SEA STATEMENT

FOR THE

CORK CITY DEVELOPMENT PLAN 2022-2028



City Hall Anglesea Street Cork



Comhairle Cathrach Chorcaí Cork City Council

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Section 1 Introduction

1.1 Introduction and Legislative Context

This is the Strategic Environmental Assessment (SEA) Statement for the Cork City Development Plan 2022-2028.

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

2001/42/EC Directive of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Regulations 2004 Programmes) and the Development Planning and (Strategic Environmental Assessment) Regulations 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011.

1.2 Content of the SEA Statement

Where SEA is undertaken, the Regulations require that a Statement is made available to the public and the competent environmental authorities after the making of the Plan.

This Statement is referred to as an SEA Statement.

The SEA Statement is required to include information summarising:

- a) how environmental considerations have been integrated into the Plan;
- b) how the following have been taken into account during the preparation of the Plan:
 - the environmental report,
 - submissions and observations made to the planning authority on the Draft Plan and Environmental Report, and
 - any transboundary consultations (not required for this SEA).
- c) the reasons for choosing the Plan in the light of the other reasonable alternatives dealt with; and
- d) the measures decided upon to monitor the significant environmental effects of implementing the Plan.

1.3 Implications of SEA for the Plan

SEA has been undertaken on the Plan and the findings of the SEA are expressed in an Environmental Report, the first published version of which accompanied the Draft Plan on public display. The Environmental Report was updated in order to take account of changes to the original Draft Plan that were made on foot of submissions and recommendations in the submissions.

Cork City Council has been provided with the findings of SEA output during their consideration of the Plan and before the Plan was adopted.

Section 2 How Environmental Considerations were integrated into the Plan

2.1 Overview

Environmental considerations were presented to the Council for its consideration through:

- 1. Consultations;
- Communication of environmental sensitivities throughout the SEA process;
- 3. Appropriate Assessment;
- 4. Strategic Flood Risk Assessment;
- 5. Consideration of alternatives;
- 6. Integration of environmental considerations; and
- 7. Integration of individual SEA and AA provisions into the Plan.

All parts of the Plan-preparation process were informed by the SEA, AA and SFRA processes this includes the preparation of the Chief Executive's Draft Plan, Members' Amendments to that Plan in advance of public display, Proposed Material Alterations and Further Modifications. The mitigation integrated into the final, adopted Plan includes that identified in Section 9 of this report.

2.2 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the City would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects. However, a number of alterations were adopted by the Elected Members as part of the Plan that are internally inconsistent with the overall approach provided for by the Plan, including those which are identified on Table 2.1 and were advised against by the Planpreparation/SEA process. Also included on Table 2.1 is advice that was provided by the SEA for consideration in advance of adoption of the Plan.

It is noted that a number of alterations that were recommended against in advance of public display were subsequently subject to minor modification mitigating environmental concerns (Amendments No. 275, 277 and 2.64).

Table 2.1 Alterations Advised Against but Adopted (including:)

Material Alterations No's.	Commentary provided in advance of Plan Adoption	Mitigation Identified	Recommendation provided in advance of Plan Adoption
Amendment 2.27 (subject to modification), Amendment 2.29, Amendment 2.60, Amendment 2.61, Amendment 2.62, Amendment 2.63, Amendment 2.68, Amendment 2.70, Amendment 2.70, Amendment 2.78, Amendment 2.95, Amendment 2.96, Amendment 2.99 (subject to modification), Amendment 1.127, Amendment 1.307 (subject to modification), Amendment 2.24, Amendment 2.25 and Amendment 2.26	 These alterations would not provide the most evidence-based framework for development and have the potential to undermine sustainable development and proper planning. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, biodiversity, the landscape, air and climatic factors and material assets. Land use zoning proposed is considered to be premature under various alterations in the context of current population targets. Potentially significant adverse unnecessary effects, would be likely to include: Effects on ecology, ecological connectivity and non-designated habitats and species Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces Conflict with efforts to maximise sustainable compact growth and sustainable mobility Occurrence of adverse visual impacts (including erosion of designated Landscape Preservation Zones) Increased loadings on water bodies Effects on an aquifers of elevated and high vulnerability Where such alterations are further from the centre of urban/suburban areas and are greenfield sites, potentially significant unnecessary adverse effects would be likely to include: Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of established built development envelopes Adverse impacts upon the economic viability of providing for public assets and infrastructure Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives Conflicts between increased frequency of noise emissions and protection of sensitive receptors Potential effects on human health as a result of potential interactions with environmental vectors Taking into	These alterations would not provide the most evidence-based framework for development and have the potential to undermine sustainable development and proper planning. As a result, there is a need to reject these amendments in their current state in order to provide the most evidence-based framework for development and ensure sustainable development and proper planning.	Do not adopt as part of Plan

2.3 Consultations

As environmental authorities identified under the Planning and Development (SEA) Regulations, as amended, the following authorities were sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the to be included the information in environmental report could be made to Cork Council¹: Environmental Protection City Agency; Department of Environment, Climate and Communications; Department of Agriculture, Food and the Marine; Department of Tourism, Culture, Arts, Gaeltacht, Sport and Department of Housing, Media: Local Government and Heritage; and Cork County Council.

Detail on submissions made on foot of the SEA scoping notice is provided under Section 3.2.

Detail is also provided on submissions that were made on the Draft Plan and/or the SEA Environmental Report while they were on public display (see Section 3).

2.4 Communication of environmental sensitivities throughout the SEA process

Environmental considerations were integrated into the Plan before it was placed on public display. Individual sensitivities that were considered by the Planning Team preparing the Plan included the following:

- European Sites (Special Areas of Conservation and Special Protection Areas);
- Other Ecological Designations;
- Status of Surface and Ground Waters;
- Various entries to the Water Framework Directive's Register of Protected Areas;
- Groundwater Vulnerability;
- Water Services Capacity, Performance and Demand;

- Cultural heritage (archaeological and architectural) sensitivities; and
- Landscape Designations.

A number of these sensitivities are mapped on Figures 2.1 to 2.3.

Overlay mapping of environmental sensitivities was also prepared and a number of the environmental sensitivities described above were weighted and mapped overlapping each other. Figure 2.4 provides the overlay mapping of Environmental Sensitivities that was prepared. Environmental sensitivities are indicated by colours which range from higher to lower sensitivity.

2.5 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA have been undertaken alongside the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The conclusion of the AA is that the Plan will not affect the integrity of the European Sites, alone or in combination with other plans or projects.²

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed the SEA.

2.6 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Works, Public 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. Recommendations from the SFRA have been integrated into the Plan.

¹ The names of some of the authorities have changed since notification was provided as a result of changes in Ministerial responsibilities across Departments.

 $^{^2}$ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

2.7 Consideration of Alternatives

Consideration of the environmental effects arising from a variety of different alternatives for the Plan (see Section 4) has contributed towards the protection and management of the environment within the Plan.

2.8 Integration of environmental considerations into Zoning of the Plan

Environmental considerations were integrated into the Plan's zoning through an interdisciplinary approach.

Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higherlevel NPF and Southern RSES.

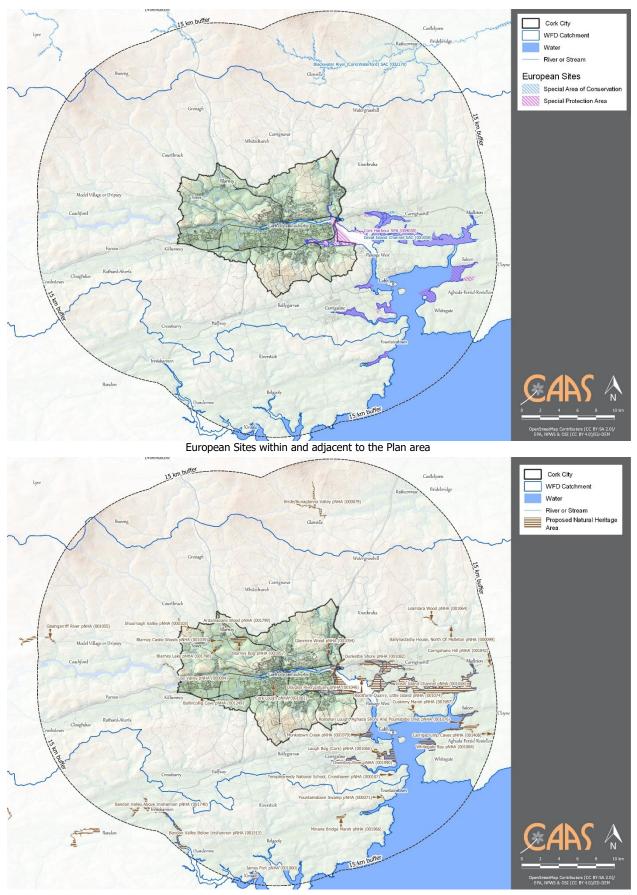
The detailed Plan preparation process undertaken by the Planning Department, combined with input from consultants, seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity. Various provisions have been integrated into the Plan that provide for flood risk management and ecological protection and management at project level.

Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

2.9 Integration of individual SEA, AA and SFRA provisions into the text of the Plan

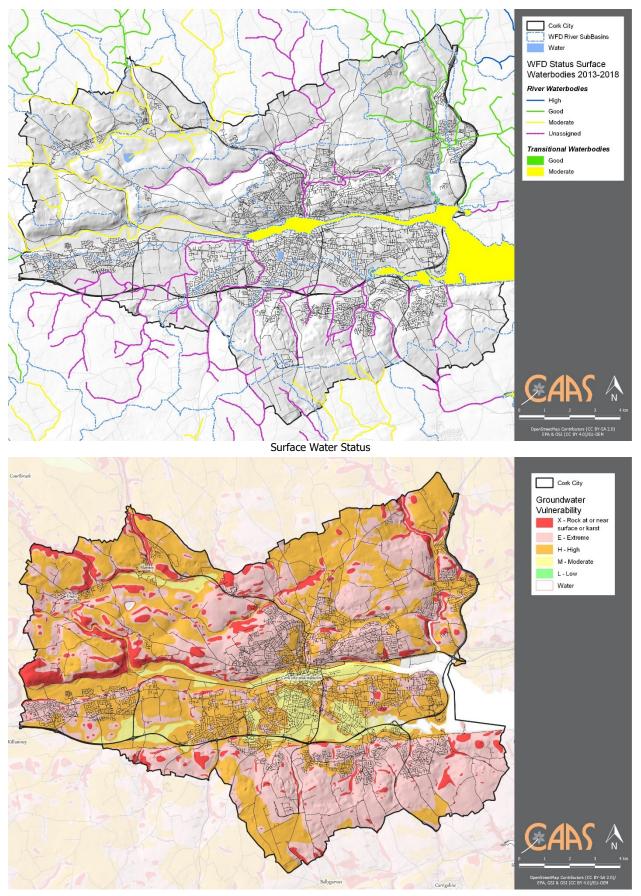
Table 2.2 links key mitigation measure(s) - which have been integrated into the Plan - to the potential significant adverse effects of implementing the Plan, if unmitigated. The integration of these measures into the Plan occurred over a number of iterations and was

informed by, inter alia, various communications through the SEA, AA and SFRA processes. The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.



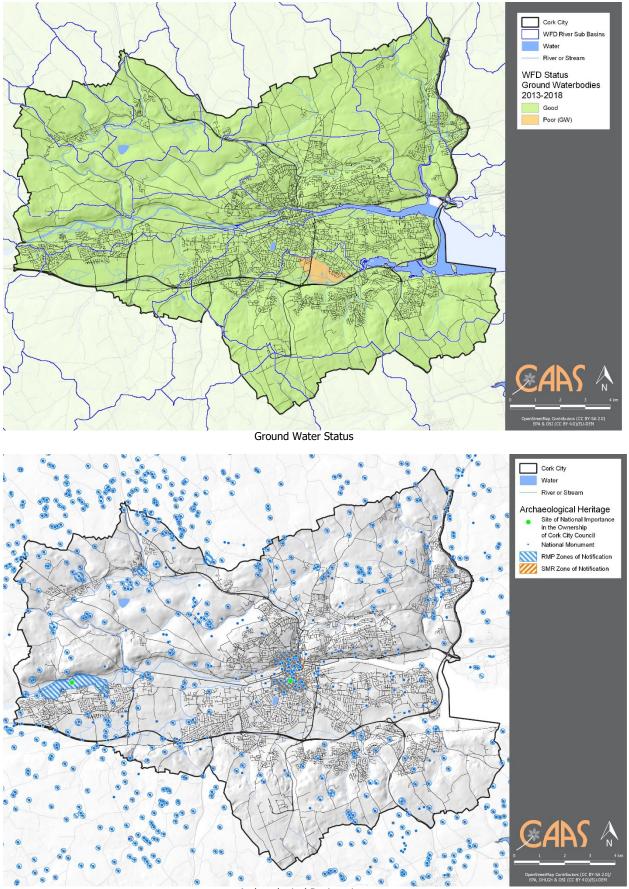
Other Ecological Designations within and adjacent to the Plan area

Figure 2.1 Selection of Individual Environmental Sensitivities taken into account (1 of 3)



Groundwater Vulnerability





Archaeological Designations

Figure 2.3 Selection of Individual Environmental Sensitivities taken into account (3 of 3)



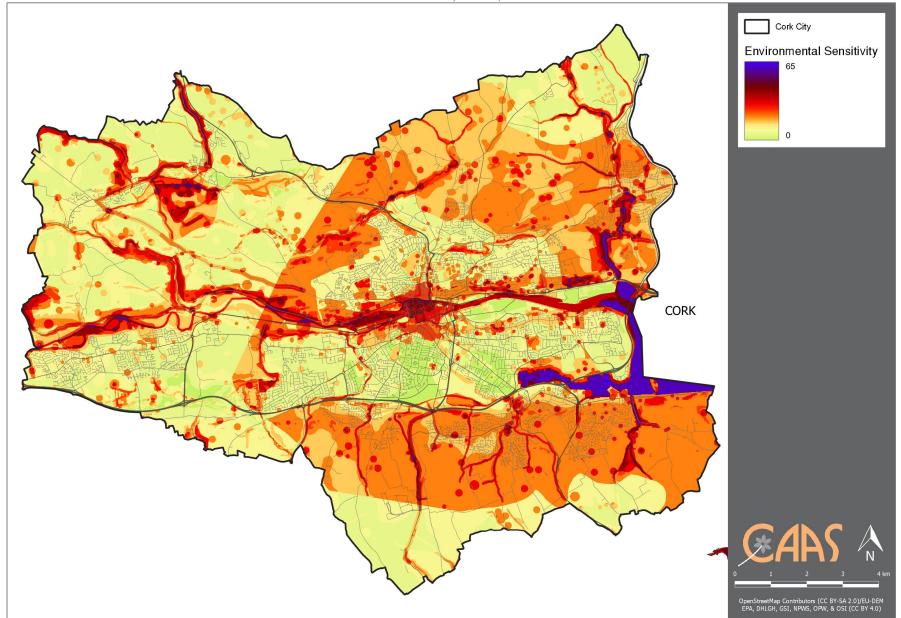


Figure 2.4 Overlay of Environmental Sensitivities

Table 2.2 Integration of Environmental Considerations

Горіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
/arious – see	Various – see below	Objective 2.42 SEA Monitoring
pelow		The Council shall, in conjunction with the Southern Regional Assembly and other stakeholders as relevant, implement the monitoring programme as set out in the SEA Environmental Report
		and Statement. This will include the preparation of stand-alone SEA Monitoring Reports:
		1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the double section 15(2) of the Act, including information in relation to progress on, and the results of monitoring the signification of the act of the double section 15(2) of the Act, including information in relation to progress on, and the results of the act of
		environmental effects of implementation of the development plan;
		2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan.
		Objective 4.6 Corridor & Route Selection Process
		Policies and Objectives relating to new roads and other transport infrastructure projects (including greenways, walkways, cycleways and blueways) that are not already provided for existing plans/ programmes or are not already permitted, are subject to the undertaking of feasibility assessment having regard to normal planning considerations and environmen
		sensitivities as identified in the SEA Environmental Report and the objectives of the Plan relating to sustainable mobility.
		Objective 7.25 Sustainable Tourism
		To support the sustainable growth of tourism and marketing of Cork City as a multi-faceted visitor destination and a gateway to the southern region, Wild Atlantic Way and Ireland's Ancie
		East by:
		 Working in partnership with Fáilte Ireland, businesses and other stakeholders to support tourism investment, innovation and promotional and marketing strategies. Supporting the implementation of the Cork City Tourism Strategy 2017-2022, the Local Economic and Community Plan-2016-2021 (Pure Cork) and their successor strategies.
		 Supporting the implementation of the Cork City Tourism Strategy 2017-2022, the Local Economic and Community Plan-2010-2021 (Pure Cork) and their successor strategies. To support the implementation of the Tourism Destination Plan for Cork City and East Cork.
		 Develop existing tourist attractions and activities, while seeking investment in new attractions that help to diversify the tourism market.
		 Support the development of cultural facilities such as the Crawford Art Gallery and the Cork Events Centre.
		Support initiatives that improve the sustainability of tourism, and support eco-tourism along with the reduction of the carbon footprint of tourist accommodation, attractions a activities.
		Support high quality proposals, initiatives and pilot projects that represent opportunities to provide new or enhanced visitor facilities and attractions. This also extends to propose that utilize technology to improve visitors? events and additional applications and paviation and each to better layorage the City's network of group and hive infrastructure as terms.
		that utilise technology to improve visitors' experiences and aid interpretation and navigation and seek to better leverage the City's network of green and blue infrastructure as touri
		attractions.
		 Seeking to manage, where appropriate, any increase in visitor numbers to semi-natural areas in order to avoid significant effects including loss of habitat and disturbance,
		ensuring that new any projects, such as greenways, are located a suitable distance from ecological sensitivities, such as riparian zones.
		Seeking to manage, where relevant, any increase in visitor numbers to key habitats and / or any change in visitor behaviour in order to avoid significant effects, including loss
		habitat and disturbance, by ensuring that new projects and activities are located a suitable distance from ecological sensitivities. Visitor / Habitat Management Plans may be required
		proposed projects where relevant and as appropriate.
		Objective 7.38 Cork Harbour Planning Framework
		Cork City Council is committed to part-take as a key stakeholder and consultee in the preparation of a Cork Harbour Planning Framework Initiative, in coordination with other Local Authorit
		and stakeholders in the harbour area, as required under RSES Objective 79 and Cork MASP Objective 3 Cork Harbour, during the lifetime of the Plan.
		Cork City Council supports the preparation of an agreed framework to guide planning policy in managing the future development of the Cork Harbour Economy (CHE) as set out in RPO79
		the RSES to ensure that the sustainable development of the area not only harnesses the economic and social benefits to the City-region but also ensures that biodiversity, flora and fau
		both within and outside protected sites are considered via the appropriate SEA and AA mechanisms.
		Objective 9.20 Seveso
		(a) Assessment of Development in Vicinity of Seveso III Sites: Land use proposals for development within the vicinity of sites identified under the Control of Major Accident Hazards
		Directive and any regulations, under any enactment, giving effect to that Directive, will be assessed having regard to technical guidance provided by the Health and Safety Authority.
		(b) Relocation of Seveso III Sites: Cork City Council will actively seek the relocation of Seveso III facilities / activities to suitable alternative sites outside the City.
		Various Development Management Provisions.
		Objective Chapter 2 Core Strategy: To co-ordinate and enable active land management with the delivery of key infrastructure and regeneration projects, Cork City Council will prepar
		framework plan for the existing and emerging built environment in and around the central city area. The plan will seek to co-ordinate the delivery of compact liveable growth by facilitating
		planning and design of the following land use related issues:
		Active land management of strategic underutilised sites
		Inter connections between the City Centre, City Docks and Tivoli Docks.
		Enable high levels of mobility connecting BusConnects Cork, the proposed LRT route and the emerging Lee to Sea Greenway
		Land use planning around planned transport interchanges
		Built Heritage and Conservation, including maritime heritage
		GBI implementation, Natural Heritage, and Biodiversity management
		Co-ordinating Placemaking objectives at a local level
		River Transport and Mobility (including water-based transport and recreation)
		River use management to balance demand and potentially conflicting interests.
		Table 6.4 17. Maritime Activities and Recreation Hub: To support the planning, design and delivery of a multi-use maritime activities and recreation hub in the Marina along the Ri
		Lee. The hub shall enhance the recreational, natural and cultural heritage value of the River Lee by improving access, activities and use of the water including water-based leisure activit

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		and land site facilities such as rowing, light craft, swimming and other suitable active and passive recreational activities. Planning and design shall include stakeholders engagement designed to facilitate safe, improved accessibility to the water and the exploration of co-location and sharing of community, enterprise, recreation and open space infrastructure that helps create a community based maritime hub for the city and wider area. Objective 6.3 Cork City Council will seek to work with stakeholders in facilitating safe, improved accessibility to the water environment including the River Lee and Cork Harbour and encouraging uses which optimise the amenity, tourism, recreation and leisure opportunities associated with this blue infrastructure, while contributing towards the protection of protected species and without adversely impacting on the day-to-day economic functions of these assets.
Biodiversity	Arising from both	Strategic Biodiversity Goals
and flora and fauna	construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European	 To protect and enhance designated areas of natural heritage and protected species and to adhere to all relevant biodiversity legislation; To ensure that sites and species of natural heritage and biodiversity importance in non-designated areas are identified, protected and managed appropriately; To create green and blue infrastructure network thereby creating ecological corridors linking areas of biodiversity importance; To implement the recommendations of the GBI study and integrate green and blue infrastructure solutions into new developments; To ensure all citizens are within 5km of a green and ideally wild space; To protect and maintain the integrity and maximise rivers and watercourses within the city; To protect and enhance the city's trees and urban woodlands; and To promote best practice guidelines for management, control and eradication of invasive alien species.
	Sites and Wildlife Sites)	Green and Blue Infrastructure, Open Space and Biodiversity Development Objectives
	 and Annexed habitats and species, listed species, ecological connectivity and non- designated habitats; and disturbance to biodiversity and flora and fauna; Habitat loss, fragmentation and deterioration, including patch size and edge effects; and Disturbance (e.g. due to noise and lighting along transport 	 Strategic Objective 5: Green and Blue Infrastructure, Open Space and Biodiversity To strengthen the green and blue infrastructure of Cork City. To protect and promote biodiversity and habitat connectivity and protect natural areas. To protect and enhance Cork City's residents have access to open spaces, recreation and amenity facilities and natural areas. A strong green and blue infrastructure network is essential to the quality of life of Cork City's residents and contributes towards the creation of places where people want to live and work. It is an objective of Cork City Council to achieve a healthy, green and connected City with high-quality and interconnected open spaces, parks, diverse natural areas and green and blue infrastructure network is essential to the quality of green and blue infrastructure. Proposals for new development in Cork City will respect and reflect the topography, landscape and ecology of the City, and will protect and enhance the City's green and blue infrastructure, open space, sport and recreation, landscape and bloidiversity are considered commensurate to the scale and context of the development in the development process. Large-scale developments will incorporate open spaces to contribute to the green and blue infrastructure in the City. Objective 6.5 Trees and Urban Woodland (a) To protect and enhance the City's tree and urban woodlands in public and private ownership. Cork City Council will seek to survey, map and maintain existing important individual and groups of trees, using Tree Preservation Orders as appropriate. (b) To encourage the planting of new urban woodlands and trees where appropriate throughout the City and particularly where there are deficiencies in tree coverage as identified in the Cork City Green and Blue Infrastructure Study. (c) To support the preparation of a City Tree Strategy which provides a vision for long-term planting, protection
	corridors) and displacement of protected species such	avoid conflict with transport safety and residential amenity in particular. (e) To promote the planting of pollinator friendly native deciduous trees and mixed forestry to benefit biodiversity. Objective 6.6 Rivers, Waterway and Wetlands
	as birds and bats.	 (a) To protect and maintain the integrity, and maximise the potential, of the natural heritage and biodiversity value of rivers, associated watercourses and wetlands in Cork City, and to (b) To promote an integrated approach to optimising opportunities associated with rivers, waterways and wetlands generate biodiversity, recreation, tourism, and economic benefits. Objective 6.22 Natural Heritage and Biodiversity (a) To protect, promote and enhance Cork City's natural heritage and biodiversity. (b) To support the implementation of the National Biodiversity Plan and the All-Ireland Pollinator Plan and successor publications in Cork City. (c) To support and implement the biodiversity actions from the Cork City Heritage and Biodiversity Plan (2021-2026) in partnership with all relevant stakeholders. (d) Cork City Council will seek to establish and use a City biodiversity database, accessible across all council departments for consideration in land management decision-making. (e) Cork City Council will work with communities to enhance, and the delivery of new, biodiversity-rich areas throughout the City including individual buildings, streets, public and private spaces by supporting the provision of green roofs and walls, rain gardens, biodiversity-rich parklets, rainwater harvesting, natural banks and naturalised SUDS. (f) Cork City Council will seek, where appropriate, to enhance the linear habitat connectivity, including the interconnection and enhancement of: Woodlands, gardens, open spaces, fields and hedgerows. Cath Aquatic, marginal and bank side habitats. Parks, playing fields and recreational areas. Upstream of mapped flood zones. City transport routes. Objective 6.23 Designated Sites and Protected Species To protect and enhance designated sites and areas of natural heritage and biodiversity and the habitats, flora and fauna for which it is designated,

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		designated species. Objective 6.24 Information to be considered for development affecting designated sites To ensure that development proposals affecting designated sites have regard to the sensitivities identified in the SEA Environmental Report prepared in respect of this Plan. Objective 6.25 Non-designated Areas of Biodiversity Importance Cork City Council will seek to map the City's ecological networks and corridors of local biodiversity value outside of designated areas, and to work with local stakeholders in supporting the effective management of features which are important for wild flora and fauna and habitats. Objective 6.26 Alien Invasive Species To support the implementation of measures to control and prevent the introduction, establishment or spread of ecologically damaging alien invasive species (e.g. Japanese Knotweed and Himalayan Balsam). Paragraph 6.62 "As with all Plan provisions, Objectives in this Section will be implemented subject to compliance with the Habitats and Birds Directives and other ecological protection objectives" Paragraph No. 6.63 "No plans, programmes, etc. or projects giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects) ³ ." Paragraph 6.64 "Any agricultural or fishing/aquaculture activities related developments or would be considered subject to compliance with the Habitats and Birds Directives and in consultation with Inland Fisheries Ireland as relevant". Objective 9.19 External Lighting To require that external lighting proposals minimise the harmful effects of light pollution, are energy efficient, and do not have an excessive impact on residential or visua
Population and human health	 Potential adverse effects arising from flood events. Potential interactions if 	biodiversity or result in the distraction of road users. Also refer to measures under other environmental components including Soil, Water and Air and Climatic Factors. Objective 9.18 Air Quality (a) To protect and improve air quality in Cork City in accordance with the provisions of EU Directives and national legislation on air pollution and support the actions of the City Council's Air Quality Strategy 2021-2026, and its successors.
	effects arising from environmental vectors.	 (b) To continue to monitor air quality results submitted from selected locations throughout the City in co-operation with the Environmental Protection Agency and support the creation of a regional air quality and greenhouse gas emissions inventory. Objective 9.20 Noise To support the implementation of the objectives of The Cork Agglomeration Noise Action Plan 2018 – 2023 and promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life. Objective 9.21 Seveso
Soil	 Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. Potential for riverbank and coastal erosion. 	Also refer to measures under other environmental components including Water. Objective 6.7 Carbon Sequestration To work with landowners, communities and other stakeholders in supporting initiatives to increase carbon sequestration through the effective and sustainable use of undeveloped, vacant and agricultural land. This could include opportunities to explore protecting soil fertility, reducing erosion, increasing soil organic matter, re-wetting bogs and peatland and restoring degraded soils. Objective 6.27 Areas of Geological Importance To seek the conservation of important features of geological interest in Cork City. Objective Chapter 7 Quarries and Aggregate Resources: To recognise the important role the mineral extraction and aggregate industry can play by protecting any reserves of aggregates and minerals from development that might impact on their utilisation. Extractions that would result in a reduction of the visual amenity of areas of high amenity or damage to areas of scientific importance or of geological, botanical, zoological and other natural significance including all designated European Sites or have a detrimental impact on residential amenity will not be permitted. The Planning Authority will have regard to the Guidelines for Planning Authorities for Quarries and Ancillary Activities (DoEHLG, 2004) when assessing applications relating to the extraction industry.
Water	 Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in 	Also refer to measures under other environmental components including Soil and Material Assets. Chapter 4 paragraph 4.9 The capacity and efficiency of the national road network drainage regimes in Cork City will be safeguarded. Objective 6.6 Rivers, Waterway and Wetlands (a) To protect and maintain the integrity, and maximise the potential, of the natural heritage and biodiversity value of rivers, associated watercourses and wetlands in Cork City, and to (b) To promote an integrated approach to optimising opportunities associated with rivers, waterways and wetlands generate biodiversity, recreation, tourism, and economic benefits. Chapter 9 paragraph "Coastal Change"

³ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place. CAAS for Cork City Council

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
	quality, flow and/or morphology.Increase in flood risk and associated effects	manage the projected impact of coastal change to our coastal communities, economies, heritage, culture and environment. Cork City Council supports the preparation of the strategy and will consider its findings when published and how it may impact its functional area. In the interim consideration will be given to areas that may be at risk or vulnerable to coastal erosion or coastal change, including change associated with climate change. Objective 9.4 SUDS
	associated with flood events.	(a) To require that all planning applications for new development incorporate Sustainable Urban Drainage Systems (SUDS) in so far as possible. Such proposals shall be accompanied by a comprehensive SUDS assessment including run-off quantity, run off quality and impacts on habitat and water quality.
		(b) To encourage the provision of green roofs and green walls as an integrated part of Sustainable Urban Drainage Systems (SUDS) and which provide benefits for biodiversity, wherever feasible.
		(c) To investigate the feasibility of preparing Sustainable Urban Drainage Systems (SUDS) guidelines for Cork City during the lifetime of the plan. In the interim The Department of Housing, Local Government and Heritage document: Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas Water Sensitive Urban Design - Best Practice Interim Guidance Document, will provide guidance in this regard.
		Objective 9.5 Discharging (a) To ensure that onsite petrol/oil interceptors and silt traps shall be installed to all significant road projects/upgrades or for proposals where surface water otherwise discharges to
		watercourses, to prevent hydrocarbon pollution of the receiving waters. (b) To ensure that developments permitted by the Council which involve discharge of wastewater to surface waters or groundwaters, comply with the requirements of the EU Environmental Objectives (Surface Waters) Regulations and EU Environmental Objectives (Groundwater) Regulations. Objective 9.6 Storm Water
		To provide adequate storm water infrastructure in order to accommodate the planned levels of growth within the plan area and to ensure that appropriate flood management measures are implemented to protect property and infrastructure.
		Objective 9.7 Water Quality (a) To ensure the delivery of the relevant policies and objectives of The River Basin Management Plan for Ireland 2018 – 2021 and any subsequent plan, including those relating to protection of water status, improvement of water status, prevention of deterioration and meeting objectives for designated protected sites. (b) To support Irish Water in its implementation of Water Quality Management Plans for ground, surface, coastal and estuarine waters as part of the implementation of the EU Water
		Framework Directive and in the development of Drinking Water Protection Plans. (c) To support the provision of mitigation and protection measures for all protected areas, including Drinking Water Protected Areas and associated Source Protection Plans in line with the Water Framework Directives and River Basin Management Plans.
		(d) To have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.
		Objective 9.8 Flood Protection To protect, enhance and manage the City's floodplains, wetlands and coastal habitat areas that are subject to flooding as vital 'green infrastructure' which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reduce the need to provide flood defence infrastructures. Cork Council will also require that all proposed flood protection or alleviation works will be subject to Appropriate Assessment to ensure there are no likely significant effects on the integrity, defined by the structure and function, of any European Sites and that the requirements of Article 6 of the EU Habitats Directive are met.
		Objective 9.9 Flood Protection Schemes To work with the Office of Public Works (OPW) in the progression and completion of Flood Risk Management Plans and flood relief schemes including the Lower Lee Flood Relief Scheme (LLFRS), schemes in Blackpool, Glanmire / Glashaboy, Douglas / Togher and other schemes that may be developed during the period of the plan. Objective 9.10 Development in Flood Risk Areas
		(a) To restrict development in Hood Kisk Areas (a) To restrict development in identified flood risk areas, in particular flood plains. All new development proposals shall comply with the requirements of the Planning System and Flood Risk Management –Guidelines for Planning Authorities (2009) and Department of Environment, Community and Local Government Circular PL2/2014, in particular through the application of the sequential approach and the Development Management Justification Test.
		(b) All significant proposals for development identified as being vulnerable to flooding will be required to provide a site specific Flood Risk Assessment to identify potential loss of floodplain storage and proposals for the storage or attenuation (e.g. SUDS) of run-off discharges (including foul drains) to ensure development does not increase the flood risk in the relevant catchment.
		(c) Adopt a river catchment approach to rivers entering the City, practicing natural flood management wherever practical and appropriate. Chapter 10 paragraph 10.110
		The Strategy provides the following (see Map D, Volume 2: Mapped Objectives "Summary of Proposed Infrastructure Measures in the South Docks Drainage and Levels Strategy"): • An infrastructure strategy to ensure that the South Docks is resilient to flood risk and climate change; • Drainage catchments that provide for the capacity of the network to deal with pluvial (rainfall) runoff;
		 A surface water drainage network based upon SuDS / nature-based solutions, storage and conveyance solutions, including conveyance by grey infrastructure (see Figure 10.10a); A perimeter flood protection from tidal and fluvial (river) flood risks, in accordance with the Drainage and Flood Strategy, including a transition from the standard perimeter defence of 4.35m OD at the proposed Kent Station Bridge to the proposed Flood protection levels at Albert Quay.
		• Minimum ground (public realm and streets) level and building finished floor levels (FFLs) with proposed ground levels as close to existing ground levels as possible, while mitigating against pluvial (cloudburst) flood risk.
CAAC for Cork		 Public strategic (regional) flood storage will need to be provided across a number of locations in the South Docks, as set out above. Site acquisition is likely to be required to deliver elements of this green storage infrastructure, which are in private ownership. A key location for the preferred additional storage location will

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		be identified. • The proposed public open space to the south of the Atlantic Pond and within the Ardfoyle Convent lands, which would form part of the Marina Park. The Strategy indicates that there may be a requirement for a surface water pumping station in the vicinity of the proposed extension to the Atlantic Pond area to meet the challenge presented by climate change, with a site of a total c.250sqm being required to accommodate this infrastructure. The Strategy identifies possible locations for this facility on the proposed extension to the Atlantic Pond area. The suitability of these, or other, locations for the pumping station will need to be identified during the life of the Plan.
		Chapter 10 paragraph 10.112 It is necessary to marginally increase localised ground (public realm and roads) levels at low points to between 0.85m OD and 1.0m OD to facilitate an effective gravity system and achieval storage volumes for scenarios up to Medium Risk Future Scenario (MRFS).
		Chapter 10 paragraph 10.113 To ensure that proposed buildings are at acceptably low levels of risk of surface water flooding, it is proposed to set minimum finished floor levels (FFL) at least 300mmabove the predicted in 100 year (=+40% climate change) pluvial flood level and the residual inundation risk, which varies across the docks, as shown above Chapter 10 paragraph 10.114
		It is recommended that this minimum level apply only to Water Compatible Development and Less Vulnerable Development as defined by the Flood Risk Planning Guidelines ³ , and subject site specific flood risk assessment demonstrating appropriate flood mitigation strategy. Within the polder, finished floor levels for less vulnerable uses do not strictly need to be above t residual risk level but will need defences up to that level through building flood resilience measures. Planning applications for development will demonstrate compliance with the provisions the Guidelines by means of Site Specific Flood Risk Assessment. Chapter 10 paragraph 10.115
		Within the defended polder, a general minimum FFL for <u>Highly Vulnerable Development</u> shall be +1.9mOD to mitigate the residual risk of breach of the polder defence based on 1 in 200 ye tidal flood level, including appropriate allowances for climate change, residual risk (breach and overtopping) and freeboard. It is envisaged that minimum FFL along the quayside would set at or above the proposed polder defence level of +3.8m to +4.35m OD, except for the western transition from Albert Quay where a minimum FFL of +3.8m OD can be accommodated due to constraints imposed by existing streetscapes.
		objective relating to Hop Island: Chapter 11 paragraph 11.260
		Land use zoning objectives provided by this Plan are subject to the following conditions:
		 Undeveloped land in Flood Zone A that is the subject of any zoning objective are only zoned for and shall only be developed for water compatible uses as identified in the Guidelines. Undeveloped land in Flood Zone B that is the subject of any zoning objective are only zoned for and shall only be developed for water compatible or less vulnerable uses as identified to the Guidelines.
		(3) With respect to lands that have already been developed in Flood Zone A or B the potential conflict (between zoning and highly or less vulnerable development in Flood Zone A between zoning and highly vulnerable development in Flood Zone B) will be avoided by applying the following zoning approach, subject to the exception areas set out in (iii) below: (i) Cork City Council will facilitate the appropriate management and sustainable use of these areas. This will mean generally limiting new development, but facilitating existing developm uses that may require small scale development such as small extensions. Development proposals within these areas shall be accompanied by a detailed Flood Risk Assessment, carried or accordance with The Planning System and Flood Risk Assessment Guidelines and Circular PL 2/2014 (or as updated), which shall assess the risks of flooding associated with the propodevelopment. Where development proposals submitted to the Planning Authority relate to existing buildings or developed areas, the sequential approach cannot be used to locate ther lower-risk areas and the Justification Test will not therefore apply. Proposals seeking to change the use of existing buildings from a less vulnerable use to a use that would be more vulnerable of flooding may not be permissible in areas of elevated flood risk, whilst some change of use proposals not increasing the vulnerability to the effects of flooding will be considered on their individual merits but are acceptable in principle. An existing dwelling or building that is not located within an area at risk of flooding
		has a large rear garden / curtilage that is located within Flood Zone A or B would not be suitable for a more in-depth residential development proposal which would propose a residential within Flood Zone A or B.
		(ii) Proposals shall only be considered favourably where it is demonstrated to the satisfaction of the Planning Authority that they would not have adverse impacts or impede access t watercourse, floodplain or flood protection and management facilities, or increase the risk of flooding to other locations and be in accordance with the proper planning and sustaina development of the area. The nature and design of structural and non-structural flood risk management measures required for development in such areas (see relevant Flood F Assessments - section below) will also be required to be demonstrated, to ensure that flood hazard and risk will not be increased. Measures proposed shall follow best practice in management of health and safety for users and residents of the development.
		(iii) Exceptional areas are the already developed City Centre and Docklands areas, which have undergone Justification Tests and have been zoned for development, and established built areas of Cork City including suburban areas such as Model Farm Road / Carrigrohane Road area and Douglas. Future development in these areas will:
		 be subject to site-specific flood risk assessments; comply with the flood risk management provisions of this Plan, including the structural and non-structural risk management measures outlined under Flood Risk Assessme below, and relevant measures contained in the Council's 2020 South Docks Drainage Strategy; and will benefit from Flood Relief Schemes being progressed by the OPW.
		Flood hazard and flood risk information is an emerging dataset of information. The flood risk mapping used by the Council may be altered in light of future data and analysis. Therefore landowners and developers are advised that Cork City Council accept no responsibility for losses or damages arising due to assessments of vulnerability to flooding of lands, uses developments. Owners, users and developers are advised to take all reasonable measures to assess the vulnerability to flooding in a particular area, prior to submitting a planning application Chaoter 11 after paragraph 12.7
		Further to Plan provisions relating to flood risk management under other parts of this Plan (including Paragraph No's. 11.256 to 11.263 and Paragraph No's. 12.20 to 12.22 (* subject to fin numeration in final Plan), Permissible Uses within Flood Zones A or B in areas that have not passed the Justification Test (i.e. those areas outside of Cork City Centre and the North and Soc

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		Docklands shall be constrained to those "water compatible" and "less vulnerable" uses as appropriate to the particular Flood Zone (please refer to the accompanying Strategic Flood Risk Assessment document).
Air and Climatic Factors	 Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. Potential conflicts between transport emissions, including those from cars, and air quality. Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. Potential conflicts with climate adaptation measures including those relating to flood 	Also refer to Plan's various sustainable transport provisions and detailed measures for Climate Action to Chapter 5 "Climate Change and the Environment". Objective 6.7 Carbon Sequestration To work with landowners, communities and other stakeholders in supporting initiatives to increase carbon sequestration through the effective and sustainable use of undeveloped, vacant and agricultural land. This could include opportunities to explore protecting soil fertility, reducing erosion, increasing soil organic matter, re-wetting bogs and peatland and restoring degraded soils. Objective 9.18 Air Quality (a) To protect and improve air quality in Cork City in accordance with the provisions of EU Directives and national legislation on air pollution and support the actions of the City Council's Air Quality Strategy 2021-2026, and its successors. (b) To continue to monitor air quality results submitted from selected locations throughout the City in co-operation with the Environmental Protection Agency and support the creation of a regional air quality and greenhouse gas emissions inventory. Objective 9.20 Noise To support the implementation of the objectives of The Cork Agglomeration Noise Action Plan 2018 – 2023 and promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life.
Material Assets	 risk management. Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). 	Also refer to measures under other environmental components including Population and Human Health, Cultural Heritage, Soil, Water, Air, various Land Use and Phasing provisions. Environmental Infrastructure Development Objectives Strategic Objective 9.1 Irish Water (a) To work with Irish Water to ensure the efficient and sustainable use and development of water resources and water services infrastructure in the City. (b) To work with Irish Water to identify and facilitate the timely delivery of water and wastewater projects in order to facilitate development in accordance with the Core Strategy. (c) To work with Irish Water in promoting water conservation and demand management measures among users and support the implementation of measures such as leakage reduction and network improvements. (d) To support Irish Water in the development and implementation of the National Water Resources Plan and Drinking Water Safety Plans. (e) To support Irish Water in the promotion of effective management of trade discharges to sewers in order to maximise the capacity of existing sewer networks and minimise detrimental impacts on sewage treatment works. Objective 9.2 Waste Water (a) To require all new proposals for development to provide a separate foul and surface water drainage system and to incorporate Sustainable Urban Drainage Systems in so far as practical. (b) As part of new proposals for development, evidence of consultation with Irish Water should be submitted as part of a planning application, demonstrating that adequate water services are available to service the developments met to thic waster services infrastructure, where available and have sufficient capacity, shall connect to them. (b) To ensure that all new developments to a connection agreement with Irish Water. (c) To discuste 2.3 Group Water Schemes, Private Wells and Individual Treatment Systems (a) To require that all new developments to a connection agreement with Irish Water. (c) To discuste are permitted, full compliance with the prevailing regulations

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
	 Increases in waste levels. Potential impacts upon public assets and infrastructure. Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter. 	Objective 9.12 Waste Management (a) To support the sustainable management of waste in line with the objectives of the Southern Region Waste Management Plans. (b) To facilitate the transition to a circular economy facilitating the value recovery and recirculation of resources in order to generate minimal waste. (c) Continue to fulfil duties under the Waste Management (cartification of historic unlicensed waste disposal and recovery activity) Regulations 2008 (S.I. No 524 of 2008), including those in relation to the identification and registration of closed landfills. (d) To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects. Applications for large infrastructure projects shall be accompanied by a Construction and Environmental Management Plan that includes details of how construction and demolition waste generated is to be managed and, where reuse/recycling is not practicable, disposed of, in line with legislative requirements. Objective 9.14 Undergrounding of Cables The Council will encourage that this may not always be possible for high voltage transmission infrastructure. Proposals should demonstrate that environmental impacts including the following are minimised: • Habitat loss as a result of removal of field boundaries and hedgerows (right of way preparation) followed by topsoil stripping (to ensure machinery does not destroy soil structure and drainage; properties); • Impacts on sunderground archaeology; • Impacts on soil structure and drainage; and •
Cultural Heritage	Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities	Strategic Objective 7: Heritage, Arts and Culture To protect and reinforce the unique character and built fabric of the city, towns, villages, suburbs, neighbourhoods and places that make up the fabric of Cork City, both the character derived from the natural environment and the man-made character created by the built form. This will be achieved by protecting Protected Structeres, archaeological mountents, and archaeological heritage and Architectural Conservation Areas, while providing opportunities for new development that respects the rich and historic built heritage of the City. To identify, protect, enhance and promote Cork's unique cultural heritage and expression in an authentic and meaningful way. To foster and support the arts and culture in Cork City by encouraging new and improved facilities and by ensuring that arts and culture infrastructure are integrated into large-scale developments on key sites. To support the evelopment for o support the role of Cork City as a significant domestic and international tourism destination and support the sustainable use and development of the City's tourism assets. To ensure that elements of archaeological, architectural and cultural heritage of the City, particularly Protected Structures, archaeological monuments and heritage and Architectural Conservation Areas, and any development that has a detrimental impact on these assets will not normally be acceptable. Objective 8.1 Strategic Archaeology Objective (a) To protect and preserve archaeological nonuments as listed in the Sites and Monuments Record (SMR), Record of Monuments and Places (RMP) and the Wreak Inventory of Ireland Database (WIID). All sites can be accessed on the Historic Environment Viewer (www.archaeologysis of Ireland. (c) To preserve the charcheological Interest. (d) Cort City Council will have regard to the relevant national statutory policies and guidelines, including Frameworks and Principles for the Protection of the Archaeological Heritage and to Best Practice Guidance docum

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		Objective 8.3 The Value of Archaeological Knowledge To require that all appropriate archaeological excavation should be undertaken to the highest possible standards and the information made publicly available. The acquisition and dissemination of knowledge is a core principle for the protection of the archaeological heritage of the city. Cork City Council will endeavour to ensure public dissemination through publications and the information will be the service of the protection of the archaeological heritage of the city.
		and public lectures. Objective 8.4 Protection of the Medieval Historic Core
		(a) Where development is proposed within the medieval historic core a policy of minimising the impact on the archaeological resource will be promoted. Any proposed development will be assessed on the level and amount of undisturbed archaeology present on the site.
		 (b) Cork City Council/ will seek to protect Cork's medieval street pattern, and in particular, seek to conserve and enhance the laneways within the setting of the streetscape. (c) Development proposals will seek to retain historic building lines and traditional plot widths where they derive from medieval origins. The physical integrity of the medieval core should be respected through the retention of plot sizes which can be achieved by the refurbishment of existing buildings.
		Objective 8.5 Protection of Cork's Medieval City Wall and Defences (a) Cork City Council will ensure preservation in-situ of the Medieval City Wall and Defences and will have regard to the preservation and enhancement of the line of the City Wall when considering development proposals in its vicinity. Disturbance, removal and alteration of the line of the City Wall will not be permitted. An appropriate buffer zone between the City Wall and the development will also be required.
		(b) Cork City Council will seek to improve public awareness and increase knowledge and appreciation of the medieval city walls. Objective 8.6 Protection of burial Grounds
		Cork City Council will seek to preserve and enhance burial grounds and their settings. Development in and adjacent to these areas will be limited. Where former burial grounds are in use as amenity spaces then their retention for passive recreational use will be required. Objective 8.7 Industrial Archaeology
		Cork City Council requires that all development proposals for industrial buildings and sites of industrial archaeological importance be accompanied by an archaeological assessment of the building(s) and their surrounding environment. Retention and/or incorporation of industrial buildings will be encouraged. Where in exceptional circumstances demolition is permitted, a detailed building report will be required.
		Objective 8.8 Underwater Archaeology Cork City Council requires that all development proposals which will impact on marine, riverine, lacustrine, intertidal/sub-tidal environments, and areas of former reclaimed land, shall be
		subject to appropriate archaeological assessment. Objective 8.9 Preservation of archaeology within open space in developments
		In development proposals where archaeological remains is to be retained in-situ the archaeology will be protected, safeguarded and, where suitable, be interpreted in an accessible manner. Where the archaeology being preserved in located in open space, then this will be in addition to the overall open space provisions.
		Objective 8.10 Archaeological Management Strategy for the City (a) Cork City Council will seek to prepare and implement conservation and management plans for National Monuments and Recorded Monuments in Cork City Council Ownership.
		 (b) Cork City Council will seek to develop an archaeological strategy for the city, to include management and protection of strategic research locations. (c) Cork City Council will seek to develop an archaeological Strategy for the city, to include management and protection of strategic research locations.
		(d) Cork City Council will seek to ensure that the tourism strategy within medieval historic core and in area/setting of historic monuments should draw on its archaeological heritage and should reflect a strong and authentic sense of place.
		Objective 8.11 Strategic Arts and Culture Objective
		 (a) To celebrate Cork as a city of culture and to support the further development of Cork as a centre for arts, culture and creativity. (b) To grow Cork's cultural capacity by retaining and attracting creative practitioners to live and work in Cork.
		(c) To support the continued advancement, participation and collaboration of arts and cultural services through the implementation of the forthcoming Cork City Arts Strategy (2021 – 2025).
		 (d) To creatively engage citizens in shaping Cork's cultural identity through implementation of the Creative Cork Strategy 2018 – 2022 and its successors. (e) To protect and enhance the cultural amenities of the city including the conservation, protection and enhancement of Cork City's natural, built and cultural heritage. (f) To ensure the preservation and promotion of the cultural identity of Cork's urban and rural city neighbourhoods. Objective 8.12 Cork as a City of Culture
		To celebrate Cork as a city of culture and to support the further development of Cork as a centre for arts, culture and creativity; Cork City Council will aim to further expand and improve on the provision of such facilities and consider cultural provision in development management.
		Objective 8.13 Cork's Cultural Capacity To grow Cork's cultural capacity by retaining and attracting creative practitioners to live and work in Cork. To this end Cork City Council will seek to: (a) Ensure that cultural facilities are not lost from existing buildings in redevelopment proposals i.e. where the redevelopment of sites/buildings which include an existing cultural facility is proposed that this facility is replicated/re-housed in the new development.
		 (b) Support the development of vacant premises and sites in the City Centre for arts and cultural uses. (c) Support the development of infrastructure for artists including spaces for artists to live, work and exhibit. (d) Ensure the retention and facilitation of artistic/design based educational institutions in the City, recognising the role of third level education institutions, including UCC and MTU, in

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		Objective 8.14 Cork City Arts Strategy
		To support the continued advancement, participation and collaboration of arts and cultural services through the implementation of the Cork City Arts & Culture Strategy 2022 - 2026.
		Objective 8.15 Creative Cork Strategy
		To creatively engage citizens in shaping Cork's cultural identity through implementation of the Creative Cork Strategy 2018 – 2022 Cork City Council will seek to:
		(a) Invest in long term engagement in creative collaboration.
		(b) Recognise youth culture as a creative force and an art form for Cork City.
		 (c) Creatively engage our citizens in Archaeology, built, natural and cultural heritage. (d) Creatively use our public space for our communities through one large scale cultural public event each year.
		(e) Recognise Cork City as an intercultural city.
		(f) Recognise the contribution of Cork creatives to Cork's identity as a city of culture.
		Objective 8.16 Arts and the Public Realm
		To ensure that the nurturing of the arts and associated services is part of the planned development of Cork City and its urban and rural neighbourhoods, in line with the 15 minute city
		concept and to enhance the cultural use of public realm spaces, Cork City Council will:
		(a) Stimulate cultural activity in Cork's public spaces including greater use of empty premises and outdoor spaces.
		(b) Prioritise high-quality, design-led approaches to public realm enhancement.
		(c) Provide for cultural and family uses in planning of public realm development projects.
		(d) Observe principles of placemaking in public realm development projects.
		(e) Implement the Arts Strategy for Cork Docklands Public Realm as part of the Docklands Development
		(f) Protect and enhance built heritage through development for cultural uses where necessary, appropriate and feasible.
		(g) Continue to promote and encourage the provision of public art in large scale developments, in public parks and other public spaces.
		(h) Ensure that all construction projects undertaken by Cork City Council which are supported by Government funding are considered for the 'Per cent for Art' Scheme.
		(i) Ensure a good distribution of artistic and creative spaces and events across the walkable neighbourhoods areas identified in Chapter 2.
		Objective 8.17 Conservation of the City's Built Heritage
		(a) To seek to ensure the conservation of Cork City's built heritage.
		(b) To ensure that Cork's Built Heritage contributes fully to the social and economic life of the city and to pursue actions that ensure Cork's built heritage will benefit from good
		custodianship and building occupation. Objective 8.18 Reuse and Refurbishment Historic Buildings
		(a) The City Council will actively encourage the re-use of historic buildings in the interests of conservation and environmental sustainability to minimise waste and optimise on the
		embodied energy in existing buildings.
		(b) Uses which will have a minimal impact on the character of historic structures will be encouraged.
		(c) Alterations will adhere to best practice conservation standards.
		(d) The reinstatement of lost features and removal of unsympathetic additions will be encouraged where appropriate.
		(e) It is recognised that the protection and retention of historic buildings within the medieval city, has the dual advantage of protecting the rich archaeological resource and the
		Recorded Monument of the City Wall.
		Objective 8.19 Record of Protected Structures
		To maintain a Record of Protected Structures (RPS) which shall include structures or parts of structures which are of special architectural, historical, archaeological, artistic, cultural, scientific
		social or technical interest, and which it is an objective to protect.
		(a) Any changes or alterations to the character of a Protected Structure which would in the opinion of Cork City Council, have a material effect on the character of the structure, will
		require planning permission.
		(b) Cork City Council will have regard to the relevant statutory guidance issue by the central government department responsible for the built heritage, including the Architectural
		heritage protection, guidelines for planning authorities.
		(c) Proposals for demolition of a Protected Structure shall not be permitted except in exceptional circumstances and where it can be shown that a greater public interest will be served
		which outweighs the loss to the architectural heritage.
		(d) Any alteration or demolition of a Protected Structure shall require the preparation of a full drawn and photographic record to Best Conservation Practice.
		(e) A broad range of uses will be considered for the regeneration / reuse of protected structures that are derelict / unederutilised.
		(f) Where the planning authority accepts the principle of demolition a detailed written and photographic inventory of the building will be made and sent to the Cork City and County
		Archives and the Irish Architectural Archive for record purposes. (g) Where a planning application is being granted for development within the curtilage of a Protected Structure, the conservation of the protected structure will be prioritised as the
		(g) Where a planning application is being granted for development within the curtilage of a Protected Structure, the conservation of the protected structure will be prioritised as the first phase of the development to prevent endangerment, abandonment and dereliction.
		Objective 8.20 Historic Landscapes
		Cork City Council will ensure that the designated and undesignated historic landscapes and gardens throughout the city are protected from inappropriate development and enhanced where
		possible.
		Objective 8.21 Enabling Development
		To allow for the enabling of development Cork City Council will consider permitting the following, notwithstanding the zoning objectives of the area:
		(a) The restoration of a Protected Structure, or other buildings of architectural or other merit, currently in poor condition, to conservation best practice for any purpose compatible

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		 with the character of the building. (b) The consensation of a Protected Structure or other building of architectural or other merit, independently of its current condition for a range of potential uses such as tourism, social, cultural amenity as a priority, or housing and business uses as a secondary potential use, in cases where, in Cork City Council's opinion, that the converted building is capable of functioning as an important additional tourist attraction or facility, and the use is compatible with the character of the building. (c) Cork City Council will promote by whatever means its compatible with the character of the structure or site. Dolective 3.2 National Inventory of Architectural Heritage (NIAH) Cork City Council will have regard to Ministerial recommendations to the City Council to consider the designation of the buildings and gardens listed in the National Inventory of Architectural Heritage as Protect groups of buildings, or by whatever other means the Council considers will most after the architectural heritage of the City. These Ministerial Recommendations will be taken into account when the Cork City Council so considers will most after designation of Protected Structures, by the adoption of Architectural Conservation Areas to protect groups of buildings, or by whatever other means the Council considers will most after the architectural heritage of the Eight Recommendations, groups of buildings and historic areas. Objective 3.23 Development in Architectural Conservation Areas should have regard to the following: (a) Works that impact negatively upon features within the public realm, such as stone sets, cobbles or other historic paving, railings, street furniture, stone kerbing etc. shall not be generally partited. (b) Design and detailing that responds respectfully to the historic environment in a way that contributes new values from our own time. This can be achieved by considering layou
Landscape	Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	the Heritage Council. Objective 6.9 Landscape (a) To preserve and enhance Cork's landscape character, key landscape assets and views and prospects of special amenity value. (b) Landscape will be an important factor in all development proposals, ensuring that a proactive view of development is undertaken while maintaining respect for the environment and heritage generally in line with the principle of sustainability. (c) To ensure that new development meets the highest standards of placemaking, siting and design. (d) To protect those prominent open hilltops, valley sides and ridges that define the character of the Cork City Hinterland and those areas which form strategic, largely undeveloped gaps between the main Hinterland settlements from development. (e) To discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments. (f) To support, as appropriate, any relevant recommendations contained in the National Landscape Strategy for Ireland 2015-2025. Objective 6.10 City Landscape Strategy Cork City Council will undertake a City Landscape Strategy during the life of this Plan to ensure that the management of development throughout the City will have regard for the value of the landscape, its character, distinctiveness and sensitivity. Objective 6.11 Landscape and Development To ensure that the management of development throughout Cork City will have regard for the value of the landscape, its character, distinctiveness and sensitivity in order to minimize the<

Торіс	Potentially Significant Adverse Effect, if Unmitigated	Recommendations integrated into the Plan, included in:
		visual and environmental impact of development, particularly in designated areas of high landscape value where higher development standards (layout, design, landscaping, materials) are required.
		Objective 6.12 Landscape Preservation Zones To preserve and enhance the character and visual amenity of Landscape Preservation Zones through the careful management of development. Development will be considered only where it safeguards the value and sensitivity of the particular landscape and achieves the respective site-specific objectives, as set out in Tables 6.6-6.10. Objective 6.13 Areas of High Landscape Value
		To conserve and enhance the character and visual amenity of Areas of High Landscape Value (AHLV) through the appropriate management of development, in order to retain the existing characteristics of the landscape, and its primary landscape assets. Development will be considered only where it safeguards to the value and sensitivity of the particular landscape. There will be a presumption against development where it causes significant harm or injury to the intrinsic character of the Area of High Landscape Value and its primary landscape assets, the visual amenity of the landscape; protected views; breaks the existing ridge silhouette; the character and setting of buildings, structures and landmarks; and the ecological and habitat value of the landscape.
		(a) To protect the strategic panoramic, linear, river prospect or scenic route views identified in this Plan and ensure that development proposals do not have an undue detrimental
		impact on these views.
		(b) Development proposals will be assessed against their impact on the designated view if it falls within the foreground, middle ground or background of that view. New development should not harm, and where possible should make a positive contribution to, the characteristics and composition of the designated views and their landmark elements. It should also preserve or enhance viewers' ability to recognise and to appreciate Strategically Important Landmarks in these views.
		(c) Development proposals that could affect a designated view should be accompanied by an assessment that explains, evaluates and justifies any visual impact on the view affected. The scoping process for determining whether a development proposal is likely to affect a designated view should be completed in consultation with Cork City Council. The assessment should demonstrate that the proposal is consistent with the relevant objectives of this Plan. The assessment should form part of a design statement or townscape and visual impact assessment submitted with a planning application.
		(d) Development in the foreground and middle ground of a designated view should not be overly intrusive, unsightly or prominent to the detriment of the view. Most designated views are seen in a 120 degree field of view. It is not expected that the view outside of this field of vision should be assessed unless specified by Cork City Council.
		(e) Strategic and local landmark buildings will need to be considered in the scoping of views to identify the potential impacts of development proposals. Objective 6.15 Development on Scenic Routes
		(a) To protect the character of those views and prospects obtainable from scenic routes identified in this Plan.
		(b) To require those seeking to carry out development in the environs of a scenic route to demonstrate that there will be no adverse obstruction or degradation of the views towards and from vulnerable landscape features. In such areas, the appropriateness of the design, site layout, and landscaping of the proposed development must be demonstrated along with mitigation measures to prevent significant alterations to the appearance or character of the area.
		(c) To encourage appropriate landscaping and screen planting of developments along scenic routes which provides guidance in relation to landscaping.
		Objective 8.20 Historic Landscapes Cork City Council will ensure that the designated and undesignated historic landscapes and gardens throughout the city are protected from inappropriate development and enhanced where possible.

Section 3 Environmental Report and Submissions/ Observations

3.1 Introduction

This section details how both the Environmental Report and submissions and observations made to Cork City Council on the Environmental Report and SEA process have been taken into account during the preparation of the Plan and the SEA.

3.2 SEA Scoping Notices and Submissions

As part of the scoping process for preparation of the Plan, environmental authorities⁴ were notified that a submission or observation in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to the Council.

Submissions were made by:

- Department of Agriculture, Food and the Marine;
- Department of Environment, Climate and Communications (one from the Geological Survey Ireland and one from the Inland Fisheries Ireland);
- Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media; and
- Environmental Protection Agency.

The issues raised in these submissions and how these issues have been taken into account during preparation of the Plan and the SEA are provided on Table 3.1 below. Taking into account these submissions included integrating environmental considerations into the Plan, including through the selection of Plan provisions identified on Table 2.2).

⁴ The following authorities were notified (the names of some of the authorities have changed since notification was provided as a result of changes in Ministerial responsibilities across Departments): Environmental Protection Agency; Department of Environment, Climate and Communications; Department of Agriculture, Food and the Marine; Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media; Department of Housing, Local Government and Heritage; and Cork County Council.

Ref.	Issue raised in submission	SEA Response
1. Depa		
1A	 Where SEA scoping indicates potential impacts on sea-fisheries and the marine environment, the following information should be taken into account in the SEA. Relevant Legislation, Plans and Policies Foreshore Acts 1933 to 2011 Aquaculture Acts 1997 to 2006 (Fisheries (Amendment) Act 1997 and amendments) Sea Fisheries and Maritime Jurisdiction Act 2006 and Sea-Fisheries Regulations Fisheries Natura Plans and Declarations made under European Union (Birds and Natural Habitats) (Sea-fisheries) Regulations 2013 (online at http://www.fishingnet.ie/sea-fisheriesinnaturaareas/natura2000sitesundermanagement/) National Seafood Operational Programme (EMFF requirement) and National Strategic Plan for Aquaculture (CFP requirement) currently under preparation for 2014 – 2020 Food Harvest 2020 Harnessing Our Ocean Wealth – the national integrated marine plan for Ireland Implementation of pollution reduction programmes for designated shellfish waters (Shellfish Waters Directive 2006/113/EC) Classified Shellfish Production areas (classified for food safety and consumer protection purposes under Regulation (EC) No 854/2004) National Climate Change Adaptation Framework – particularly sector adaptation plans (including marine) due to undergo consultation in 2014. 	The Draft Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, sea fisheries and the marine environment. The documents cited in the submission will be addressed as relevant in the SEA Environmental Report.
18	 Issues for consideration In the development of any Plans or Programmes due consideration should be given to: Potential impacts, both positive and negative, on marine environmental quality including potential impacts on designated Shellfish Growing Waters. Examples include, but are not limited to the following: increased sedimentation; re-suspension of contaminants; discharge of contaminants; and introduction of non-native or invasive species. Potential impacts, both positive and negative, on the microbiological quality of shellfish in Classified Shellfish Production areas Potential impacts on human health resulting from the placing on the market of microbiologically contaminated shellfish Potential impacts on commercially important fish and shellfish stocks, licensed aquaculture sites and areas of importance for fish / shellfish and fisheries e.g. spawning grounds, nursery areas Potential impacts on freshwater aquaculture operations including the requirement for water abstraction and capacity of the receiving waters to assimilate discharges Future designations of areas of importance to the Aquaculture and Fisheries Sector Relevant EU Directives and National Legislation in the area of Marine Spatial Planning 	Impacts on marine environmental quality are encompassed by the scope of the SEA, including as detailed under Section 3 of the SEA Scoping Report. The information provided in this part of the submission will be referred to as relevant by the SEA. The SEA will seek to ensure that the Plan contributes towards the protection and management of marine environmental quality.
10	Potential Impacts on Sea-Fisheries and Aquaculture Major land-use changes can significantly impact the quality of the marine (particularly coastal) environment (e.g. sedimentation, hydrographic change, impacts on benthic eco-system, etc). All aspects of the seafood sector rely on safe high-quality water and assessment of potential impacts on water quality should include the seafood sector. To guarantee food safety the growing waters must attain certain standards. This is of relevance to the fishing and aquaculture sectors. In freshwater aquaculture (on land) a continuity of supply is important to ensure animal welfare and quality. Water supplies in this instance are sourced from rivers, wells and occasionally from mains supplies. The seafood processing sector also requires a safe and reliable water supply to support its operations. Designated shellfish waters are very important to the shellfish sector in Ireland working to maintain standards in product safety and quality and enabling sale for direct consumption from many areas, reducing production costs and contributing to the good international reputation of the products. The role of filter-feeding shellfish as a nutrient sink thus helping to reduce eutrophication potential and improve water quality is also important to consider in assessments.	The information provided in this part of the submission will be referred to as relevant by the SEA. The SEA will seek to ensure that the Plan contributes towards the protection and management of marine environmental quality.
1D	Sources of Marine Data Details of designated shellfish growing areas which are protected by law (2006/113/EC) are available at: http://www.environ.ie/en/Environment/Water/WaterQuality/ShellfishWaterDirective/ Details of Classified Shellfish Production areas (classified for food safety and consumer protection purposes under Regulation (EC) No 854/2004) are available on the Sea-Fisheries Protection Authority website: http://www.sfpa.ie/ The Marine Institute publishes a range of corporate reports, scientific and technical reports, peer reviewed articles and conference papers which are relevant to the SEA process. These can be found on the Marine Institute website: http://www.marine.ie/Home/publications or Marine Institute Open Access Repository. Relevant reports and on line GIS include: Shellfish Stocks and Fisheries Review 2011: An Assessment of Selected Stocks Atlas of Commercial Fisheries Around Ireland Atlas of Commercial Discarding Ireland's Marine Atlas	Available online resources, including mapping resources, have been considered in the preparation of the SEA Scoping Report and will be considered throughout the SEA process.

Ref.	Issue raised in submission	SEA Response	
	Information on the Initial Assessment of Ireland's marine waters, required under the Marine Strategy Framework Directive, is available at http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/		
1E	 Who to Consult With DAFM – Policies, plans and legislation concerning sea-fisheries and aquaculture SFPA – Competent Authority for Seafood Safety (classifications, monitoring and sanitary surveys) and Sea-fisheries Control Marine Institute – Fisheries and Marine Environment BIM – Seafood Development Agency Consideration should also be given to consulting directly with the seafood sector. This may include regional inshore fisheries forums, Fisheries Local Action Groups, fisheries representative bodies, including producer organisations, local advisory committees, associations, co-operatives; seafood processors; aquaculture representative bodies, etc. 	Notice has also been given to relevant environmental authorities as part of the SEA scoping process.	
2. Sub	mission from the Department of the Environment, Climate and Communications (from the	Geological Survey Ireland)	
2A	Geoheritage We are pleased to see the two County Geological Sites within Cork City will be afforded protection in the Cork City Development Plan.	Noted.	
2B	If you require any further information and assistance, please feel free to contact the Geoheritage Programme.	Availability of GSI staff is noted.	
2C	Groundwater We are pleased to see the risks to groundwater and soils highlighted with regard to brownfield site development and commend Cork City Council's commitment to ensure adequate site investigations are undertaken and appropriate mitigation measures are carried out to prevent any soil and groundwater contamination. With regard to Flood Risk Management, there is a need to identify areas for integrated mitigation and management and we note reference within the SEA scoping report to the OPW datasets on flooding in Section 3.5.2. We would encourage use of our GWFlood tools found under our programme activities (in conjunction with OPW data) to this end.	Noted. The GWFlood tools will be accessed, as relevant, for reference throughout the SEA/SFRA process.	
2D	Geohazards We welcome the inclusion in Section 3.4 Soil, for consideration of use of Geological Survey Ireland's online mapping data sets for Landslide Events and Landslide Susceptibility.	Noted.	
2E	Marine and Coastal Unit We note reference to coastal flooding and erosion in Sections 3.5.2 Flooding and 3.6.2 Climatic Factors. The Marine and Coastal Unit manage coastal monitoring programmes providing data on coastal erosion and sea level rise including the Climate, Heritage and Environments of Reefs, Islands and Headlands (CHERISH) and the Coastal Vulnerability Index (CVI) mapping projects. We would encourage use of our Marine and Coastal Unit datasets available on our website and Map Viewer within the Development Plan.	Noted. Reference to the GSI's Marine and Coastal Unit's coastal erosion and sea level rise data is now given in this updated SEA Scoping Report, following public display.	
2F	I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact *GSI*	Availability of GSI staff is noted.	
3. Sub	mission from the Department of the Environment, Climate and Communications (from Inla	nd Fisheries Ireland)	
3A	Inland Fisheries Ireland (IFI) was formed on July 1, 2010 following the amalgamation of the Central Fisheries Board and the seven former Regional Fisheries Boards into a single agency. Inland Fisheries Ireland is responsible for the protection, management and conservation of the inland fisheries resource across the country. Ireland has over 70,000 kilometers of rivers and streams and 144,000 hectares of lakes all of which fall under the jurisdiction of IFI. The agency is also responsible for sea angling in Ireland. IFI is mandated to ensure that the fisheries of the State are protected. To protect means to keep safe, defend, to shield from danger, injury or change. "Fisheries" includes all inland fisheries recreational and commercial, sea angling and mollusc fisheries stipulated under the Fisheries Acts, the physical habitat upon which the fishery relies, the facilities and access, the quantity and quality of the water and the plant and animal life on which fish depend for shelter and food and the spawning areas where in fish deposit their eggs. The protective role of IFI relates to all aspects of the aquatic environment and all factors that influence the biotic communities within waters, which in any way relate to the propagation of fish stocks. IFI is of the view that the Development Plan in considering the protection of the quality of the aquatic environment, hydrological processes and biodiversity. Protection of the aquatic environment must address not only water quality but also include the protection of the physical environment, hydrological processes and biodiversity. Protection genome serious than dramatic discharges which result in instantaneous fish kills, because sub-lethal pollution may reduce growth, inhibit reproduction functions or so alter the habitat as to render it uninhabitable for certain more desirable species. Maintenance of habitat is a particularly important objective of fisheries autorities. It entails a greater knowledge of the environmental responses of aquatic life to pollution/envir	Noted. The scope of the SEA as detailed under Section 3 of the SEA Scoping Report encompass these issues. The SEA will seek to ensure that the Plan contributes towards the protection and management of physical habitat and hydrological processes/regimes.	

Ref.	Issue raised in submission	SEA Response
	systems be protected on a catchment basis. The Development Plan must recognise that protection of the aquatic environment/habitat not only requires the protection of water quality but also necessitates the protection and maintenance of physical habitat and hydrological processes/regimes.	
3B	Water Quality and Municipal Sewage Treatment Infrastructure Sufficient treatment capacity must be available both within the receiving sewerage systems locally and downstream of waste water treatment plants over the full duration of the plan in order that the ecological integrity of the ultimate receiving waters are protected. IFI would highlight the importance of building a comprehensive and robust assessment of both local infrastructural needs and Local Authority capacity to meet those needs into the plan. Should particular WWTPs fail to provide expected capacities during the life of the plan, IFI would highlight the risk of associated significant environmental impacts which may result from local development. The Planning and Development Act 2000 requires that the plan must "be consistent as far as possible with National Plans, Strategies and Policies which relate to proper planning and sustainable development". The policy of granting planning permissions for developments with associated increased loading on inadequate or already overloaded municipal sewage treatment plants is clearly not a sustainable practice. Taking account of the adverse effects of increased wastewater discharges on the general well being and quality of rivers, Inland Fisheries Ireland considers that in areas where treatment facilities necessary for development is premature or the developer should be constrained by an appropriate condition requiring that connections to sewer will not be permitted until sewage works upgrading is completed and operational. In suitable locations a developer could be required to install a package treatment plant capable of providing full secondary treatment for a proposed development until such time as the Council's sewage works upgrading and expansion is completed and operational.	Noted. The scope of the SEA as detailed under Section 3 of the SEA Scoping Report encompass these issues. The SEA will seek to ensure that the Plan requires new development to be adequately and appropriately served by water services.
3C	Water Quality and Integrated Constructed Wetlands (ICWs): IFI welcomes the installation of systems intended to treat wastewaters and improve the quality of discharges to the environment. Such wetland systems must in our view be designed by engineers and scientists, and installed and operated under their supervision. We would expect that wetland systems should satisfy the criteria detailed in the November 2010 publication "Department of the Environment, Heritage and Local Government, Integrated Constructed Wetlands, Guidance Document for Farmyard Soiled Water and Domestic Wastewater Applications". Integrated Constructed Wetlands (ICWs) must be viewed as an adjunct to good agricultural practice and not as a low cost way of getting rid of farm waste. Farmers must firstly be required to provide safe and secure storage for animal manures, slurries, silage effluent, dairy wastes and soiled waters. Such materials should be regarded as a resource to be reused and recycled in accordance with DAFF recommendations and guidelines. In accordance with good practice, clean water from roofing systems and yards should be kept out of effluent and waste holding facilities so as to ensure efficient use of such containment facilities. Good management practices also minimises the areas of farmyard which become soiled and contaminated. Due to the extensive size and water demands of ICWs it may be necessary to consider the implications could have implications for assimilative capacity in the watercourse subject to the abstraction. Indeed, abstractions for assimilative capacity in the watercourse subject to the abstraction. Indeed, abstractions for the aquatic habitat, fish stocks and consequently the ecological status of watercourses in terms of the Water Framework Directive (WFD). It is important that a precautionary approach is taken from a policy perspective as it is a requirement under the WFD that the ecological status and water quality of all waters are protected and where	Noted. This information will be referred to as relevant by the SEA. The SEA will consider the potential significant environmental effects that might arise from implementation of the Plan, including those related to water services and associated abstractions.
3D	 <u>necessary improved.</u> Aquatic Habitat Protection (including protection of Riparian Habitat): A policy in relation to aquatic habitat protection should be included in the Development Plan. Protection of the aquatic environment has to date been generally addressed on an ad-hoc basis under planning control/legislation. The current planning regulations do not sufficiently address issues of watercourse protection and management. The impacts of some developments on the aquatic environment may only become apparent in the long term. Developments such as road and bypass development, urbanisation, flood relief, afforestation, river drainage have caused and are causing major disturbances to the physical habitat. "Development" can require that extensive sections of watercourses be drained, altered and diverted, flood plains may be modified to accommodate housing and industrial development, impermeable surface areas in towns and on motorways have increased giving rise to increased runoff, and smaller streams and rivers have been culverted to accommodate development. The Council under the terms of the EU Water Framework Directive (WFD) (2000/60/EC) is legally obliged to protect the ecological status of river catchments and channels. Therefore consideration has to be given to other factors including flow, drainage, dams, bank erosion, quality of instream vegetation and riparian habitat etc. The impacts of development when not policy driven or environmentally managed are numerous, i.e. destruction of instream habitats, interference with fish spawning and nursery areas, obstruction of fish passage, removal of angling pools, changes in flow regimes. The above is an indication of some effects on fisheries which can be caused by development. The destruction of riparian areas along river banks results in fragmentation of riparian habitat within the river corridor, loss of cover for fish and aquatic animals and can further reduce the value of waterways as amenity value	Noted. The scope of the SEA as detailed under Section 3 of the SEA Scoping Report encompass these issues. This information will be referred to as relevant by the SEA. The SEA will seek to ensure that the Plan contributes towards the protection and management of water resources and associated aquatic habitats, including riparian habitat.

Ref.	Issue raised in submission	SEA Response
	the natural environment, when a stream or river which has existed forever in a locality with its own habitat, wildlife etc. is allowed to be covered over and in effect lost forever. The disparity which currently exists must be acknowledged, e.g. a Tree Preservation Order will provide for the protection of a single mature oak tree in an area while in that same area permission may be given to culver to cover over a stream or river. IF requests that such disparity be addressed within the Development Plan. It is essential that watercourses be maintained in an environmentally and aesthetically sensitive manner for future generations to cherish and protect. To insure that impacts from development/change in land use practices (including flood plain development) do not interfere with the aquatic environment it is essential that those areas adjacent to waterways (riparian buffer zones) are managed in a mamer which will lessen impacts to these habitats. A riparian/buffer zone is a vegetated area near a stream, which helps shade and partially protect a stream from the impact of adjacent land uses. It is a discrete ecological and geographical entity. It is the point of contact between the land (i.e. the terrestrial ecosystem) and the freshwater body (i.e. the aquatic ecosystem). It plays a key role in protecting/improving water quality in associated watercourses (streams, rivers, and lakes), thus providing environmental benefits. With the decline of many aquatic ecosystem due to development (both urbanisation and agricultural production), riparian buffers have become a common conservation measure aimed at improving water quality and besening politoin impacts. The riparian/buffer zone must be sufficiently wide to protect the watercourse. Riparian buffers in addition to water quality to behits benefits in terms of providing shade, enhancing instream diversity (overhanging vegetation creates inches and supplies invertebrates and leaf-litter into the aquatic zone) and help end on factors such as land use, land topography (e.g.	
3E	Invasive Species The Development Plan should include policies to ensure that developments do not lead to the spread of invasive species. Invasive species may drive local native species to extinction via competitive exclusion, niche displacement or hybridisation with related native species. For example, Himalayan balsam, Giant hogweed and Japanese knotweed compete with native bank vegetation undermining banks resulting in increased erosion and siltation of fish spawning beds. Giant Hogweed is also a human health hazard. Zebra mussels and Asian clam compete with fish alter the water chemistry of a waterbody, they can also mask the effects of eutrophication/enrichment. Invasive species can transform habitats and endanger whole ecosystems with serious implications for the environment and the economy. An example of a proactive policy in this regard would be to prohibit invasive species from inclusion in landscape design proposals. Landscaping proposals etc. should require the use of native species from local stock. See www.invasivespeciesireland.com	Noted. The SEA will seek to ensure that the Plan includes provisions that contribute towards the management of invasive species.
3F	River Crossing Structures The impacts of poorly designed river/stream crossing structures can be serious in terms of habitat loss. Prevention of the free upstream migration of fish species such as Salmon, Trout and Lamprey effectively results in the loss of spawning habitat upstream of the barrier to migration. This could have serious implications for the populations of fish species concerned and contravenes the legal obligation under the WFD to protect the ecological status of river catchments and channels. Indeed, it is an offence under the Fisheries Acts to prevent the free	Noted. The SEA will seek to ensure that the Plan includes provisions that contribute towards the protection of aquatic habitats and species.

Ref.	Issue raised in submission	SEA Response	
	passage of fish. When structures are being designed for crossing fisheries waters, consideration must be given to the following biological criteria: species of fish required to safely pass; size of fish required to pass (life stage); time of year in which fish passage is required; and high and low design passage flows etc. Bridges and bottomless culverts have the least impact on fish passage. IFI recommends that the Plan should include a clear policy on the use of clear span structures where possible on fisheries waters and that IFI should be consulted on any such proposed developments.		
3G	Water Conservation The Development Plan is an opportunity to promote policies and awareness of water conservation which may ultimately result in a reduction in water use. Water conservation and water use efficiency are central elements of any strategy to enhance water supply reliability, restore ecosystems, and respond to climate change and changing demographics. Significant increases in water conservation and water use efficiency will be required to ensure reliable water supplies in the future. Best practice should be promoted in respect of water conservation in all developments through methods such as rain water harvesting. Another problem which is particular to summer months (when river/stream flows are often low) is wide scale unregulated water abstraction for crop irrigation. This practice may have significant ecological implications/impacts if large volumes of water are abstracted over a short period of time from small fish nursery or spawning streams. Such abstractions during dry weather or drought periods could have severe repercussions for aquatic habitats, fish stocks and accordingly the ecological status of watercourses in terms of the Water Framework Directive (WFD). Accomplishing water conservation and water use efficiency goals will require action by all water users, including residential, commercial, industrial and agricultural water users, local and regional planning agencies, state agencies, chambers of commerce, and business, commercial and industrial professional and trade unions/associations.	Noted. The SEA will seek to ensure that the Plan includes provisions that contribute towards the conservation of water resources and efficiency of use.	
ЗН	Sustainable Urban Drainage Systems (SUDS) The requirement for the inclusion of SUDS for surface water disposal is a positive indicator of the Council's intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Such a design should be included in all development design proposals.	Noted. The SEA will seek to ensure that the Plan includes provisions that requires the implementation of SUDs where relevant.	
31	 Management Policies River Management Policies should be an integral part of any development programme and all waterways within the area considered as a natural resource requiring protection and development. The following mechanisms for protection of the aquatic environment could be considered for inclusion in Area Strategic Management: River Corridor Management Areas which provide for the protection and development of the aquatic environment (particularly within towns and cities). Special Preservation Orders provided for specific habitats in need of protection e.g. an Aquatic Protection Order. Special Amenity Areas, identified for their potential as Linear Parklands along waterways. Within the context of the Plan, a watercourse could be assessed in relation to its existing aesthetic, amenity and recreational value, its potential for improvement and protection and the requirements to achieve this potential i.e. control of further physical interference, water quality deterioration, access, community participation etc. Rivers and watercourses are assets which provide a basis for the development of visual and amenity features of the areas through which they flow. In housing and industrial site planning they provide a feature around which landscape design and development can be based. They can provide a focus for the involvement of the communities in the protection of water quality and the biological/wildlife diversity of aquatic habitats of fish bearing importance or of amenity value. Therefore, the reliance of the Development Plan on these area designations solely will exclude significant numbers of waterways which are in need of protection. 	Noted. The SEA will seek to ensure that the Plan includes provisions that contribute towards the management of rivers and protection and management of all aquatic habitats as relevant and appropriate.	
33	 watercourses and associated riparian habitats. A Sustainable Development Plan and the Environment: In determining the likely significant effects of plans or programmes, regard should be given to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Consideration should be given to potential significant impacts on:	In determining the likely significant effects of plans or programmes, the SEA will consider issues relating to the sustainable development of the inland and marine fisheries resource. These issues are encompassed by the scope of the SEA as detailed under Section 3 of the SEA Scoping Report. The SEA will seek to ensure that the Plan contributes towards environmental protection and management of aquatic biodiversity and associated water resource.	

Ref.	Issue raised in submission	SEA Response
	 Promote the integration and improvement of natural watercourses in urban renewal and development proposals. Encourage Local participation in urban and rural renewal. Include provision for consultation with IFI on developments which may impact on the aquatic environment. 	
4. Sub Unit)	mission from the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (fr	om the Development Applications
4A	The following is the submission of the Department, in response to SEA Scoping request for the review of Cork City Development Plan. Please see also the previous submission from the Department in response to the Issues Paper, which should be read in conjunction with this submission. The following are some important issues, but by no means all the issues, which need to be addressed in the SEA and Habitats Directive Appropriate Assessment.	Noted.
48	 Potentially significant positive effects of the proposed plan 1. Effects of objectives and policies which promote the management and protection of the Lee Valley and Cork Harbour as environmental resources for the City, and the protection of semi-natural habitats in these areas as part of sustainable recreation and biodiversity enhancement. 2. Effects of objectives and policies which promote the use and demonstration of practical silt-reducing mechanisms for runoff water in both urban, sub-urban and rural development projects, such as SUDS, stone-constructed silt traps, silt barriers between drainage and watercourses, etc. 3. Effects of objectives and policies which promote biodiversity awareness, management and monitoring in high recreational value areas, while ensuring avoidance of disturbance or damage to wildlife as part of that access. 4. Effects of objectives and policies which promote the increase in native treeplanting and establishment of native woodland. 5. Effects of objectives and policies which promote sustainable development in the context of the National Biodiversity Plan and All-Ireland Pollinator Plan. 	The recognition of potentially significant positive effects that might arise from the proposed Plan, depending on Plan content, is welcomed. The SEA will seek to ensure that the Plan contributes towards the protection and management of biodiversity and flora and fauna. The SEA and AA, as relevant, will take account of the issues raised and will identify the likely significant effects of implementing the Plan.
4C	 Potentially significant negative effects of the proposed plan 1. Effects of objectives and policies which increase loadings to the Carrigrennan WWTP discharges on intertidal mudflat ecosystems within Great Island Channel cSAC/SAC (1058) and Cork Harbour SPA (4030). 2. Indirect effects of objectives and policies to further develop low-lying areas of the city (quays and near Lough Mahon) via the long-term need for further tidal protection measures (e.g. coastal rock-armouring, tidal flow control) on the estuarine habitats of Cork Harbour SPA and Great Island cSAC. 3. Effects of objectives and policies to develop riparian areas on water quality in rivers and disturbance of river life, including effects of inevitable recreational pressure from nearby new housing developments. 4. Effects of flood relief objectives and policies, which result in large volumes of construction and demolition waste to be disposed of, on infilling of coastal areas within Cork Harbour SPA. 6. Effects of objectives and policies for new and upgraded greenways, blueways and tourist trails, on target species in designated sites, and on protected species, especially where such projects may be locally developed by organisations unfamiliar with ecological assessment requirements. 	The potentially significant negative effects identified that might arise from the Plan, depending on Plan content, is noted. The SEA will seek to ensure that potentially significant negative effects on biodiversity and flora and fauna are mitigated. The SEA and AA, as relevant, will take account of the issues raised and will identify the likely significant effects of implementing the Plan.
4D	Scoping Report The Scoping Report is almost comprehensive in that it covers many of the conservation issues in the City, but omits mention of vascular protected species (Footnote 12, p. 6). The scope should also include birds of conservation concern, especially urban-nesting species such as swift (see, for example http://www.swiftconservation.ie/wpcontent/ uploads/2020/11/The-Common-Swift-High-Intensity-Lighting.pdf).	Noted. Reference to vascular protected species and birds of conservation concern, especially urban-nesting species such as swift, are now acknowledged in this updated SEA Scoping Report, following public display.
4E	The Department recognises that the assessment (SEA and AA) process is on-going as the plan develops. For previous City Development Plans it has been useful to discuss elements of the draft plan and assessments prior to it going out for public consultation. NPWS staff are available for such discussions for this plan;	Noted. Comments provided in the SEA Scoping Submission will be taken into account while undertaking the SEA and AA. Availability of NPWS staff is noted.
5. Subi	mission from the Environmental Protection Agency	
5A	The EPA is one of five statutory environmental authorities under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.	Noted.
5B	As a priority, we focus our efforts on reviewing and commenting on key sector plans. For land use plans at county and local level, we provide a 'self-service approach' via the document 'SEA of Local Authority Land Use Plans – EPA Recommendations and Resources'. We refer you to our previous Scoping submission, dated 14th August 2020, which contains a number of environmental consideration and we again enclose this along with our guidance document for your convenience. We recommend that you take both into account in preparing the Plan and SEA.	The 'SEA of Local Authority Land Use Plans – EPA Recommendations and Resources' document and the previous submission made by the EPA have both been considered in the preparation of this SEA Scoping Report and will be kept on file for reference throughout the SEA process.
5C	In preparing the Plan, Cork City Council should also ensure that the Plan aligns with key relevant higher-level plans and programmes and is consistent with the relevant objectives and policy	The National Planning Framework, the Regional Spatial and Economic

Ref.	Issue raised in submission	SEA Response	
	commitments of the National Planning Framework and the Regional Spatial and Economic Strategy for the Southern Region.	Strategy for the Southern Region and other relevant plans and programmes will be considered as part of the preparation of the Plan and associated environmental assessments, as relevant.	
5D	Available Guidance & Resources Our website contains various SEA resources and guidance, including: - SEA process guidance and checklists - Inventory of spatial datasets relevant to SEA - topic specific SEA guidance (including <i>Good practice note on Cumulative Effects Assessment</i> (EPA, 2020), Guidance on SEA Statements and Monitoring (EPA, 2020), <i>Integrating climatic factors into SEA</i> (EPA, 2019), <i>Developing and Assessing Alternatives in SEA</i> (EPA, 2015), and <i>Integrated Biodiversity Impact Assessment</i> (EPA, 2012)) You can access these resources at: www.epa.ie/monitoringassessment/assessme	These resources and guidance have been considered in the preparation of this SEA Scoping Report and will be accessed, as relevant, for reference throughout the SEA process.	
5E	Environmental Sensitivity Mapping (ESM) Webtool The ESM Webtool is a new decision support tool to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to explore environmental considerations within a particular area and create plan-specific environmental sensitivity maps. These maps can help planners anticipate potential land-use conflicts and help identify suitable development locations, while also protecting the environment. The ESM Webtool is available at www.environmap.ie.	The ESM Webtool has been considered in the preparation of the SEA Scoping Report and will be considered throughout the SEA process, where relevant.	
5F	EPA SEA WebGIS Tool Our SEA WebGIS Tool has been updated recently and is now publicly available at https://gis.epa.ie/EPAMaps/SEA. It allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area It is intended to assist public authorities in SEA screening and scoping exercises.	Available online EPA resources, including mapping resources, have been considered in the preparation of the SEA Scoping Report and will be considered throughout the SEA	
5G	EPA WFD Application Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. The Application is accessed through EDEN https://wfd.edenireland.ie/ and is available to public agencies. Publicly available data can be accessed via the Catchments.ie website.	and AA processes.	
5H	EPA AA GeoTool Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to a select a location, specify a search area and gather available information for each European Site within the area. It is available at: http://www.epa.ie/terminalfour/AppropAssess/index.jsp		
51	State of the Environment Report – Ireland's Environment 2016 In preparing the Plan and SEA, the recommendations, key issues and challenges described within our most recent State of the Environment Report Ireland's Environment - An Assessment 2016 (<i>EPA, 2016</i>) should be considered, as relevant and appropriate to the Plan. We also refer you the imminent publication of a new EPA State of the Environment Report, which when available, should also be taken into account in preparing the Draft Plan.	The recommendations, key issues and challenges described within the current version of Ireland's Environment (2020) will be considered in the preparation of the Plan.	
53	Transition to a low carbon climate resilient economy and society You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, as well as relevant sectoral, regional and local adaptation plans.	The SEA will seek to ensure that the Plan aligns with national commitments on climate change and adaptation, as well as relevant sectoral, regional and local adaptation plans.	
5К	 Environmental Authorities Under the SEA Regulations, you should also consult with: The Minister for Housing, Planning and Local Government, The Minister for Agriculture, Food and the Marine, and the Minister for the Environment, Climate and Communications, where it appears to you as the competent authority that the plan or programme, or modification to a plan or programme, might have significant effects on fisheries or the marine environment, and any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan. 	Notice has also been given to relevant environmental authorities as part of the SEA scoping process.	

3.3 Submissions on the Environmental Report for the Draft Plan

Various submissions were made on the Draft Plan, Proposed Material Alterations and/or associated environmental assessment documents while these documents were on public display.

Updates made on foot of submissions include:

 To add the following subsection to SEA Environmental Report Section 7 "Evaluation of Alternatives":

"7.4 Selected Alternatives

The selected alternative for the Draft Plan that was placed on public display was Alternative 3 "Compact Liveable Growth Scenario".

However, various alterations (see Section 8.4), were adopted as part of the final Plan that were previously advised against for planning and environmental reasons, meaning that the final, adopted Plan is a mix of Alternatives 1 and 3. These alterations would not provide the most evidence-based framework for development and have the potential to undermine sustainable development and proper planning."

• To add the following subsection to SEA Environmental Report Section 7 "Evaluation of Alternatives":

"7.5 Reasons for Selecting Chosen Alternatives "The selected alternatives for the Plan are indicated above. These alternatives have been incorporated into the Plan having

- regard to both: 1. The environmental effects which are identified by the SEA and are detailed above; and
- Planning including social and economic - effects."
- To update the SEA Monitoring Programme at Section 10 of the SEA Environmental Report to qualify a number of sources and indicators and to identify that monitoring reports will be made publicly available.
- To update the environmental protection and management provisions contained in the Draft Plan to take account of submissions and to

update the SEA, AA and SFRA Reports to take account of these changes, including in relation to flood risk management, land use zoning and natural heritage provisions.

For further information on how submissions were considered, refer to the Chief Executive's Report on submissions received on the Draft Plan and associated documents and the Chief Executive's Report on submissions received on the Proposed Material Alterations and associated documentation – both available at https://www.corkcity.ie/.

All parts of the Plan-preparation process were informed by the SEA, AA and SFRA processes this includes the preparation of the Chief Executive's Draft Plan, Members' Amendments to that Plan in advance of public display, Proposed Material Alterations and Further Modifications. The mitigation integrated into the final, adopted Plan includes that identified in Section 9 of this report.

3.4 SEA documents including SEA Environmental Report

The Draft Plan and accompanying documents (including SEA Environmental Report and AA and SFRA documents) were placed on public display, having integrated various recommendations arising from the SEA, AA and SFRA processes.

Responses to submissions made during the period of public display of a Draft Plan were integrated into a Chief Executive's Report and considered by Cork City Council. A number of material alterations were proposed after public display of the Draft Plan. The Proposed Material Alterations were subject to Screening for SEA and AA and a selection of Alterations were subject to SEA and Stage 2 AA.

On adoption of the Plan, the Environmental Report was placed on public display alongside the Draft Plan is updated to become a final Environmental Report that is consistent with the adopted Plan, taking into account all changes that were made to the original Draft Plan that was placed on public display.

Section 4 Summary of Alternatives considered

4.1 Introduction

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

Based on the outputs of Cork City Capacity Study and other relevant supporting documents that directly informed the preparation of the Plan, Cork City Council have identified three alternatives from an initial sift of the following four options:

- 1. City Wide Growth Strategy
- 2. Transport Orientated Development no.1 (applying narrow walking bands)
- 3. Transport Orientated Development no.2 (applying wider walking bands)
- 4. Compact Liveable Growth

Option 2 has been discounted as this scenario is over reliant on the delivery of the light rail transport in the City, which is currently at the initial stage of design (route selection process). The construction and delivery of the light rail transport is a long-term project (post-2031) within the Cork Metropolitan Area Transportation Study (CMATS).

Cork City Council assessed the three remaining alternatives for the Plan, to determine whether or not they are available and appropriate.

4.2 Description of Alternatives Considered

Alternative 1: City Wide Growth

This alternative applies the densities allowable under the existing land uses zonings set out in the Cork City Development Plan 2015-2022 and the relevant zonings in the Cork County Municipal District Local Area Plans (2017). As such the alternative combines Cork City Councils and Cork County Councils current land use planning approach to the recently extended City Council area.

This scenario gives a full understanding of the current land use planning approach for the current Cork City administrative area, as extended on May 2019. The yields from all extant planning permissions are accounted for. Where no extant planning permission exists an average density, assumption has been applied based on the relevant land use zoning objective.

Alternative 2: Transport Orientated Development

This alternative focuses on the key transport routes and land use areas identified in the Cork Metropolitan Area Transportation Strategy (CMATS). A Transport Orientated Development approach is applied to future land use planning, by maximising the provision of housing, employment, public services and leisure space within close proximity to existing and future transport nodes (e.g. rail and/or bus) that are serviced by frequent, high quality services.

This alternative applies different densities at different locations, as appropriate; with higher densities where sustainable transport mode opportunities are planned for (e.g. light rail transport route). The yields from all extant planning permissions are accounted for.

Alternative 3: Compact Liveable Growth

This alternative seeks to develop Cork City as a compact, sustainable city of scale and the regional driver of growth by creating sustainable, liveable, integrated communities and neighbourhoods while ensuring that at least half (50%) of all new homes are delivered in the existing built up footprint.

A tiered approach to land use zoning us applied ensuring that new homes are provided at appropriate densities in brownfield and infill locations and in greenfield locations within and contiguous to existing City footprint.

4.3 Summary of Assessment and Selected Alternative

Having carried out a spatial assessment of the implications of the Plan that would be provided for by **Alternative 1 "City Wide Growth Scenario"** and the other alternatives, taking account of the higher-level NPF and Southern RSES objectives and the need to comply with the densities set out in Ministerial Guidelines, including those related to the Sustainable Residential Development in Urban Areas (2009) and Urban Development and Building Heights (2018), the Council confirm that Alternative 1 "City Wide Growth Scenario" as applied, would contribute towards proper planning, environmental protection and management and sustainable development to a significant degree less than Alternatives 2 and 3. The scenario allows for significant expansion into the existing city hinterland through the provision of low to medium densities. This scenario does not maximise the significant potential to deliver more appropriate densities to further justify the objective and projects identified in CMATS, particularly the light rail transport. Due to the extent of expansion proposed, this scenario also has greater potential negative impacts in terms of climate change, green and blue infrastructure management, the need for new physical and social infrastructure and the successful delivery of a compact, vibrant city of neighbourhoods.

Having carried out a spatial assessment of the implications of the Plan that would be provided for by Alternative 2 "Transport Orientated Development Scenario" and the other alternatives, taking account of the higher-level NPF and Southern RSES objectives and the need to comply with the densities set out in Ministerial Guidelines, including those related to the Sustainable Residential Development in Urban Areas (2009) and Urban Development and Building Heights (2018), the Council confirm that Alternative 2 "Transport Orientated Development Scenario" as applied, would contribute towards proper planning, environmental protection and management and sustainable development to a significant degree less than Alternative 3. The scenario achieves compact growth by focusing future development within areas that are highly accessible to frequent public transport services. The scenario is particularly successful in delivery high densities that can be used to justify the delivery of an LRT for the city in a shorter time frame than is set out in CMATS (post 2031). The compact nature of growth proposed also helps mitigate potential impacts in terms of climate change, green and blue infrastructure management and the reduced need for new physical and social infrastructure. However, this scenario is less successful in enhancing the existing wide range of neighbourhoods and towns to create a vibrant city of neighbourhoods. This scenario also primarily focuses on delivering higher density living, requiring an immediate and significant shift away from current average housing densities delivered in Cork City over the last 20 years.

Having carried out a spatial assessment of the implications of the Plan that would be provided for by Alternative 3 "Compact Liveable Growth Scenario", taking account of the higher-level NPF and Southern RSES objectives and the need to comply with the densities set out in Ministerial Guidelines, including those related to the Sustainable Residential Development in Urban Areas (2009) and Urban Development and Building Heights (2018), the Council confirm that Alternative 3 "Compact Liveable Growth Scenario" as applied, would contribute towards proper planning, environmental protection and management and sustainable development more than Alternatives 1 and 3. The scenario achieves compact growth by primarily focusing future development within strategic sites, such as City Docks, sites located within the rich existing network of neighbourhoods, urban towns and hinterland settlements in the city and a number of expansion sites adjoining the city. The scenario focuses on developing areas accessible to frequent public transport services, delivering a range of increased densities that justify the delivery of an LRT, BusConnects routes and the Greenways as set out in CMATS. The compact nature of growth proposed also helps mitigate potential impacts in terms of climate change, green and blue infrastructure management and the reduced need for new physical and social infrastructure. This scenario is successful in enhancing the existing wide range of neighbourhoods and towns to create a vibrant city of neighbourhoods. The increased densities proposed in this scenario are challenging, requiring a stepped shift away from current average housing densities delivered in Cork City over the last 20 years.

4.4 Selected Alternatives for the Plan

The selected alternative for the Draft Plan that was placed on public display was Alternative 3 "Compact Liveable Growth Scenario".

However, various alterations (see Section 2.2), were adopted as part of the final Plan that were previously advised against for planning and environmental reasons, meaning that the final, adopted Plan is a mix of Alternatives 1 and 3. These alterations would not provide the most evidence-based framework for development and have the potential to undermine sustainable development and proper planning.

4.5 Reasons for Selecting Chosen Alternatives

The selected alternatives for the Plan are indicated above.

These alternatives have been incorporated into the Plan having regard to both:

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

Section 5 Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Plan.

Monitoring can both demonstrate the positive effects facilitated by the Plan and can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

The occurrence of significant adverse environmental effects not predicted and mitigated by this assessment, which are directly attributable to the implementation of the Plan, would necessitate consideration of these effects in the context of the Plan and potential remediation action(s) and/or review of part(s) of the Plan.

5.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in the main SEA Environmental Report and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions. Given the position of the Development Plan in the land use planning hierarchy beneath RSES, the measures identified in the RSES SEAs, including the Southern RSES SEA, have been used - as they are or having been slightly modified - in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 5.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

Monitoring is an ongoing process and the programme allows for flexibility and the further refinement of indicators and targets.

The Monitoring Programme may be updated to deal with specific environmental issues – including unforeseen effects – as they arise.

5.3 Sources

The Plan forms part of the wider land use planning framework comprising a hierarchy of policies, plans, programmes, etc. This wider framework, including the National Planning Framework and the Southern RSES, is subject to its own SEA (and associated monitoring) requirements. At lower tiers of the hierarchy, Local Area Plans and individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme the Council will take into account this hierarchy of planning and environmental monitoring.

Sources for indicators may include existing (including monitoring databases those maintained by planning authorities and national/regional government departments and agencies) and the output of lower-tier environmental assessment and decision making (including a review of project approvals granted and associated documents and the output of any EIA monitoring programmes).

5.4 Reporting and Responsibility

As included in Chapter 2 Core Strategy:

"The Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out the in SEA Environmental Report and Statement. This will include the preparation of stand-alone SEA Monitoring Reports:

> 1. To accompany the report required of the manager under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of

implementation of the development plan;

2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan."

Reporting will seek to address the indicators set out on Table 5.1. The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports (reports will be made available to the public) and, if necessary, the carrying out of remedial action.

Environmental	SEO Code	Indicators	Targets	Sources	Remedial Action
Component					
Biodiversity, Flora and Fauna	BFF	• Condition of European sites	 Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, the City's Heritage and Biodiversity Plan 	 DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years)⁵ DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years)⁶ Consultations with the NPWS⁷ 	 Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		 Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted 	 Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, the City's Heritage and Biodiversity Plan 	 Internal review of local land use plans 	Review internal systems
		 SEAs and AAs as relevant for new Council policies, plans, programmes etc. Status of water quality in the 	 Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc. Included under Water below 	Internal monitoring of preparation of local land use plans Included under Water below	Review internal systems Included under Water below
		City's water bodies Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 6 "Green and Blue Infrastructure Open Space and Biodiversity"	• For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 6 "Green and Blue Infrastructure Open Space and Biodiversity"	 Internal monitoring of likely significant environmental effects of grants of permission⁸ 	Review internal systems

⁵ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

⁶ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

⁷ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

⁸ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Population and Human Health	PHH n	 Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy and Employment" 	 For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 4 "Economy and Employment" By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets) 	 Internal review of progress on implementing Plan objectives Consultations with DECC 	 Review internal systems Consultations with DECC
		 Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan 	 No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan 	Consultations with the Health Service Executive and EPA	 Consultations with the Health Service Executive and EPA
		 Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures 	 Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures 	 CSO data Monitoring of Cork City Council's Climate Change Adaptation Strategy 2019-2024 	 Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.
		 Number of spatial plans that include specific green infrastructure mapping 	 Require all local level land use plans to include specific green infrastructure mapping 	Internal review of local land use plans	Review internal systems
Soil (and Land)	S	 Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets) 	 Maintain built surface cover nationally to below the EU average of 4% as per the NPF In accordance with National Policy Objectives of the National Planning Framework, a minimum of 50% of the housing growth targeted in the City is to be delivered within the existing built-up footprint To map brownfield and infill land parcels across the City 	 EPA Geoportal Compilation of greenfield and brownfield development for the DHLGH AA/Screening for AA for each application 	 Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
		 Instances where contaminated material generated from brownfield and infill must be disposed of 	Dispose of contaminated material in compliance with EPA guidance and waste management requirements	 Internal review of grants of permission where contaminated material must be disposed of 	 Consultations with the EPA and Development Management
		 Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission 	 Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission 	• Internal monitoring of grants of permission	Review internal systems

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Water	w	 Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD 	 Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' Implementation of the objectives of the River Basin Management Plan 	• EPA Monitoring Programme for WFD compliance ⁹	 Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
		 Number of incompatible developments permitted within flood risk areas 	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	 Internal monitoring of likely significant environmental effects of grants of permission 	 Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	 Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan 	 All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan Where individual on-site wastewater treatment systems are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the individual on-site wastewater treatment system will not – in- combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health 	 Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Irish Water DHLGH in conjunction with Local Authorities 	 Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.
		 Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures 	• Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	 CSO data Monitoring of Cork City Council's Climate Change Adaptation Strategy 2019-2024 	 Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.

⁹ Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available. CAAS for Cork City Council

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action	
Air	A	 Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% NOx, SOx, PM10 and PM2.5 as part of Ambient Air Quality Monitoring 	 Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter 	 CSO data Data from the National Travel Survey EPA Air Quality Monitoring Consultations with Department of Transport and Department of Environment, Climate and Communications 	 Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above 	
Climatic Factors ¹⁰	С	 Implementation of Plan measures relating to climate reduction targets 	 For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets 	 Internal monitoring of likely significant environmental effects of grants of permission 	Review internal systems	
		A competitive, low-carbon, climate-resilient and environmentally sustainable economy	 Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050 	 Monitoring of Cork City Council's Climate Change Adaptation Strategy 2019-2024 EPA Annual National Greenhouse Gas Emissions Inventory reporting Climate Action Regional Office Consultations with DECC (at monitoring evaluation) 	 Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions. 	
		 Share of renewable energy in transport 	 Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan 			
		 Carbon dioxide (CO₂) emissions across the electricity generation, built environment and transport sectors 	• Contribute towards the target of aggregate reduction in carbon dioxide (CO ₂) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors			
			 Energy consumption, the uptake of renewable options and solid fuels for residential heating 	 To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating 		
		 Proportion of journeys made by private fossil fuel-based car compared to 2016 levels 	• Decrease in the proportion of journeys made by residents of the City using private fossil fuel-based car compared to 2016 levels	 CSO data Monitoring of Cork City Council's Climate Change Adaptation Strategy 2019-2024 	 Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions. 	
		 Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures 	 Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures 	 CSO data Monitoring of Cork City Council's Climate Change Adaptation Strategy 2019-2024 	• Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.	

¹⁰ Please also refer to relevant legislation and requirements under Section 4.10, Section 8.6, Section 8.8.5 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically and include those under the headings of Electricity, Built Environment, Transport, Agriculture, Forestry & Land Use and Enterprise. CAAS for Cork City Council 38

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Cultural Heritage	СН	 Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan 	 Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan 	 Internal monitoring of likely significant environmental effects of grants of permission 	 Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Council will work with the Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		 Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan 	 Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan 	Consultation with DHLGH.	
Landscape	L	 Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, resulting from development which is granted permission under the Plan 	 No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, resulting from development which is granted permission under the Plan 	 Internal monitoring of likely significant environmental effects of grants of permission 	 Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re- examine Plan provisions and the effectiveness of their implementation