹ Limerick County Development Plan 2020-2028, Chapter 8, Map 8.1.

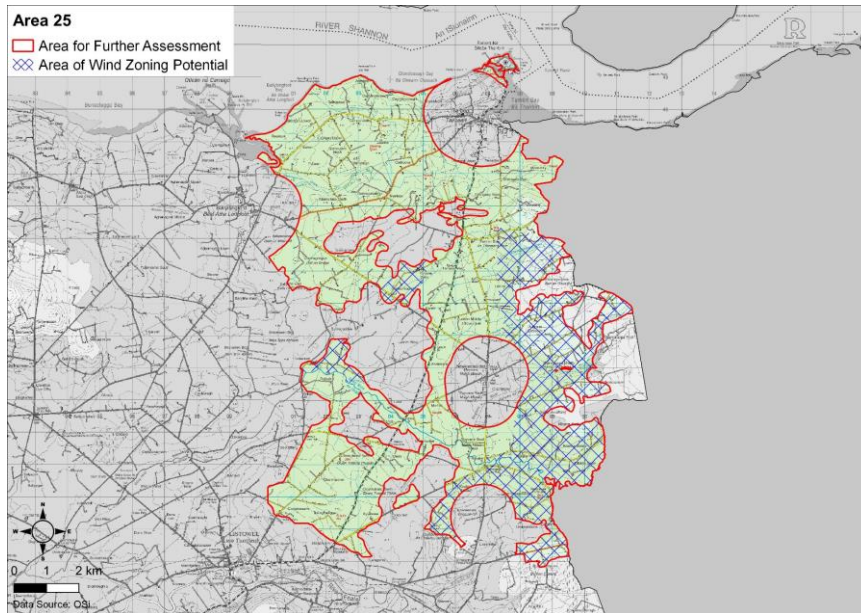


Figure 7-10 Area 25 showing areas of wind zoning potential that border Limerick

Further south along the Kerry-Limerick border, *Area 22* in Kerry' *Wind Zoning Methodology* provides the reasoning for the identification of areas for wind potential on the Kerry side of the border. Here areas to north and south of *Area 22* are identified for wind (Figure 7-11). Towards the south end of the *Area 22* lands are excluded which is not reflected on the Limerick border. Again, the capacity of the landscape to absorb addition wind was a key factor identified by Kerry, as detailed in the *Wind Zoning Methodology*.

Cork County Development Plan 2021-2027 is also presently under review having also completed its public consultation phase. Cork CDP outlines the county's policies and objectives towards wind energy in Chapter 13, Section 13.5. The chapter identifies three categories of 'Wind Deployment Area' for large scale commercial wind energy developments *Acceptable in Principle*, *Open to Consideration* and *Normally Discouraged* as shown in Figure 13.2, the wind energy strategy map¹⁰².

Normally discouraged areas include the Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA which crosses the Cork-Kerry border. Cork has a second SPA designated for HH, the Mullaghanish to Musheramore Mountains SPA. Cork has also indicated this SPA falls into the "normally discouraged" zoning. Although not within the Kerry border, the SPA is within 15kms of the county's boundaries and would be considered for any project level impact assessment. However, in Kerry the area in proximity to the Mullaghanish to Musheramore Mountains SPA (located on the county bounds) has been excluded from wind zones due to the location within the Lough Leane Catchment (see the *sieve mapping analysis*). In Cork areas outside the two HH SPAs are open to consideration located between Newmarket, Kanturk and Macroom. Where these areas border with Kerry, predominately north and south of the N72, Kerry has excluded these areas (except for repowering) for future wind (Figure 7-12). Reasoning for this exclusion is outlined in the *sieve mapping analysis* in the *Wind Zoning Methodology*. Along the Beara Peninsula border with Kerry, Cork has also indicated that these areas are not suitable for wind development.

¹⁰² Cork County Development Plan 2021-2027, Chapter 13, Section 13.6

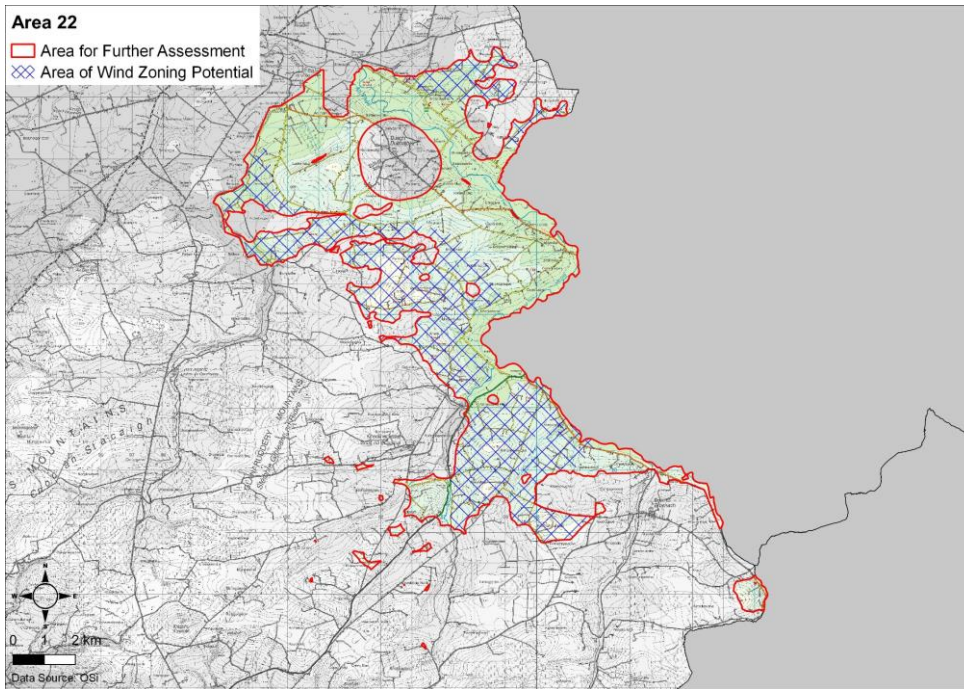


Figure 7-11 Area 22 showing area of wind zoning potential that border Limerick

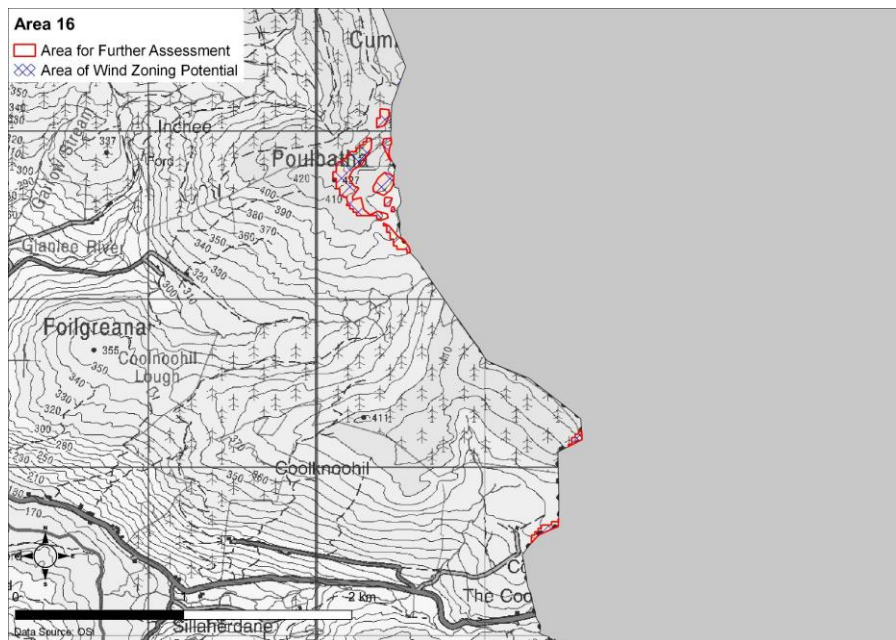


Figure 7-12 Area 16 showing area of wind zoning potential that border Cork

Table 7-9 Cumulative (in-combination) Effect Assessment of other plans/programmes considered relevant in the context of this SEA.

In combination with Plan	Description	Cumulative Effect Assessment/in-combination significant effects Assessment
<p>Project Ireland 2040</p> <p>National Development Plan</p> <p>National Planning Framework</p>	<p><i>Project Ireland 2040</i> comprises the National Planning Framework 2040 (NPF) and the National Development Plan (NDP) 2018-2027/21-2030.</p> <p>The NDP sets out the investment priorities that will underpin the implementation of the National Planning Framework.</p> <p>The NPF projects that our national population will grow by one million in the next 20 years. This will require a shift in the way and places people live, work, and travel, to ensure a more balanced growth away from the overconcentration of population, homes, and jobs in the Greater Dublin Area. The plan is guided by the National Strategic Outcomes and the Strategic Investment Priorities in the NPF.</p>	<p>The NPF and the RSES are the national and regional planning policy that direct the CDP. Both act as a framework that directs population growth at national, regional and local level. In particular, the RSES identifies key towns for the future sustainable development of the region.</p> <p>The CDP is the next hierarchical plan below the regional level. As such the CDP, if in compliance with the upper hierarchical plans, will not result in significant cumulative impacts, rather the CDP in aligning with hierarchy plans with ensure the proper planning and sustainable development of the county as part of the overall southern region.</p>
<p>Regional Spatial & Economic Strategy for the Southern Region 2040 (RSES)</p>	<p>RSES provides a long-term, strategic development framework for the future physical, economic, and social development of the Southern Region. It seeks to achieve balanced regional development and full implementation of Project Ireland 2040 – the National Planning Framework. It will be implemented in partnership with local authorities and state agencies to deliver on this vision and build a cohesive and sustainable region. The RSES came into effect on 31st January 2020.</p>	<p>The CDP is the next hierarchical plan below the regional level. As such the CDP, if in compliance with the upper hierarchical plans, will not result in significant cumulative impacts, rather the CDP in aligning with hierarchy plans with ensure the proper planning and sustainable development of the county as part of the overall southern region.</p>
<p>National Marine Planning Framework 2021</p>	<p>The framework sets out the Irish Government's long-term planning objectives and priorities for the management of Ireland's seas over a 20-year time frame. The framework sets out specific objectives and marine planning policies for all of the activities taking place in Ireland's seas, from aquaculture through to waste water treatment. It also sets out the proposed future approach to the adoption of spatial designations for marine activities including offshore renewable energy development, or designated marine protected areas, taking account of the existing network of designated European sites under the Birds and Habitat Directives by the Minister for Culture, Heritage and the Gaeltacht.</p>	<p>The marine framework will specifically address issues outside the scope of the CDP although synergies will be needed as many activities will require associated consent for potential land uses. These synergies are addressed in various chapters of the KCDP. Policies/objectives are therefore aligned with national and regional planning policy in relation to the sustainable development of marine resources including RE potential notably off-shore wind.</p>
<p>Our Rural Future: Rural Development Policy 2021-2025</p>	<p>Our Rural Future provides a framework for the development of rural Ireland over the next five years. The Vision outlined in the policy "is for a thriving rural Ireland which is integral to our national economic, social, cultural and environmental wellbeing and development, which is built on the interdependence of urban and rural areas, and which recognises the centrality of people, the importance of vibrant and lived-in rural places, and the potential to create quality jobs and sustain our shared environment."</p>	<p>Our Rural Future aims to promote the sustainable development of rural areas. As such it is an extension of national and regional planning policy and is reflected in the rural area policies of the KCDP.</p>
<p>Housing for All - a New Housing Plan for Ireland</p>	<p>'Housing for All - a New Housing Plan for Ireland', which was launched in September 2021, is the government's housing plan to 2030. The plan targets the improvement of Ireland's housing system and delivery of more homes of all types for people with different housing needs. The government's overall</p>	<p>The KDCP is aligned with the policies <i>Housing for All</i> namely the regeneration of towns and villages, accelerating the delivery of residential accommodation, land acquisition, diversification of housing types, the</p>

In combination with Plan	Description	Cumulative Effect Assessment/in-combination significant effects Assessment
	<p>objective is that every citizen in the State should have access to good quality homes: -</p> <ul style="list-style-type: none"> • to purchase or rent at an affordable price • built to a high standard and in the right place • offering a high quality of life <p>The vision for the housing system over the longer term is to achieve a steady supply of housing in the right locations with economic, social, and environmental sustainability built into the system.</p>	<p>provision of housing for needs, unlocking vacant dwellings, heritage properties and land, developing a skilled workforce and the provision of water & wastewater infrastructure.</p>
<p>Healthy Ireland, A Framework for Improved Health and Wellbeing 2013-2025</p>	<p>This a national framework that seeks to improve the health and wellbeing of people living in Ireland. Through its National Physical Activity Plan and its Healthy Workplaces initiative it recognises and promotes the role of active travel. The National Physical Activity Plan notes that ‘being physically active is one of the most important steps that people of all ages can take to improve their health and wellbeing’.</p>	<p>This document is a strategic plan that seeks to promote and increase participation in sports and physical activity throughout the County and to provide more quality sports and physical activity opportunities, participation, and resources available to all citizens. It is noted that ultimately any infrastructure to be provided for the sector will be subject to proper planning and sustainable development in line with the policies and objectives of the KCDP.</p>
<p>County Kerry’s COVID-19 Economic Recovery Plan 2021</p>	<p>In July 2021 a multisectoral COVID-19 Economic Recovery Plan 2021 was agreed by KCC which sets out the opportunities and actions which will support this recovery. The Covid 19 emergency has also highlighted many of the County’s strengths including community spirit and the importance of outdoor amenity spaces and high quality urban and rural environments.</p> <p>The Plan 2021 provides an overall framework for the economic development of the County in the short to medium term and has been developed as a response to the challenges and opportunities facing the Kerry Economy.</p>	<p>The plan is a strategic document. It supports for example the community spirit in responding to Covid and aims to continue to strengthen partnerships and lead communities’ post-pandemic. The plan does support broad and strategic plans and projects noting for example the importance of outdoor amenity spaces and high quality urban and rural environments as the county recovers. Economic activity, including tourism, are promoted in the plan.</p> <p>However, the recovery plan is prefaced by aligning itself with the NFP, RSES and this KCDP. It supports the principles of proper planning and sustainable development and looks to the KCDP, as drafted within a planning hierarchy, for guidance on how to achieve this in the short-medium term. Furthermore, all plans/projects align with existing policy namely the LECP and the county’s tourism strategy (both of which were screened for SEA and AA at the time of their adoption). Finally, the projects/plans promoted predominately fall therefore within the scope of Chapters 9, 10 and 14 of the KCDP. As such the policies and objectives for same have been assessed in this ER..</p>
<p>Kerry Local Economic and Community</p>	<p>The Local Economic and Community Plan (LECP) 2016-2022 sits alongside the</p>	<p>Both plans were subject to an SEA Screening and AA</p>

In combination with Plan	Description	Cumulative Effect Assessment/in-combination significant effects Assessment
Plan (LECP) 2016-2022	County Development Plan providing a stronger and clearer role for local government in economic and community development. This framework underpins the vision set out in the <i>Putting People First: Action Programme for Effective Local Government</i> (DoECLG). The Local Economic Community Plan 2016-2022 is a key document that significantly influences the Development Plan.	Screening prior to their adoption. No significant effects on the environment and/or European Sites were identified. Both plans are incorporated in the KCDP and are aligned with national and regional planning policy.
County Kerry Tourism Strategy & Action Plan 2016-2022	The Tourism Strategy forms an integral part of Kerry County Council's Local Economic and Community Plan 2016-2022. The strategy set out to maximise, in a sustainable manner, tourism's contribution to the quality of life, economy, employment and local community development, paying particular attention to nurturing and protecting the natural, built, cultural and linguistic heritage of the county	
KCC Climate Change Adaptation Strategy 2019-2024	The strategy is the start of the process of adaptation planning in Kerry County Council and is the first step in increasing knowledge and understanding of our changing climate, growing resilience, and enabling effective responses to the threats posed by climate change.	The Strategy were subject to an SEA Screening and AA Screening prior to its adoption. No significant effects on the environment and/or European Sites were identified. The strategy is incorporated in the KCDP and is aligned with national and regional planning policy.
The Shannon Integrated Framework Plan	SIFP is a land and marine based framework plan to guide future development of the Shannon Estuary. It has identified 9 no. strategic development locations in counties Clare, Limerick and Kerry and aims to build on existing industry connectivity and synergy as well as the existing infrastructure to create a more sustainable and attractive network for further investment. The RSES recognises the national and international importance of the Shannon Estuary, its potential to attract multinational development and the significant work that has been undertaken to progress its promotion and development	Given the significant level of Environmental assessment undertaken as part of the SIFP process which included an extensive alternatives assessment coupled with the inclusion of mitigation measures within the SIFP and again through this drafting of the KCDP it is felt that no significant environmental effects will arise from the implementation of the KCDP in combination with the SIFP. The SIFP is incorporated in the KCDP and is aligned with national and regional planning policy.
Cork County Development Plan and Limerick City and County Development Plan	Neighbouring counties of Cork and Limerick are presently undertaking a review of their respective county development plans. Both plans outline the future vision for the development of both counties including in the case of Cork proposed zoning for settlements within individual municipal districts.	Both county plans are also included in the NPF and particularly within the RSES for the southern region. Both plans will need to be compliance with these frameworks and as a region Limerick, Cork and Kerry have formed part of the RSES assessment. See also comments in relation to Wind Energy policy in Section 7.6
Údaras Gaeltacht Strategic Plan 2021–2025, Cumasú, Neartú, Inbhuanaitheacht Enable, Strengthen, Sustain	High level policy report that identifies vision and key objectives for the Gaeltacht. Strategic aims for Irish Language. Promotes economic development in broad terms. Does note role of tourism including eco and active tourism.	Measures in the plan are aligned with the policies and objectives of the KCDP and supports proper planning and sustainable development.
Uíbh Ráthach Gaeltacht Interagency Taskforce Report and Action Plan	High level policy that sets out 100 time-specific measures aimed at addressing the severe population loss, ageing demographic profile and economic decline	The plan promotes a range of activities – economic, social and environmental. The aim is to promote the economic

In combination with Plan	Description	Cumulative Effect Assessment/in-combination significant effects Assessment
2019-2022	which has been experienced in the Uíbh Ráthach Gaeltacht. The Action Plan has been produced at the initiative of the Gaeltacht Community of Uíbh Ráthach and with the support of other multi-stakeholders. Lists strategic goals and targets include measures to increase employment from a range of sectors of relevance to the CDP including agri-business; RE and tourism.	and rural development of the Gaeltacht community. Overall the plan aligns with policies in the KCDP. It is noted that ultimately any physical developments proposed will come within the scope of proper planning and sustainable development.
Straitéis 20 Bliain Don Ghaeilge 2010-2030 (20 Year strategy for the Irish language)	Outlines the economic, social, and cultural development policies for the Gaeltacht and contains particular policies for cultural and linguistic initiatives and language-based projects. In this context, particular importance is attached to the preservation and promotion of Irish in the Gaeltacht in relation to conserving and protecting the heritage, culture, and richness of the language where it remains as a household and community language.	These are strategic documents that seek to promote the use of the Irish Language.
Kerry County Council Scéim Gaeilge IV, 2018-2021	Promotes the provision of services through the Irish language for the people of the Gaeltacht. Such proactive measures are important in ensuring the survival of the Irish language and its associated Gaeltacht culture.	
Creative Ireland 2025 Kerry County Arts Strategy 2016-2021 Creative Ireland Kerry Creativity and Cultural Strategy 2018-2022	All high level policy documents that seeks to promote various forms of the arts within the wider community and across a range of stakeholders. Three fundamental principles supported: 1. Recognising the value of culture and creativity to the individual and society; 2. Supporting creative practice and cultural Participation and 3. Cherishing our cultural heritage. National policy feeds into County initiatives/strategies with a particularly focus on promoting arts and culture in Kerry. Of note is the promotion of Heritage Infrastructure, in Kerry the need for more physical spaces to support creative practitioners.	These are strategic documents that seek to promote the arts/cultural heritage. No specific projects/locations are referenced in the documents. It is noted that ultimately any infrastructure to be provided for the sector will be subject to proper planning and sustainable development in line with the policies and objectives of the KCDP.

7.7. Evaluation of the changes made to the KCDP by Elected Members in meetings held on the 22nd and 23rd of November, 2021

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
Chapter 2	
Support investment in the sustainable development of Electric Vehicle charging facilities in appropriate public locations and to integrate Electric Vehicle charging point infrastructure within residential, commercial, and mixed-use developments	The amendment has further qualified where EV infrastructure is to be located ie within public places which in the context of the CDP is considered appropriate. The addition is considered immaterial and no significant effects are identified from the amendment.
Chapter 4	
KCDP 4-14 Facilitate the development of sustainable compact	All amendments further qualify the objectives promoting access to sustainable transport

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
<p>settlements with the "10 minute" town concepts, whereby, a range of community facilities and services are accessible in short walking and cycle timeframes from homes, <i>with walkways and link routes to Greenways</i> or are accessible by high quality public transport services connecting people to larger scaled settlements delivering these services.</p> <p>KCDP 4-15 <i>To prioritise walking routes and</i> to deliver high level of priority.....and permeability for cycling and public transport modes, in accordance with the principles of movement, place and permeability as laid out in the design manual for urban roads and streets 2019, to create accessible, attractive, vibrant, and safe, places of work, live, shop and engage in community life</p> <p>KCDP 4-23 Promote development <i>and actively seek public and private partners to utilise available spaces</i>, that can encourage more people and generate more jobs and activity, within existing towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth</p>	<p>options/infrastructure. The additions are considered immaterial and no significant effects identified from the amendments.</p>
<p>KCDP 4-24 Implement a programme of active land management to tackle dereliction, vacancy and underutilisation of lands and fragmented patterns of land ownership up to and including compulsory acquisitions and <i>support the implementation of Policies included in Housing for all – A New Housing Plan for Ireland in relation to active land management, dereliction and vacancy, including the emerging Residential Zoned Land Tax.</i></p> <p>KDCP 4-30 Use the Derelict Site Legislation to identify and address issues of dereliction within the towns and villages of the county <i>and actively seek to use CPO where necessary.</i></p> <p>KCDP 4- 33 'living over the shop' to include the word <i>"encourage"</i>.</p> <p>KCDP 4-40 Protect the vitality and visibility of town centres by</p>	<p>All amendments promote either <i>Housing for All</i> and/or the promotion of managing existing building stock for re-use via CPO and/or means that are within national policy. The addition is considered immaterial and no significant effects are identified from the amendments.</p>

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
ensuring that all significant retail & office developments, with the exception of neighbourhood shops are located in the town centre	
KCDP - 4-43 Promote organic producers, craft makers and producer only products through 'Farmers Markets' at appropriate locations town and village centres throughout the county.	The amendment seeks to direct farmer markets into town and villages, this is considered an appropriate location for markets likely to further support town centres. The addition is considered immaterial and no significant effects are identified from the amendment.
Chapter 5	
Amend Table 5.1 to include: Faha; Glenflesk; Ballyfinnane & Headford	<p>The amendment has added an additional 4 rural settlements where clusters served by individual treatment systems may be considered.</p> <p>It is noted that there are existing small rural settlements at these locations. It is noted that any future housing provided at these 4 locations will be subject to criteria outlined in Section 5.4 of the plan. It is recognised that ultimately the plan seeks to provide alternatives to the one-off housing. There is, as stated, existing communities in these four areas and on balance, further to the criteria listed under Section 5.4 that applies to potential applications in areas identified in Table 5.1, the addition of the four areas is considered acceptable.</p>
<p>Amend KCDP 5-12 a) Farmers, including their sons and daughters or a favoured niece/nephew where a farmer has no family of their own who wish to build a first home for their permanent occupation on the family farm.</p> <p>KCDP 5-13 a) Farmers, including their sons and daughters or a favoured niece/nephew where a farmer has no family of their own who wish to build a first home for their permanent occupation on the family farm</p>	The amendment allows for other family members of a farmer to build a first home for their permanent occupation on the family farm – other than the son/daughter. The objective has been amended so that it now allows in the absence of a son/daughter that a niece/nephew can be considered. This is a replacement of one family member by another –it is not <i>in addition to</i> another member being applicable for housing. On balance the qualification to the objective is deemed acceptable. It reflects a scenario where there may not be a son/daughter in the immediate family.
<p>Amend KCDP 15.12 by adding e) Persons who have spent a substantial period of their lives (i.e., over seven years), living in the local rural area in which they propose to build a first home for their permanent occupation.</p>	<p>The amendment has altered rural housing policy, specifically the criteria laid out in <i>Chapter 5, Section 5.5.2 Rural Settlement Policy</i> of the KCDP for the consideration of a housing application in <i>rural areas under significant urban influence</i> and <i>rural areas under urban influence</i>.</p> <p>The amendment has essentially removed the policy distinction that was made between the two rural areas identified under urban influence in the county – namely who should be permitted to build a house. Further to the change, for housing policy both areas under urban influence are now the same.</p>

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
	<p>By removing the distinction between the types of rural areas, as identified in the KCDP, possible significant effects on the sustainable development of rural areas, particularly those identified in proximity to the county's main settlements as show in Map 5.1 in Chapter 5, could occur. The amendment is at variance with national and regional planning policy that seeks to sustainably manage settlement patterns in the county in line with national and regional spatial planning policy and climate action policy, particularly as it relates to one-off housing in areas located in proximity to main towns and settlements that are urban generated.</p> <p>The SEA therefore recommends that the amendments made are removed, and the policy reverts back to a distinction between rural areas under significant urban influence and rural areas under urban influence.</p>
Chapter 6	
<p>KCDP 8-8 Ensure that a minimum of 33% 66% of Housing Developments on R1 and R4 zoned lands within the Gaeltacht areas shall be reserved for Irish Speakers. The standard of Irish shall be determined and assessed by Kerry County Council.</p>	<p>The amendment will result in a high percentage of Irish Speakers being facilitated in residential developments in the Gaeltacht.</p> <p>It is noted that the LA will need to balance the Irish language needs against the housing needs of the wider community. The % change made will see an increased % of Irish Speakers to be facilitated in residential developments. However, it is noted that any proposed tenant will have a range of resources available to improve their Irish language skills. This will be supported by the Irish Office of Kerry County Council who proactively provides language classes for the community.</p> <p>On balance the amendment is likely to be mitigated by the suite of measures to protect both the Irish language but also the housing needs of the community, within the existing plan. Monitoring is required and it is noted in the SEA monitoring that housing and Irish language form part of the monitoring programme.</p>
Chapter 7	
<p>Amend KCDP 7-12 to now read as follows: To support the implementation of homelessness strategy for the county which is currently under development, as well as to work with relevant agencies towards the Housing for All objective of ending homelessness by 2030, including the DHLGH, HSE, Tusla, the National Homeless Action Committee (when established).</p>	<p>The amendment qualifies the objective to include specific support for a county homelessness strategy. This is considered an appropriate addition to the objective with the plan already providing support for measures to address homelessness. The addition is considered immaterial and no significant effects are identified from the amendment</p>
Chapter 9	

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
Objective 9-4 Facilitate and support County Kerry's economic recovery through the sustainable implementation of County Kerry's COVID-19 Economic Recovery Plan and the emerging Kerry Local Economic and Community Plan, focusing on a transition to a low carbon and digital economy [assisted by the encouragement of Smart Villages] and through sustainably expanding the county's economic sectors, increasing innovation, product exports and access to new markets.	The amendment qualifies the objective to include specific support for smart villages. This is considered an appropriate addition to the objective with the plan already providing support for the smart economy. The addition is considered immaterial and no significant effects are identified from the amendment.
Objective 9.6 Engage and collaborate with Regional Partners, Local Authorities, Third Level Education Sector and the broader business community as appropriate, to promote the continued development of the Kerry economy on a regional basis in the context of the Southern Regional Enterprise Plan, the Shannon Integrated Framework Plan the Atlantic Economic Corridor (AEC) and other regional initiatives	The amendment qualifies the objective to include specific reference to the SIFP. The strategic importance of the Shannon Estuary is widely acknowledged in the KCDP and its economic development is being sustainably managed by the SIFP. This is considered an appropriate addition to the objective with the plan already providing for support for the SIFP. The addition is considered immaterial and no significant effects are identified from the amendment.
Objectives 9.24 and 9.25 Section 9.26 – 9.4.2 – sentence included at the very end, “which includes the Tarbert landbank on the Shannon estuary in north Kerry”	The amendment qualifies the objectives to specifically mention the Tarbert Landbank. The Tarbert landbank is already implied in the objectives as it is a Strategic Development Location. The additional clarification is considered immaterial and no significant effects are identified from the amendment.
Chapter 10	
Objective 10-67 Encourage appropriately scaled agri-tourism on-farm accommodation development to locate within existing or adjacent to farmyard complexes, such as the renovation of barns, outhouses or other existing structures or the siting of appropriately scaled camping, [glamping or similar] type accommodation within existing farmyard complexes for owner run agri-tourism / rural business use as short-term holiday home accommodation, subject to normal planning considerations.	The amendment has added specific text on glamping into the objective. This is a strategic objective and it is noted that further to proper planning and sustainable development, the developments listed in the objective could facilitate glamping or similar activities. The addition is considered immaterial and no significant effects identified from the amendment.
Chapter 11	
Include Maps highlighting the flood risk areas onto the land use zoning maps for the towns of Tralee, Killarney and Listowel.	The amendment will result in the flood risk maps for the towns of Tralee, Killarney and Listowel to be included. These maps have informed the zoning for the three towns and their inclusion is considered appropriate. The addition of mapping is therefore considered immaterial and no significant effects are identified from the amendment.
Page 25 of Chapter 11 Environment, Paragraph two; Delete: “In this respect” and replace with “Development is not	The amendment alters policy on visually sensitive landscapes by stating development here is not precluded. It is noted that this could imply a favourable consideration for development

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precluded in visually sensitive landscapes however, “ In this respect ” development proposals will be required to demonstrated that they integrate and respect the visual quality of the landscape”	notwithstanding the location in a visually sensitive area. However, on balance it is noted overall Section 11.6.4 in the plan goes on to provide clear guidance on the provisions that shall apply to developments in visually sensitive landscapes. This policy, including other objectives in the plan that seek to protect landscape, will satisfactorily mitigate the proposed amendment.
Chapter 12	
KCDP 12 -5 where 'facilitate' amend to state 'consider'.	The amendment is a minor word change which still allows consideration of RE energy. The amendment is considered immaterial and no significant effects identified from the amendment.
KCDP 12-15 Ensure that <i>commercial</i> wind energy projects will not normally be considered in areas outside of ‘Open-to-Consideration’ and ‘Repower Areas’.	<p>The amendment has included changes to the text that qualify the wind energy project by the word “commercial” and deleted the word normally.</p> <p>The wording does not ultimately change the meaning of what was already in the objective, the objective had already implied no wind energy areas outside of open to consideration and/or repower areas. In the context of the plans existing objectives and policy for RE and wind development in particularly, the amendments is deemed immaterial.</p>
additional text be included to support this type of <i>micro-generation and small-scale community projects</i> .	The amendment includes supportive text for micro-generation of RE and to support community projects. The plan already supports these initiatives and the inclusion is deemed a positive effect.
words “ <i>in general</i> ” for Wind Area 23 & 24 omitted in the draft plan.	The amendment is to remove text from the wind zoning methodology. It is noted the Areas 23 & 24 were identified in the methodology as being unsuitable for wind. Therefore, the removal of the words “in general” adds clarity to same. The amendment is considered immaterial and no significant effects identified from the amendment.
<p>KCDP 12-25 Facilitate the sustainable development of bioenergy plants, <i>including anaerobic digestors</i>, in compliance with the development management standards on appropriately zoned lands. Bioenergy installations shall not be permitted in areas where such developments may affect residential or visual amenity. They should be developed close to the point of demand and be served by public roads with sufficient capacity to absorb increased traffic flows and adjacent to transport corridors.</p> <p>KCDP 12-26 Consider in rural areas proposals for small scale developments, <i>including anaerobic digestors</i>, close to the source material and where roads have capacity to absorb</p>	The amendment qualifies objectives to specifically mention anaerobic digestors. The objective already supports bioenergy development which implies AD as well as other bioenergy technologies. However, the addition which specifically clarifies support for AD in the objective, is considered immaterial and no significant effects identified from the amendments.

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increased traffic flows. Such plants should, where possible, be located in proximity to existing agricultural buildings. Bioenergy installations shall not be permitted in areas where such developments may affect residential or visual amenity.	
Chapter 14	
<p>New Objectives added:</p> <p>KCDP 14-52 Support the expansion of Kerry Airport routes to international European Hub airports</p> <p>KCDP 14-53 Support the carrying out of a feasibility study of port connections between Dingle and Fenit and European Destinations</p>	<p>The amendments seek to support international connectivity between Kerry and European destinations via maritime and aviation links. It is noted that both objectives are strategic in nature and while the LA can support the objectives they are broadly outside the scope of the CDP. It is noted that as the objectives promote international travel, they could be deemed at odds with climate policy which seeks to reduce emissions. This possible effect on climate is addressed further in this ER, but in brief it is concluded that while the promotion of international travel can conflict with climate action policy, particularly mitigation which seeks to reduce emissions, as a small island economy there is a reliance on international connectivity for both people and goods. The national CAP21 notes that actions to mitigate the aviation/maritime sectors are being addressed at International and EU level specifically within the ETS and other actions such as the sustainable fuel mandating initiatives. There are other policy/objectives in the KCDP to support climate action that will provide a suite of other actions that seek to reduce emissions associated with travel and on balance the combined effect of these mitigating factors and the suite of other climate actions supported and embedded in the plan will, on balance, satisfactorily mitigate this amendment.</p>
<p>KCDP 14-55 - Facilitate and support the development and improvement (including dredging and sediment removal) of existing ports, <i>marinas</i>, harbour facilities, piers, slipways, and associated shore facilities to maintain navigational and operational effectiveness.</p> <p>KCDP 14-56 - Promote and investigate the potential for sustainably developing harbours, <i>marinas</i>, and piers for increased usage including cruiser stopovers and greater economic benefit.</p>	<p>The amendment qualifies objectives to specifically mention <i>marinas</i>. The objective already supports coastal infrastructure which implies marinas. However, the addition which specifically clarifies support for marinas, is considered immaterial and no significant effects identified from the amendments.</p>
Volume 3	
<p>in accordance with section 10(2)(o) of the Planning & Development Acts (as amended) to indicate a public right of way in Coomatloukane, from the end of the public road (L11597) to the beach. See attached Map 4 for reference.</p>	<p>Amendments will see new ROWs added to the KCDP. The ROWs provide access to public amenity lands/coastal areas and will allow for the protection of ROW for continued public use. The addition is considered a positive effect for population/human health.</p>

Amendments (green) made by Elected Members at meeting held 22 nd and 23 rd November, 2021	SEA COMMENT
Volume 6	
<p>Objective 1 &2 of the Kerry Biodiversity Action plan to read as follows:</p> <p>Under Objective 1 of the Kerry Biodiversity Action plan Action 1.2.5 added to Objective 1 Table stating: <i>Only where appropriate and possible, and in consultation with any relevant stakeholder, support and promote rewilding to restore and repair damaged ecosystems.</i></p> <p>Under Objective 2 of the Kerry Biodiversity Action plan Change wording of 2.1.6 from reduce the use of pesticides/herbicides in the organisations to; <i>The use of pesticides/herbicides should only be used in exceptional circumstances including for the treatment of invasive species where other methods have proven to be unviable by Kerry County Council over the period of the plan.</i></p>	<p>Amendments add one new action to the county’s BAP and amend another. The addition of a rewilding action is qualified to acknowledge that any such proposal can only be in consultation with relevant stakeholders as in many instances such activities do fall within the scope of the LA.</p> <p>The amendment in relation to the action for pesticides is considered a positive for the environment considering the growing support for such measures local and nationally.</p> <p>The additions are considered immaterial and no significant effects are identified from the amendments.</p>

8. MITIGATION

8.1. Introduction

Mitigation is a measure to avoid/prevent/lessen/minimise or reduce as fully as possible significant adverse effects on the environment. Where significant effects are identified the first aim is always to prevent or avoid effects. However, if this is not possible then the next step is to lessen the effects by mitigation measures. Mitigation measures can vary across a spectrum of removing impacts (avoidance) to reducing their magnitude (reduction) to putting in place measures to remedy effects (repair) or undertake measures to compensate for the effects (compensatory). This chapter will outline the mitigations measure proposed to offset the potential significant environmental effects identified in the implementation of the KCDP as outlined in Chapter 7.

Mitigation measures for individual objectives and/or policies is provided in the following Sections. Where applicable these measures are integrated into the overall KCDP in order to mitigate any significant adverse effects the implementation of the plan would have on the environment. Due to the synergistic nature of many environmental factors, mitigation measures overlap, particularly those relating to soil/geology; water, biodiversity and climate action.

In relation to mitigation, it should be noted that certain terminology has been integrated into the plan to ensure protection of environmental parameters outlined in Chapter 7. *Sustainable/Sustainable development* and/or the term *sustainability* imply adherence to the principles of protection of the environment further to the SEA/AA/SFRA processes. In addition, *at appropriate locations* and *subject to environmental assessment* are integrated into both objectives and/or policies that promote development. The terms, although not repeated in each objective, are nonetheless implicit. The principles of *sustainable development* underpin the KCDP and this is prefaced at the start of the document, specifically in the Section 1.7 of Chapter 1.

Chapter 8 of this report is structured as follows:

- Section 8.2 Mitigation of policy and objectives contained in the KCDP: This section aims to mitigate the specific policies and objectives within the draft KCDP 2022-2028 that were highlighted for possible significant effects on the environment in Section 7.2 and 7.3. This includes Tralee, Killarney and Listowel Tralee Town Development Plans.
 - Appendix 2 provides the screening of specific objectives. For ease of presentation, those considered likely to have a - or ? effect on the environment are specifically highlighted in red. Those highlighted in red are listed below in Section 8.3 and discussed in more detail. Mitigation specific to each of these highlighted objectives is provided where applicable.
- Section 8.3 Mitigation of the zoning contained in the KCDP: This section aims to mitigate the specific zonings within the draft KCDP 2022-2028 that were highlighted for possible significant effects on the environment in Section 7.4.
 - Areas open to consideration for wind energy developments and repowering areas as identified in the Wind Zoning Methodology (Volume 1, Appendix 6 and indicated in Volume 4, Appendix 4) and
 - Tarbert-Ballylongford Landbank (Ballylongford Landbank and Tarbert Island) as identified in Volume 4, Appendix 5.

8.2. Mitigation integrated into policy and objectives contained in the KCDP

This section outlines the mitigation recommended and included in the KCDP 2022-2028. SEA mitigation is specifically in red, recommendations from the appropriate assessment of the plan are in blue. Further details on the latter can be reviewed in the NIR, however to ensure no conflicts arise with the SEA, AA recommended changes are outlined below.

8.2.1. KCDP 2022-2028

<i>Likely Significant Effect</i>		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
CHAPTER 2		
KCDP 2-9	To promote lands uses for bioenergy and agriculture that negatively affect biodiversity, soil and water.	Amend KCDP2-9 Support the circular and bioeconomy including through greater efficiency in sustainable land management, greater use of renewable resources and the development of sustainable supply chains.
KCDP 2-12	Objectives promote development of a transport network -potential significant effects on range of environmental factors depending on location;	<u>Landscape</u> •County has been subjected to a <i>Landscape Review</i> and <i>Wind Zoning Methodology</i> that provides an evidence based analysis of landscapes deemed capable of facilitating more wind developments whilst also providing details on <i>visual sensitive landscapes</i> and <i>views and prospects</i> in the county, •Detailed policy and objectives on potential landscape impacts from RE and/or infrastructure schemes provided for in the KCDP – <i>Chapter 11, section 11.6</i> . •Development Management Standard and Guidelines (DM) as outlined in Volume 6, Appendix 1 provides details on information to be included with a planning application to address possible impacts on landscape for RE including wind developments. <u>Heritage</u> •Specific archaeological landscapes also included in the plan for protection against inappropriate development including RE development, this formed part of the <i>sieve mapping analysis</i> for proposed wind areas, •Existing policy in relation to protection of archaeological deposits – terrestrial and underwater, •Existing policies and objectives to protect PS, ACAs and curtilages from inappropriate development including RE infrastructure that could have a visual impact including solar; retro-fitting and energy efficiency – all subject to assessment as per proper planning and sustainable development at project level in line with DM, •Chapter 8 Section 8.3 and 8.4 provides detailed policy and objectives to protect cultural heritage, <u>General</u> •Chapter objectives/policies support proper planning and sustainable development aligned with national and regional policy including climate action.
KCDP 2-14	Promotes energy efficiency, retrofitting and RE infrastructure potential for visual impacts and impacts on historic fabric/setting/streetscapes/townscapes. Positive impacts identified - promotion of sustainable transport and energy efficiency.	
Policy	As discussed in Section 7.2: Landscape; Heritage.	
NIR Mitigation (blue) for Chapter 2		
None recommended		
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 2 are satisfactorily mitigated in the KCDP</u>
CHAPTER 3		
KCDP 3-5	Objectives promote development in	<u>Population/Human Health and Water</u> •Core Strategy allocates population growth and housing demand into county’s settlements.
KCDP 3-6	backfill/derelict/brownfield sites – potential	

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
KCDP 3-10	archaeological potential and possible vernacular architectural significance. Positive impacts also identified - development in the town centre leading to more sustainable, consolidated growth patterns.	<ul style="list-style-type: none"> •Tralee and Killarney are allocated population growth in line with NPF and RSES – see section 8.2.2 for further assessment of same. •Settlements allocated growth have WWTP capacity, however •Fenit and Kenmare presently have no capacity but both have valid consents for plant upgrades to be undertaken over lifetime of the plan, • Milltown, Fieries and Rathmore have limited capacity, however Rathmore is listed as a waste water priority project by IW. Milltown and Fieries are listed within the 24 priority settlements which KCC has identified to IW in need of waste water infrastructure (Appendix 4, Volume 1 of the CDP), •Villages and small villages in the settlement hierarchy are collectively allocated population figures – specific villages/small villages not identified, • It is noted the many villages/small villages in the county do not have sufficient capacity in existing waste water treatment for additional growth and/or have primary systems in place, •the specific allocation of population figures/residential zoning however for specific villages/small villages will occur at LAP stage, bar Tralee, Killarney and Listowel, is not part of this plan, •All future population allocation at LAP stage will be supported by Ob 3.15 and Ob 13.15 and 13.16 •rural areas have been allocated population growth, where individual WWTU are in compliance with EPA 2021 CoP (Ob 13.19) while communal WWTP will not be considered for residential developments in rural areas (Ob13.17) and limited to other forms of development again in compliance with EPA CoP. •Plan also includes objectives to ensure protection of water quality as outlined in <i>Chapter 13 Water and Waste Water Management</i> and as per DM as outlined in Volume 6, Appendix 1.
Policy	As discussed in Section 7.2: population/human health, water, soil, heritage/landscape and flooding.	<p><u>Heritage</u></p> <ul style="list-style-type: none"> • Existing policy in relation to protection of cultural heritage; archaeological deposits – terrestrial and underwater, • Chapter 8 Section 8.3 and 8.4 provides detailed policy and objectives to protect cultural heritage, • Existing policies and objectives to protect PS, ACAs and curtilages from inappropriate development that could have a visual impact - all subject to assessment as per proper planning and sustainable development at project level in line with DM, <p><u>Landscape</u></p> <ul style="list-style-type: none"> • Detailed policy and objectives on potential landscape impacts from RE and/or infrastructure schemes provided for in the CDP – <i>Chapter 11, section 11.6.</i> •DM as outlined in Volume 6, Appendix 1 provides details on information to be included with planning application to address possible impacts on landscape. <p><u>Soil</u></p> <ul style="list-style-type: none"> •Local impacts possible but policy overall aims to consolidate growth in urban areas. These are pre-existing brownfield sites and will prevent expansion in to greenfield fields on outskirts of towns/rural areas. •other objectives in the plan that seek to protect soil resources including obj KCDP2-10; KCDP2-11; Section 11.2.3 and obj KCDP12-22.
NIR Mitigation (blue) for Chapter 3		
None recommended		
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 3 are satisfactorily mitigated in the</u>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy	
	<u>KCDP.</u>	
CHAPTER 4		
KCDP 4-2	Objectives promotes the develop of towns and villages, possible significant effects on a range of environmental parameters including water, soil, cultural heritage and air quality. Positive effects identified in the promotion of towns/villages as centres of growth and investment	
Amend KCDP 4.2 Sustainably Develop towns and villages of sufficient scale and quality to be drivers of growth, investment, and prosperity	KCDP 4-3; KCDP 4-4 KCDP 4-10; KCDP 4-18; KCDP 4-25 KCDP 4-41; KCDP 4-42 KCDP 4-68	
Objectives promote development in backfill/derelict/brownfield sites for urban renewal and regeneration; promote tourism infrastructure– potential archaeological potential and possible vernacular architectural significance. Positive impacts also identified - development in the town centre leading to more sustainable, consolidated growth patterns; promoting public realm improvements and outdoor facilities	<ul style="list-style-type: none"> •strategic objectives qualified by “suitable places/locations” and “sustainable”, implies embedded protection of the environment in objectives, •potential impacts identified from implementation likely to be local/at project level – DM as outlined in Volume 6, Appendix 1 provides details on information to be included with planning application to address possible impacts on the local environment, <u>Soil, Heritage, Landscape</u> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above <u>Air</u> <ul style="list-style-type: none"> •Policy to promote development in urban areas, could impact on local air quality from increased traffic and residential units, •climate policy specifically in relation to decarbonisation of heating and transport sectors over time likely to mitigate, •roll out of decarbon zones and district heating schemes also likely to mitigate over time as we move towards a low carbon society, •also support for <i>modal shift</i> in transport with focus on cycling, pedestrianisation and public transport. <u>Flooding</u> <ul style="list-style-type: none"> •Settlements in the county historically developed along coastal and riverine locations, further development in these areas could have flood risk, •Plan has been subject to a SFRA while Chapter 11, Section 11.5 outlines policy and objectives (Ob 11.62) to address flood risk – specifically within AFAs identified in the county under CFRAM (Ob 11.59-11.61/11.63-11.65) •Section 11.5.2 of Chapter 11 specifically outlines <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i>. 	
Policy	As discussed in Section 7.2: soil; air; heritage; landscape & flooding	
<ul style="list-style-type: none"> •Policy to promote development in urban areas, could impact on local air quality from increased traffic and residential units, •climate policy specifically in relation to decarbonisation of heating and transport sectors over time likely to mitigate, •roll out of decarbon zones and district heating schemes also likely to mitigate over time as we move towards a low carbon society, •also support for <i>modal shift</i> in transport with focus on cycling, pedestrianisation and public transport. <u>Flooding</u> <ul style="list-style-type: none"> •Settlements in the county historically developed along coastal and riverine locations, further development in these areas could have flood risk, •Plan has been subject to a SFRA while Chapter 11, Section 11.5 outlines policy and objectives (Ob 11.62) to address flood risk – specifically within AFAs identified in the county under CFRAM (Ob 11.59-11.61/11.63-11.65) •Section 11.5.2 of Chapter 11 specifically outlines <i>Flood Risk Vulnerability</i> criteria to be applied and commitment to the <i>Sequential Approach Justification Test</i>. <u>Amend</u> Add following to section 4.31.3: Public Realm ‘Design Manual for Urban Roads and Streets’ emphasises particularly how the delivery of permeability and high-quality public realm can assist the promotion and delivery of healthy, sustainable communities. It is also recognised that the integration of nature based solutions in the public realm, to manage for example urban water run-off, can also have co-benefits for biodiversity and water quality.	NIR Mitigation (blue) for Chapter 4	
4.5.4.2.2 Tourism Related Retail Developments It is an objective of the Council to support niche tourism and innovative tourist enterprises to enhance the diversity and quality of local visitor	No significant effects identified, the amendment to the objective has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. It is assessed as a positive effect on the	

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
experiences and to stimulate increased visitor numbers in all parts of the county . ‘Any such proposals should not adversely impact Natura 2000 sites’.		environment.
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 4 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 5		
KCDP 5-3	Objectives promotes the develop of towns and villages, possible significant effects on a range of environmental parameters including water, soil, cultural heritage and air quality. Positive effects identified in the promotion of towns/villages as centres of growth and investment	<u>Amend:</u> KCDP 5-3 Support the initiatives and policies contained in “Our Rural Future: Rural Development Policy 2021-2025’, to sustainably strengthen economic activity and employment in rural areas.
KCDP 5-24 KCDP 5-25 KCDP 5-26 KCDP 5-27 KCDP 5-28 KCDP 5-29	Objectives promote the reuse/restoration of traditional /vernacular heritage. Potential significant effects on cultural heritage – architectural and archaeology. Positive effects also identified for the reuse of existing structures	<u>Heritage</u> • See mitigation outlined for chapter 3 above,
KCDP 5-14	Objective that provides for housing in rural areas	<ul style="list-style-type: none"> •Likely significant effects from one-off rural housing identified in Chapter 5 of this report, •this objective allows for one-off housing in rural areas, •the objective however has embedded mitigation namely “sustainable planning practice in matters such as design, location, wastewater treatment and the protection of important landscapes and environmentally sensitive areas” •in combination with other Obj 5.12 & 5.13 - that seek to limit housing in other rural areas further to specific criteria in line with national policy, this is likely to mitigate possible significant effects on the environment.
KCDP 5-7 KCDP 5-8 KCDP5.10	Objectives that seek to promote rural housing in cluster developments in village settlements identified in the plan, noted lack of/or limited waste water infrastructure in many of these settlements	<u>Water</u> <ul style="list-style-type: none"> •Section 5.5.1 notes settlements in each rural area and records waste water infrastructure availability, •Cluster developments promoted in these settlements, many with limited waste water infrastructure •Obj5.7-5.10 to facilitate housing in existing settlements identified with onsite WWTU considered as a treatment option if lack of public infrastructure or provision of same over the lifetime of the plan, •could have effects on water quality further to scale, nature and/or location •However, noted the approach is to be supported by various stakeholders including IW and PA and is following National and Regional Policy under <i>New Homes in Small Towns and Villages</i> that seeks to provide waste water infrastructure, •In addition Chapter 13 Water and Waste Management provides mitigation in Obj13.18, 13.19 re-EPA CoP compliance and Obj13.17 that prevents residential developments relying on onsite WWTU.
Policy	As discussed in Section 7.2 water; heritage; landscape	<u>Heritage/Landscape</u> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above <u>Amend</u>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
		<p>5.1 Introduction</p> <p>Additionally, the sustainable use of our natural resources including forest and aggregate reserves (sand and gravel pits) needs to be carefully considered and managed to achieve balanced growth while protecting the natural environment particularly water quality and biodiversity.</p> <p>5. The requirement to transition to a low carbon and climate resilient society, necessitates consideration of the spatial pattern of development focusing on elimination of unnecessary trips, more efficient use of resources and opportunities to provide centralised and communal public services.</p>
NIR Mitigation (blue) for Chapter 5		
None recommended		
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 5 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 6		
KCDP 6-5 KCDP 6-23	Promotes energy efficiency/ retrofitting potential for visual impacts and impacts on historic fabric/setting/streetscapes/townscapes. Positive impacts identified - promotion of sustainable transport and energy efficiency	<p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above
KCDP 6-9	Objective for delivery of infrastructure, possible significant effects on range of parameters further to scale, nature and location.	<p><u>Amend</u></p> <p>Promote the delivery of social infrastructure and high-quality services, at appropriate locations, through collaboration with the Kerry Public Participation Network (PPN).</p>
KCDP 6-49	Objective seeks to provide for cemetery infrastructure in the county. Likely significant effects on environmental parameters particularly water namely groundwater but also archaeology further to location and scale.	<p>The objective has embedded mitigation namely “Facilitate the sustainable provision of new burial grounds”.</p> <p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above <p><u>Amend Section 6.2.3</u></p> <ul style="list-style-type: none"> • Promote biodiversity, the use of SuDs and other nature based solutions in the design, construction and maintenance of residential developments
Policy	As discussed in Section 7.2 heritage/landscape	
NIR Mitigation (blue) for Chapter 6		
<p>KCDP 6-30 Support local sports groups, community groups and other groups in the development of facilities, at appropriate locations, throughout the county.</p> <p>6.2.3 Housing for Sustainable Communities</p> <p>It is a policy of Kerry County Council topromote rainwater harvesting, nature based surface water management solutions and energy efficiency during the construction phase and during the lifetime of residential developments by sensitive design, and layout taking into account topography, orientation and surrounding features,</p> <p>6.3.1 Sporting, Leisure Facilities and Open Space</p>		<p>No significant effects identified, the amendments to the objectives and the additions to policy/text have been recommended following an appropriate assessment of the plan. The amendments will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.</p>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>In addition, the following to be added to paragraph 2 of S6.3.1:- Site selection should take into account biodiversity and wider sustainability considerations.</p> <p>KCDP 6-51 Facilitate the establishment of a crematorium in Kerry at an appropriate location.</p>		
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 6 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 7		
KCDP 7-4	Objective is strategic to provide for housing across the county. Potential for significant effects further to the nature, scale and location.	<u>Amend</u> Acquire suitable land to sustainably deliver a housing programme, based on existing land banks, the level of social housing to be delivered under Housing for All , and Kerry County Council’s Housing Delivery Action Plan.
KCDP 7-29 KCDP 7-31	Objectives promote development in historic/vacant/backfill/derelict/brownfield sites for urban renewal and regeneration – potential archaeological effects and possible vernacular architectural significance. Positive impacts also identified - development of existing stock leading to more sustainable, consolidated growth patterns and housing in the right location.	<u>Heritage/Landscape</u> • See mitigation outlined for chapter 3 above
Policy	As discussed in Section 7.2 heritage/landscape	
NIR Mitigation (blue) for Chapter 7		
<p>7.3 Housing policies It is a policy of Kerry County Council topromote rainwater harvesting, nature based surface water management solutions and energy efficiency during the construction phase and during the lifetime of residential developments by sensitive design, and layout taking into account topography, orientation and surrounding features</p>		No significant effects identified, the amendment to policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. It is assessed as a positive effect on the environment.
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 7 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 8		
KCDP 8-15	Objective aims to support the actions arising from the Uíbh Ráthach Gaeltacht Interagency Taskforce Report and Action Plan 2019-2022	<ul style="list-style-type: none"> •the <i>Action Plan</i> is strategic in nature, while it supports the general principles of economic development it does not support specific projects at specific locations, •Supports general tourism products such walking, cycling and the principles of sustainable tourism in the Gaeltacht areas including cultural tourism, •As such the <i>Action Plan</i> is aligned with the <i>Kerry Tourism Strategy</i> that has been screened for SEA and AA at

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
KCDP 8-27 KCDP 8-28	<p>Objectives outline constraints in relation to RE, particularly wind, further to potential impacts on archaeology/ archaeological landscapes and architectural heritage. Negative effects identified on climatic factors.</p> <p>the time of its drafting.</p> <ul style="list-style-type: none"> •objectives are likely to limit some forms of development including on-shore wind development, however noted that: •<i>sieve mapping analysis</i> of wind zones provided in Volume 4, App4 have taken archaeological landscapes into consideration •wind zones open to consideration and repowering areas are still provided for in the KCDP •the PA has also a requirement to protect cultural heritage including archaeological and architectural sites and landscapes, •deemed appropriate the objs be included to ensure a balance across environmental parameters, their inclusion is further to proper planning and sustainable development, <p>See also Section 8.2.</p>
KCDP 8-31	<p>Objective promotes access to archaeological sites, and while identified as a positive effect, also potential for impacts on archaeology, landscapes, biodiversity/water further to the scale, nature and/or location of the access being considered.</p> <p><u>Amend</u> KCDP 8.31 Promote public awareness and facilitate appropriate access to archaeological monuments through public engagement and appropriate advisory guidance.</p>
KCDP 8-38	<p>Objective promotes works to the built architecture – potential for significant effects on archaeology; vernacular architecture and biodiversity.</p> <p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above <p><u>Amend</u> Seek the retention and appropriate repair and upgrading of historic, buildings, structures, road bridges, railway bridges and tunnels throughout the county, subject to environmental assessment.</p>
Policy	<p>As discussed in Section 7.2 population/human health biodiversity; soil and water and cultural heritage</p> <p><u>Irish Language</u></p> <ul style="list-style-type: none"> •There are obligations to protect the Irish language in Gaeltacht areas but also provision of housing in Gaeltacht areas, •CDP supports a number of mitigations policies including the support for Language planning areas, Gaeltacht service towns, existing and proposed language plans and provision of Linguistic impact statements with new housing proposals (see 8.1.3.2) and the provision of public services through Irish, •where non-Irish speakers are accommodated in Gaeltacht, LA will support new tenants to acquire language skills. <p><u>Biodiversity/Water/Soil</u></p> <ul style="list-style-type: none"> •Economic and tourism strategies supported, these are to align with national, regional and county level plans and strategies as outlined in the KCDP including the LECP and Tourism Strategy, all have been subject to SEA and AA screening and/or SEA/AA during their drafting, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, Chapter 8 provides objectives for protection of built heritage •<i>Wild Atlantic Way</i> as a tourism product is also subject to its own SEA/AA with ongoing monitoring by several stakeholders including KCC, •many objectives supported in the chapter are embedded with mitigation including “sustainable” and “at appropriate locations” and “further to environmental assessment”, •all developments/project will be subject to DM as outlined in Volume 6, Appendix 1. <p>See also Section 7.5 for assessment of proposed greenways.</p>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
		<p><u>Amend</u></p> <p>8.4.1 Built Heritage</p> <p>Kerry's built environment is vulnerable to climate change, particularly in terms of increased rainfall, warmer conditions, storm surges, maladaptation, pests and moulds, soil movement and storm damage. These potential impacts can cause loss of historic fabric (damage to roof, interiors, loss of detailing, increased dry and wet rot infestation, flooding damage, destabilisation of foundations, increased risk of vacancy due to damage etc). These structures can also support protected species such as bats and barn owls, species now synonymous with our built heritage. The potential loss of historic structures from the landscape can also negatively affect biodiversity. It is the policy of the Council to seek to address the impact of climate change on its built heritage assets.</p>
NIR Mitigation (blue) for Chapter 8		
	KCDP 8-5 Encourage the development of Irish Language schools/Coláiste Samhraidh at appropriate locations , in the area.	No significant effects identified, the amendment to the objective has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. It is assessed as a positive effect on the environment.
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 8 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 9		
KCDP 9-3 KDCP9-4 KSCP 9-6 KCDP 9-15	Objectives promote strategic economic development in the county further to a number of strategies and plans in consultation with various stakeholders. Further to the nature, scale and location possible significant effects on a range of environmental parameters.	<ul style="list-style-type: none"> •Many objectives supported in the chapter are embedded with mitigation including “sustainable”, in a “sustainable manner” and “at appropriate locations”, •Economic strategies supported are aligned with national, regional and county level plans and strategies as contained in the KCDP including the LECP and Tourism Strategy, all have been subject to SEA and AA screening as will future iterations, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, Chapter 8 provides objectives for protection of built heritage and all developments/project will be subject to DM as outlined in Volume 6, Appendix 1.
KCDP 9-22; KCDP 9-23 KCDP 9-24; KCDP 9-25	Objectives all relate to the SIFP and the associated Tarbert/Ballyongford Land Bank.	<ul style="list-style-type: none"> •Objs are embedded with mitigation including “implementation of mitigation measures outlined in the SEA and AA undertaken on SIFP and zoned in the Local Authority Development Plans”; “Projects shall be subject to the relevant environmental assessment requirements including SEA, EIA SFRA and AA as appropriate” and “sustainable development” <p>See also assessment in section 8.3.2</p>
KCDP 9-85 KCDP9-86	Objectives promote off-shore wind and associated infrastructure. Further to scale and location potential significant effects on a range of environmental parameters.	<p><u>Amend</u></p> <p>KCDP 9-85 To support the National Marine Planning Framework, the Offshore Renewable Energy Development Plan (OREDPA)2014 and its successors in the progressive sustainable development of Ireland’s offshore renewable energy potential and cooperate with state and semi-state agencies in relation to the implementation of projects in the Shannon Estuary, further to environmental assessment.</p> <p>KCDP 9-86 Support the sustainable development of land-based, coastal infrastructure that is critical to and supports development of Offshore Renewable Energy, including the sustainable development of port</p>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
KCDP 9-32	Objective promotes Kerry Airport and international travel potential significant effects on climate policy which seeks to reduce emission associated with travel and transport.	<p>infrastructure to service such developments.</p> <ul style="list-style-type: none"> •Noted the promotion of international travel can conflict with climate action policy, particularly mitigation which seeks to reduce emissions. The aviation and maritime sectors are acknowledged as significant emitters of GHG. •However, as acknowledged in the CAP21 as a small island economy there is a reliance on international connectivity for both people and goods. This is particularly relevant to Kerry considering its peripheral location on the SW coast. The CAP21 notes that actions to mitigate the aviation/maritime sectors are being addressed at International and EU level specifically within the ETS and other actions such as the sustainable fuel mandating initiatives. Technological changes into the future are also likely to improve the sector, albeit in the long-term. The CAP also notes that greater international collaboration will be key to achieving greater sustainability to reduce emissions from the aviation and maritime sectors, •Also noted there are other policy/objectives in the KCDP to support climate action that will provide a suite of other actions that seek to reduce emissions associated with travel including the facilitation of public transport; EV infrastructure; bio-fuel blends; a more sustainable tourism product around sustainable transport options such as cycling/walking whilst supporting evolving technologies such as green hydrogen, •To conclude, the combined impact of the above and the suite of other climate actions supported and embedded in the plan will, on balance, satisfactorily mitigate this objective.
KCDP 9-51 KCDP 9-54	Objectives promote agri-food sector including <i>Food Vision 2030</i> and modernisation of agricultural, noted associated pressures on biodiversity and water quality in the county.	<ul style="list-style-type: none"> •Obj 9.51 embedded with mitigation including “sustainably develop” •<i>Food Vision</i> plan also subject to a separate sustainability assessment under social, economic and environmental criteria. •Plan also supports the climate policy for agriculture objs KCDP2.10; KCDP2.12; KCDP11.12; KCDP11.13 and protection of water quality specifically associated with agricultural pressures as identified in the 3rd cycle of the WFD outlined in Chapter 5 of this report, notably obj KCDP13.1, KCDP13.9 & KCDP13.6. <p><u>Amend</u> KCDP 9-54 Facilitate the sustainable modernisation of agriculture and to encourage best practice in the design and construction of new agricultural buildings and installations to protect the environment, natural and built heritage and residential amenity</p>
KCDP 9-63 KCDP 9-64 KCDP 9-66 KCDP 9-67	Objectives all promoted economic development in the county which further to scale, nature and location have the potential to significantly effect a range of environmental parameters including biodiversity, water, population/human health further to noise and other emissions to air/water.	<ul style="list-style-type: none"> •these objectives are embedded with mitigation including “sustainable”, “in a sustainable manner” and “at appropriate locations”, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, Chapter 8 provides objectives for protection of built heritage, •class of projects will be subject to project level assessment under the EIA, Habitats and Water Framework Directives, while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1
KCDP 9-80 KCDP9-82 KCDP9.83 KCDP9-84	Objectives all seek to promote fisheries and associated marine industry, further to scale, nature and location potential for significant effects on the environment across the range of environmental parameters.	<ul style="list-style-type: none"> •These objectives are embedded with mitigation including “sustainable”, “in a sustainable manner” and “at appropriate locations”, “subject to compliance with the relevant Directives, the relevant objectives in this Plan and normal planning and environmental criteria” and “All development proposals will be subject to environmental assessment, implementation of mitigation measures outlined in applicable SEAs and AAs and feasibility studies to establish that any expansions can be achieved without adverse effects on any European sites and within the carrying capacity of the receiving environment of the ports”, • class of projects that fall within the planning code will be subject to project level assessment under the EIA,

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
		<p>Habitats and Water Framework Directives, while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1</p> <ul style="list-style-type: none"> •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, Chapter 8 provides objectives for protection of built heritage.
Policy	As discussed in Section 7.2 population/human health; biodiversity, water, soil, landscape, heritage and climate	<p><u>Population/Human Health</u></p> <ul style="list-style-type: none"> •Objectives embedded in plan that protect human health from harmful emissions from economic activities supported in this chapter, including Chapter 11 and 13, •Chapter 12 Energy provides mitigation for potential noise and impacts to residential amenity further to RE projects including wind, separation distances to follow national guidelines, potential noise impacts to follow WHO guidance while landscapes in the county have been reviewed and updated in <i>sieve mapping analysis</i> for wind zones, •Recognised that economic activity also a positive effect required to ensure population have access to sustainable employment across a range of sectors, particularly in the rural economy, •other mitigation in the plan that acknowledges the economy is underpinned by environmental assets that require protection, sustainable development a key consideration as detailed in chapter 1, •class of projects that fall within the planning code will be subject to project level assessment under the EIA, Habitats and Water Framework Directives, while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 <p><u>Biodiversity/Water/Soil</u></p> <ul style="list-style-type: none"> •Economic strategies supported, these are to align with national, regional and county level plans and strategies as outlined in the KCDP including the LECP which has been subject to SEA and AA screening as will future plans, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water and soil, •many objectives supported in the chapter are embedded with mitigation including “sustainable” and “at appropriate locations”, •all developments/project will be subject to DM as outlined in Volume 6, Appendix 1. •Objectives seek to sustainably develop the land bank in line with mitigation that has been integrated from the SIFP and other environmental assessments, including additional mitigation is recommended further to the this SEA and AA of the KCDP – see below and section 8.3.2 for further details. <p><u>Climate</u></p> <ul style="list-style-type: none"> •As noted economic development policy can conflict with climate policy, particularly mitigation that seeks to reduce GHG emissions, •As regards policy to support aviation/maritime travel see mitigation outlined above for obj KCDP 9.32 •Noted a balance needs to be sought between economic development and climate action, •overall plan supports sustainable development with strong emphasis on future green economies - RE, retro-fitting/energy efficiencies, smart economy; bioeconomy; circular economy etc. •There are other policy/objectives in the KCDP to support climate action that will provide a suite of other actions that seek to reduce emissions associated with the future economic development of the county including the facilitation of public transport; EV infrastructure; integration of infrastructure with spatial and energy planning; sustainable settlement pattern with concentrated growth in settlements served by sustainable transport options such as cycling/walking,

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	<p>•To conclude, the combined impact of the above and the suite of other climate actions supported and embedded in the plan will, on balance, satisfactorily mitigate policy in this chapter identified as possibly conflicting with climate policy.</p> <p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above <p><u>Amend</u></p> <p>9.2.3.1 The Role of the Council in Economic Development and Economic Recovery</p> <p>Kerry County Council recognises that much of the County's economy is underpinned by environmental attributes unique to the County and seeks to protect these environmental attributes by supporting the sustainable development of all sectors of the economy. Therefore, any plans, projects and activities requiring consent arising from economic development policy outlined in this chapter will be subject to the relevant environmental assessments including SEA, EIA and AA where appropriate.</p> <p>9.6.1.1 Shannon Estuary</p> <p>Tarbert-Ballylongford Landbank</p> <p>The Strategic Development Location (SDL) at Tarbert/Ballylongford in North Kerry is recognised for its potential as an Energy Hub and for industrial development at a regional and national level. There are 437 Hectares of zoned lands available for development on the Southern shore of the Shannon Estuary with access to deep water (up to 23m). It is the policy of the council to support the sustainable development of the Shannon Estuary, in line with the SIFP and the recommendations of its environmental assessment, and recognise its potential as an Energy Hub.</p> <p>KCDP 9-54 Facilitate the sustainable modernisation of agriculture and to encourage best practice in the design and construction of new agricultural buildings and installations to protect the environment, natural and built heritage and residential amenity</p> <p>9.7.6.2 Natural Resources</p> <p>Therefore, proper planning and sustainable development of natural resources require a balanced approach with appropriate policies for the growth and development of these resources while ensuring that the no adverse environmental effect on the environment and/or European sites. impact associated with such development are kept to a minimum.</p>
<p>NIR Mitigation (blue) for Chapter 9</p>	
<p>KCDP 9-55 Objective to be amended as follows:-</p> <p>Ensure agricultural waste is managed and disposed in a safe, efficient and sustainable manner having regard to the environment and in full compliance with the European Communities Good Agricultural Practice for the Protection of Waters Regulations (2010-2020) and any subsequent updates and relevant best practice guidelines</p> <p>KCDP 9-85 To support the National Marine Planning Framework, the Offshore Renewable Energy Development Plan (OREDPA)2014 and its successors in the progressive development of Ireland's offshore</p>	<p>No significant effects identified, the amendments to the objectives and/or policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.</p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy	
<p>renewable energy potential and cooperate with state and semi-state agencies in relation to the implementation of these and supporting projects in the Shannon Estuary in a sustainable manner.</p> <p>9.7.6.2.4:Second paragraph, second sentence to be amended as follows:-</p> <p>The council will support the sustainable development of the operations of the fishing and aquaculture industry while protecting and preserving the biodiversity and ecosystems in our oceans and watercourses, so they can continue to provide essential monetary and non-monetary goods and services.</p>		
Conclusion	<p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 9 are satisfactorily mitigated in the KCDP.</u></p>	
CHAPTER 10		
KCDP 10-2 KCDP 10-5 KCDP 10-71	<p>Objectives promote tourism developments and products across the county. Potential for significant effects on the environment across the range of environmental parameters considered in the SEA including biodiversity and water.</p>	<ul style="list-style-type: none"> •These objectives are strategic in nature, embedded with mitigation including “sustainable tourism development” •tourism strategies supported are aligned with national, regional and county level plans and strategies as contained in the KCDP including the LECP and Tourism Kerry Strategy, all have been subject to SEA and AA screening as will future iterations, •class of projects/development that fall within the planning code will be subject to project level assessment under the EIA, Habitats and Water Framework Directives, while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water. <p><u>Amend</u></p> <ul style="list-style-type: none"> •KCDP 10-5 Facilitate and support the sustainable development of tourism along, or in close proximity to public transport routes
KCDP 10-12 KCDP 10.13	<p>Objective promotes the WAW, additional visitors can place pressure on natural and cultural heritage, requiring further facilities at sites.</p>	<ul style="list-style-type: none"> •KCDP10.30 embedded with mitigation including “sustainable development” “at appropriate location” and “having regard to environmental sensitivities and designations”, “subject to compliance with the policies and objectives of this Plan particularly as they relate to the protection of the natural environment” •<i>Wild Atlantic Way</i> as a tourism product is also subject to its own SEA/AA with ongoing monitoring by several stakeholders including KCC, <p><u>Amend</u></p> <p>KCDP 10-12 Work with Fáilte Ireland, for the further enhancement and promotion of the Wild Atlantic Way touring route, subject to environmental assessment.</p>
KCDP 10-34; KCDP 10-35; KCDP 10-36; KCDP 10-37; KCDP 10-39; KCDP 10-41;	<p>All objectives seek to promote tourism products/developments associated with greenways/blueways/peatways/cycleways and other amenity infrastructure. Routes and associated works, further to scale, nature and location can be in proximity to various sensitive environmental</p>	<ul style="list-style-type: none"> •Objectives are embedded with mitigation including “sustainable development” “at appropriate location” and “ensuring that no significant adverse effects on the environment and the integrity of the Natura 2000 network” “subject to normal planning conditions”, “sustainably promote” <p>See also assessment in Section 7.5 for specific greenway/infrastructure projects supported in the CDP.</p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>KCDP 10-40; KCDP 10-42; KCDP 10-43; KCDP 10-44</p> <p>receptors including Natura 2000 sites; coastal water; geological heritage, archaeological sites and landscapes. Development of a greenway also a potential positive impact on local community providing a local amenity. Positive impacts on climatic factors and air quality and health/wellbeing and promotes objectives towards <i>modal shift</i> in transport. Also opens up possible tourism related business opportunities. Also note many greenways in the county are along railway lines imply brownfield sites often with existing infrastructure e.g. bridges etc all re-use/restoration.</p>	
<p>KCDP 10-45; KCDP 10-46; KCDP 10-49; KCDP 10-50; KCDP 10-51; KCDP 10-52; KCDP 10-54</p> <p>Objectives all promote use of marine environment; coastal areas and/or access to the shoreline/river/lakes for amenity, leisure and tourist use. Potential for significant effects on a range of environmental receptors including designated waterbodies within Natura 2000 sites; water quality; biodiversity from biosecurity impacts, cultural heritage.</p>	<p>•Objectives are embedded with mitigation including “will not impact negatively on the environment”, “where sustainable and appropriate” “at appropriate locations” “subject to environmental compatibility”.</p>
<p>Policy</p> <p>As discussed in Section 7.2 biodiversity; water; soil; climate; heritage; landscape</p>	<p><u>Biodiversity/Water/Soil</u></p> <ul style="list-style-type: none"> •The economic and tourism strategies supported align with national, regional and county level plans and strategies as outlined in the KCDP including the LECP and Tourism Strategy, all have been subject to SEA and AA screening as will future iterations, •<i>Wild Atlantic Way</i> as a tourism product is subject to its own SEA and ongoing monitoring by several stakeholders, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, •many objectives supported in the chapter are embedded with mitigation including “sustainable” and “at appropriate locations” while all developments/projects will be subject to DM as outlined in Volume 6, Appendix 1. <p><u>Climate</u></p> <ul style="list-style-type: none"> •As noted tourism policy can conflict with climate policy, particularly mitigation that seeks to reduce GHG emissions from travel, •As regards policy to support aviation/maritime travel see mitigation outlined above for obj KCDP 9.32 •Noted a balance needs to be sought between tourism as an important element of the county’s employment sector particularly in rural areas and climate action, •overall plan supports sustainable development with strong emphasis on future green sustainable tourism, •There are other policy/objectives in the KCDP to support climate action that will provide a suite of other actions that seek to reduce emissions associated with the sector and travel including the facilitation of public

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	<p>transport; EV infrastructure; bio-fuel blends; a more sustainable tourism product around sustainable transport options such as cycling/walking,</p> <ul style="list-style-type: none"> •To conclude, the combined impact of the above and the suite of other climate actions supported and embedded in the plan will, on balance, satisfactorily mitigate policy in this chapter identified as possibly conflicting with climate policy. <p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> •See mitigation outlined for chapter 3 above and proposed amendments to KCDP 8.31 <p><u>Amend</u></p> <p>10.4.1.3 Water-Based Tourism</p> <p>Ensuring access to the lakes and waterways and the sustainable management of activities taking place on the water, on the lakeshore and in the riparian zone of waterways is essential to ensure a balance between tourism development and conservation of natural heritage in these areas. The importance of biosecurity and protection of our watercourses from invasive species is particularly recognised due to the potential negative impacts on fisheries, water quality and angling/other water-based amenity tourism.</p> <p>10.4.4.1 Plantation Forest Recreation</p> <p>While the county's plantation forestry's primary role is a natural renewable resource some forested areas due to their topography and location can be utilised in a secondary role as an amenity for the local community and / or visitors to an area.</p>
NIR Mitigation (blue) for Chapter 10	
<p>KCDP 10-13 Second bullet point in the objective to be amended as follows:-</p> <ul style="list-style-type: none"> • Facilitating road improvement works, the provision of lay-bys/passing spaces and parking spaces at appropriate locations, <p>KCDP 10-34 Promote and facilitate the sustainable development of outdoor activities, in appropriate locations, such as walking, rambling, cycling, land and sea-based activities with specialised centres and facilities in association with Munster Technological University, Fáilte Ireland, National Trails Office, National Parks and Wildlife Service,</p> <p>KCDP 10-49 Support the sustainable expansion of non-commercial fishing activities in coastal communities and the development of complementary on-shore landing and hospitality facilities/services</p> <p>KCDP 10-50 Support and promote, with the co-operation of landowners improved access to the coastline where sustainable and appropriate and in line with the objectives of this Plan, including nature conservation objectives</p> <p>KCDP 10-53 Support in collaboration with the National Parks and Wildlife Service and other relevant stakeholders, the management and monitoring of aquatic vessels in relation to the spread of invasive alien aquatic species by leisure craft</p> <p>KCDP 10-55 Support the development of arts performance spaces</p>	<p>No significant effects identified, the amendments to the objectives and/or policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.</p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>through the adaptation of suitable outdoor public spaces and also the use of existing vacant properties for arts and performance projects, taking into account the potential for undue wildlife disturbance and impact.</p> <p>KCDP 10-73 Facilitate and support the growth of the film industry in Kerry by maximising the opportunities for screen tourism through the development of tourism facilities and infrastructure related to the film industry, including appropriately located film trails / routes, signage and visitor attractions with the potential to portray the county in a positive light and generate economic activity and employment.</p> <p>10.3.4.1 Accessible Tourism increase access to the countryside and coastline at appropriate locations. Information on accessibility to tourist venues and activities should be readily available so that these groups can plan their trips. Information should be disseminated through all information sources used by holiday makers and in the range of formats required by groups with different types of disabilities.</p> <p>It is the policy of the Council through its role as a planning authority and a building control authority, to ensure that there is a wide range of accessible tourism experiences available in throughout the County. While the Council acknowledges that some existing sites by reason of their environmental sensitivity, historical design..</p> <p>10.4.1.1 Walking and Cycling First paragraph, second last sentence to be amended as follows:- The provision of recreational and leisure facilities and limited commercial services will be facilitated at the trailheads, subject to environmental assessment.</p>	
Conclusion	<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 10 are satisfactorily mitigated in the KCDP.</u>
Chapter 11	
KCDP 11-7 KCDP 11-12 KCDP 11-13 KCDP 11-72	<p>Objectives promote the use of natural heritage sites for education/recreational and/or land uses that could further to scale, nature and location potential significant effects on sensitive environment receptors including biodiversity, water and cultural heritage/landscape.</p> <ul style="list-style-type: none"> •Objectives are embedded with mitigation including “where appropriate and compatible with environmental protection designations”, “sustainable” “at appropriate locations”. •Wild Atlantic Way objective embedded with mitigation “while ensuring protection of environmental attributes in the area”, and as a tourism product is subject to its own SEA and ongoing monitoring by several stakeholders.
KCDP 11-22	Objective promotes swift nesting projects, while this <u>Amend</u>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	is of benefit to biodiversity, inappropriate placement of nest boxes on buildings including PS/within ACAs can have a negative visual impact and/or physical impact historic fabric.	KCDP 11-22 Support projects such as the swift nesting project (that are compatible with protection of our architectural heritage); pollinator friendly initiatives and other actions that seek to enhance urban wildlife.
KCDP 11-30 KCDP 11-33	Objectives all promote traffic measures/mitigation including for noise. Depending on nature, scale and location of these measures potential for significant effects on a range of environmental factors including cultural heritage/landscapes and biodiversity. Positive benefits identified for noise mitigation; traffic calming and aiding modal shift in transport by providing for safer public transport infrastructure.	<ul style="list-style-type: none"> •Noted that Obj11.37 requires all infrastructure to be assessed in line with TII requirements, this includes assessment of possible impacts on the environment, •the implementation of mitigation from the Noise Action Plan is also supported in the KCDP further to proper planning and sustainable development while all developments/projects will be subject to DM as outlined in Volume 6, Appendix 1.
KCDP 11-45 KCDP 11-46	Objectives support marine sectors including blue economy and the improvement of associated infrastructure. Depending on nature, scale and location of any developments/activities arising potential for significant effects on sensitive coastal receptors including designated waters, shellfish sites, underwater archaeology, landscapes.	<ul style="list-style-type: none"> •Objectives are embedded with mitigation namely “sustainable development”. •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, Chapter 8 provides objectives for protection of underwater archaeology.
KCDP 11-50 KCDP 11-47 KCDP 11-54 KCDP 11-55 KCDP 11-58 KCDP 11-59 KCDP 11-60 KCDP 11-66 KCDP 11-67	<p>Objectives to support flood schemes including potential coastal erosion and river flooding. The nature of flood scheme project implies a potential for significant effects on a range of sensitive ecological receptors including designated coastal, estuarine and riverine waters, potential for significant effects on designated habitats and species; archaeology and landscape.</p> <p>Objs KCDP 11-59 KCDP 11-60 are specific objectives that support flood schemes identified in CFRAMS.</p>	<ul style="list-style-type: none"> •Objectives are embedded with mitigation namely “sustainable development”, “subject to compliance with the EIA and Habitats Directive” “Any proposal must have regard to nature conservation and landscape designations. Any works proposed must be in compliance with Article 6 of the Habitats Directive” and “and subject to environmental assessment”. •CFRAM was subject to SEA and AA at the time of drafting. In addition, noted that Obj, 11.59/60 contain mitigation and subject to environmental assessment, • nature of flood scheme projects will be subject to project assessment under the EIA, Habitats and Water Framework Directives, while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 •Objectives have been inserted into the plan to support nature based solutions as a measure in flooding schemes, see obj KCDP 11.64 & KCDP11.65 and recommendations from county Biodiversity Action Plan and new insertion of obj KCDP 11.66A (see below). <p><u>Amend</u> KCDP 11-50 Facilitate and support site specific interventions to reduce the risk of coastal erosion, subject to environmental assessment. KCDP 11-55 Work with local stakeholders and community-based organisations to facilitate and support community led initiatives to protect the coastal areas from erosion and to mitigate the effects of climate change, subject to environmental assessment.</p>
Policy	As discussed in Section 7.2 biodiversity and water.	<ul style="list-style-type: none"> •Noted that overall the chapter is likely to have positive effects on biodiversity and water with many objectives directly relating to the protection of same, •However, flooding objectives in particular could significantly affect biodiversity and water due to the nature of

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	<p>the works potentially required,</p> <ul style="list-style-type: none"> •Noted the objectives for flooding projects including coastal protection works have embedded mitigation and have had mitigation added further to recommendations made in this SEA/NIR including a new obj that seeks to support nature based solutions (see above & below), •Noted that extensive, coastal cell-based research is ongoing for two of the county’s most vulnerable coastal areas, these studies once complete will provide informed, science based information to support any coastal protection projects, •again any proposed projects to be undertaken from these studies will have to undergo environmental assessment at project level, •any proposed scheme will have to be in compliance with the EIA, AA and Water Framework Directives while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1. <p><u>Add</u> 11.1 Introduction Environmental protection is a core component of the RSES, County Development Plan and the Core Strategy which underlines the need to safeguard and enhance our environment through sustainable development, transitioning to a carbon neutral, biodiversity rich and climate resilient society and environmentally sustainable economy by 2050.</p> <p>KCDP 11-66A Support the use of nature based solutions in flood schemes and coastal protection works.</p>
<p>NIR Mitigation (blue) for Chapter 11</p>	
<p>KCDP 11-1 Ensure that the requirements of relevant EU and national legislation, are complied with by the Council in undertaking its functions, including the requirements of the EU Birds and Habitats Directives.</p> <p>KCDP 11-14 Ensure invasive species are managed in compliance with the provisions of the EC (Birds and Habitats) Regulations (SI 477 of 2011), as amended, particularly Sections 49, 50 and the Third Schedule. Best practices, as produced and updated by relevant authorities, are to be adhered to in the management of invasive species particularly on sites proposed for development.</p> <p>KCDP 11-16 Facilitate the provision of an appropriate site in the County for the disposal and management of invasive species and contaminated soil, further to best practice guidelines and the provisions of the EC (Birds and Habitats) Regulations (SI 477 of 2011), as amended.</p> <p>KCDP 11-19 Encourage and facilitate the retention and creation of features of local biodiversity value, ecological corridors and networks that connect areas of high conservation value such as watercourses, woodlands, hedgerows, earth banks and wetlands.</p> <p>KCDP 11-22 Support projects such as the swift nesting project (that are compatible with protection of our architectural heritage); pollinator</p>	<p>No significant effects identified, the amendments to the objectives and/or policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.</p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>friendly initiatives, tree planting, nature based sustainable urban drainage systems and other actions that seek to enhance urban wildlife.</p> <p>KCDP 11-40 Take into consideration the Bat Conservation Trust 2018 Note 08/18 <i>Bats and Artificial Lighting in the UK</i> Guidelines when choosing lighting specifications for developments and/or Bat specialist advice, so as to ensure the requirements of Article 10 of the Habitats Directive are adhered to, including Article 10.</p> <p>KCDP 11-51 Facilitate and support the maintenance and/or appropriate replacement of existing defensive coastal infrastructure to protect existing critical infrastructure.</p> <p>11.2.3 Wetlands</p> <p>Third sentence to be amended as follows:- Several ecologically diverse peatlands are designated in the County including 1 SAC and 9 NHAs a number within SACs and NHAs.</p> <p>11.2.6 Green and Blue infrastructure – Ecological /Urban Blue Corridors</p> <p>11.2.6 heading to be amended to ‘Green and Blue infrastructure – Ecological /Urban Blue Corridors’</p> <p>First paragraph to be amended as follows:-</p> <p>Green infrastructure or Ecological corridors/ steppingstones are habitat patches that may not necessarily be of high conservation value themselves but serve to maintain ecological connectivity in the landscape. An ecological corridor permits the movement of wildlife between areas of high conservation interest or through areas that have little ability to support these species. Examples of ecological corridors include field boundaries comprising of stone walls, hedgerows and treelines, which support biodiversity by providing food and shelter for plants and animals. These may form part of green infrastructure proposals. Ecological corridors can also be classed as blue infrastructure, essentially watercourses. They also act as pathways along which species travel and disperse though the wider countryside. Urban Blue Corridors can provide many co-benefits including more effective management of urban flood risk, improved access, additional and more useable public open space, and improved biodiversity. Given the extent of the Tarbert Ballylongford landbank and its location relative to areas of nature conservation value, it is of particular importance that ecological connectivity at a landscape level is taken into account as part of development proposals for this area.</p> <p>11.3.3.2 Lights and Biodiversity</p> <p>Second and third sentence to be amended as follows:- Bat species in particular can vary in their sensitivity to light pollution. Kerry has international important populations of the annexed II Lesser Horseshoe</p>	

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>bat, a bat species particularly vulnerable to light pollution and habitat loss and fragmentation arising from same.</p> <p>The following to be included after S11.5.1 CFRAM and ICPS Programmes. See also S13.2.4 Storm Water Management</p>		
Conclusion		<p>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 11 are satisfactorily mitigated in the KCDP.</p>
CHAPTER 12		
KCDP 12-3 KCDP 12-4	<p>Objectives all promote gas, gas installations and gas networks within the county. Further to scale, nature and location potential for significant effects on environmental parameters including population/human health; biodiversity, water, archaeology.</p> <p>Positive effects also identified as renewable gas (biogas) will provide for a transition away from fossil fuels in the short-medium term. Biogas as part of the bioenergy economy can be produced locally and injected to the network as technology advances.</p>	<p>•See also assessment in Section 8.3.2 that assesses in more detail Tarbert/Ballylongford zoning.</p> <p><u>Amend</u> KCDP12.1A Support the ongoing integration of spatial planning and energy planning in the county.</p> <p>KCDP 12-3 Facilitate the sustainable expansion of the gas network, including the facilitation of a gas importation facility in the Tarbert/Ballylongford Landbank, and the sustainable expansion of the network to the Kerry Hub and Knowledge Triangle settlements of Tralee, Killarney and Killorglin.</p> <p>KCDP 12-4 Support investment in sustainably developing renewable gas and provision of Compressed Natural Gas (CNG) refuelling infrastructure.</p>
KCDP 12-5	<p>Objective supports Data centre which can require large amounts of energy at operational phase.</p> <p>Positive effects also identified as waste heat recovery from centres can be used to support decarbonisation in other sectors particularly space heating.</p>	<p>•Objective is embedded with mitigation namely “at appropriate locations” and “no significant adverse impact on the built and natural environment, visual character of the landscape or on residential amenities”,</p> <p>•Any future centre will align with national policy as regards location and grid availability –see also recommended amendment to objective below.</p> <p><u>Amend</u> Facilitate the sustainable development of Data Centres at appropriate locations powered by renewable energy where it can be demonstrated that there will be no significant adverse impact on the built and natural environment, visual character of the landscape or on residential amenities. Seek opportunities to recover waste heat to support potential decarbonisation projects such as district heating schemes.</p>
KCDP 12-6 KCDP 12-7 KCDP 12-9	<p>Objectives support infrastructure needed to supply energy in the county. Further to scale, nature and location potential for significant effects on environmental parameters including population/human health; biodiversity, water, archaeology and landscapes.</p> <p>Positive effects also identified, energy infrastructure required for economic development and changes needed to support RE targets especially for the decarbonisation of electricity.</p>	<p>•Objectives are embedded with mitigation namely “sustainable development”</p>


Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
KCDP 12-15 KCDP 12-16 KCDP 12-19	<p>Objectives relate to main on-shore wind policy that seeks to strategically manage the development on-shore within the county. Objectives seek to protect sensitive ecological receptors namely European Sites, particularly Stacks SPA. Negative implications for climate policy which requires more RE to enter the grid in the short-medium term out to 2030.</p>	<ul style="list-style-type: none"> •Both objectives are mitigation formed iteratively from the appropriate assessment of policy as it was being drafted for Chapter 12 and further to the <i>sieve mapping analysis</i> outlined in the <i>Wind Zone Methodology</i> contained in Volume 1, appendix 6, •there is an obvious conflict between policy to limit on-shore wind energy further to a range of constraints (notably ecological considerations arising from the AA) versus national climate policy on RE targets, •notwithstanding this, the PA also has targets/obligations that relate to nature conservation particularly in relation to the Habitats and Water Framework Directives, • There is evidence that overall land uses in SPAs designated for Hen Harrier is having an adverse effect on the site integrity of the SPA, wind farm developments form part of this complex picture of land uses with disturbance/displacement and loss of foraging habitat, •Taking into account existing permitted wind farms within Kerry it is considered appropriate that these objectives are included to limit wind energy in Hen Harrier SPAs and only consider “repower areas” as suitable for upgrades/improvements, •repower areas will still provide opportunities for further upgrades/improvements of on-shore wind with advancing technologies in wind turbine production providing opportunities for further MW to be produced - further to case-by-case analysis and environmental assessment, •furthermore it is noted the county already has considerable RE production to date producing over 30% of RE produced in the Southern region (see Chapter 12, Section 12.5.3.2), •Finally, the potential for the county to help achieve RE targets in off-shore wind production and advancing synergy technologies is considerable particularly given the strategic location on the Shannon Estuary, •To conclude, having regard to the above and the suite of other climate actions supported and embedded in the plan, on balance, these objectives identified as possibly conflicting with climate policy is satisfactorily mitigated. <p>• See also assessment in Section 8.3.1 that assesses in more detail zones identified.</p>
KCDP 12-22 KCDP 12-24 KCDP 12-27	<p>Objectives identify potential limits to the development of other RE namely hydro, solar and bioenergy. Positive effects identified re-protection of environment parameters including human health; landscape, soil and biodiversity/Water. Negative implications for climate policy which requires more RE to enter the grid in the short-medium term out to 2030.</p>	<ul style="list-style-type: none"> • Objectives are mitigation formed iteratively from the SEA/appropriate assessment of policy as it was being drafted for Chapter 12 Energy, • there is an obvious conflict between policy to constrain RE production further to a range of constraints (notably ecological considerations arising from the AA) versus national climate policy on RE targets, •notwithstanding, the PA also has targets/obligations that relate to nature conservation particularly in relation to the Habitats and Water Framework Directives and also obligations to ensure appropriate land uses for all land types including agriculture/food production, •PA also has obligations in relation to potential impacts population/human health, visual and residential amenity and principles of proper planning and sustainable development, •Considering these other obligations it is deemed appropriate that these strategic objectives that seek to pro-actively and strategically manage where RE is deemed environmentally and socially acceptable. •To conclude, having regard to the above and the suite of other climate actions supported and embedded in the plan, on balance, these objectives identified as possibly conflicting with climate policy is satisfactorily mitigated.
Policy	<p>As discussed in Section 7.2 the nature of infrastructure supported in this chapter has the</p>	<p><u>For Wind Zones see section 8.3.1</u></p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>potential to have a significant effect on the range of environmental sensitivities considered in the SEA Directive.</p>	<p><u>Population/Human Health/Air Quality</u></p> <ul style="list-style-type: none"> •Chapter includes mitigation for potential noise and impacts to residential amenity further to RE projects including wind, separation distances to follow national guidelines, potential noise impacts to follow WHO guidance while landscapes in the county have been reviewed and updated in <i>sieve mapping analysis</i> for wind zones, •All RE projects require assessment for possible noise; air; odour and/or waste water impacts, permits/licencing as required will mitigate at project level, •Any proposed RE develop will have to be in compliance with the EIA, AA and Water Framework Directives while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 which includes protection of populations/human health. <p><u>Biodiversity/Water/Soil</u></p> <ul style="list-style-type: none"> • protection of biodiversity/water embedded into the Chapter with sensitive water catchments and European Sites excluded, •peat soils identified for potential sequestration of carbon as being unsuitable for on-shore wind coupled with landslide susceptibility, •productive, agricultural lands protected from overdevelopment into RE such as solar – noted planning applications for USSPV are accompanied by a detailed description of the application site lands including details of productivity, for the 10 years prior to the making of the planning application, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water <p><u>Climate</u></p> <ul style="list-style-type: none"> •Regarding climate policy, reducing the areas open to consideration for wind in the county has the potential to negatively affect climate action targets, •However, it is noted that the county already has considerable on-shore wind production, to date producing over 30% of wind RE (742MW) produced in the Southern region (see Chapter 12, Section 12.5.3.2). •Notwithstanding the reduction of areas open to consideration, it is noted the county retains significant “repowering areas”. These areas will allow existing infrastructure to be improved/upgraded (further to environmental assessment and compliance with the Habitats Directive). As the technology for onshore wind turbines continues to evolve, these repowering areas have the ability to support additional RE capacity further to upgrades/improvements. Therefore, there is still capacity within the county to augment its RE capacity from onshore wind notwithstanding the reduction of areas open to consideration, •the county has significant capacity from other RE sources to reach emissions targets including the potential for off-shore wind, solar, local bioenergy production and microgeneration through such initiatives as the Dingle Peninsula 2030 and as new technologies begin to emerge, •Policy and objectives in Chapter 12 support the pursuit of National and Regional energy policy in relation to reaching climate targets with the future development of the Shannon estuary as a RE hub (in line with the SIFP and subject to environmental assessment) also ensuring the county will play an active part in reaching RE targets onto 2030, •the likely evolution of off-shore wind to 2030 places the county at an advantage to support the industry and again look to synergies with new technologies, such as “green hydrogen” as these technologies emerge. Again the strategic location of the county on the Shannon estuary is a key factor to these futures synergies. •As acknowledged in CAP21 the nature of technological change is advancing and at any one time it may not

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	<p>align directly with assumptions made at this stage. Policies/objectives in this plan will be under constant review and monitoring particularly once the LA produces its own CAP in line with climate policy. These updates/reviews/monitoring will allow flexibility for all energy policy to be constantly analysed against performance targets.</p> <ul style="list-style-type: none"> •To conclude, having regard to the above and the suite of other climate actions supported and embedded in the plan, on balance, energy policy in this chapter identified as possibly conflicting with climate policy is satisfactorily mitigated. <p><u>Add</u></p> <p>Section 12.1 Introduction</p> <p>The Council shall work in partnership with existing service providers to facilitate required enhancement and upgrading of existing infrastructure and networks (subject to appropriate environmental assessment and the planning process) and support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks. This will ensure that the energy needs of future population and economic expansion within designated growth areas and across the county can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs. In ensuring energy and growth are integrated, the Council will support the emerging climate action policy to align energy planning with spatial planning.</p> <p>The Council supports the sustainable development of data centres which can be serviced with a renewable energy source (subject to appropriate environmental assessment and the planning process) at spatially suitable locations that make efficient use of the existing transmission network. The potential to recover waste heat from data centres to support potential decarbonisation projects such as district heating schemes will be supported. The council also supports strengthened and sustainable local community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid.</p> <p>As regards protection of the environment including residential amenity, any plans, projects and activities requiring consent arising from the energy policy outlined in this chapter will be subject to the relevant environmental assessments including SEA, EIA and AA where appropriate.</p> <p>12.5.4.1.4 Open-to-Consideration</p> <p>It is the policy of the Council to:</p> <ul style="list-style-type: none"> •Ensure that all proposals for wind energy development (including the grid connection) have regard to the cumulative effect of the development on the environment in conjunction with the entire development and other existing/permitted developments in the area. •Ensure that all applications are in compliance with Article 6 Habitats Directive, EIA Directive and Water Framework Directive, where applicable this should be informed by at least 2 years of annual (breeding and wintering) bird survey undertaken to best practice guidelines. <p>12.5.5 Community Consultation, Community Benefit & Community Projects</p>

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
		<p>Kerry County Council acknowledges that a well-planned and facilitated community engagement process conducted with integrity and fairness can improve the likelihood of community acceptance of proposed renewable energy projects. It supports the principles of the Just Transition where no member of the community is left behind as we transition towards climate neutrality. The citizen as an active participant in our future energy systems is recognised in this plan and the council will seek to support such initiatives as Sustainable Energy Communities (SEC) as we transition to a low carbon society.</p> <p>Add new KDCP 12.36: Working with stakeholders, support and lead the community in becoming active participants in the county’s future energy systems.</p>
NIR Mitigation (blue) for Chapter 12		
12.5.4.1.7 Repower Areas The final sentence of the first paragraph to be amended as follows. It is noted that in some cases the existing windfarms in the repower area predate the European Site designation.		No significant effects identified, the amendment to policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. It is assessed as a positive effect on the environment.
Conclusion		<u>Having regard to the reasons outlined above and in Section 8.3, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 12 are satisfactorily mitigated in the KCDP.</u>
CHAPTER 13		
KCDP 13-28 KCDP 13-30 KCDP 13-31	Objectives all support the provision of waste facilities in the county. Further to the scale, nature and location there is potential for significant effects on a range of sensitive ecological receptors including groundwater, surface waters and biodiversity particularly potential infill of wetlands.	<ul style="list-style-type: none"> •Objectives are embedded with mitigation namely “at appropriate locations” “sustainable development”, •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water, •Chapter 11, Section 11.3 includes specific objs to protect noise/air quality/odour - KCDP 11.27; KCDP11.32; 11.35 & KCDP11.36 •any proposed facility will have to be in compliance with the EIA, AA and Water Framework Directives while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 including any requirement for separate licencing relating to noise, air and/or water emissions.
KCDP 13-32 KCDP 13-35 KCDP 13-36	Objectives promote use of waste material for other uses including heat/energy/bio-gas and the provisions for sludge re-use. Potential for significant effects on a range of environmental factors including noise, odour, air and water emissions. Positive benefits also identified particularly in climate action with the potential for biogas/bioenergy to reduce carbon and associated emissions.	<ul style="list-style-type: none"> •KCDP 13-36 has embedded mitigation “sustainable manner” “in compliance with Water Framework Directiveand other statutory instruments”. •see also mitigation outlined above. <p><u>Amend</u> KCDP 13-35 Support the provision of infrastructure, at appropriate locations, for composting and other forms of processing for bio-waste such as anaerobic digesters</p> <p>KCDP 13-32 Encourage and facilitate the sustainable development of new alternatives and technological advances in relation to waste management such as Organic Waste to Energy/Combined Heat and Power schemes.</p>
Policy	As discussed in Section 7.2 soil, water and air quality.	<p><u>Soil</u></p> <ul style="list-style-type: none"> •Ob11.12 in Chapter 11 seeks to protect wetlands and ensure compliance with relevant legislation, •Other objectives in the plan that seek to protect soil resources including obj KCDP2-10; KCDP2-11; Section 11.2.3 and obj KCDP12-22

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
	<p>•any proposed facility will have to be in compliance with the EIA, AA and Water Framework Directives while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 including any requirement for separate licencing relating to discharges/emissions to groundwater/air.</p> <p><u>Air quality</u></p> <p>•any emissions to air, water and/or nuisances such as noise and odour are all subject to consent processes – as detailed above.</p> <p><u>Water</u></p> <p>•Policy in relation to waste water treatment in rural areas – namely one-off housing; and/or communal WWTP has to be in compliance with EPA CoP and to the satisfaction of the PA,</p> <p>•these systems are also inspected as part of the LAs function under the National Inspection Plan for Domestic WWTPs,</p> <p>•waste facilities are also subject to project level assessment and must be in compliance with policy outlined in Chapter 13 for protection of water/compliance of the WFD,</p> <p>•as noted above, compliance with EIA and Habitats directives is required and all developments/projects will be subject to DM as outlined in Volume 6, Appendix 1 including any requirement for separate licencing relating to water discharges.</p> <p><u>Biodiversity</u></p> <p>•Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water.</p>
NIR Mitigation (blue) for Chapter 13	
<p>KCDP 13-14 Facilitate and support the sustainable provision of new and the upgrading of existing water and water treatment infrastructure in the county.</p> <p>KCDP 13-15 Facilitate and support the sustainable provision of new and the upgrading of existing wastewater infrastructure to accommodate the future growth of settlements in the county in line with the Core Strategy</p> <p>13.2.2 Water Infrastructure</p> <p>The final sentence of the first paragraph to be amended as follows. Kerry has a predominance of surface water sources which are susceptible to drought and therefore ground water and impoundment / storage measures need to be developed over the medium term for resilience. Such proposals will require environmental assessment and should be compatible with Natura 2000 site conservation objectives.</p> <p>13.2.3 Public Conveniences</p> <p>The following to be added to the section. In certain environmentally sensitive areas, it may be more appropriate to provide or to upgrade facilities in a nearby settlement to address the need</p> <p>13.2.4 Storm Water Management</p> <p>Section to be amended as follows:-</p> <p>Storm water flows can have a significant detrimental impact on the</p>	<p>No significant effects identified, the amendments to the objectives and/or policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.</p>

Likely Significant Effect	SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
<p>available capacity of combined sewer networks and at treatment plants. Climate change is exacerbating the impact by way of more frequent and intense rainfall. This brings challenges in terms of drainage and capacity, traditionally addressed by hard engineering options (concrete gullies, pipes, drains etc).</p> <p>Sustainable Drainage Systems, commonly known as SuDs, is an approach to manage surface water runoff as close as possible to its origin by various engineering or nature-based solutions that replicate natural drainage processes before it enters the watercourse or network. The incorporation of SuDs techniques allows surface water to be either infiltrated to ground or conveyed more slowly to water courses using porous surface treatments, ponds, swales, filter drains or other installations. The benefits of taking a nature-based approach includes not just flood risk management benefits but also improved water quality, biodiversity and Climate adaptation and mitigation. To maximise effectiveness, nature-based surface water solutions requires consideration in the early design stages of land use planning, including during the preparation of masterplans and land use zoning objectives.</p>  <p>SOURCE: The Planning System and Flood Risk Management – Guidelines for Local Authorities, OPW 2009</p> <p>Additional Development Objective to be included in S13.2.4: It is an objective of the Council to identify opportunities for nature-based SuDs in tandem with the preparation of masterplans for urban areas and plan level Strategic Flood Risk Assessments.</p>	
Conclusion	Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 13 are satisfactorily mitigated in the KCDP.
CHAPTER 14	
KCDP 14-1 KCDP	Objectives all promote transport infrastructure. •Objectives are embedded with mitigation namely “at appropriate locations” “sustainable development”

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
14-2 KCDP 14-3 KCDP 14-9 KCDP 14-12 KCDP 14-36	Further to nature, scale and location there is the potential for significant effects on a range of environmental sensitive parameters including biodiversity, water, cultural heritage and landscapes. Potential negative on climate mitigation which seeks to reduce emissions from travel. Positive effects also identified to population/human health and climate action in the promotion of alternatives to the use of cars; provision of infrastructure to provide for <i>modal shift</i> in transport use and providing local amenities.	“further to environmental assessment” •See also assessment of specific infrastructure schemes supported in the plan in Section XXX <u>Biodiversity/Water</u> •Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water <u>Heritage/Landscape</u> • See mitigation outlined for chapter 3 above <u>Climate</u> •Noted many objectives support road infrastructure which implies increased emissions in the short-term from transport, •Noted objectives to support Kerry Airport implies increasing international travel with associated increases in emissions from air travel in the short-medium term,
KCDP 14-20 KCDP 14-48 KCDP 14-49 KCDP 14-50 KCDP 14-51 KCDP 14-52	Objectives promotes Kerry Airport and other transport infrastructure with potential significant effects on climate policy which seeks to reduce emission associated with travel and transport.	•As regards policy to support aviation/maritime travel see mitigation outlined above for obj KCDP 9.32 •However noted that over time decarbonisation of transport is a key target in CAP 2021 with emphasis on EV cars; increased blend of biofuels in transport mix; likely technological advances in fuels for heavy goods vehicles such as “green hydrogen”, •Policy also included in the plan that seeks to reduce car journeys with a <i>modal shift</i> towards active travel/sustainable travel patterns as well as the integration of transport planning with spatial planning, •Green Public Procurement Policy also will also demand reduction in emissions associated with the development of transport infrastructure, •PA will need to balance climate policy and providing new infrastructure in the county and/or to upgrade/maintain existing infrastructure in view of the county’s regionally location, •This is also supported in NPF and RSES which recognises that an informed spatial plan most also align with regional development with sustainable transport networks, noted that regional infrastructure schemes included in the KCDP are included (and were subject to SEA) in the RSES. •Also noted that the economic and social development of the county strongly linked to the tourism sector reliant on international travel and strong interconnectivity, •Noted a balance needs to be sought between development of transport and climate action, •There are other policy/objectives in the KCDP to support climate action that will provide a suite of other actions that seek to reduce emissions associated with the transport sector county including the facilitation of public transport; EV infrastructure; concentrated growth in settlements served by sustainable transport options such as cycling/walking, •other sustainability measures that seek to reduce emissions of GHG across a range of sector, including heat and energy, are also likely to mitigate policy, •To conclude, the combined impact of the above and the suite of other climate actions supported and embedded in the plan will, on balance, satisfactorily mitigate objectives/policy in this chapter identified as possibly conflicting with climate policy.
KCDP 14-24 KCDP 14-25 KCDP 14-26	Objectives promotes road infrastructure projects in the county and/or in neighbouring counties. There is the potential for significant effects on a range of environmental receptors as outlined the RSES, existing KCDP and associated MD plans. Also Climate Action policy seek to reduce emissions from transport.	
KCDP 14-53 KCDP 14-55 KCDP 14-56	Objectives promote port and international/regional connectivity.	• Objectives are embedded with mitigation namely “sustainable developing” •See also mitigation above re-climate policy. <u>Amend</u> KCDP 14-55 Facilitate and support the sustainable development and improvement (including dredging and

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
		sediment removal) of existing ports, harbour facilities, piers, slipways, and associated shore facilities to maintain navigational and operational effectiveness
KCDP 14-35 KCDP 14-33 KCDP 14-32 KCDP 14-58	Objectives promote specific infrastructure projects in the county, potential significant effects further to the nature, scale and location.	•See assessment of specific infrastructure schemes supported in the plan in Section 7.5
KCDP 14-64 KCDP 14-66	Objectives digital connectivity and telecommunications infrastructure, further to scale, nature and location potential for significant effect on population/human health; landscapes	<ul style="list-style-type: none"> • Objectives are embedded with mitigation namely “sustainable delivery”, “sustainable provision” “at appropriate locations”. •National Broadband plan has been subject to environmental assessment and its future roll out will be subject to the provisions of the PDA as amended, •Noted policy on antennae/telecommunication infrastructure subject to national guidelines as outlined in the DM seek to protect human health and residential and visual amenity. <p><u>Population/Human Health</u></p> <ul style="list-style-type: none"> •Infrastructure to be guided by national policy on suitability of locations, to include an assessment of any potential impacts on population/human health, as per proper planning and sustainable development. See Volume 6, Appendix 1, DM Section 1.14. <p><u>Heritage/Landscape</u></p> <ul style="list-style-type: none"> • See mitigation outlined for chapter 3 above
Policy	As discussed in Section 7.2 the nature of infrastructure supported in this chapter has the potential to have a significant effect on the range of environmental sensitivities considered in the SEA Directive.	<ul style="list-style-type: none"> •See mitigation provided above for objectives which also relate to mitigation of policy. <p><u>Amend</u></p> <p>14.1 Introduction</p> <p>It is also the policy of the Council to facilitate the improvement of the quality of life of all citizens of the County by providing quality transportation and communication infrastructure. This includes protection of the environment and any plans or projects requiring consent arising from connectivity policy outlined in this chapter will be subject to the relevant environmental assessments including SEA, EIA and AA where appropriate.</p>
NIR Mitigation (blue) for Chapter 14		
<p>KCDP 14-14Support accessibility to greenway and active travel walking routes for people of all ages and those with disabilities.</p> <p>KCDP 14-37 Support and facilitate the sustainable provision of public parking facilities including for electric vehicles at appropriate beaches, walkway/cycleway trailheads, scenic viewing points and scenic routes subject to compliance with any environmental designations requirements.</p> <p>14.4.3 Parking Provision</p> <p>Second paragraph, to be amended as follows:-</p>		No significant effects identified, the amendments to the objectives and/or policy has been recommended following an appropriate assessment of the plan. The amendment will ensure no adverse effects on the integrity of European Sites further to the implementation of the plan. They are assessed as a positive effect on the environment.

Likely Significant Effect		SEA Mitigation (red) – existing and/or proposed alteration of objective /policy
Car parks are also needed in a rural context to access recreational facilities and amenities and to manage associated pressure . This parking must be provided in a sustainable manner taking cognisance of environmental designations, and minimising effects on the landscape. Where car parking demand is seasonal the provision of temporary facilities and solutions will be explored in order to reduce environmental impact.		
Conclusion		<u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of objectives and policies in Chapter 14 are satisfactorily mitigated in the KCDP.</u>

Volume 6		SEA Mitigation (red) and NIR Mitigation (blue) recommended for the Development and Management Standards and Guidelines
1.2 Policy Context 1.2.1 Pre-Application discussions		There are assessments that may be deemed necessary to accompany planning applications including, but not limited to: EIAR , AA Screening Report/Natura Impact Statement , Flood Risk Assessment, Landscape Impact Assessment, Archaeological Assessment, Architectural Assessment, Ecological Impact Assessment (Ecology/Biodiversity- including for example bat surveys). These requirements are decided on a case-by-case basis, and these are discussed with the Planning Authority at pre-application discussion stage.
13.2 Ecosystem Approach and Infrastructure Services and Green		First bullet point to be amended as follows:- Existing Green Infrastructure (including green corridors) and ecosystems services should be identified at the initial stages of the planning process of a proposed development and should guide the design of an appropriate site layout. These may comprise linear open spaces along paths, water courses, planting or other natural features, and provide opportunities for walking and cycling, informal recreation, and biodiversity and wildlife migration. IFI guidance on Planning for Watercourses in the Urban Environment should be adhered to where possible. Final bullet point to be amended as follows:- The Planning Authority will encourage the protection and integration within an overall site green infrastructure network, of existing mature trees, watercourses and hedgerows which occur on proposed development sites, and where feasible, along roads. Where possible, all trees, hedgerow and landscape features to be retained shall be identified and retained in planning applications.
The following to be included as 1.3.6		1.3.6 Sediment control Many development projects have the potential to generate soiled water run-off containing sediment and silt, particularly during the construction phase. Such run-off can be harmful to the ecological functioning of watercourses downstream. Freshwaters are generally more vulnerable to sedimentation than coastal and estuarine waters, which can have greater dilution capacities and can be more naturally turbid. It is accepted that in certain instances soil and or vegetation characteristics may facilitate natural interception of sediments from overland surface water run-off. In other cases, there may be sufficient capacity in naturally occurring landscape features or in the urban drainage infrastructure to cater for the sediment and run-off likely to arise. Sediment control measures and or a Construction Erosion and Sediment Control Plan CЕСSP will be required by the Planning Authority, where deemed necessary or may be submitted as part of a planning application as a best practice measure - regardless of ecological risk. Where required the purpose of a Construction Erosion and Sediment Control Plan (CESCP) is to:

	<ul style="list-style-type: none"> • Minimise erosion potential by effective planning, procedures and water management; • Apply erosion control measures to prevent the movement of sediment; and • Apply sediment control measures to prevent off-site sediment release in the event of sediment movement. <p>Where applicable, regard should be had to NRA (2005) Guidelines for the Crossing of Watercourses during Construction of National Road Schemes and CIRIA 648 (2006) Control of Water Pollution from Linear Construction Sites, which provide advice on potential impacts arising during the construction phase of developments and the assessment and mitigation of these risks.</p>
The following to be included as 1.3.7	<p>1.3.7 Construction Environmental Management Plan</p> <p>Where applicable, a CEMP will be required to be prepared by the Contractors, to ensure commitments included in the statutory approvals are adhered to</p>
1.5.8.10 Hardcore Surface and Surface Water Disposal	<ul style="list-style-type: none"> • Surface water be disposed of to soak pits or watercourse(s) adjoining the site and shall not be allowed to flow onto the public road or to adjoining properties. Details shall be submitted with the planning application. • There is no minimum standard required for gardens. However, the hard landscaping of areas around dwelling houses shall be limited. • Where feasible nature-based solutions to manage water run-off should be considered
1.9.2 Surface Water Additional sentence to be provided as follows	<p>Surface water from the development will be required to be contained within the site and piped to the public system. No surface water will be permitted to pond within the forecourt, adjoining the boundary walls or along the entrance/exit lanes. Appropriately designed and maintained hydrocarbon interceptors will also be required.</p>
1.11 Takeaways/Restaurants/Kiosk/ Popup (Container) Trading Units The following bullet point to be included:-	<ul style="list-style-type: none"> • Potential for impact on biodiversity and the environment, for example by way of wildlife disturbance, littering or trampling of sensitive vegetation.
1.12.2 Caravan, Glamping and Camping developments The following bullet point to be amended:-	<ul style="list-style-type: none"> • Parks will not generally be permitted in proximity to the coastline, outside of lands specifically zoned for such development.
1.14.2 Lighting and illumination	<p>First sentence to be amended as follows:- Functioning public lighting that is well designed, energy efficient and suitably located is of critical importance to our urban communities.</p> <p>The following bullet point to be included:- Have regard to Bat Conservation Trust 2018 Guideline Note 08/18</p>
1.15.1 Wind Energy The following bullet point to be added to the first set of bullet points in the section:-	<ul style="list-style-type: none"> • Lifecycle Assessment of the wind farm particularly in relation to emission of GHG to include, if applicable, loss from LULUCF further to the proposed development.
The following bullet points in the second set of bullet points	<ul style="list-style-type: none"> • That the developer consult with other relevant statutory agencies that could assist in identifying environmental sensitivities and relevant considerations such as the Department of Housing, Local Government, Department of Environment, Climate and Communications, The

<p>in the section to be amended as follows:-</p>	<p>Forestry Service, the Irish Aviation Authority, National Parks and Wildlife Service, Inland Fisheries Ireland and other appropriate statutory and non-statutory bodies.</p> <ul style="list-style-type: none"> • Appropriate Assessment Screening Report and where applicable a Natura Impact Statement. • Ornithological (bird) survey (winter and breeding) for at least 2 years prior to a planning application being made. • Assessment of the carbon balance of the proposed development, particularly any development on or impacting on peat or other carbon sequestering soils.
<p>1.15.2 Solar Energy</p>	<p>The third bullet point to be amended and an additional one to be inserted following same as follows:-</p> <p>-The potential impact on the ecological characteristics and features of the site and its sensitivity to the proposed changes arising from the construction, operation and decommissioning stages of a development. On a proposed site where a significant level of ecological impact is predicted an Ecological Management Plan may be used to mitigate against the predicted impact and/or a Natura Impact Statement if applicable</p> <p>- possible significant effects and/or adverse effects on site integrity of Europeans which may require the submission of an AA Screening Report and/or a Natura Impact Statement.</p>
<p>1.16.1 Extractive Development The following points to be amended as follows:- 1.16.1 Extractive Development</p>	<p>i) Environmental Impact Assessment Report (EIAR) Any Environmental Impact Study EIAR including any remedial EIS EIAR required by statute. An EIAR EIS should ensure that all impacts in relation to heritage, environment, biodiversity, groundwater protection, etc are clearly addressed and appropriate mitigation measures are included</p> <p>(l) Heritage and Biodiversity Proposals in relation to heritage and biodiversity would to include any recommendations for the site to be considered as part of the geological heritage of the County and any proposed measures in respect of the protection and promotion of the environment and biodiversity, including any proposals for rehabilitation. The Council will require an Ecological Impact Assessment, Appropriate Assessment Screening and or Natura Impact Statement for all proposals within or in the vicinity of an SPA, SAC or NHA. Where a quarry development falls within a conservation designation, the developer is advised to consult with the National Parks and Wildlife Service Department Environment, Climate Local Government prior to making an application. Evidence of such consultation should be submitted to the Planning Authority at application stage. The Council will require that the operator of the quarry shall put in place an Environmental Monitoring System, to monitor all environmental standards (noise, dust, blasting etc.) on an on-going basis. It is recognised that quarries offer opportunities for heritage and biodiversity, particularly in less intensively used areas of quarries and as part of site restoration. Heritage and biodiversity enhancement measures, to include consideration of geological heritage, is required to be taken into consideration as part of required site restoration proposals.</p>
<p>1.18.1 Coastal Management and Protection Point (b) to be amended as follows:-</p>	<p>b) Sea Level Change and Flooding New developments shall comply with the following approach to coastal management for sea level change:</p> <ul style="list-style-type: none"> • No new building or new development within 30m of 'soft' shoreline, save for proposals of strategic importance including possible walking trails – subject to environmental assessment. • No further reclamation of estuary land, save for proposals of strategic importance including possible pier and harbour development – subject to environmental assessment. • No removal of sand dunes, beach sand or gravel. • All coastal defence measures to be assessed for environmental impact
<p>1.0 Land Use Zoning – Volume six</p>	<p>In the interests of clarity, the subheading '1.3.2.1 Built Up Areas' to be deleted with the associated text incorporated into the preceding heading of 1.3.2 Development in Existing Residential /Built Up Areas (R2/M2/M4) as the bullet points contained in 1.3.2.1 relate to 1.3.2.</p> <p>Delete sub heading 1.3.2.1 Built Up Areas</p>

8.2.2. Mitigation integrated into Town Development Plans

This section outlines the mitigation recommended and included in each of the town plans. SEA mitigation is specifically in red, recommendations from the appropriate assessment of the plan are in blue. Further details on the latter can be reviewed in the NIR, however to ensure no conflicts arise with the SEA, AA recommended changes are outlined below.

8.2.2.1. Tralee

Objectives

Objective	SEA Mitigation, Comment and Conclusion
TR - 12	<p>Facilitate the development of 2,087 residential units within the town boundary. The objective promotes the development of residential units with Tralee town as per the new Core Strategy outlined in the KCDP 2022-2028.</p> <p>The discharge from Tralee waste treatment plant was listed as a priority area in EPA’s recent Urban Waste Water Treatment in 2020. Tralee waste treatment plant discharges into Tralee bay, designated as a “sensitive area” – the bay is designated within the Natura 2000 network and has a shellfish designation. This implies that the standard of the discharge must a) receive more stringent treatment, in addition to secondary treatment, in order to remove phosphorous and/or nitrogen and b) the treated waste water must comply with the effluent quality standards for phosphorus and/or nitrogen. While the discharge from Tralee is compliant with secondary treatment requirement it is presently not compliant with these “more stringent treatment” measures, namely required as the bay is a shellfish area.</p> <p>In order to meet requirements of the Directive, works are presently ongoing with Irish Water at the plant to reduce nutrients. In addition to these works, as part of Irish Water’s National Wastewater Sludge Management Plan, it is proposed to establish a satellite dewatering site at the Tralee WWTP. This may be upgraded to a hub treatment centre in the future. In addition, a drainage plan is being prepared for Tralee.</p> <p>The consideration of Tralee as a <i>Key Town</i> has been assessed as part of the RSES which also identifies the issues raised above re-waste water infrastructure. Notwithstanding this issue the RSES notes that the treatment plant has capacity and measures are being implemented to meet the EPA requirements at the plant. The SEA of the RSES recommends specific mitigation be included in the RSES to ensure the town can grow sustainably. The consolidated Tralee TDP now included in the KCDP 2022-2028, includes this text namely to <i>sustainably plan for future growth of the town on a phased basis in consultation with Irish Water to ensure that the timely provision of waste water treatment infrastructure is provided for</i>.</p> <p>KCC will continue to collaborate with IW to ensure the towns infrastructure will meet licencing requirements and it is noted there are several objectives in the KCDP that support the provision of infrastructure over the lifetime of the plan.</p> <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the population allocated to Tralee in line with the NPF/RSES is satisfactorily mitigated in the KCDP</u></p>
TR – 21	<p>Preserve and improve the natural character, natural amenity value and high landscape quality of the Lee Valley, the Canal, and adjoining areas and to improve access and extend walkways / cycle routes, where appropriate in these areas, in a manner which would not adversely affect the conservation objectives of the SACs nature conservation designations</p>
TR - 23	<p>Support the development the Tralee flood relief scheme developed under the OPW CFRAM flood risk management plan UOM23, subject to environmental assessments</p>
TR - 47	<p>Facilitate and support the sustainable development of an access road to Manor Retail Park from the Tralee bypass at Camp cross, subject to consultation and agreement with Transport Infrastructure Ireland in accordance with section 2.7, Spatial Planning & National Roads Guidelines (DoECLG 2012).</p>
TR - 55	<p>Strengthen and promote the relationship of Tralee Town as central to the Tralee Bay Area on the Wild Atlantic Way and facilitate where appropriate the sustainable development of projects listed in County Kerry Tourism and Action Plan 2016-2022</p>

TR – 56	Support the sustainable development, improved connectivity and accessibility of key features, infrastructure and amenities within Tralee and the Bay Area including, subject to environmental assessment , a Green Network, incorporating cycling lanes, Tralee Town Park, Ballyseedy Wood, The Canal, the coastal walk to The Spa, The Tralee-Fenit Greenway, Tralee-Listowel Greenway etc as a mechanism to enhance Tralee as a tourist destination
TR - 62	Facilitate the growth of Tralee as a Conference destination and facilitate the sustainable development of a Conference Centre.
TR - 65	Facilitate the promotion and development of infrastructure and ancillary facilities at appropriate locations in Tralee for indoor / outdoor sports and hobbies, adventure and water sports, walking and cycling activities, wellbeing and good health.
TR – 79	Sustainably development the Canal for water based recreational in compliance with the Habitats Directive. in a manner compatible with nature conservation objectives.
TR – 80	Continue the development of riverside walks and linkages at appropriate locations as opportunities arise along the banks of the River Lee to Ballyseedy Wood and along the Big River, subject to environmental assessment
TR – 81	Sustainably develop Nun’s Wood, Killeen as an Amenity Walk
TR – 82	Sensitively Improve/upgrade and repairs to existing Dingle Way/Kerry Camino Amenity Trail, subject to environmental assessment
TR – 84	Further develop the Tralee – Fenit Blueway including enhancements to the Tralee Canal to enhance wider participation in sustainable outdoor recreational activities having regard to environmental designations in the area. in a manner compatible with the Tralee Bay Natura 2000 designations.
TR – 85	Facilitate and support the refurbishment of the Tralee – Blennerville railway line/steam train.
TR - 90	Provide for public access to the riverbanks of the River Lee and Big River in a manner compatible with biodiversity protection and to reserve lands free from development to facilitate such access.
TR - 91	Subject to environmental assessment , provide for a continuous riverside walk and cycleway with improved public access along both banks of the River Lee from the Town boundary at Manor to the Dingle Road with additional tree planting, signage, lighting along the routes and directional signage for pedestrians and cyclists.
TR – 92	Facilitate the sensitive repair and upgrade of the Shipping Canal and Basin as required for the purposes of their management, promotion and active leisure use as Tralee Canal Blueway, subject to environmental assessment
TR – 97	Facilitate, in a sustainable manner , the proposed traffic management measures, as contained in the Tralee Transport Strategy 2011
TR - 101	Facilitate the sustainable development and promotion of the North Kerry Greenway where it passes through Tralee Town to Blennerville and The Spa and its link to the Tralee-Fenit Greenway.
TR - 104	Further sustainable develop the Tralee - Spa - Fenit Blueway to enhance wider participation in sustainable outdoor recreational activities having regard to environmental designations in the area
TR - 105	Facilitate the sustainable development of the Tralee Greenway – Blueway link, having regard to environmental designations in the area

Policy

1.1.3 Vision

Plan for Sustainable Growth

2. Sustainably plan for future growth of the town on a phased basis in consultation with Irish Water to ensure that the timely provision of wastewater treatment infrastructure is provided for and that future growth does **not adversely affect European Sites** ~~impact negatively on the Tralee Bay SAC.~~

4. Prepare and implement a Sustainable Urban Mobility Plan to facilitate greater permeability, connectivity and universal access for alternative means of transport in support of Tralee as a ‘10-minute town’ by strengthening **in a sustainable manner** the linkages between the town and the waterfront, Ballyseedy Woods,

Page 8: The vision for Tralee ~~exploits~~ **builds on** strong locational, functional, natural and built heritage attributes that Tralee enjoys, to maximise the economic growth potential of the town both in the medium and longer term.

1.3.2 Biodiversity

Final sentence to be amended as follows:-

In the context of Tralee there is significant emphasis on the interconnectivity of the built and natural environment, **sustainably** merging the large open space natural resources of the town as a seamless part of the Urban experience, providing areas of natural habitat interwoven into an improved public realm, which lead to the wide expanse of the Tralee Town Park, and **the** Tralee Bay Experience ~~(SPA)~~.

1.3.1 Climate Action in Tralee

Kerry County Council will seek to incorporate the national policy on climate change – ~~the National Transition Objective—the goal of achieving~~ **the national climate objective of a “transition to climate resilient, biodiversity rich and environmentally sustainable and climate neutral economy by the end of the year 2050”- and**

1.3.2.1 Green and Blue Infrastructure

Tralee benefits from rich natural resources such as Tralee Bay, the surrounding mountains, and the river valley system as a seamless part of the urban experience, providing areas of natural habitat interwoven into an improved public realm. **The plan supports the protection, enhancement and creation of biodiversity in the public realm such as nature based solutions for management of water run-off, actions from the All Ireland Pollinator Plan and where compatible with the town’s architectural heritage, installing swift nest boxes.**

1.3.4 Flood Risk

The OPW have identified preferred flood mitigation infrastructure to mitigate flood risk arising from the river network and from the coast in the CFRAM Flood Risk Management Plan for Tralee Bay – Feale River Basin (UOM 23). It is an objective of this plan to facilitate the implementation of this infrastructure and the Tralee flood relief scheme **subject to project level environmental assessments**. For more details regarding flood risk management see **Chapter 11 Environment, Chapter 13 Water and Waste Management and the Development Management Standards and Guidelines**.

1.4 Urban Regeneration (See also Vol 1, Chapter 4 – Town & Villages)

1.4.1 Town Centre and Public Realm Strategy

As part of this the council will facilitate the sustainable redevelopment of back land, infill, vacant and derelict sites throughout the town. It will encourage the construction of well-designed apartments/residential units, subject to achieving a high quality of living accommodation and provision of amenity space for residents. **Amenity space/public realm will use a co-benefits approach to include for the protection, enhancement and creation of biodiversity including nature based solutions for management of water run-off, actions from the All Ireland Pollinator Plan and where compatible with the town’s architectural heritage, installing swift nest boxes.**

1.8 Tourism

Future potential also exists in the **sustainable** development of a “blueway” and coastal trails from Tralee to Blennerville and onto The Spa and Fenit to tie in with the Greenways.

1.8.1 Tralee Bay Coastal Tourism Hub

Tralee and the wider bay area also has a long history as a tourist destination when compared to similar sized towns nationally and therefore has a significant opportunity to enhance this aspect of its economy. The key is to unlock its real potential and to reimagine a new identity for the town in the wider context of the Tralee Bay Area. In order to achieve this KCC has committed to the following “placemaking” objectives for Tralee Bay:

- Strengthen the “Tralee Bay” concept, image and identity as a key destination on the Wild Atlantic Way.
- Support Tralee Town Centre as a gateway to the surrounding bay area and beyond.

KCC also recognises the rich biodiversity in the Tralee Bay Coastal Hub area, with several European sites designated for predominately coastal habitats, species and birds of special conservation interest. KCC will seek to sustainably deliver on the aims of the Tralee Bay Coastal Hub initiative having due regard to these designations.

1.10.2 The Rivers and Ship Canal

Tralee has an attractive physical setting formed in part by its main rivers, the River Lee, the Big River, and other rivers such as the Clashleahane River and other tributaries. The Ship Canal links the town with Tralee Bay. The waterways and coastal zone, **also designated as Natura 2000 sites**, are an important element in defining Tralee’s natural heritage and together with the town’s flora and fauna, combine to form the natural back drop for the town’s built environment.

Riverwalk development proposals, both public and private sector, shall be designed to ensure the amenity potential of these areas are fully realised **having regard to environmental designations in the area.**

1.10.2.1 Tralee Canal Blueway

Kerry County Council proposes to strengthen the links between Tralee and the Tralee Bay Area with the **sustainable** development of a Blueway along the Tralee Canal. The Tralee Canal is located to the south-west of Tralee Town Centre and runs for 2.5km west to the sea.

The **sustainable** development of a Blueway would provide an opportunity to revitalise and re-use a significant and historical element of Tralee’s infrastructure while offering an enhanced quality of life to the local community, potential to stimulate local businesses, expand Tralee’s recreational opportunities, connect with new and existing and proposed Greenways and walking trails and attract more visitors.

8.2.2.2. Killarney

Objectives

Objective	SEA Mitigation, Comment and Conclusion
KA – 4	Facilitate and promote greater integration of the town and the National Park in a sustainable manner. in a manner compatible with nature conservation objectives
KA – 7	Improve, subject to environmental assessment , inclusivity, accessibility, permeability and connectivity throughout the town and where appropriate with the National Park for alternative modes of transport, including cycling and walking.
KA – 12	<p>Facilitate the development of 1,277 residential units within the town boundary. Objective promotes the development of residential units within Killarney town as per the population growth allocated in the new Core Strategy outlined in the KCDP 2022-2028.</p> <p>The residential units proposed is high when compared with allocation for the other key town in the county, namely Tralee.</p> <p>However, it is noted that for a town of its size, Killarney is influenced by a unique set of circumstances which require the additional residential units. These include the town’s position as a significant international tourist destination. This places the town under considerable pressure for local accommodation, in terms of supply and cost. In addition, the town requires large numbers of seasonal workers, which creates extra pressure in terms of the high numbers seeking local accommodation and high rental costs. Finally, there are the significant areas of available zoned and serviced lands not being released onto the market.</p> <p>As noted in the fourth variation of the town development plan (to which no changes are now proposed in the consolidation of that plan into the KCDP) development of dwelling units will occur on R1 Proposed Residential lands. These lands are typically centrally located, within walking distance to the town centre and are overwhelming located to the south of the by-pass road and north of the River Flesk. In addition, lands are also proposed to be zoned as Strategic Residential Reserve (R4). Development shall not be permitted on these lands until 80% of the residential zoned lands have been developed.</p> <p>The NPF targets a significant proportion of future urban development on infill and brownfield development sites within the built envelope of existing urban areas. It is envisaged that 30% of new housing in Killarney will be on infill and brownfield sites. The provision of the required housing units shall occur within the town boundary in accordance with the Core Strategy. The Planning Authority will monitor and (bi-annually) review the amount of residential development (permitted-constructed) within the boundary to ensure compliance with the housing requirement in the Core Strategy</p> <p>It is noted that Killarney town has a waste water treatment plant has a design capacity of 54,000pe with a present load of 33,000. A Drainage Area Plan (DAP) for the town is also proposed.</p> <p>The proximity of Killarney town and environs to Natura 2000 sites and possible significant effects is assessed in the NIR that accompanies the LAP/4th variation. Briefly, the NIR noted potential significant effects on habitats and species associated with the Killarney National Park, Macgillycuddy Reeks and Caragh River catchment cSAC. In particular, the conservation objectives noted the presence of roost sites for Lesser Horseshoe Bats in the town environs. Two objectives were subsequently added to</p>

	<p>the plan to mitigate any potential impacts on bat species from direct or indirect disturbances from e.g. lighting or other development works.</p> <p>In addition, buffers were proposed between town infrastructure/proposed zonings and Natura 2000 designations including the boundary with the KNP and the three main designated watercourses that flow through the town, the Deenagh, Flesk and Woodford rivers.</p> <p>Finally, as part of the environmental assessment of the consolidated TDP, all the above mitigation was again included and additional mitigation outlined as detailed in this section.</p> <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of this objective is satisfactorily mitigated in the KCDP</u></p>
KA – 18	Strengthen Killarney’s existing green and blue Infrastructure and facilitate its sustainable expansion in line with The EU’s Biodiversity Strategy 2030.
KA - 21	Ensure that there is no significant increase in artificial light intensity adjacent to Lesser Horseshoe Bat roosts named in the Conservation Objective Report for the Killarney National Park, Macgillicuddy’s Reeks and Caragh River Catchment SAC (Oct 2017) or along commuting routes within 2.5km of those roosts.
KA – 23	Promote the integration and access to natural heritage and recreation facilities having regard to environmental designations in the area.
KA – 33	Facilitate the construction of any flood mitigation infrastructure identified in the CFRM Flood Management Plans for UOM 22, subject to project level environmental assessment.
KA – 35	Sustainable Improve connectiveness throughout the town and sensitively orientate the town to the National Park.
KA – 48	Seek investment in infrastructure, at appropriate locations , that provides for both the resident population and extensive influx of visitors
KA – 51	Facilitate and support the delivery of the policies and projects that are contained in the Killarney Destination Experience Development Plan having regard to environmental designations in the area
KA - 52	Sustainably promote existing features and facilities such as the natural, cultural and built heritage and facilitate tourism developments that pay due respect to Killarney’s history, environment and location.
KA – 54	Encourage the sustainable development of a range of quality tourist services and attractions of a quality appropriate to Killarney’s unique location and tourism offering. Develop new visitor experiences by Enhancing and Extending the “Authentic” Killarney Offer
KA – 74	Develop and promote a more cycle and pedestrian friendly network and ancillary infrastructure throughout Killarney having regard to environmental designations in the area
KA – 76	Develop cycling and walking linkages between Killarney town centre, key strategic public amenities and residential neighbourhoods in the town, having regard to environmental designations in the area.

Policy

1.1 Introduction & Context

Killarney is located on the Shores of Lough Leane and at the foot of the north-eastern end of the Macgillicuddy’s Reeks and adjoins the 26,000 acres of Killarney National Park and Lakes. It is ideally placed as the main access point to the Ring of Kerry and forms part of the Kerry Biosphere – (a UNESCO Biosphere Reserve – Incorporating Killarney National Park, Macgillicuddy Reeks and Caragh River Catchment cSAC **and Killarney National Park SPA**).

1.1.3 Vision & Strategy

Second paragraph to be amended as follows:-

This proposal for developing Killarney Town as a world class tourist destination, seeks to expand and diversify the Town Core’s offering through creating an authentic tourist experience building on and extending the existing culture and heritage of the town through the creation of Cultural and Art/Craft Quarters, creating and defining linkages between areas of historic and cultural significance and **sensitively** merging the National Park as part of the Town Core experience.

1.1.3 Destination Killarney points number 2 and 3to be amended as follows:-

2. Improve connectiveness throughout the town and sensitively orientate the town to the National Park,

- facilitate and promote greater integration of the town and the National Park, **having due regard to the nature conservation designations in the area.**
- Prepare and implement a Sustainable Urban Mobility Plan to facilitate greater permeability, connectivity and accessibility between the town and the Lough Leane/national park area and between different areas of the town, with priority given to vulnerable road users and alternative sustainable modes of transport.

2. Improve connectiveness throughout the town and orientate the town to the National Park. To be amended as follows:-

- facilitate and promote greater integration of the town and the National Park **in a manner compatible with the overriding nature conservation objectives of the National Park.**
- Prepare and implement a Sustainable Urban Mobility Plan to facilitate greater permeability, connectivity and accessibility between the town and the Lough Leane/national park area and between different areas of the town, with priority given to vulnerable road users and alternative sustainable modes of transport. **This plan shall be subject to Habitats Directive Assessment and should not adversely impact Natura 2000 sites.**

3. Alleviate traffic congestion by the transition to low carbon and sustainable mobility policies. To be amended as follows:-

- Sustainably strengthen the settlement through investment in key pieces of infrastructure such as the completion of the inner relief road and additional parking facilities, **at appropriate locations,** for locals and visitors alike.

1.3.1 Climate Action in Killarney

Kerry County Council will seek to incorporate the national policy on climate change – ~~the National Transition Objective – the goal of achieving~~ **the national climate objective of a “transition to climate resilient, biodiversity rich and environmentally sustainable and climate neutral economy by the end of the year 2050”- and**

1.3.2.1 Green and Blue Infrastructure

Strong communities and a thriving economy need a healthy natural environment. Green and blue (waterways, rivers etc) infrastructure within our environment – built and natural - provides habitats for flora and fauna to thrive and thereby enhances our biodiversity. **The plan supports the protection, enhancement and creation of biodiversity in the public realm such as nature based solutions for management of water run-off, actions from the All Ireland Pollinator Plan and where compatible with the town’s architectural heritage, installing swift nest boxes.** Killarney benefits from an abundance of rich natural resources such as the national Park, surrounding mountains and lakes. **Where appropriate,** these should be interconnected more seamlessly through green and blue infrastructure in order to benefit both residents and tourists alike.

1.3.5 Flood Risk

The OPW have identified preferred flood mitigation infrastructure to any mitigate flood risk in the CFRAM Flood Risk Management Plan for Laune-Maine-Dingle Bay River Basin (UOM 22). It is an objective of this plan to facilitate the implementation of this infrastructure scheme **subject to project level environmental assessments.** For more details regarding flood risk management see **Chapter 11 Environment, Chapter 13 Water and Waste Management and the Development Management Standards and Guidelines.**

1.4 Urban Regeneration (See also Vol 1, Chapter 4 – Town & Villages)

1.4.1 Town Centre and Public Realm Strategy

The Local Authority shall facilitate the redevelopment of backland, infill, vacant and derelict sites throughout the town. It will encourage the construction of well-designed high-density apartments or residential units, subject to achieving a high quality of living accommodation for incoming residents, adequate provision of amenity space and refuse storage. **Amenity space/public realm will use a co-benefits approach to include for the protection, enhancement and creation of biodiversity including nature based solutions for management of water run-off, actions from the All Ireland Pollinator Plan and where compatible with the town’s architectural heritage, installing swift nest boxes.**

Fifth paragraph to be amended as follows-

It is the aim of the plan to improve connectiveness throughout the town and orientate the town to the National Park. This plan seeks to improve connectivity through walkways and cycleways linking the town centre with surrounding areas with particular emphasis on the national Park, **subject to environmental assessment.**

1.11.3 Roads & Infrastructure

Kerry County Council shall facilitate, the **sustainable** implementation of the recommendations of the Killarney Town Traffic Model / Traffic Management Study to alleviate the traffic pressures on the town in order to sustainably, economically and inclusively benefit Killarney including the following specific projects:

- Completion of the Inner Relief Rd linking Bohereen Na Goun and Monsignor O’Flaherty road is necessary.
- Construction of a new strategic link road from the N22 Killarney Bypass to the Park Road to alleviate traffic in the town centre. (A-C road)
- Construction of a network of radial cycle lanes from the town centre to residential areas, heritage buildings, tourist attractions and the National Park.

1.12 Land Use Zoning

The following objective to be included in Section 1.12,

It is an objective of the Council to ensure that the following is adhered to with respect of the C6 Enterprise zoning north of the Killarney Bypass:-

- Ensure that a Natura Impact Statement, incorporating a Lesser Horseshoe Bat survey and impact assessment is required to be undertaken by a suitably qualified individual, in support of any development proposal for the lands in question. Proposals which would either directly or indirectly result in the loss of functionally linked habitat of importance to the Killarney National Park McGillicuddy Reeks and Caragh River Catchment SAC will not be permitted.
- Ensure that any proposal to develop these lands should include a:
 - (I) Landscape and visual impact assessments,
 - (II) Traffic Impact Assessment addressing any impacts on the existing N22/Killarney by-pass from the proposed development,
 - (III) An Ecological Impact Assessment, and
 - (IV) An assessment under Article 6 of the Habitats Directive as outlined in Objective no KY-PK-1.

Killarney Town Plan Map Legend to be amended as follows:-

- Proposed N71-N22 Link road to be amended to ‘**Indicative route** of proposed N71-N22 Link road
- Proposed N22 Road improvement to be amended to ‘**Indicative route** of proposed N22 Road improvement’

8.2.2.3. Listowel

Objectives

Objective	SEA Mitigation, Comment and Conclusion
LIS - 6	Realise the socio-economic potential of the North Kerry Greenway and subject to environmental assessment to facilitate the sustainable development of the Greenway Trail Head and Outdoor Activity Facilities Hub and the Tralee to Listowel greenway link as well as greenways (potentially incorporating peatways) to Tarbert and Ballybunion
LIS – 10	Facilitate the development of 415 residential units within the town boundary. Objective promotes the development of 415 residential units within Listowel town as per the new Core Strategy outlined in the KCDP 2022-2028. As noted in the third variation to the Listowel town development plan, the main environment sensitive receptor in Listowel town is the River Feale which is designated as part of the Lower Shannon cSAC. The town also has cultural heritage resources including archaeology and built heritage. However, these environmental sensitives can be managed further to a range of objectives included in the plan. The town is served by the North-East Kerry Regional Water Scheme which has adequate capacity and Listowel waste water treatment plant has capacity for projected population growth.

	<p>Finally, as part of the environmental assessment of the consolidated TDP, further mitigation was included and additional mitigation outlined, where relevant, as detailed in this section.</p> <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on the environment from the implementation of this objective is satisfactorily mitigated in the KCDP</u></p>
LIS – 14	Strengthen Listowel’s existing Green and Blue Infrastructure, subject to environmental assessment , and facilitate its sustainable expansion in line with The EU’s Biodiversity Strategy 2030. Provide an Activity Facilities Hub (trailhead, campervan park, outdoor performance area etc.) at the interface between the Green and Blue Infrastructure (i.e., at Neodata and Council Depot).
LIS - 24	Facilitate the construction of flood mitigation infrastructure identified in the CFRAM Flood Management Plans for UOM 23, subject to project level environmental assessment , including the construction of the Clieveragh Flood defence scheme
LIS – 36	Require the preparation of masterplans/design briefs where appropriate prior to the redevelopment of the Castleinch lands for the development of a landmark riverfront site in a sustainable manner, providing new mixed use/ tourist facilities, subject to a flood risk assessment in accordance with ‘The Planning systems and Flood Risk Management - Guidelines for Planning Authorities’ and compatibility with nature conservation objectives for the Lower River Shannon SAC
LIS – 50	Facilitate and support collaboration with Fáilte Ireland and other relevant agencies in the promotion of the projects, subject to environmental assessment , of the Cliff Coast Destination & Experience Development Plan once approved.
LIS – 51	Facilitate the sustainable development of an Activity Trail Head in Listowel to serve the Listowel to Limerick Greenway and Listowel to Tralee Greenway.
LIS – 53	Facilitate the sustainable development of the River Feale walkway and Blueway for Listowel and its incorporation into the trailhead – subject to environmental assessment as appropriate .
LIS – 72	Continue the development of walking routes within the town, to protect existing public rights of- ways and provide improved access to the River Feale so as to create a continuous riverbank walkway having regard to environmental designations in the area .
LIS - 74	Develop a network of appropriately located green corridors throughout the town so as to sensitively link the residential areas to the natural amenity areas of the town.
LIS – 77	Promote the sustainable development of walking routes and foster enjoyment of the natural amenities of the area, including the River Feale and the Spa Well areas.
LIS – 80	Facilitate the sustainable development of sports facilities in the town and in Childers park and Woodlands in a manner which would not unduly impact on the other users and uses of the Town Park
LIS – 81	Facilitate the sustainable development of an Activity Trail Head in Listowel at the designated Outdoor Facility Hub incorporating a Trail head (at the Neodata site and Council Depot site) to serve the North Kerry Greenway. , in a manner compatible with Natura 2000 site designations in the area .
LIS – 82	Facilitate sustainable the development of the River Feale walkway and Blueway for Listowel and its incorporation into the Outdoor Activity Facility Hub having regard to environmental designations in the area .
LIS – 87	Sustainably Develop cycling and walking linkages between Listowel Town Centre, key strategic public amenities, residential neighbourhoods in the town and the North Kerry Greenway
LIS -89	Facilitate the sustainable development of the Listowel to Tralee and Listowel to Ballybunion Greenways.
LIS – 91	Facilitate the sustainable extension of the River Feale walkway to connect with the old railway line as part of a recreational greenway having regard to environmental designations in the area .
LIS – 92	Sustainably Create a link from the existing greenway to the Town Square and onto the old railway line at Greenville/Curraghatoosane.

Policy

1.1. Introduction & Context

Listowel is the capital of North Kerry and is the third largest urban centre in County Kerry. Designated as a Regional town, Listowel is a heritage and historic town and a busy retail centre for North Kerry and West Limerick. It has attractive amenity areas within the town including Childers Park and Woodlands and the River Feale walk parallel to the town centre **which forms part of the Lower Shannon cSAC**.

1.3.1 Climate Action in Listowel

Kerry County Council will seek to incorporate the national policy on climate change – ~~the National Transition Objective – the goal of achieving~~ **the national climate objective of a “transition to climate resilient, biodiversity rich and environmentally sustainable and climate neutral economy by the end of the year 2050”- and**

1.3.2.1 Green and Blue Infrastructure

Second paragraph to be amended as follows:-

In the context of Listowel there will be significant emphasis on the interconnectivity of the built and natural environment, sensitively merging the open space natural resources of Childers Park and Woodlands, The River Feale, Ballygrennan Hill and the North Kerry Greenway as a seamless part of the urban experience, providing areas of natural habitat **sustainably** interwoven into an improved public realm.

1.3.4 Flood Risk

The OPW have identified preferred flood mitigation infrastructure to mitigate flood risk along the Feale in the CFRAM Flood Risk Management Plan for Tralee Bay – Feale River Basin (UOM 23). It is an objective of this plan to facilitate the implementation of this infrastructure and the Clieveragh flood relief scheme. For more details regarding flood risk management see scheme. For more details regarding flood risk management see **Chapter 11 Environment, Chapter 13 Water and Waste Management and the Development Management Standards and Guidelines**. It is also an objective to prepare a masterplan for the Castleinch lands, this plan will include flood management proposals.

1.4 Urban Regeneration (See also Vol 1, Chapter 4 – Town & Villages)

1.4.1 Town Centre and Public Realm Strategy

In order to deliver the vision for Listowel as a vibrant regional town, this plan places a strong focus on town centre development, retail and urban regeneration opportunities. There are many opportunities and national schemes in place to address decay and dereliction and make town centres attractive and desirable places to visit and live including the Repair & Leasing Scheme and the Buy & Renew Scheme. Developing an attractive public realm/**amenity space is also important and the use of a co-benefits approach to include for the protection, enhancement and creation of biodiversity including nature based solutions for management of water run-off, actions from the All Ireland Pollinator Plan and where compatible with the town’s architectural heritage, installing swift nest boxes, will be supported.**

1.4.1 Bullet point to be amended as follows:-

Establishing Listowel as a Tourism Hub for North Kerry through road and greenway infrastructure and in line with the Cliff Coast Development Plan **and subject to environmental assessment**

1.5.3 Castleinch

Second last sentence to be amended as follows:-

The council will require the preparation of a masterplan/design brief where appropriate prior to the redevelopment of the Castleinch lands for the development of a landmark riverfront site in a sustainable manner, providing new mixed use/ tourist facilities subject to a flood risk assessment in accordance with ‘The Planning systems and Flood Risk Management - Guidelines for Planning Authorities’, **compatibility with the conservation objectives of the Lower River Shannon SAC** and a traffic impact assessment.

1.10.2 Blueway

To be amended as follows:-

With an increased interest nationally in outdoor activity, and water sports, Kerry County Council recognises the potential of creating a “blueway” in the River Feale at **Listowel having regard to the environment designations in the area.** ~~and~~ As such it is supportive of a feasibility study for the **sustainable** development of the River Feale Blueway and how this would be linked to the Greenways incorporating a Trail head at the designated Outdoor Facility Hub (at the Neodata site and Council Depot site). **The Blueway and associated infrastructure projects will be required to demonstrate compatibility with the conservation objectives of the Lower River Shannon SAC within which the River Feale is located.**

1.13 Land Use Zoning

The following objective to be included in Section 1.13

It is an objective of the council to ensure that a 15m buffer area is maintained free from development to the north of the woodland located within the Lower River Shannon, as shown on the land use zoning map. This buffer area may be incorporated within an active or passive open space area associated with a proposed residential development.

8.3. Mitigation integrated into zoning contained in the KCDP

8.3.1. Mitigation integrated into Wind Zoning and SEA Conclusion.

Topic	Mitigation (existing/proposed) and SEA Conclusion
Population /Human Health (including air quality)	<ul style="list-style-type: none"> • <i>Sieve mapping analysis</i> has removed urban areas densely populated; with a 1km buffer zone applied • <i>Sieve mapping analysis</i> has removed archaeological landscapes, Prime Special Amenity Areas, UNESCO World Heritage Site and elevated areas over 500m, • <i>sieve mapping analysis</i> has removed elevated sloped areas and lands identified under <i>landslide susceptibility</i> criteria, • Wind applications must have regard to the thresholds, limits and buffer zones in the <i>Draft Revised Wind Energy Development Guidelines 2019</i>. • All wind developments, are required to demonstrate that there will be no impact on populations/human health through noise or air emissions; shadow flicker and/or visual impact, • A Construction and Environmental Management Plan are required with wind developments and these CEMPs are required to outline the measures taken to avoid dust impacts and negative impacts from construction traffic. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on population/human health from the zonings for on-shore wind are satisfactorily mitigated in the KCDP.</u></p>
Biodiversity Water	<ul style="list-style-type: none"> • <i>Sieve mapping analysis</i> has outlined the ecological constraints in relation to European sites; National (NHA) and local ecological importance (pNHA), • NIR has iteratively informed policy in relation to wind farm proposals in European sites specifically in relation to SPAs designated for Hen Harrier. This includes a recommendation to exclude SPAs from future new developments while specific policy in relation to repowering areas (within existing wind farms) has been integrated into the plan (see Addendum to Volume 1, Appendix 6) and Section 12.5.4.1.7/obj KCDP12-16&17, • <i>Sieve mapping analysis</i> has outlined the technical constraints in relation to Lakes and the further ecological/water quality constraints in relation to sensitive catchments – Lough Leane; FWPM catchments, High status catchments (Blue dot) and PAAs as informed by the 3rd cycle of the WFD, • All wind farm projects will be subject to assessment under the EIA, Habitats and Water Framework Directives, while all developments/projects will be subject to DM as outlined in Volume 6, Appendix 1, and • Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity and water. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on biodiversity and water from the zonings for on-shore wind are satisfactorily mitigated in the KCDP.</u></p>
Soil (including air quality)	<ul style="list-style-type: none"> • <i>sieve mapping analysis</i> has removed elevated sloped areas and lands identified under <i>landslide susceptibility</i> criteria, • <i>sieve mapping analysis</i> has also removed peat soils, • <i>sieve mapping analysis</i> has excluded geological heritage sites in the county from wind zones, • A Construction and Environmental Management Plan is required with wind developments and these CEMPs are required to outline the measures taken to mitigate any impacts from the storage and re-use of excavated material. • All wind farm projects will be subject to assessment under the EIA, Habitats and Water Framework Directives, while all developments/projects will be subject to DM as outlined in Volume 6, Appendix 1 (see proposed amendment below), • DM also includes a requirement to assess carbon balance of any proposed wind application (see also recommended mitigation below) • Chapter 11, 13 outlines objectives to ensure protection of the environment including biodiversity, water and soil. <p>In addition, the following mitigation is recommended to be added to the DM Volume 6, Appendix 1.</p> <ul style="list-style-type: none"> • Lifecycle Assessment of the wind farm particularly in relation to emission of GHG to include, if applicable, loss from LULUCF further to the proposed

Topic	Mitigation (existing/proposed) and SEA Conclusion
	<p>development.</p> <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on soil from the zonings for on-shore wind are satisfactorily mitigated in the KCDP.</u></p>
Climatic factors	<ul style="list-style-type: none"> •Wind zonings have reduced in size relative to the county’s current RES and will therefore reduce the areas open to consideration for future new on-shore wind developments,
M. Assets	<ul style="list-style-type: none"> •This is also identified as a potential negative effect on the county as a material asset, •There is a conflict between policy for on-shore wind energy further to a range of constraints (notably landscape and ecological) versus national climate policy on RE targets, •notwithstanding this, the PA also has targets/obligations that relate to nature conservation particularly in relation to the Habitats and Water Framework Directives, •There is evidence that overall changing land uses in SPA’s designated for Hen Harrier, is having an adverse effect on the site integrity of those SPAs. Wind farm developments form part of this complex picture. Coupled with forestry and changing agricultural practices disturbance/displacement and/or loss of foraging habitat is a key factor in the instability of Hen Harrier populations (see NIR for further discussion of same), •Taking into account existing permitted wind farms within Kerry (and Limerick and Cork) in these SPAs it is considered appropriate that objectives are included that seek to limit wind energy in these SPAs and to only consider “repowering areas” as suitable for upgrades/improvements. The HH SPAs are otherwise excluded from areas deemed open to consideration. This is required in order for the PA to satisfy its obligations under the Habitats Directive, •Regarding water, evidence from previous wind development in the county have shown that notwithstanding mitigation for the control of sediment, the nature of such large scale infrastructure projects, traditionally in upland areas, in challenging terrain with naturally high levels of rainfall, with extensive civil works in peaty soil, have a high risk of a pollution event. Location and scale make mitigation difficult to implement on the ground. This coupled with forestry and other land uses in the catchment is impacting waterbodies in the county, as reported in the 3rd cycle of the WFD. Waterbodies are under cumulative pressure. Considering the <i>high status</i> of water quality required by FWPM and <i>blue dot</i> catchments and the ongoing sensitivity of Lough Leane to nutrient enrichment, it is also deemed appropriate to strategically remove these sensitive catchments for consideration for wind, •Regarding landscape, the PA has undertaken an extensive and informed landscape review of the county which has significantly informed the wind zoning (Volume 1, Appendix 6). As noted this includes archaeological landscapes and the county’s UNESCO Heritage Site. Considering the location of the county and its natural and cultural landscape attributes, it is deemed appropriate that the areas identified unsuitable for wind due to landscape sensitivity (undertaken to best practices) be included. The PA again has obligations to protect the landscape values (natural and cultural) of the county and it is considered appropriate that these areas are excluded, •Regarding climate policy, reducing the areas open to consideration for wind in the county has the potential to negatively affect climate action targets, •However, it is noted that the county already has considerable on-shore wind production, to date producing over 30% of wind RE (742MW) produced in the Southern region (see Chapter 12, Section 12.5.3.2). •Notwithstanding the reduction of areas open to consideration, it is noted the county retains significant “repowering areas”. These areas will allow

Topic	Mitigation (existing/proposed) and SEA Conclusion
	<p>existing infrastructure to be improved/upgraded (further to environmental assessment and compliance with the Habitats Directive). As the technology for onshore wind turbines continues to evolve, these repowering areas have the ability to support additional RE capacity further to upgrades/improvements. Therefore, there is still capacity within the county to augment its RE capacity from onshore wind notwithstanding the reduction of areas open to consideration,</p> <ul style="list-style-type: none"> •the county has significant capacity from other RE sources to reach emissions targets including the potential for off-shore wind, solar, local bioenergy production and microgeneration through such initiatives as the <i>Dingle Peninsula 2030</i> and as new technologies begin to emerge, •Policy and objectives in Chapter 12 support the pursuit of National and Regional energy policy in relation to reaching climate targets with the future development of the Shannon estuary as a RE hub (in line with the SIFP and subject to environmental assessment) also ensuring the county will play an active part in reaching RE targets onto 2030, •the likely evolution of off-shore wind to 2030 places the county at an advantage to support the industry and again look to synergies with new technologies, such as “green hydrogen” as these technologies emerge. Again the strategic location of the county on the Shannon estuary is a key factor to these futures synergies. •As acknowledged in CAP21 the nature of technological change is advancing and at any one time it may not align directly with assumptions made at this stage. Policies/objectives in this plan will be under constant review and monitoring particularly once the LA produces its own CAP in line with climate policy. These updates/reviews/monitoring will allow flexibility for all energy policy to be constantly analysed against performance targets. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on climatic factors and material assets from the zonings for on-shore wind are satisfactorily mitigated in the KCDP.</u></p>
Heritage Landscape	<ul style="list-style-type: none"> •<i>Sieve mapping analysis</i> has removed archaeological landscapes, Prime Special Amenity Areas, UNESCO World Heritage Site and elevated areas over 500m, •the resulting 25 areas identified from this analysis have been further refined by <i>Landscape Review</i> resulting in four areas considered open to consideration for wind, •landscape has therefore been a key environmental parameter in the zoning of lands open to consideration for wind, •repowering areas have existing wind infrastructure <i>in situ</i>, and therefore any new proposals at these sites will be assessed on case-by-case re-potential impacts, including cumulative, on landscape, •therefore any proposals for wind infrastructure within these areas will be subject to landscape mitigation as detailed in Chapter 11 and Development Management (DM) as outlined in Volume 6, Appendix 1 which provides details on information to be included with a planning application to address possible impacts on landscape for RE including wind, •potential impacts on archaeology and/or architecture heritage including bridges/other vernacular sites, will be assessed at project level further to the scale and location of the project and DM as outlined in Volume 6, Appendix 1. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on heritage and landscape from the zonings for on-shore wind are satisfactorily mitigated in the KCDP.</u></p>

8.3.2. Mitigation integrated into the Land Bank Zoning and SEA Conclusion

Topic	Mitigation (existing/proposed) and SEA Conclusion
Population /Human Health (including air quality)	<ul style="list-style-type: none"> •the potential impacts to population/human health are comprehensively addressed in the SIFP further to the potential uses of the zoned lands, • as noted the existing Tarbert Power Plant facility is a SEVESO Upper Tier site, due to the presence of hazardous substances; the Strategic Oil Reserves are also an Upper Tier site and as regards the Ballylonford site, its notes that its strategic role and the likely industries to be located there could also be a SEVESO site, •SIFP environmental assessment notes: <i>notification to the HSA of all future proposals should take account of this designation, particularly those uses which may also include hazardous substances. These proposals will require rigorous evaluation of the combined risks and potential consequences to the environment. Early consultation with the Health & Safety Authority is strongly advised. Ballylongford This should be taken into account when considering future proposals for energy or marine related industry, particularly those uses which may also include hazardous substances, which will require rigorous evaluation of the combined risks and potential consequences to the environment. Early consultation with the Health & Safety Authority is strongly advised.</i> •the above will therefore apply to any future development proposal and any proposed development will be required to demonstrate that there will be no impact on populations/human health through noise or air emissions; and/or visual impact, •the mitigation outlined in the SIFP will apply, •Objectives embedded in plan that protect human health from harmful emissions from economic activities including Chapter 11 and 13, •any proposed development will have to be in compliance with the EIA, AA and Water Framework Directives while all developments/project will be subject to DM as outlined in Volume 6, Appendix 1 including any requirements for separate licencing relating to noise, air and/or water emissions. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on population/human health from the land bank zoning is satisfactorily mitigated in the KCDP.</u></p>
Biodiversity Water	<ul style="list-style-type: none"> •Location of estuary beside European Sites and pNHAs comprehensively assessed in the SIFP NIR and in the NIR that accompanies this KCDP, •comprehensive mitigation provided in the SIFP to be implemented and this is supported in the KCDP policy and objectives, •see also below mitigation proposed in this SEA <p>•However, of note the KCDP NIR has recommended the removal of the Tarbert Bay pNHA from the extended zoning for the landbank at Tarbert Island – as shown in Figure 7-8 (see NIR for discussion of same). As noted the KCDP on display has not removed this overlap and it’s removal remains a recommendation of the NIR.</p> <p><u>Amendment proposed in this SEA which has been incorporated into the Draft plan:</u></p> <p>9.6.1.1 Shannon Estuary Tarbert-Ballylongford Landbank</p> <p>The Strategic Development Location (SDL) at Tarbert/Ballylongford in North Kerry is recognised for its potential as an Energy Hub and for industrial development at a regional and national level. There are 437 Hectares of zoned lands available for development on the Southern shore of the Shannon Estuary with access to deep water (up to 23m). It is the policy of the council to support the sustainable development of the Shannon Estuary, in line with the SIFP and the recommendations of its environmental assessment, and recognise its potential as an Energy Hub.</p> <p><u>Having regard to the reasons outlined above, it is concluded that the pNHA as shown in the NIR that accompanies the KCDP should be removed</u></p>

Topic	Mitigation (existing/proposed) and SEA Conclusion
	<u>from the land bank zoning at Tarbert Island (see NIR for further assessment of same).</u>
Heritage Landscape	<ul style="list-style-type: none"> •Noted a new PS is proposed near zoning at Tarbert Island, •Recommend the following objective is included for the area: <i>It is an objective of the Council to protect sites of significant historical military importance along the Shannon Estuary, including the Battery on Carrig Island, Carrigafoyle Castle, the Bastioned Star Shaped Fort in Tarbert and the core area of Fort Shannon at Ardmore point.</i> <ul style="list-style-type: none"> •as regards landscape mitigation, noted that any proposals development within the zoning will be subject to landscape mitigation as detailed in Chapter 11 and Development Management (DM) as outlined in Volume 6, Appendix 1 which provides details on information to be included with a planning application to address possible impacts on landscape from proposed developments, •potential impacts on archaeology resources/landscapes will be assessed at project level further to the scale and location of the project and DM as outlined in Volume 6, Appendix 1. <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on heritage and landscape from the land bank zoning is satisfactorily mitigated in the KCDP.</u></p>
Flooding	<p>In addition to the SFRA undertaken for the SIFP, the land bank was assessed again as part of the SFRA for the KCP 2022-2028. Mitigation as recommended in Section 5.2 of the SFRA which states: <i>A SFRA has been carried out which addresses the flood risk at this site. The SFRA demonstrates that flood risk to the development can be adequately managed and that the development of the site can take place without causing adverse impacts elsewhere. Specific details need to be established as part of the site-specific flood risk assessment. Refer to Section 5.2.4 for the key findings and recommendations of the SFRA.</i></p> <p><u>Having regard to the reasons outlined above, it is concluded that the potential for significant effects on flooding from the land bank zoning is satisfactorily mitigated in the KCDP.</u></p>

8.4. Conclusion

Further to the assessment of the plan for significant effects outlined in this Chapter, mitigation recommended by the SEA has been predominately included in the KCDP, however, two recommendations are made on the draft KCDP now on display:

- That the Tarbert Bay pNHA as shown in the NIR that accompanies the KCDP be removed from the land bank zoning at Tarbert Island (see NIR for further assessment of same & Figure 7 8 of this report) and
- That the change to rural housing policy made by Elected Members on the 22nd/23rd of November, 2021 be reversed (see Section 7.7 of this report for further information).

9. MONITORING

9.1. Introduction

Under Article 10 and Section (i) of Schedule 2B of the SEA Regulations, monitoring is required in order to identify at an early stage any unforeseen adverse effects caused by the Plan. This allows remedial action to be taken. Monitoring allows the actual impacts of the Plan to be measured against those that were predicted. It allows problems to be identified and dealt with and for environmental baseline information to be gathered for future Plan reviews. It also ensures that proposed mitigation measures are carried out and that no unforeseen impacts occur.

The methodology used in the development of the monitoring programme for the KCDP is based on the use of indicators and targets, the assignment of responsibilities and the setting of appropriate time lines. It also includes intervention in the event of an unforeseen occurrence. Monitoring is carried out by reporting on the set of indicators and targets drawn up for the various environmental aspects and used to describe future trends in the baseline, which enable positive and negative impacts on the environment to be measured. The indicators that are used show changes that would be attributable to implementation of the Plan. In particular, indicators can also in certain circumstances act as an early warning system should unforeseen impacts occur or conditions deteriorate further or faster than anticipated – see Chapter 6 for more information.

Monitoring focuses on aspects of the environment that are likely to be significantly impacted by the KCDP. Indicators and targets (Chapter 6) have been identified for the main environmental issues in the study area as outlined in Chapter 5. The indicators chosen are at a level, which is relevant to the Plan, and are collated and reported on by a variety of state agencies, such as EPA, OPW, NPWS, LAWPRO, IW and many different business units within Kerry County Council including the Planning Department, Environment, Local Enterprise Office, Capital Infrastructure Unit and Housing. It is noted that information linked to many indicators is already being actively collected and reported at a level sufficient to meet the needs of this Plan. The frequency of monitoring is in many cases linked to relevant legislation and/or cyclic record taking such as the census, annual air and water quality reports etc.

Table 9-1 SEA monitoring of possible significant environmental effects of the implementation of the KCDP 2022-2028

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
Population	P1: Guide the future development of the county in a sustainable manner that reflects the existing character and amenities of the area and improves the quality of life for the existing and future populations.	That populations in the plan area have access to high quality residential, amenity and public infrastructure with sustainable travel patterns	<ul style="list-style-type: none"> Population growth of settlements identified in the <i>Core Strategy</i>, Number of new houses within settlement boundaries Number of derelict houses/vacant properties in use Housing delivered for the Travelling Community. Housing delivered for special needs groups such as older people or disabled. Travel patterns and modes of transport within the county in comparison to 2016 baseline Number of new addresses in rural areas as per the Geodirectory Register, Economic growth in plan area in various sectors supported by CDP Monitor vacancy rates in settlement boundaries, Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways Footfall within both the town centre and the retail core/core shopping areas of main settlements Number of regeneration sites progressed. Number of public realm strategies/town centre health checks carried out over the lifetime of the plan Number and usage of digital working hubs 	<p>Yes – internal sections of KCC; Local enterprise office; Census; HSE</p> <p>Frequency:</p> <ul style="list-style-type: none"> Trends from census cycle/geodirectory register; CDP review 	<p>Review objectives and policy; review development management procedures.</p> <p>Planning Department, in consultation with other sections in KCC, including Capital Infrastructure Unit, Housing Unit and Economic Development Unit</p>
Human Health	HH1: Protect the public from threats to health and wellbeing across the functions of relevance to the KCDP	That the quality of the local environment that is governed by the KCDP protects the health and wellbeing of the population	<ul style="list-style-type: none"> Compliance of waste-water infrastructure to legislation/regulations/conditions for relevant licences, permits etc for discharges, Compliance of water supply schemes with relevant legislation/regulation/conditions for abstraction and consumption, Compliance of infrastructure projects to relevant legislation/regulation/conditions re-noise, odour and/or air quality. Compliance of waste management sites Health clusters from any activities facilitated by CDP Implementation of the Noise Action Plan Health trends from <i>Healthy Ireland</i> linked to the CDP 	<p>Yes – EPA, Irish Water; KCC including Enforcement, Environment Sections and Health and Wellbeing Officer; LAWPRO</p> <p>Frequency:</p> <ul style="list-style-type: none"> Annual reports from EPA/Irish Water Annual reports from KCC sections CDP review WFD/LAWPRO cyclic 	<p>Pursue reasons for non-compliance. Consultations with Environment Section of KCC, Enforcement, EPA, LAWPRO and IW</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
				reports	
Biodiversity (Flora/Fauna)	B1: Protect biodiversity including ecosystem services	That biodiversity is integrated into all decision making across the functions of the KCDP	<ul style="list-style-type: none"> • Completion of a Biodiversity Action Plan for the county and number of actions completed • Compliance with Article 6 of the Habitats Directive for land use plans and other plans/programmes supported in the CDP • Integration/provision of green/blue infrastructure • <i>All Ireland Pollinator Plan</i> projects logged by biodiversity office • Public realm plans; village design statements/Masterplans that support biodiversity initiatives; • Developments permitted in proximity/within European sites/sites of ecological importance. • Status/risk of waterbodies under the WFD that reflect pressures from land use governed by the CDP. • Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways 	<p>Yes – from KCC Sections; NBDC <i>All Ireland Pollinator Plan</i> tracker/web-tool; NPWS data/habitat mapping/CORINE mapping.</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Annual/Biennial • NPWS Art 17 cycle • CDP review • WFD cycle 	<p>Review of policy and objectives, Land Use plans, other LA plans and projects and development management procedures.</p> <p>Consultation with Planning Department, NPWS, IFI, LAWPRP</p>
Soil	S1: Protect soils against pollution, and prevent degradation of the county's soil resource	That the soil/geology and the geological heritage of the county is protected	<ul style="list-style-type: none"> • Audit of GSC • Changes in land uses/soil types in CORINE • Status/risk of groundwater waterbodies under the WFD • Status of Geopark and geotourism projects • % brownfield sites developed compared to greenfield sites • Geohazards from activities/developments supported in plan including flooding • Number of application granted for soil importation/inert waste facilities, • Number of planning permissions granted and area of land permitted for excavation and extraction of non-renewable sand, gravel and rock deposits. • Number of landslides linked to land uses governed by the CDP 	<p>Yes- KCC Sections; GSI; CORINE/Teagasc; EPA/LAWPRO</p> <p>Frequency:</p> <ul style="list-style-type: none"> • WFD cycle • Annual/Biennial Reports from KCC & LAWPRO 	<p>Review of policy and objectives and development management procedures.</p> <p>Consultation with Planning Department, Capital infrastructure Unit and Environment/Enforcement, KCC and other statutory bodies if applicable.</p>
Water	W1: Ensure waterbodies	That the functions governed by the	<ul style="list-style-type: none"> • Status/risk of waterbodies under the WFD with pressures associated with land uses governed by the 	Yes- KCC; EPA/LAWPRO; OPW.	Pursue non-compliance and/or pollutions event,

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	are protected, maintained and improved in line with the objectives of the WFD	plan ensure compliance with the objectives of the WFD for all waterbodies within the plan.	<p>CDP</p> <ul style="list-style-type: none"> • Status/risk of <i>blue dot</i> catchments where pressure identified from land uses governed by the CDP • Compliance of water treatment plants and waste water infrastructure for settlements with targeted population growth • Compliance with existing legislation/regulations/conditions for relevant licences, permits etc for discharges, • Number of households served by urban wastewater treatment plants/ septic tanks/ individual WWTP or other systems, • Number of existing septic tanks inspected, and remediation works undertaken located within designated WFD Priority Areas for Action and/or Blue Dot/high status catchments, • Number of households served by public water supplies • Number of plants exceeding the Emission Limit Values (ELVs) for Wastewater Treatment Discharge licence set by the EPA, • Implementation of flooding projects, • No of blueways developed 	<p>Frequency:</p> <ul style="list-style-type: none"> • WFD cycle • Annual reports KCC, EPA and LAWPRO. 	<p>Review of policy and objectives and development management procedures.</p> <p>Consultation with Planning Department, Environment, Enforcement, KCC and IW, LAWPRO.</p>
Air Quality	AQ1: Protect local air quality from emissions that are harmful to human health and the local environment	That the quality of the local environment governed by the functions of the plan protects local air quality	<ul style="list-style-type: none"> • Compliance with existing legislation/regulations/conditions for air quality e.g. IPCC • Population/growth of settlements identified in the <i>Core Strategy</i> • Travel patterns and modes of transport within the county • Number of new addresses in rural areas as per the Geodirectory Register, • Changes in the sources of space heating used by populations • Number of new air monitoring stations in the county • Air quality trends particularly in Tralee and Killarney • Integration/provision of green and blue infrastructure 	<p>Yes- Census; KCC sections; geodirectory register; EPA</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Census cycle • Annual reports EPA & KCC • Real time data from monitoring stations 	<p>Pursue non-compliance.</p> <p>Review of policy and objectives and development management procedures.</p> <p>Consultation with Environment and Enforcement, KCC and planning department.</p>
Climatic Factors	C1: Ensure the plan	That mitigation and adaptation to	<ul style="list-style-type: none"> • Population/growth of settlements identified in the <i>Core Strategy</i> 	<p>Yes- Census; geodirectory register; KCC sections;</p>	<p>Review of policy and objectives and</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	supports a transition to a climate resilient, biodiversity rich and climate neutral economy and society	climate change inform the functions/decision making governed by the plan	<ul style="list-style-type: none"> • Travel patterns and modes of transport within the county • Green/blue infrastructure/amenity infrastructure provided including cycleways/greenways/blueways/peatways • Number of new addresses in rural areas as per the Geodirectory Register, • % brownfield sites developed compared to greenfield sites • Number of new houses within settlement boundaries • Number of derelict houses/vacant properties in use • Establishment of a decarbonising zone, • Establishment of a low-carbon/low-emissions towns centres, • District heating schemes identified and/or development • Roll out of EV infrastructure • Number of Sustainable Energy Communities (SEC) established in the county • Number of buildings with a BER rating of B2 or more as a % of overall building stock • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • RE projects granted in the Tarbert-Ballylongford land bank, • Micro-generation projects in the county over lifetime of the plan, • % change of land uses for bioenergy production • Flooding/coastal protection schemes undertaken • Other actions from the Kerry Climate Change Adaptation Strategy (and future LA CAP) completed. 	<p>CORINE/Teagasc, Energy Office, KCC, and SEAI.</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Census cycle • KCC internal annual records • SEAI annual reports • Real time data on RE energy production 	<p>development management procedures.</p> <p>Consultation with planning department, Economic Development Unit, Energy office and future Climate Action Officer.</p>
Material Assets	M1: Protect the material assets of the county while optimising	To promote sustainable development that matches existing and new	<ul style="list-style-type: none"> • Completion of infrastructure projects identified in the KCDP • Amount of (Km) new greenways, cycleways and footpaths provided, • km of long distant walks available in the County. 	<p>Yes- KCC sections; EPA; Irish Water; Eirgrid/ESB Networks</p> <p>Frequency:</p> <ul style="list-style-type: none"> • Census cycle 	<p>Review of policy and objectives and development management procedures.</p>

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	new assets to match proposed growth and sustainable development.	infrastructure with the proposed population growth for the county.	<ul style="list-style-type: none"> • Growth in settlements with sufficient water infrastructure –drinking and waste water treatment • Completion/upgrade/improvements of water infrastructure, • Roll out of National Broadband Plan - Number of households serviced and % of households with the minimum broadband speed of 30Mbps and % of households with the target broadband speed of 100Mbps • Creation of innovation/creativity/co-working hubs/digital centres • Renewable energy projects permitted, and enabling/supporting infrastructure provided, • % of energy from renewable sources – heat, electricity and transport (to be aligned with future LA Climate Action Plan) • Projects granted in the Tarbert-Ballylongford land bank, • % brownfield sites developed compared to greenfield sites • % of waste going to landfill and recycling when compared with 2020 figures, • Progress of bus shelter upgrade programme 	<ul style="list-style-type: none"> • Annual reports 	Planning Department, TII, NRDO and/or Economic Development Unit, KCC
Cultural Heritage	CH1: Protect the cultural heritage of the county	The cultural heritage of the plan area, including setting and curtilages are protected	<ul style="list-style-type: none"> • Archaeological Impact Assessments, and/or archaeological investigations undertaken • PS/ACAs identified and any new additions • Recording of non-designated built heritage e.g. vernacular buildings • Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites • Visitor numbers for iconic cultural heritage sites. • Number of literary, musical, artistic and other cultural initiatives undertaken in the county • Implementation and outcomes of the KCC Scéim Gaeilge IV, 2018-2021 • Changes in number of Irish speakers within Gaeltacht areas 	Yes- KCC sections; Failte Ireland; WAW monitoring data. Frequency: <ul style="list-style-type: none"> • Annual/Biennial reports • CDP review • Census 	Pursue non-compliance Review of policy and objectives and development management procedures. County Archaeologist/Conservation Officer/Irish Officer.
Landscape	L1 Protect the landscape	That landscapes identified in the	<ul style="list-style-type: none"> • Developments permitted within/in proximity to areas of high value landscape or visual sensitive areas, 	Yes- KCC sections	Review of policy and objectives and

SEA Topic	Objective	Target	Indicators (over the lifetime of the plan)	Monitoring Data Available & Where/Frequency	Remedial Action, if applicable, and responsible authority
	of the county	plan, including seascapes, are protected from negative visual impacts	<ul style="list-style-type: none"> Number of houses/permissions on approach roads into towns and villages or within a certain radius of same, Design statements/public realm plans/Masterplan undertaken for settlements/opportunity sites 	Frequency: <ul style="list-style-type: none"> Annual/Biennial reports CDP review 	development management procedures. Planning Department
Flooding	F1 Protect the public and infrastructure from inappropriate development in areas at risk of flooding	That sustainable flood risk management practices are implemented in the plan area in adherence to DOEHLG's <i>Guidelines on Flood Risk Management</i>	<ul style="list-style-type: none"> Local Area Plans that undergo SFRA Integration/provision of green and blue infrastructure Development within areas identified as at flood risk Implementation of CFRAMs and flood relief schemes identified in the county Incorporation of specific nature based solutions at plan/project level 	Yes- KCC Sections; OPW. Frequency: <ul style="list-style-type: none"> LAP cycle Annual reports CDP cycle 	Review of policy and objectives and CFRAM project timelines, OPW in consultation with KCC.

10. NEXT STAGE

10.1. Consultation and making a submission

Consultation forms an integral part of the SEA methodology. Submissions or observations regarding the Draft KCDP 2022-2028, this associated SEA Environmental Report (and other Environmental Reports namely the Habitats Directive Assessment and Natura Impact Report and the Strategic Flood Risk Assessment) are hereby invited from statutory consultees, the public and interested bodies.

Submissions may be made in one of the following ways:

1. **Online Via our Public Consultation Portal** consult.kerrycoco.ie

OR

2. **In writing to:** Damien Ginty, Senior Planner Planning Policy Unit, Kerry County Council, Rathass, Tralee, Co. Kerry. V92H7BT

Email submissions will not be accepted.

Please mark submissions, observations or comments with:

“Submission on SEA Environmental Report for the Kerry County Development Plan 2022-2028”

**Submissions may be made during the period from
Monday December 6th, 2021 – Wednesday, 23rd February, 2022.**

11. APPENDIX 1 RELEVANT EUROPEAN/NATIONAL/REGIONAL/LOCAL PLANS

European	National/Regional/Local P/P
<ul style="list-style-type: none"> • SEA Directive (2001/42/EC) • EIA Directive (85/337/EC as amended) • Habitats Directive (92/43/EEC) (including Birds Directive (2009/147/EC- codified version of 79/409/EEC)) • Water Framework Directive (2000/60/EC) including Drinking Water Abstraction Directive; Sampling Drinking Water Directive; Exchange of Information on Quality of Surface Freshwater Directive; Shellfish Directive; Freshwater Fish Directive; Groundwater (Dangerous Substances) Directive; and Dangerous Substances Directive • Drinking Water Directive (98/83/EC) • Bathing Water Directive (revised) 2006 (2006/7/EC) • Groundwater Directive (2006/118/EC) • Urban Wastewater Treatment Directive (91/271/EEC) • Nitrates Directive (91/676/EC) • Integrated Pollution Prevention Control Directive (2008/1/EC) • Floods Directive (2007/60/EC) • Renewable Energy Directive (2009/28/EC) and proposal for a revised directive (COM/2016/0767 final/2) • Energy Efficiency Directive (2012/27/EU) • Seveso III Directive (2012/18/EU) • Clean Air for Europe (CAFE) Directive (2008/50/EC) • Marine Strategy Framework Directive (MSFD) (2008/56/EC) • Maritime Spatial Planning Directive (2014/89/EU) • Waste Framework Directive 2018/851 (amending Directive 2008/98/EC on waste) 	<ul style="list-style-type: none"> • Project Ireland 2040 – National Planning Framework (NFP) • National Development Plan 2018-2027 & 2021-2030 • Regional Spatial and Economic Strategy for the Southern Region, 2040 <ul style="list-style-type: none"> • <i>Housing for All, a New Housing Plan for Ireland</i> • Rebuilding Ireland, Action Plan for Housing and Homelessness • Our Rural Future: Rural Development Policy 2021-2025 • Healthy Ireland, A Framework for Improved Health and Wellbeing 2013-2025 • South West Regional Enterprise Plan to 2020 • Food Vision 2030 – A world Leader in Sustainable Food Systems <ul style="list-style-type: none"> • Nitrates Action Programme • Forestry Programme 2014-2020 • Shaping our electricity Future A Road Map to achieve our renewable ambition, Eirgird, • National Wastewater Sludge Management Plan 2016 • Aquaculture Plan 2014 • Adapting to Climate Change - National Adaptation Framework 2018 and sectoral Adaptation Plans • National Climate Action Plan, Securing our Future 2021 (and CAP 2019) • Draft Bioenergy Plan 2014 • Draft Wind Energy Guidelines, • National Renewable Energy Action Plan • Strategy for Renewable Energy 2012-2020 • Offshore Renewable Energy Development Plan 2014 • Harnessing Our Ocean Wealth • The role of Data Centres in Ireland’s Enterprise Strategy • River Basin Management Plan 2022-2027 • Irish Water - Water Services Strategic Plan • National Water Resources Plan • Lead in Drinking Water Mitigation Plan • National Biodiversity Action Plan 2017-2021 • All-Ireland Pollinator Plan • National Peatlands Strategy • National Cycle Policy Framework 2009-2020 • National ITS Strategy • National Hazardous Waste Management Plan 2010-2020

European	National/Regional/Local P/P
	<ul style="list-style-type: none"> • Southern Region Waste Management Plan 2015-2021 • National Broadband Plan • National Landscape Strategy for Ireland 2015 – 2025 • Kerry Climate Adaptation Strategy 2019-2024 <p>Kerry COVID-19 Economic Recovery Plan 2021</p> <ul style="list-style-type: none"> • Straitéis 20 Bliain Don Ghaeilge 2010-2030 (20 Year strategy for the Irish language)

**12. APPENDIX 2 SCREENING OF OBJECTIVES WITHIN THE KCDP, INCLUDING TRALEE,
KILLARNEY AND LISTOWEL**
