Comhairle Contae Fhine Gall Fingal County Council







STRATEGIC ENVIRONMENTAL ASSESSMENT STATEMENT

FINGAL COUNTY COUNCIL

**CLIMATE CHANGE ACTION PLAN 2019-2024** 

**JULY 2019** 

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#### 1 Introduction

Fingal County Council (FCC) approved the Fingal Climate Change Action Plan 2019-2024 (CCAP) at the council meeting on Monday 13th 2019.

The main purpose of the SEA Statement is to provide information on the decision-making process, to document how environmental considerations, the views of statutory consultees and other submissions and the recommendations of the SEA Environmental Report and Natura Impact Statement, have been taken into account in the CCAP, as well as monitoring arrangements.

This SEA Statement includes the following information:

- •Summary of how environmental considerations have been integrated into the CCAP (Section Two)
- •Summary of how submissions received during consultation have been taken into account in the CCAP (Section Three);
- •Reasons for choosing the recommended development scenario, in the light of other reasonable alternatives considered (Section Four);
- •Measures that are to be undertaken to monitor the significant environmental effects of implementing the CCAP (Section Five).

# 2 Summary of how Environmental Considerations and the SEA Environmental Report have been integrated into Fingal CCAP 2019-2024.

#### 2.1 Introduction

The purpose of this section is to present a summary of how environmental considerations and consultation have informed the plan preparation process. Legislation and guidance relating to SEA recommends that the process of plan preparation, SEA and Appropriate Assessment (AA) should be integrated and prepared in an iterative process to facilitate the ongoing assessment and evaluation of environmental considerations during plan preparation. A multi-disciplinary team worked on the SEA and AA elements of the plan. Key tasks associated with the SEA were as follows:

**TABLE 1 STAGES IN SEA** 

Stage of SEA	Plan
Stage 1 Screening	Screening is the first stage of SEA to determine if the plan requires full SEA. The SEA Regulations state that SEA is mandatory for certain plans while screening for SEA is required for other plans that fall below the specified thresholds. Given the scale, nature and extent of the CCAP, as well as the finding of likely significant effects identified by the Screening Statement in support of Appropriate Assessment, the CCAP progressed to the next stage of SEA – Scoping.
Stage 2 Scoping	The purpose of the SEA Scoping report is to identify the scope of the SEA and ensure that relevant data and environmental topics are included in the SEA. The Scoping report was issued to the statutory environmental authorities consultees in December 2018 for comment.
Stage 3 Environmental Report	The Environmental Report tells the story of the draft CCAP and how environmental considerations have been addressed and included during the preparation process.  The appropriate assessment is also discussed in the Environmental Report. This report was the main consultation document of the SEA process and was on display alongside the plan along with supporting reports. The Draft CCAP, SEA ER and Natura Impact Statement were on public display for a six week period during February - March 2019.
Stage 4 SEA Statement- current stage	This stage is the final output of the SEA process and tells the story of the SEA process. It has been prepared now the CCAP is finalised and approved.

# 2.2 Baseline Data, Geographical Information System and environmental sensitivity mapping.

The baseline data assists in describing the current state of the environment, facilitating the identification, evaluation and subsequent monitoring of the effects of the plan. It helps identify existing environmental problems in and around the plan area and in turn these can be quantified (for certain environmental parameters) or qualified. This highlights the environmental issues relevant to each SEA parameter and ensures that the plan implementation does not exacerbate such problems. Conversely this information can also

be used to promote good environmental practices and opportunities for environmental enhancement, thereby improving environmental quality where possible.

Baseline data was gathered for all parameters. Other data was gathered from the SEA ER of the Fingal County Development Plan 2017-2023, baseline research undertaken by Codema, Irish Water, the EPA, Met Eireann and other sources as appropriate.

The SEA has also used a Geographical Information System (GIS) in the following ways:

- To provide baseline information on a range of environmental parameters;
- To assist in assessment of alternatives;
- To help assess in-combination or cumulative impacts, and
- To provide maps to illustrate environmental parameters in the SEA Environmental Report.

#### 2.3 Mitigation

Mitigation involves ameliorating significant negative effects. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts or where this is not possible, to lessening or offsetting those effects. Mitigation measures can be generally divided into those that:

- Avoid effects;
- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

The iterative process of the CCAP preparation has facilitated the integration of environmental considerations into the formulation, layout and text of the plan. In addition, potential positive effects of implementing the plan have been and will be maximised and potential adverse effects have been and will be avoided, reduced or offset.

Many impacts will be more adequately identified and mitigated at CCAP action implementation, masterplan, project and EIA level. In general terms, all proposals for development will be required to have due regard to environmental considerations outlined in this Environmental Report and associated assessments. Proposals for development which are deemed contrary to the environmental objectives contained in the Fingal CDP 2017-2023 will not normally be permitted, and if permitted, will be developed with specific mitigation measures.

The CCAP has been prepared having regard to the policies and objectives outlined within the Fingal CDP 2017-2023. The environmental protection measures for the CDP 2016-2022 are included in the SEA ER. The SEA ER (Chapter Nine) has the full list of mitigation measures.

## 2.3.1 Mitigation Measures-

The following table presents the mitigation measures recommended for the CCAP from the SEA and Appropriate Assessment process. Subject to minor amendments, these were included in the Fingal CCAP 2019-2024 as approved. The final recommendations and text is provided below in Table 2.

**Table 2 Mitigation Measures** 

Overarching measure	An integrated approach to	YES
New measure – for consistency	decision making in relation to	113
with DLR and DCC	these climate change actions is	
With belt and bee	recommended.	
New Measure – again for	Consider the feasibility of	No. The Council has a
consistency with the three	preparation of an Integrated	significant workload in years 1-
other DLAs	Coastal Zone Management Plan	3 of the Action Plan. This issue
Other DLAS	that addresses natural and	will be considered in the annual
	cultural heritage and aligns	review of the Plan Actions in
	_	
	with the Marine Spatial	May 2020.
	Planning Directive	
	Work with other Dublin Local	No. The Council has a
	Authorities to update DLA	significant workload in years 1-
	urban drainage and flooding	3 of the Action Plan. This issue
	policies for current knowledge	will be considered in the annual
	of flood risk and the latest best	review of the Plan Actions in
	practice in drainage design	May 2020.
	promoting natural flood	
	measures as a priority	
Flood Resilience Action 8	Develop template to capture	YES
	impacts, response and costs	
	(including ecosystem	
	services/natural capital costs)	
	for all major climate events	
Preamble to Flood Defence	The following flood defence	YES
actions	will incorporate nature based	
	solutions and biodiversity	
	enhancement measures where	
	possible	
Nature Based Solutions Action	Map access to green space in	YES
4	County to identify areas of	
	need and integrate green	
	infrastructure in access	
	considerations	
Action 8	Identify sites for woodland	YES
	planting that promotes an	
	appropriate native species mix	
Action 17	Prepare a heathland	YES
	management plan for Howth	
	with ecological input	
Action 18	Prepare a fire management	YES
	plan for heathland on Howth	

that includes environmental	
considerations	

### 3 Summary of how consultations were taken into account.

#### 3.1 Introduction

Throughout the preparation of the CCAP and the SEA ER, consultation was undertaken at key points in the process.

Further information is available in the following SEA Reports:

- SEA Scoping report issued December 2018
- SEA Environmental Report issued February 2019
- SEA advice on public submissions and Chief Executive's recommendations
- SEA commentary on Chief Executive's recommendations
- SEA and AA Screening on Chief Executive's recommendations.

The following section summarises key points and how they were addressed in the SEA and the CCAP 2019-2024.

### 3.2 Consultation on SEA- Scoping and Environmental Report

The purpose of the SEA Scoping report is to identify the scope of the SEA and ensure that relevant data and environmental topics are included in the SEA. The SEA ER accompanied the CCAP display period that took place over a six week period in February - March 2019. The table below summarises key points raised during the SEA Scoping Stage, and the SEA ER stage.

## **Table 3 Environmental Consultation-Scoping Stage**

Consultee Key Issue Raised	SEA Response	
Scientific Officer, SEA Section		
Office of Evidence and Assessment. Environmental Protection Agency, Regional Inspectorate, Inniscarra, County Cork		
We welcome the preparation of the Plan, which sets out a clear set of actions to be taken by Fingal County Council, in collaboration with other key stakeholders, over the next five years. The inclusion of clear targets will facilitate monitoring and reporting on the Plan implementation, which should in turn help to drive delivery.	Noted	
We recognise the fundamental importance of ensuring that the National Transition Objective is underpinned by a clean, healthy and well-protected environment. Considering this, it is important to develop and implement the Plan within the context of a wider and more integrated approach to environmental protection. The SEA should play a key role in ensuring that this is achieved and should inform decision-making around assessment and selection of actions and measures.	Noted, the SEA and AA have helped to inform plan preparation and please see Chapter 8 Mitigation in particular	
The SEA should also assist in identifying ways to maximise the potential co-benefits of climate-related measures for air quality, human health, biodiversity, water quality and other interrelated areas (i.e. win-win solutions).	Noted, in particular certain actions in each theme already provide co-benefits and the SEA has provided additional mitigation to further enhance certain actions please see CCAP and Chapter 8 Mitigation of this SEA ER	
A key role of SEA is in assessing and informing the selection and refinement of actions and measures that maximise the co- benefits of climate actions for the wider environment and society, should be highlighted in the SEA Report and the Plan.		
Relevant Plans and Programmes	Noted and agreed, in response to this comment the	
You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation. Actions and measures proposed should be consistent with the National Policy Position on Climate Action and Low Carbon Development, the National Mitigation Plan and the National Adaptation Framework, as well as considering any relevant	SEA ER included a table that highlights consistency with these plans and programmes and also provides a preliminary schematic to illustrate the hierarchy or plans and programmes.	

sectoral and regional adaption plans.	Please see Chapter 3.
We recommend including a flow diagram or/ schematic, illustrating where the Plan fits within the hierarchy of land-use, climate and related plans	
It would be useful to explain the relevance of the various plans listed in section 2 of the SEA Scoping Report to the CCAP, for example by way of an additional column. Reference to the Draft Regional Spatial Economic Strategy, currently at consultation, should be included.	Noted and agreed. Chapter 3 has been amended to provide this and a more detailed overview of key relevant plans and programmes is provided in Annex B of this SEA ER.
Greenhouse Gas Emissions  In preparing the Plan and SEA, the direct and indirect impacts of the Plan on greenhouse gas emissions and removals should be assessed. The Agency's most recent projections report Ireland's Greenhouse Gas Emissions Projections for 2017-2035 (EPA, 2018) should be taken into account.	Noted. With support from the Sustainable Energy Authority of Ireland (SEAI), Codema developed an energy and emissions baseline, which shows the current level of emissions and energy efficiency for both DCC's own operations and emissions for the whole of Dublin City. Consideration of significant effects in Chapter Seven of this SEA ER discusses this point.
The National Mitigation Plan (NMP) identifies 106 actions to decarbonise electricity generation, the built environment and transport and to move towards carbon neutrality for agriculture, forest and land use sectors. The Plan should integrate and align with the relevant actions in the NMP, as appropriate.	Noted, this SEA ER addresses this in Table 3 and shows where the Fingal County CCAP actions are consistent with the National Mitigation Plan. Please note that many of the actions in the National Mitigation Plan are identified at central government level rather than local authority.
Adaptation	Codema carried out an adaptation risk assessment
	on behalf of DCC, which identifies and assesses the
In preparing the Plan and SEA, you should consider how the impacts of climate change, individually and in combination, are likely to influence the implementation of the Plan.	current climate change risks facing Fignal. Research into people's attitudes and awareness was used in

of the plan. systems and procedures to the effects and variability of climate change. Recent extreme weather events could be useful to assist in identifying areas where for further work is needed to improve resilience, e.g. the resilience of critical water service infrastructure to flooding A key principle and stage of the CCAP relates to and drought. adaptation and responses to same. The Plan should include appropriate adaptation measures that can be implemented either directly or through relevant land use plans and/or specific plans e.g. Flood Risk Management Plans, Integrated Coastal Zone Management Plans etc. The Plan will also help inform local authority land use and transport planning within the county. Noted, this is highlighted in Chapter 4 Baseline as a Additional aspects to consider may include changes in native species and habitats and the key issue for biodiversity and human health spread of invasive species, pests and pathogens. EPA State of the Environment Report 2016 Noted and utilised in this SEA ER. Please see Chapter 3. The EPA published our most recent State of the Environment Report in 2016 'Ireland's Environment – An Assessment (EPA, 2016). The recommendations, key issues and challenges described within this report should be considered, as relevant and appropriate to the Plan area in preparing the Draft CCAP and associated SEA. This report can be consulted at: http://www.epa.ie/irelandsenvironment/stateoftheenvironmentreport/ Air quality Noted this is used in Chapter 4 Baseline Environment We welcome that the Plan will take into account the Draft National Clean Air Strategy (DCCAE), due to be finalised in 2019. Recent EPA reports on air quality should also be considered, in preparing the Plan and SEA. This includes the Air Quality in Ireland 2017 Report (EPA, 2018) which sets out the most recent status in each of the four air quality zones in Ireland. Data on levels of atmospheric pollutants from the EPA's national ambient air quality monitoring network (http://www.epa.ie/air/quality/monitor/), should also integrated as appropriate. The pollutants of most concern are traffic-related, including Particulate Matter

#### and Nitrogen Dioxide

Noise The Plan should take into consideration available noise action plans prepared within and adjacent to the Plan area. Noise action plans are designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The third round of noise mapping is currently underway in Ireland and will be completed in 2018. http://noise.eionet.europa.eu/help.html.

Noted and included in Chapter Four.

Noted

#### Available Guidance & Resources Climate

The EPA has published guidelines to support Local Authorities in developing local climate adaptation strategies (EPA, 2016). The DCCAE have incorporated this EPA guidance into national level Guidelines, to also assist local authorities prepare adaptation strategies. (DCCAE, 20185).

The 'Climate Ireland' website provides information, support and advice to help local authorities, sectors and government departments to adapt to climate change and includes a Local Authority Adaptation Support Wizard. It can be consulted at http://www.climateireland.ie/#/

Renewable Energy The recently published Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change (DHPCLG, 2017) should be taken into account, where relevant.

Water Quality 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

SEA Our website contains SEA resources and guidance, including: - SEA process guidance and Noted and used where appropriate in this SEA. checklists - list of relevant spatial datasets - topic specific SEA guidance, such as consideration of alternatives in SEA. You can access these resources at: http://www.epa.ie/pubs/advice/ea/

SEA WebGIS Search and Reporting Tool. The EPA SEA WebGIS Search and Reporting Tool is a GIS based web application that allows users to explore, interrogate and produce an indicative report on key aspects of the environment in specific geographic areas. This may be used to inform the SEA screening and scoping stages for Plans and Programmes with reference in the first instance to the land use sector, though it is also applicable to other sector plans. It may be accessed via www.edenireland.ie	Considered at SEA Screening stage of this CCAP.
State of the Environment Report – Ireland's Environment 2016 In preparing the Plan and SEA, the recommendations, key issues and challenges described within our State of the Environment Report Ireland's Environment – An Assessment 2016 (EPA, 2016) should be considered, as relevant and appropriate to the Plan. Opportunities for selecting 'win-win' solutions when developing climate-related measures, to address multiple environmental challenges (air, water etc.) should be prioritised.	Noted, please see Chapter 3 for review of this and how the SEA and CCAP relates to the State of the Environment Report.
	Noted, and agreed, where possible the preparation of the CCAP and SEA have sought to prioritize "win" actions.
Terence Loane, Future Planning Unit, Louth County Council	Noted

**Table 4 Submissions on SEA ER and CCAP** 

	Submissions on the Environmental Report	SEA and AA Response
Cian O'Mahon	y, Environmental Protection Agency (EPA)	
	Health related aspects It would be useful to include additional information on the potential health impacts of climate change (e.g. hot and cold extremes) and how they are to be addressed. The interactions with the health sectoral adaptation plan should also be discussed.	Chapters Four and Seven of the SEA ER will be expanded upon to highlight and discuss the health related aspects.
	SEA and Plan Integration  We recommend that consideration is given to including a subsection in the Plan, showing how the SEA has influenced its preparation. This would serve to clearly show the link between the Plan and SEA processes.	A section in the Final CCAP will be included that provides information on how the SEA and AA has influenced the plan process.
		Strategic Environmental Assessment (SEA) is a statutory process, involving the systematic evaluation of the likely significant environmental effects of implementing the new Climate Change Action Plan before a final decision has been made to adopt it. SEA applies to environmental assessment of plans and strategic actions that influence and set the framework for projects. The EU Directive on Habitats (92/43/EEC) (the Habitats Directive) as transposed into Irish law through the European Communities (Birds

Submissions on the Environmental Report	SEA and AA Response
	and Natural Habitats) Regulations
	2011 (S.I.477 of 2011) requires the
	assessment as to whether the
	implementation of a plan is likely to
	have significant effects on any
	Natura 2000 site(s).
	The CCAP was screened to determine
	whether it has any significant impact
	on any Natura 2000 site. This
	screening determined that stage 2
	Appropriate Assessment was
	required.
	It should be noted that whilst the AA
	is a statutorily separate process to
	the SEA, it is, in fact, a parallel
	process and as such the outcomes of
	the AA fed into and informed the
	SEA process outlined above.
	The SEA and AA processes have
	worked together to influence of plan
	preparation and the SEA process
	highlights where particular
	environmental sensitivities arise, and
	also make recommendations as to
	how proposed actions may be
	improved to increase their
	environmental performance.
	Proposed changes to the CCAP
	through the Chief Executives Report
	have been screened for SEA and AA
	to ascertain if likely significant

Submissions on the Environmental Report	SEA and AA Response
	environmental effects or significant effects on European sites would arise.  Both processes have identified additional mitigation measures for the CCAP and the SEA has also provided for a monitoring regime, which is included within this CCAP All mitigation measures identified for the CCAP through the SEA and AA process will be adhered to and implemented over the course of the plan.
Assessment of Alternatives We welcome that the EPA 'Developing and Assessing Alternatives in Strategic Environmental Assessment' (2015) guidance document has been considered in preparing and assessing alternatives. We also note the alternatives considered in the SEA, and the selection of the preferred alternative	Noted.
Additional Plan Considerations Irish Water's Draft National Water Resources Plan should be useful to refer to, in terms of ensuring security of drinking water supply within the Plan area, is also considered. This plan includes consideration of climate change impacts. Aligning adequate and appropriate critical service infrastructure and population / economic growth of the Dublin region is essential.	Noted and agreed. Chapters 4 and 7 of the SEA ER will be expanded in the material assets section to discuss this. Chapter 3 will include reference to the Draft National Water Resources Plan
The link between the Plan and the sectoral adaptation plans could also be expanded	Noted and agreed.

Submissions on the Environmental Report	SEA and AA Response
on. This would clarify the alignment between the plan and other higher level sectoral plan.	Chapter 3 of the SEA ER will expand upon this and the links to other high level sectoral plans where appropriate
Mitigation Measures	
We acknowledge the SEA recommendations, to improve the Plan in terms of integrating wider environmental considerations into the Plan. We note the recommendation to prepare and implement a coastal zone management plan for Dublin Bay. This should be prepared in collaboration with relevant stakeholders and consider the requirements of the SEA and Habitats Directives, as appropriate.	Noted, during the preparation of such a plan, the existing mitigation measures of the Fingal CDP will apply as listed and presented in Chapter 8 of the SEA ER.
In relation to the application of strategic urban drainage systems as part of flood risk management actions described, these should be supported by relevant monitoring and maintenance also to ensure they operate effectively over the lifetime of the Plan.	Noted. The SEA recommends that interval monitoring and maintenance of strategic urban drainage systems be undertaken.
Where the potential for likely significant effects is identified, appropriate mitigation measures should be recommended and implemented, to avoid or minimise these. You should ensure that the Plan includes clear commitments to implement these mitigation measures	Noted – it is recommended that as part of the text on the influence of the SEA and AA on the plan preparation, a specific commitment is included regarding mitigation measures and adherence to same. Please see the CCAP for this commitment as addressed in Point 2 SEA and Plan Integration above.

Submissions on the Environmental Report	SEA and AA Response
Monitoring The Monitoring Programme should be flexible to take account of specific environmental issues and unforeseen adverse impacts should they arise. It should consider and address the possibility of cumulative effects. Monitoring of both positive and negative effects should be considered. We welcome that the proposed SEA monitoring programme sets out the various data sources, monitoring frequencies and responsibilities. We recommend that the SEA Monitoring of environmental receptors, as set out in Table 12 (Chapter 9 - Monitoring) of the SEA, is incorporated into the Plan review to monitor how effectively environmental considerations are being implemented.	SEA recommends inclusion of the Monitoring Table in the final Plan.  The introduction to Chapter 9 monitoring of the SEA ER highlights additional monitoring in the event of unforeseen and cumulative effects arising.
Where possible, additional information on monitoring and indicators of the transition should be considered to ensure that resources continue to be appropriately directed and to help avoid unintended secondary adverse impacts	Noted, Given that the SEA monitoring table will provide environmental monitoring of the CCAP as well as annual monitoring of the CCAP, it is considered sufficient at this point to capture the transition based on annual monitoring of the action plan, supported by SEA monitoring.
The potential for environmental impacts of 'grey' and 'green' adaptation options will differ. Where 'grey' adaptation options are chosen / proposed to be implemented, these should be adequately mitigated for, to minimise potential adverse significant environmental effects.	Noted and agreed.  Mitigation Measures for 'grey' infrastructure will be highlighted in the Final SEA ER.
Should the monitoring identify adverse impacts during the implementing the Plan, Dublin City Council should ensure that suitable and effective remedial action is taken.	Noted, this statement is included in the SEA ER.

Submissions on the Environmental Report	SEA and AA Response
It is noted in Milestone 5 that the Plan will be monitored and updated on an annual basis, with a review and revision every 5 years. Any updates to the Plan, should be screened in the context of SEA and Appropriate Assessment requirements	Noted, this statement will be included in the final CCAP, see also proposed text below
Monitoring should capture the overall achievement of the actions set out in the Plan and the contribution to the overall combined actions and targets of the four local authority plans.	Noted.  It is recommended an additional text be provided to the above to highlight consistency with the requirements of the SEA Directive and reflecting the submission by the EPA, as follows:  Monitoring at local authority level is in line with current best practice such as EU Covenant of Mayor's approach. Each CCAP will be submitted to the Department of Communications, Climate Action and Environment. Under current obligations monitoring is adequately addressed in the CCAP and SEA. In addition, this may be premature in light of forthcoming Final Eastern Midland and Regional Spatial and Economic Strategy and upcoming Whole of Government Climate Action Plan.
Future Amendments to the Plan You should screen any future amendments to the Plan	Noted, and agreed. See above text

	Submissions on the Environmental Report	SEA and AA Response	
	for likely significant effects, using the same method of assessment applied in the "environmental assessment" of the Plan.	which addresses this point.	
	SEA Statement – "Information on the Decision" Once the Plan is adopted, you should prepare an SEA Statement that summarises: How environmental considerations have been integrated into the Plan; How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan; The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and, The measures decided upon to monitor the significant environmental effects of implementation of the Plan.	Noted, the SEA Statement will be prepared and issued upon adoption of the CCAP.	
	You should send a copy of the SEA Statement with the above information to any environmental authority consulted during the SEA process.	Noted and agreed.	
Dylan Potter , (	Geological Survey Ireland	<u> </u>	
	Geoheritage Information provided on Geoheritage data.		
	Groundwater With regard to Flood Risk Management, there is a need to identify areas for integrated constructed wetlands. We recommend using the GSI's National Aquifer and Recharge maps on our Map viewer to this end.	Noted, this will be highlighted in the SEA ER and	
	Urban Geology As the proposed developments take place in an urbanized environment, we suggest looking at our Urban Geology section on our website. Geological Survey Ireland produces urban geoscience data on a project basis, informing the areas of soil geochemistry and contamination, 3D modelling of ground conditions, and assessing ground motions that present a hazard to citizens in the urban environment. We also have a GeoUrban section to our Map Viewer which covers the Greater Dublin Area.	Noted-	
	Nature based solutions should be considered even in an urban environment. For		

Submissions on the Environmental Report	SEA and AA Response
example, an analysis of soil sealing could be done to determine levels of permeability in the Greater Dublin Area. We recommend using the GSI's Quaternary subsoil map and	
geotechnical database for this task.  Coastal Vulnerability  Vulnerability of the coast is intimately correlated to its characteristics and the intricate physical processes that intervene on its evolution. Strategies for coastal protection should include information from local to regional coastal vulnerability and impact assessments. Geological Survey Ireland is undertaking a new coastal vulnerability to sea-level rise mapping initiative. The maps produced in this project will aim to identify the coastal regions most likely to be affected by impacts of sea-level rise by using a coastal Vulnerability index (CVI) approach. Areas of assessment will include getting upto-date information on current state of coastal defences, records of areas of inundation during extreme events for validating models and access to quality controlled and publically available tide gauge records for Dublin Bay.  Management strategies for adaptation should be flexible and centred on monitoring the most vulnerable areas. Monitoring short and long-term responses in soft cliffs, such as shoreline and sediment volumetric changes is key to understand coastal behaviour and to validate forecasting models. The current ESA (European Space Agency) funded coastal erosion project (Coastal Change from Space), which GSI is a partner will extensively look at some of these issues over the next two years (2019-2021). This project will provide an intertidal extent model and shoreline extraction tools, will monitor sediment change in the near shore using primarily satellite derived	Noted. Reference to this data, modelling and the Coastal Change for Space research project will be included in the SEA ER
bathymetry, and quantify backshore to foreshore sediment volumetric change over the last 20 years for targeted areas.	
 ggan, BirdWatch Ireland	

Submissions on the Environmental Report	SEA and AA Response
5.0 Biodiversity Adaptation to Climate Change	Noted, the SEA ER Chapter Three will
Ireland's draft Biodiversity Sectoral Climate Change Adaptation Plan8 which is subject to public consultation until April 17 2019 states that 'Irish biodiversity is highly	reference the draft Biodiversity Sectoral Climate Change Adaptation
vulnerable to the impacts of climate change and has a low adaptive capacity compared	Plan along with any other required
to other vulnerable sectors. Climate change has major indirect impacts on Irish	updates.
biodiversity through its interaction with other stressors, in particular habitat	
fragmentation and loss; overexploitation; pollution of air, water and soil; and spread of	Chapter 4 of the SEA ER will restate
invasive species'. We would encourage that the local authority or CARO would review	this finding and highlight same as a
the final national biodiversity action plan when it is completed to ensure coherence	key issue and challenge.
between plans for the Greater Dublin Area with the national biodiversity adaptation	
plan.	
6.0 Waterbirds and Sea Level Rise	Noted.
In 2013 BirdWatch Ireland published a report on the Impacts of Sea-level Rise on the	These comments will be included in
Birds and Biodiversity of Key Coastal Wetlands9. The report assessed the level of risk	the final SEA ER.
posed to each of 52 waterbird species by increasing sealevels such that those risks are:	
o high for species with wholly coastal species distributions and which rely on intertidal	The mitigation measure proposed in
habitats (such as Shelduck Tadorna Knot Calidris canutus and Sanderling Calidris alba), to medium for species as above but that can feed in alternative locations, such as	relation to retrofitting of housing and swifts is recommended for inclusion
on grasslands (Light-bellied Brent Goose Branta bernicla hrota, Oystercatcher	in the CCAP.
Haematopus ostralegus and Black-tailed Godwit Limosa limosa) and for those with	in the contra
predominantly coastal distributions but which are localised in Ireland (Greenland	
White-fronted Goose Anser albifrons flavirostris and Bewick's Swan Cygnus	
columbianus bewickii), and too low for other waterbirds whose distributions are not	
restricted to the coast (e.g. Teal Anas crecca, Golden Plover Pluvialis apricaria and	
Lapwing Vanellus vanellus) or which occur predominantly in deeper water (e.g.	
Red-throated Diver Gavia stellata, Great Crested Grebe Podiceps cristatus, Cormorant	
Phalacrocorax carboand Common Scoter Melanitta nigra)	
In addition, the report states that 'Coastal sites are under increasing pressure from a	

Submissions on the Environmental Report	SEA and AA Response
range of anthropogenic sources such as human development, fisheries, aquaculture	
and human recreation. It is likely that these factors will operate cumulatively with the	
effects of climate change. There is an increasing need to understand the cumulative	
nature of pressures already operating at our coastal sites and to predict how this may	
be exacerbated by future sea-level rise'.	
Dublin Bay is the fourth most important site in the country for wintering waterbirds. It	
is critical that research is undertaken on the climate change impacts to waterbirds	
within Dublin City but also within the context of the Greater Dublin area where there is	
significant movement of species between wetlands.	
In relation to waterbirds which frequent coastal sites BirdWatch Ireland recommends	
the following in the context of this Climate Action Plan:	
1. A thorough review of coastal sites that are of importance to coastal waterbirds is	
required, with particular emphasis on the SPA/ Natura 2000 network. The Office of	
Public Works is already some way towards modelling likely change and identifying	
vulnerable sections of coast, and such information once available is essential to this	
review. This review should:	
a. Set out to quantify the impact of sea-level rise on coastal birds and their habitats.	
b. Identify sections of the (national) coastline that are used by significant numbers of	
coastal waterbirds (high and medium-risk especially) and explore/promote managed	
realignment to minimise impacts of sea-level rise over time.	
2. Coastal sites are under increasing pressure from a range of anthropogenic sources	
such as human development, fisheries, aquaculture and human recreation. It is likely	
that these factors will operate cumulatively with the effects of climate change10 to	
result in some sites being at greater risk or more vulnerable to biodiversity loss than	
others. There is therefore an increasing need to understand the cumulative nature of	
pressures already operating at our coastal sites and to predict how this may be	
exacerbated by sea-level rise in the future.	
3. In addition, the greatest of efforts must be made to reduce the existing pressures	
and threats to waterbirds within the control of Dublin City Council including	
development, pollution, disturbance issues caused by dogs off leash on beaches and in	

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the coastal environment and disturbance from people and recreational activities in sensitive locations.	
4. Internationally important migratory species such as Brent Geese can utilise the	
playing pitches including those of school grounds to forage when eel grass supplies	
have reduced at coastal sites. These areas are hugely important within a climate	
change adaptation scenario for Brent in the future and need to be secured.	
7.0 Breeding river birds	
Dublin's rivers and associated habitats are known to contain breeding Annex 1	
Kingfisher, Dipper, Grey Wagtail, and Sand Martin. In order to protect nest sites and to	
provide adaptation solutions under a changing climate but also within the context of	
any flood mitigation measures, BirdWatch Ireland recommends that further survey	
work is undertaken to determine where these birds are breeding so as to conserve and	
improve breeding sites and also to prepare an evidence-based report on appropriate	
adaptation measures for these important species. Ensuring that river ecosystems are	
healthy and support fish and insect populations stocks is also critical as these are food	
sources for these bird species.	
8.0 Breeding Swifts	
Swifts breed in buildings in Dublin city and can be heard 'screaming' through several	
neighbourhoods of the city. Dublin City Council has already done great work to help	
with Swift conservation within the city. Within a climate change context, BirdWatch	
Ireland is concerned that with the potential for deep-retrofit, energy-saving projects	
that some Swift breeding sites may be lost due to construction work. It is really important that Swift breeding sites are investigated in Dublin and that any works to	
buildings with known breeding sites include actions such as insertion of 'Swift bricks' to	
provide alternative nesting sites for them. All new builds or deep retrofit programmes	
should also include Swift bricks in those projects. BirdWatch Ireland's publication	
Saving Swifts is due out in 2019 and will help inform the conservation of Swifts in	
Ireland."	
9.1 The Natura Impact Report lists that the NIR for the East Midlands Regional Spatial	AA:
and Economic Strategy (RSES) has been concluded and that there are no significant	The material amendments and
adverse impacts on the European sites in this area. However, the RSES has been re-	reopening of the RSES is noted, and

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opened for public consultation due to material developments which alter the original plan distributed for consultation. Further, these actions have been subject to Article 6.3 assessment, but the final plan has not been agreed.	its status will be assessed as part of the updating to the draft CCAP, NIS and SEA ER.
It is premature to state that as the NIR does that there are no impacts as the plan is not finalised since it is not clear if mitigation actions within the NIR will be incorporated into the final plan.	The Mitigation Actions within the NIS will be incorporated into the final plan. Please note the revised mitigation measures below, 2 are not recommended for inclusion for year 1 due to workload but will be reviewed in May 2020 as part of the CCAP review.
9.2 There is no mention of the requirements of Article 4(4) of the Birds Directive the second sentence of which states 'Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats'.  There is no reference to the requirement that local authorities must strive to avoid the deterioration of the habitats of Annex 1 bird species found outside of European sites. In addition, it is important to recall that the Birds Directive also calls for protection of birds in the wider countryside (outside of SPAs) and this is detailed further in the NPWS Programme of Measures to address compliance issues in C-418/04.  All efforts must be made to enforce the regulations to support birds in the wider countryside.	Noted, this will be included in the SEA ER and the NIS.
9.3 BirdWatch Ireland would like clarification on the statement in the NIR that there will be no significant adverse effects on the European sites when it is unclear whether the suggestions in Table 7.2 will be incorporated into the final plan. This element of doubt means that NIS is open to challenge. The suggested text is NOT in the draft climate action plan submitted for consultation. We would appreciate clarification of this.	Noted, for clarification the mitigation measures in Table 7.2 will be included in the final plan. See the end of this document for measures. Please note the revised mitigation measures below, 2 are not recommended for inclusion for year 1 due to workload but will be reviewed in May 2020 as part of the CCAP review.

### 3.3 SEA and Chief Executives report

As the Chief Executive was preparing responses and recommendations in relation to submissions received from the public, prescribed bodies including Environmental Authorities on the Draft CCAP, the SEA provided a commentary on these emerging recommendations.

Commentary from the SEA (and AA) in terms of the recommendations of the CE, can be found in the Chief Executive's Report on Submissions Received (May 2019). At the council meeting on 13<sup>th</sup> May two further motions were put forward and accepted these relate to provision of additional text in the CCAP recognising the seriousness of the situation of climate change and the recognition of a climate emergency..

#### 4 Consideration of Alternatives

#### 4.1 Introduction

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative development scenarios, in this case the South Dublin CCAP 2019-2024.

These alternative development scenarios should meet the following considerations:

- Take into account the geographical scope, hierarchy and objectives of the plan –be realistic
- Be based on socio-economic and environmental evidence be reasonable
- Be capable of being delivered within the plan timeframe and resources –be implementable
- Be technically and institutionally feasible be viable

In developing, refining and assessing the alternatives for the CCAP, the toolkit included in Developing and Assessing Alternatives in Strategic Environmental Assessment Good Practice Guidance (EPA 2015) was utilised.

### 4.2 Alternative Scenarios for Fingal CCAP 2019-2024

In a *Strategy towards Climate Change Actions Plans for Dublin 2017*, seven focus areas were identified as having the greatest potential to help the Dublin LAs move towards a zero-carbon society and adapt to the effects of climate change. These focus areas were as follows:

• Water, Waste, Planning, Transport, Energy, Ecosystems and Biodiversity and Citizen Engagement.

The focus areas can have predominately either mitigation or adaptation solutions, or both. For example, the Energy focus area mainly concerns mitigation (i.e. reducing the use of fossil fuels and their associated CO2 emissions), while Water largely focuses on adapting to changes that are occurring or will occur in the near future due to climate change. Meanwhile, the Citizen & Stakeholder Engagement focus area concerns both mitigation and adaptation.

The aim of the CCAP is to work with the other Dublin local authorities in a co-ordinated manner to achieve the actions identified as being capable of implementing over a Five Year Period whilst also contributing to both mitigation and adapting to climate change. In considering Alternative Scenarios for the CCAP, the following questions were used to help frame the Consideration of Alternatives<sup>1</sup>:

<sup>&</sup>lt;sup>1</sup> Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

#### WHY?

Can the objectives be met without a new plan/programme?

- Is the alternative viable? Is it a reasonable/realistic alternative?
- Are there other relevant considerations (e.g. AA, WFD, FRA)?

#### What?

How should the alternative be implemented (e.g. using which technology/method)?

•Can environmental best practice be applied to meet the need? •Can environmentally less damaging methods be applied?

#### Where?

Where is the alternative intended to go?

What is its exent?

Can alternative locations be identified for the identified technologies/methods/zonings?

Are these less environmentally sensitive?

#### When?

What are the details of the timeframe for implementation/

which are the critical detailshere is the alternative intended to go? What is its extent? •Can alternative locations be identified for the identified technologies/methods/zonings?

• Are these less environmentally sensitive?

Therefore the Alternatives considered are as follows:

## **TABLE 5 ALTERNATIVES CONSIDERED**

Alternative 1: Do-Nothing (rely CDP policies and objectives to address and adapt to climate change)	Can the objectives be met without a new plan/programme? Is the alternative viable? Is it a reasonable/realistic alternative? Are there other relevant considerations (e.g. AA, WFD, and FRA)?  This alternative could see the do nothing scenario be continued by using the existing CDP policies and landuse zonings to continue to adapt and plan for effects on climate change.	What? How should the alternative be implemented (e.g. using which technology/method)? •Can environmental best practice be applied to meet the need? •Can environmentally less damaging methods be applied? Through using climate change policies in the CDP and providing the landuse framework for responding to climate change. Landuse activities relevant could include renewable energy, transport and flood risk management	Where? Where is the alternative intended to go? What is its extent? Can alternative locations be identified for the identified technologies/methods/zonings? Are these less environmentally sensitive?  This would include Fingal County	When? What are the details of the timeframe for implementation/ which are the critical details here is the alternative intended to go? What is its extent? •Can alternative locations be identified for the identified technologies/methods/zonings? •Are these less environmentally sensitive?  This would cover the timeframe of the current CDP upto 2022
Alternative	This would require the	It would prioritise	This would include Fingal County	This would likely reflect the timeframe
2: Prioritise largest	preparation of an action plan that would	measures that would reduce energy emissions,		of the CDP given its landuse implications.
greenhouse	concentrate on energy	promote renewable energy		implications.
gas emission	and transport for Fingal	and sustainable transport		
sectors –	as a means to address	projects		
Energy and	and respond to climate	p. 0,000		
Transport	change			

	Why Can the objectives be met without a new plan/programme? •Is the alternative viable? Is it a reasonable/realistic alternative? •Are there other relevant considerations (e.g. AA, WFD, and FRA)?	What What? How should the alternative be implemented (e.g. using which technology/method)? •Can environmental best practice be applied to meet the need? •Can environmentally less damaging methods be applied?	Where Where? Where is the alternative intended to go? What is its extent? Can alternative locations be identified for the identified technologies/methods/zonings? Are these less environmentally sensitive?	When? What are the details of the timeframe for implementation/ which are the critical details here is the alternative intended to go? What is its extent? •Can alternative locations be identified for the identified technologies/methods/zonings? •Are these less environmentally sensitive?
Alternative 3: Approach the priority areas in a balanced manner to provide for both responses to climate change impacts (adaptation) and reduce greenhouse gas emissions mitigation).	This is the existing CCAP. It would consider a mixture of adaptation and mitigation measures for the climate change action plan and would include citizen engagement and awareness raising throughout. It would be underpinned by a baseline assessment of greenhouse gas emissions and sectoral use in the county	This would include a suite of measures that would aim to bring co-benefits where possible and rely on nature based solutions where possible	This would be tailored to Fingal County but prepared as part of a broader regional approach to climate change	This would extend to 2024 and include a detailed monitoring regime to allow for annual reporting and monitoring of actions.

In terms of all SEOs, Alternative 3 is identified as creating most positive interactions as it provides greater environmental performance overall and also allows for a greater environmental gains, than may be achieved through Alternatives 2 and 1. In addition, the mulit faceted approach contributes to greater co-benefits by providing for a wider range of environmental effects particularly around nature based solutions and resource management. The inclusion of measures for citizen engagement and awareness raising through the CCAP option is also positive for a number of SEOs.

#### **5 Monitoring**

#### **5.1 Introduction**

The targets and indicators are derived from the Strategic Environmental Objectives (SEOs) discussed in Chapter Five. The target underpins the objective whilst the indictors are used to track the progress of the objective and targets in terms of monitoring of impacts. The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component. Similarly, monitoring will be carried out frequently to ensure that any changes to the environment can be identified.

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Overall, this Climate Change Action Plan will be monitored on an ongoing basis and actions will be reviewed and updated annually. A full review and revision of the plan will take place every five years. This draft of the Climate Change Action Plan was developed through FCC's Water and Environmental Services SPC who report to the full County Council. The Director of the Water Services and Environment Department will report on progress to the SPC annually and the SPC will monitor progress towards the set targets. Every five years there will be a full review and revision of the plan taking into account demographic, technical and other changes that have occurred and any new targets that have been introduced.

Consequently, it is recommended that this SEA monitoring regime be undertaken in line with the development plan review process; as the data will be captured through the CCAP monitoring regime, the strategic environmental monitoring can both use these data and also be derived from the planning and landuse data by FCC.

In turn the list below is subject to review at each reporting stage to reflect new data. Should the monitoring regime identify significant impacts (such as impacts on designated sites) early on in the plan implementation, this should trigger a review of the CCAP and monitoring regime. In addition, the identification of positive impacts from monitoring should also be reported as this will assist in determining successful environmental actions.

Fingal County Council are responsible for the implementation of the SEA Monitoring Programme including

- Monitoring specific indicators and identifying any significant effects, including cumulative effects;
- Reviewing the effectiveness of monitoring/mitigation measures during the lifetime of the CCAP; and
- Identifying any cumulative effects.

It is recommended that the monitoring report be made available to the public upon its completion. Table 6 below presents the SEA Monitoring Table. This table sets out the strategic environmental objectives, indicators and targets to be applied in monitoring the significant environmental effects of the implementation of the CCAP, in accordance with Section 13J(2) of the Planning and Development (SEA) Regulations 2004, as amended. It is proposed that the SEA monitoring reporting should go parallel with the reviewing of the CCAP to the CDP and when the next plan is being prepared.

**Table 6 Monitoring Measures** 

SEA Topic	Environmental Protection Objective	Target	Draft Indicators	Data Sources
Biodiversity Flora and Fauna	Preserve, protect, maintain and where appropriate restore the terrestrial, aquatic and soil biodiversity, particularly EU and nationally designated sites and protected species.	Update the Biodiversity action plan with a clear programme of delivery of actions Develop a Green Infrastructure Strategy within the lifetime of the Development Plan	Number of programmes and actions in the Development Plan Period  Note this is an Action of the CCAP now, to be completed by 2021.	Fingal Biodiversity Section
Population and human health	Provide high quality residential, working and recreational environments with access to sustainable transport options  Protect Human Health	Increase the number of people living and working in Fingal comparsed to 2016 Census base findings Undertake Local Area Plan for Lissenhall which outlines and specify that services will be put in place in advance of residential development	Number of people living and working in Fingal  n/a	EPA Air Quality Monitoring Fingal CC
		Compliance with Air Quality Legislation Undertake a review of the Dublin Agglomeration Noise	Number of breaches of Air Quality	

SEA Topic	Environmental Protection Objective	Target	Draft Indicators	Data Sources
		Action Plan of the areas within Fingal identified as being exposed to high levels of noise and develop a programme of implementation of the mitigation measures within the lifetime of the Development Plan	Number of measures implementation	
Water	Protect and where necessary improve and maintain water quality and the management of watercourses and groundwater, in compliance with the requirements of the Water Framework Directive objectives and measures.	Implementation of the programme of measures in the ERBD River Basin Management Plan Compliance with the recommendations of the Fingal Groundwater Protection Scheme	% increase in waters achieving and maintaining at least good status  Number of planning permissions granted in areas identified as vulnerable under the Groundwater Protection Scheme	EPA and DECLG National River Basin District 2017 Programme of Measures
Air Quality and Climate	Minimise emissions of pollutants to air associated with transport.	10% increase in the number of people using sustainable transport modes (rail, bus, cycling, walking) against current 2011 Travel to Work Modes (linked to objective 3).	% increase in walking, cycling and public transport modes	National Travel Survey, Census and Fingal Transport Dept

SEA Topic	Environmental Protection Objective	Target	Draft Indicators	Data Sources
Christic change	Minimise contribution to climate change by adopting adaptation and mitigation measures	No new high vulnerable development applicatsions, as defiend by the OPW the Planning System and Flood Risk Guidelines (2009) wihtin lands that fall within the 1% AEP and 0.1% AEP.	No of high vulnerable development applications permitted within lands in the 1% AEP and 0.1% AEP	National Travel Survey, Census and Fingal Transport Dept
		All new buildings to have an A3 or higher BER	% of new residential buidlings granted permission with A3 or higher BER	
Soil and Geology	Safeguard the soil resources within Fingal in recognition of the		% development within brownfield and infill compared to greenfield	Fingal CC
	strong agricultural and horticultural base.	Higher rate of brownfield and infill development as opposed to greenfield development		
Material Assets	Make best use of existing infrastructure and promote the sustainable development of new infrastructure to meet the needs of Fingal's population	Require all new residential planning permissions to be within 500m of bus stop and 1km of railway stations Phased development in line with wastewater capacity	% of planning permissions withn 500m of bus stop and 1km of railway station Available capacity for treatment of phased development	Fingal CC
Cultural	Protect places,	Develop a code of	n/a	FCC Planning and Water

SEA Topic	Environmental Protection Objective	Target	Draft Indicators	Data Sources
Heritage	features, buildings and landscapes of cultural, archaeological and/ or architectural heritage from impact as a result of development in Fingal.	practice for the management of architectural heritage in private ownership		services
Landscape	Protect and maintain the special qualities of the landscape character, including coastal character within Fingal	Review and prioritise a programme of the objectives and policies whitin the Special Amentiy Area Orders of Liffey Valley and Howth Conduct a habitat characteristation study in the South Shore Rush Area as detailed in the Natura Impact Report of the Fingal CDP 2017-2023	Number of programmed objectives and policies achieved in Development plan period	Fingal planning dept
<b>③</b>	Interrelationships Maintain and improve the health of people, ecosystems and natural processes  Actively seek to integrate opportunities	% or number of blue and green infrastructure measures included in approved planning applications within Fingal CC including SUDS, Integrated Wetlands, Hedgerows, Native tree	Review per grant application and # of FCC supported schemes such as integrated wetlands	Fingal CC

SEA Topic	Environmental Protection Objective	Target	Draft Indicators	Data Sources
	for environmental enhancement	planting scheme		
	during adaptation to climate change	FCC supported community blue/green infrastructure		
	ominate onange	measures		