Comhairle Contae Fhine Gall
Fingal County Council

Codema
Dublin's Energy Agency

NATURA IMPACT REPORT

FINGAL COUNTY COUNCIL

DRAFT CLIMATE CHANGE ACTION PLAN

2019-2024

Fingal Council Council

Climate Change Action Plan 2019 - 2024

Natura Impact Report

Document Stage	Document Version	Prepared by
Final: 01/02/2019	1	Pat Doherty MSc, MCIEEM Review RMinogue MCIEEM

This report has been prepared by DEC Ltd with all reasonable skill, care and diligence. Information report herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is prepared for Fingal County Council and we accept no responsibility to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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1.0 INTRODUCTION

DEC Ltd have been appointed by Fingal County Council to undertake a Natura Impact Report (NIR) of their proposed Climate Change Action Plan (CCAP) 2019 - 2024. This NIR has been completed with respect to the requirements outlined in Article 6(3) of the EU Habitats Directive and Section 177U of the Planning and Development Act and has been prepared in order to facilitate Fingal County Council's requirement for completing an Appropriate Assessment of the Plan.

The proposed CCAP is not directly connected with or necessary for the management of any European Site and hence the requirements of Article 6(3) of the Habitats Directive and Part XAB of the Planning and Development Act 2000, apply. Section 177U(1) of the Planning and Development Act 2000 requires that a screening for appropriate assessment of, inter alia, a land use plan be carried out by a competent authority to assess, in light of best scientific knowledge, whether the proposed Plan, individually or in combination with another plan or project is likely to have a significant effect on a European site. A Statement in support of Screening for Appropriate Assessment has been completed and assessed the potential for the CCAP to result in likely significant effects to European Sites. A summary of the screening is provided in Section 2 below.

1.1 STATEMENT OF AUTHORITY

This NIR has been prepared by Mr Pat Doherty, BSc, MSc, MCIEEM, of DEC Ltd. Mr Doherty has 19 years professional practice as an ecologist and during this time has contributed to Biodiversity, Flora and Fauna elements of SEA and has acted as lead author of Habitat Directive Assessments including county and local area plans, recreational and tourism strategies, greenways, planning schemes and wind and renewable energy strategies.

Mr Doherty has an MSc in Applied Environmental Science (Ecology), University College Dublin, 2003 and BSc (Honours) in Environmental Earth Science, University of Wales, Aberystwyth, 2000. As a consulting ecologist Mr Doherty regularly undertakes continuing professional development in the field of ecology, natural sciences, environmental practice and legislation.

2.0 SUMMARY OF THE SCREENING FOR APPROPRIATE ASSESSMENT

A Statement in support of Screening for Appropriate Assessment has been completed for the proposed CCAP. This Screening was completed in line with the requirements of Article 6(3) of the EU Habitats Directive, as transposed into Irish law in Part XAB of the Planning and Development Act 2000 (as amended) in relation to land use planning.

The Screening represents the first stage of the Article 6(3) Habitats Directive assessment process and was undertaken to identify whether the plan has the potential to result in likely significant effects to European Sites. The first step of the Screening was to assess all actions proposed by the CCAP for their potential to result in likely significant effects to European Sites. A total of 11 actions were identified as having the potential to result in likely significant effects to European Sites. These actions are listed in full in Table 6.1 of this NIR.

The next step was to identify all European Sites occurring within and surrounding the footprint of Fingal County Council's administrative area. All lands occurring within the Fingal County Council's administrative area represent the Plan area and all European Sites occurring within this area and within a 15km buffer distance of the Plan area were screened for likely significant effects (the extent of the Plan area and the location of these sites with respect to the Plan area are shown on Figure 1.1 to Figure 1.4). No European Sites at a distance greater than 15km were considered during the screening as no source-pathway-receptor relationship occurs between lands subject to the Plan and European Sites at such distance from the Plan area. The European Sites occurring within 15km of the Plan area represented a preliminary list of European Sites to be screened for likely significant effects. A total of 25 European Sites were identified in this preliminary list. The next step in the screening was to identify which European Sites occur within the zone of influence of the plan and could be at risk of likely significant effects by the 11 actions listed in Table 6.1 below. A total of 10 European Sites, which are as follows:

- Rogerstown Estuary SPA;
- Rogerstown Estuary SAC;
- Malahide Estuary SAC;
- Broadmeadow/Swords Estuary SPA;

- Baldoyle Bay SAC;
- Baldoyle Bay SPA
- North Dublin Bay SAC;
- North Bull Island SPA;
- Howth Head SAC; and
- Howth Head SPA.

were identified as occurring within the zone of influence of the Plan and were potentially at risk of likely significant effects due the potential for negative land use effects to result from some or all of the 11 actions listed in Table 6.1.

Accordingly, this NIR has been prepared to inform the Appropriate Assessment of the Plan's potential to result in likely significant effects to these 10 European Sites and their qualifying features of interest occurring within the zone of influence of the plan.

The remainder of this NIR is structured as follows:

Section 3: Assessment Methodology

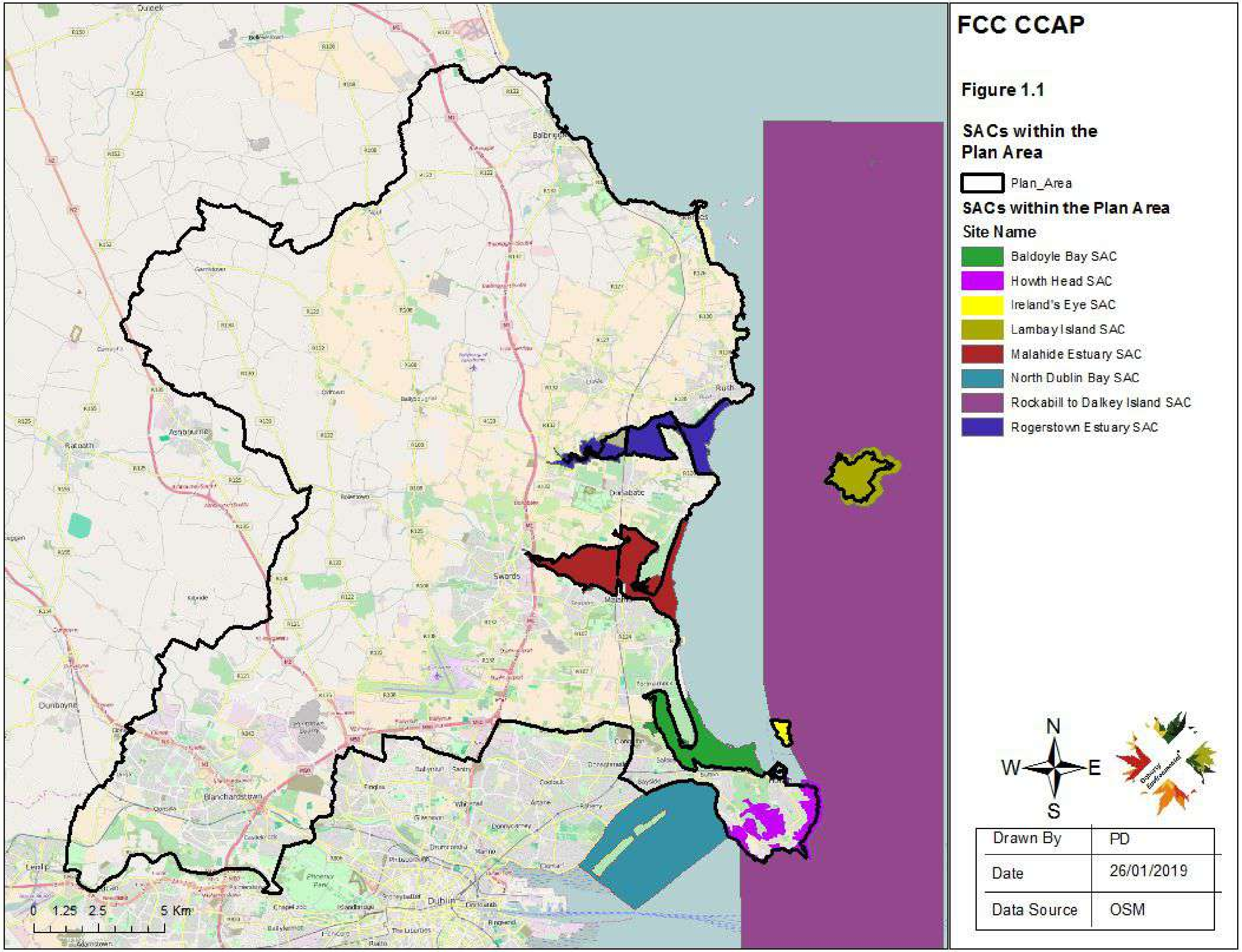
Section 4: Overview of the CCAP and related European Sites

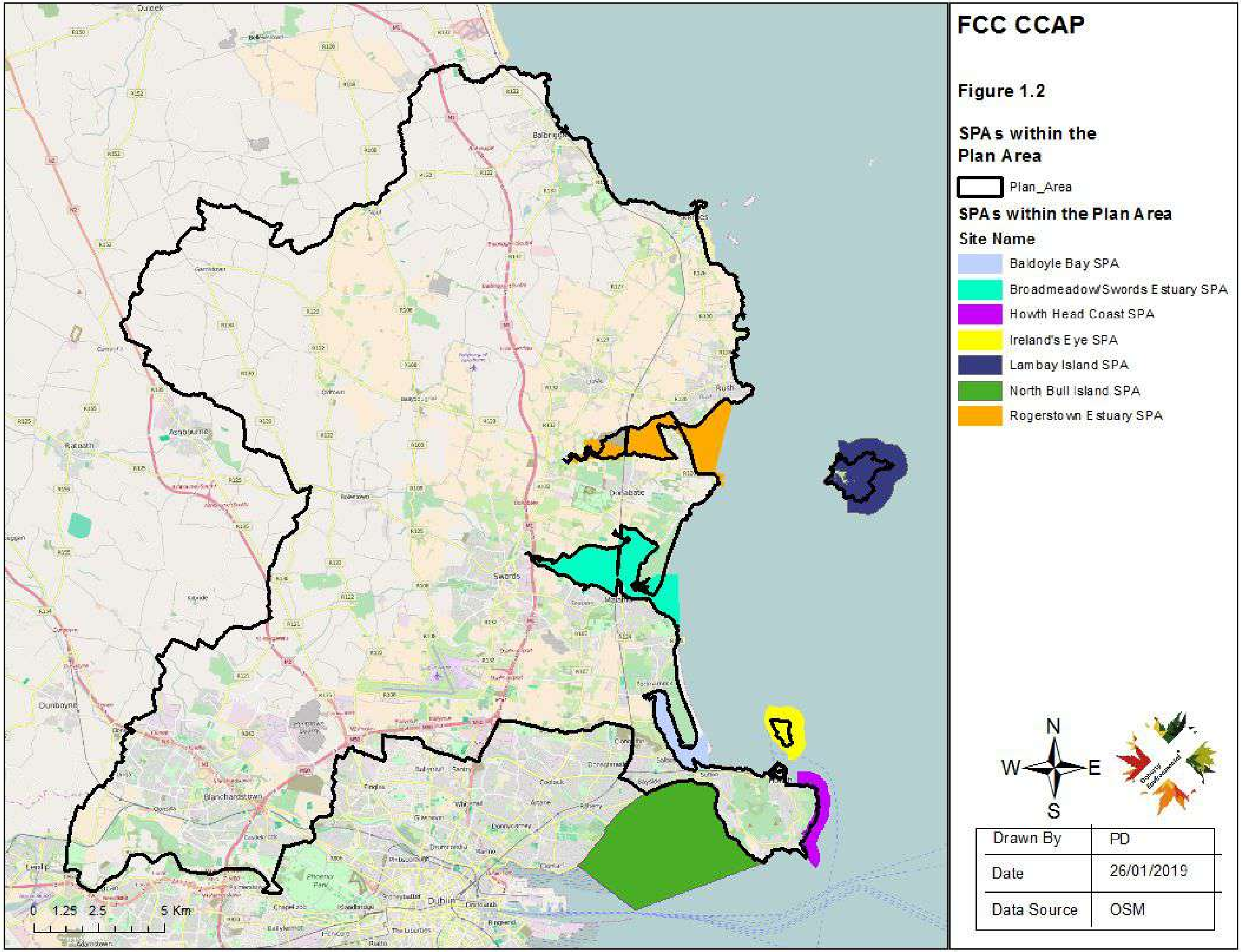
Section 5: Conservation Objectives Assessment of the Plan

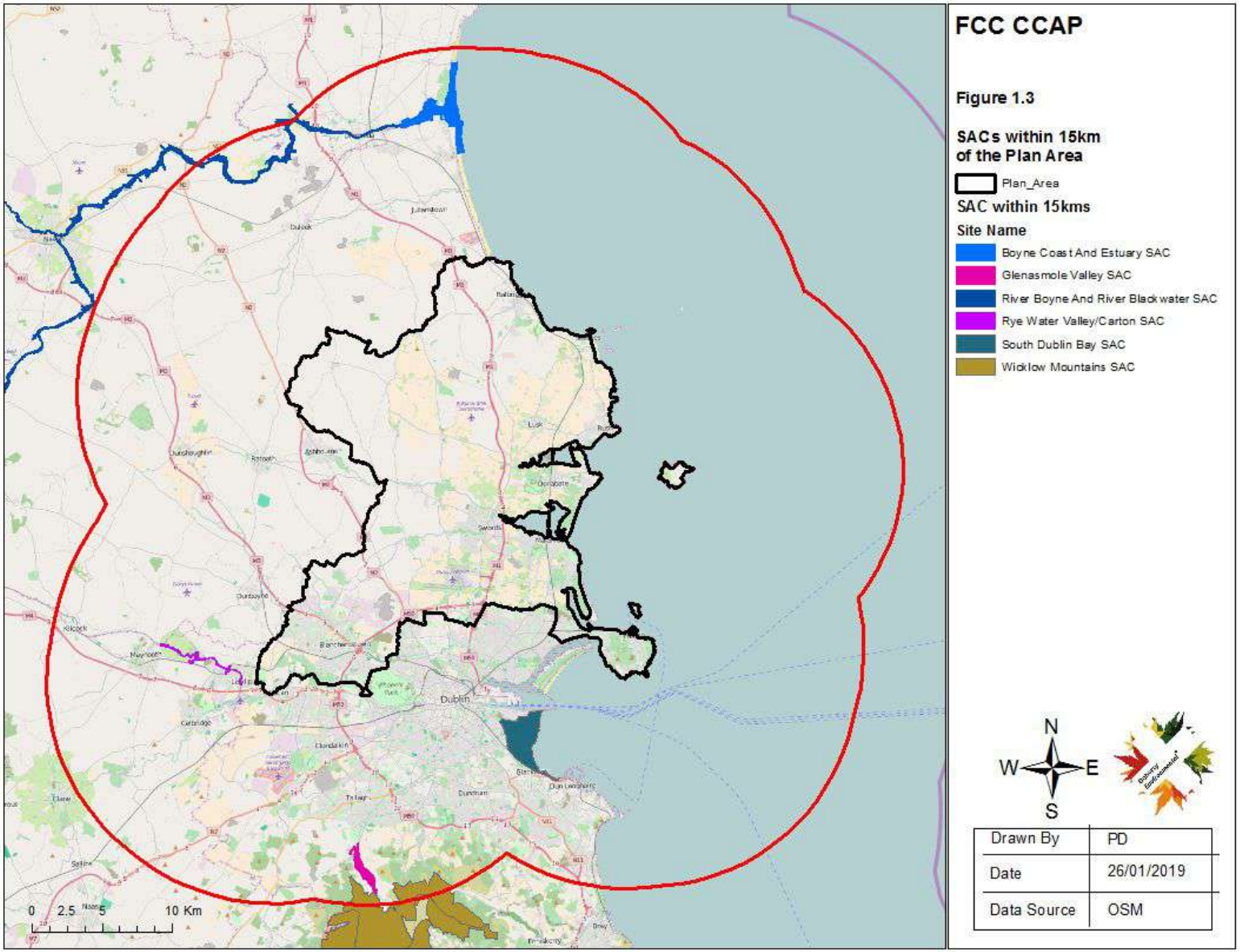
Section 6: Assessment of the Plan

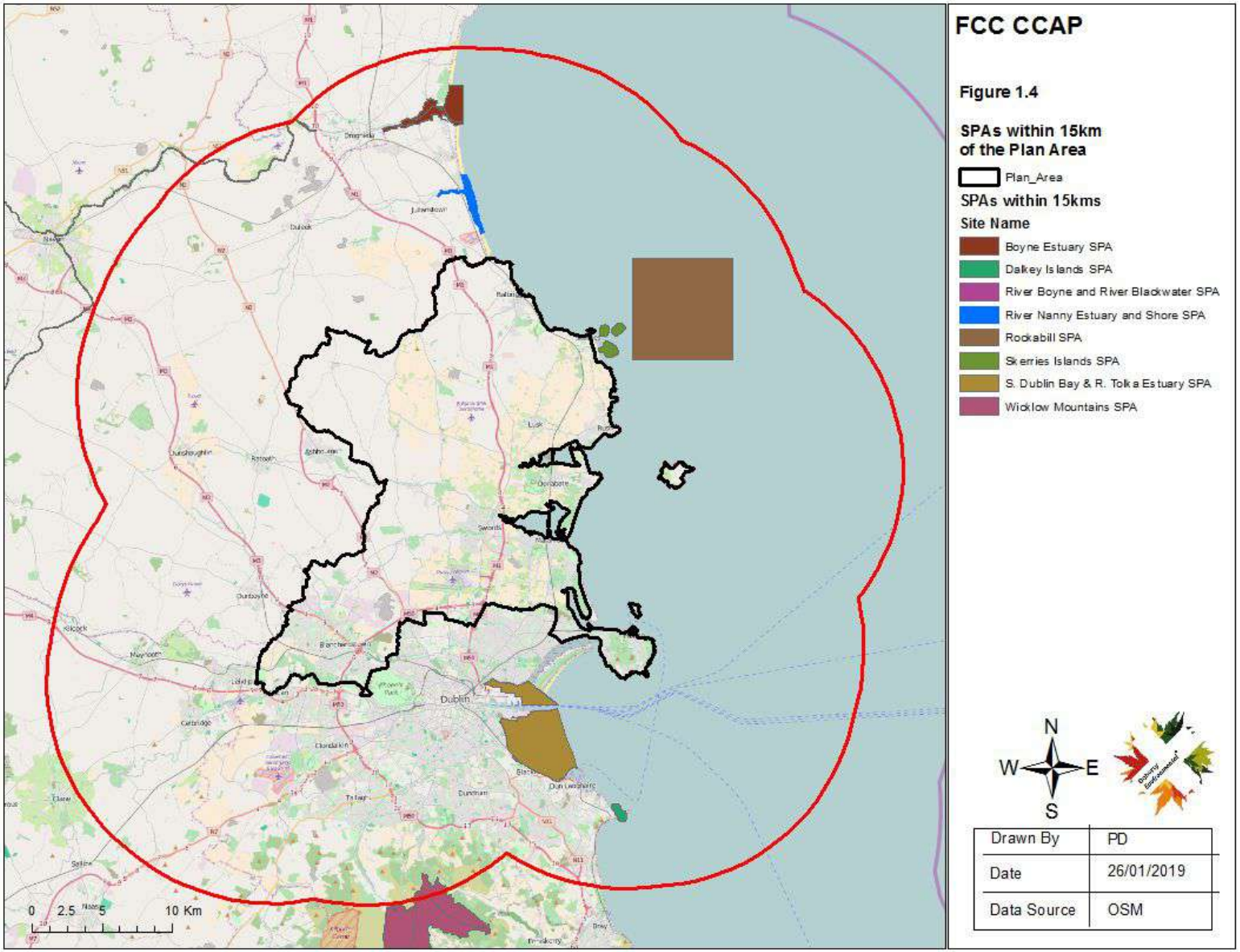
Section 7: Mitigation Measures

Section 8: Conclusions


FCC CCAP
Figure 1.1
SACs within the Plan Area
Plan_Area
SACs within the Plan Area
Site Name
Baldoyle Bay SAC
Howth Head SAC
Ireland's Eye SAC
Lambay Island SAC
Malahide Estuary SAC
North Dublin Bay SAC
Rockabill to Dalkey Island SAC
Rogerstown Estuary SAC
N
W
E
S
Drawn By
PD
Date
26/01/2019
Data Source
OSM
0 1.25 2.5 5 Km


FCC CCAP
Figure 1.2
SPAs within the Plan Area
Plan_Area
SPAs within the Plan Area
Site Name
Baldoyle Bay SPA
Broadmeadow/Swords Estuary SPA
Howth Head Coast SPA
Ireland's Eye SPA
Lambay Island SPA
North Bull Island SPA
Rogerstown Estuary SPA
0 1.25 2.5 5 Km
N
W
E
S
Drawn By
PD
Date
26/01/2019
Data Source
OSM


FCC CCAP
Figure 1.3
SACs within 15km of the Plan Area
Plan_Area
SAC within 15kms
Site Name
Boyne Coast And Estuary SAC
Glenasmole Valley SAC
River Boyne And River Blackwater SAC
Rye Water Valley/Carton SAC
South Dublin Bay SAC
Wicklow Mountains SAC
N
W
E
S
Drawn By PD
Date 26/01/2019
Data Source OSM
0 2.5 5 10 Km
Dublin


FCC CCAP
Figure 1.4
SPAs within 15km of the Plan Area
Plan_Area
SPAs within 15kms
Site Name
Boyne Estuary SPA
Dalkey Islands SPA
River Boyne and River Blackwater SPA
River Nanny Estuary and Shore SPA
Rockabill SPA
Skerries Islands SPA
S. Dublin Bay & R. Tolka Estuary SPA
Wicklow Mountains SPA
N
W
E
S
Drawn By PD
Date 26/01/2019
Data Source OSM
0 2.5 5 10 Km
Dublin

3.0 ASSESSMENT METHODOLOGY

3.1 GUIDANCE

This NIR has been undertaken in accordance with National and European guidance documents: Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (DEHLG 2010) and *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats directive 92/43/EEC.* The following guidance documents were also of relevance during this the preparation of this NIR:

- A guide for competent authorities. Environment and Heritage Service, Sept 2002. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2010). DEHLG.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats Directive 92/42/EED. European Commission (2001).
- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats directive 92/43/EEC. European commission (2018).
- Communication from the Commission on the precautionary principle. European Commission (2000). •

3.2 BACKGROUND TO HABITATS DIRECTIVE ARTICLE 6 ASSESSMENTS

The EC (2001) guidelines outline the stages involved in undertaking an assessment of a project under Article 6(3) and 6(4) of the Habitats Directive. The assessment process comprises the four stages outlined below. Stage 1 to 3 form part of the Article 6(3) process, while Stage 4 forms part of the Article 6(4) process. This NIR presents the findings of an assessment for Stage 2 of this assessment process.

- Stage 1 – Screening: This stage defines the proposed plan, establishes whether the proposed plan is necessary for the conservation management of the Natura 2000 site

and assesses the likelihood of the plan to have a significant effect, alone or in combination with other plans or projects, upon a Natura 2000 site.

- Stage 2 – Appropriate Assessment: If a plan or project is likely to have a significant affect an Appropriate Assessment must be undertaken. In this stage the impact of the plan or project to the Conservation Objectives of the Natura 2000 site is assessed. The outcome of this assessment will establish whether the plan will have an adverse effect upon the integrity of the Natura 2000 site.

- Stage 3 – Assessment of Alternative Solutions: If it is concluded that, subsequent to the implementation of mitigation measures, a plan has an adverse impact upon the integrity of a Natura 2000 site it must be objectively concluded that no alternative solutions exist before the plan can proceed.

- Stage 4 – Where no alternative solutions exist and where adverse impacts remain but imperative reasons of overriding public interest (IROPI) exist for the implementation of a plan or project an assessment of compensatory measures that will effectively offset the damage to the Natura site 2000 will be necessary.

3.3 STAGE 2: APPROPRIATE ASSESSMENT STEPS

The EC Guidance Assessment Criteria for Appropriate Assessment seeks the following information:

1. A description of the elements of the project that are likely to give rise to significant effects to European Sites;

2. The Setting out the Conservation Objectives of the Site;

3. A description of how the project will affect key species and key habitats;

4. A description of how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes etc.);

5. A description of the mitigation measures that are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of European Sites.

3.4 INFLUENCE OF THE APPROPRIATE ASSESSMENT PROCESS ON THE PLAN

The purpose of the Appropriate Assessment of the Plan is not only to assess the implications of this Plan on European Sites and their qualifying features of interest occurring within its zone of influence, but also to provide safeguards that aim to minimise the ecological implications of the Plan and avoid likely significant effects to European Sites. This was completed by identifying any elements of the Plan and the current Fingal County CDP that aim to protect the natural environment.

4.0 OVERVIEW OF THE CCAP & RELATED EUROPEAN SITES

For the first time, Dublin's four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.

This CCAP has been prepared in line with the Policies and Objectives of the CDP and follows on from the publication of A Strategy for Climate Change Action Plans for the Dublin Local Authorities (DLAs), which was published in January 2017. The strategy used a structured approach that focused on seven key areas (Citizen Engagement, Planning, Energy, Transport, Water, Waste, and Ecosystems & Biodiversity), and set out how the DLAs would develop the four climate change action plans. The action plans will be unique to each local authority area but synchronised in their methodology.

This Plan concentrates on the two approaches required to tackle climate change. The first, mitigation, consists of actions that will reduce current and future GHG emissions; examples of these include reductions in energy use, switching to renewable energy sources and carbon sinks. The second approach, adaptation, consists of actions that will reduce the impacts that are already happening now from our changing climate and those that are projected to happen in the future.

The actions in this draft CCAP for Fingal County Council will be continually monitored and updated by a dedicated climate action team working across all Council departments. They will be assisted by the newly established Dublin Metropolitan Climate Action Regional Office, which will ensure that the overall plan is fully updated every five years to reflect latest policy, technology and climate-related impacts. The new office will work with Codema, as technical support and research partner, to ensure that the plans continue to be informed by national and international best practice.

The actions in the CCAP are presented around a number of themes as follows:

- Energy and Buildings

- Transport
- Flood Resilience
- Nature Based Solutions
- Resource Management.

Collectively, these address the four targets of this plan, which are:

- A 33% improvement in the Council's energy efficiency by 2020
- A 40% reduction in the Council's greenhouse gas emissions by 2030
- To make Dublin a climate resilient region, by reducing the impacts of future climate change -related events
- To actively engage and inform citizens on climate change.

As such, this CCAP encompasses the functional area of Fingal County Council. This area is referred to throughout this report as the "Plan area". The administrative area of the City Council for which the Plan has been prepared comprises 458 km^2.

4.1 EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE VARIATON

The following sub-sections provide an overview of the 10 European Sites occurring within the zone of influence of the Plan.

4.1.1 Rogerstown Estuary SAC

The qualifying features of interest for which this site has been designated as a SAC are listed in Table 4.1 below. The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form[1] for the site. The documented threats and pressures to this SAC are as follows:

- Erosion
- Sea defences and coastal protection works
- Reclamation
- Urbanised areas, human habitation
- Invasive non-native species
- Dispersed habitation
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas
- Discharges

Table 4.1: Rogerstown Estuary SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)

[1] **Standard Natura 2000 Data Forms are provided for each European Sites on the NPWS website at www.npws.ie/protectedsites**

Mudflats and sandflats not covered by seawater at low tide	Not Reported	Poor
Salicornia and other annuals colonizing mud and sand	Not Reported	Poor
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Not Reported	Poor
Mediterranean salt meadows (Juncetalia maritimi)	Not Reported	Poor
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	Not Reported	Inadequate
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Not Reported	Bad

4.1.2 Rogerstown Estuary SPA

The special conservation interests for which this site has been designated as a SPA are listed in Table 4.2 below. The threats and pressures to this SPA have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SPA are as follows:

- Erosion
- Sea defences and coastal protection works
- Reclamation
- Urbanised areas, human habitation
- Invasive non-native species
- Dispersed habitation
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas
- Discharges

Table 4.2: Rogerstown Estuary SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Greylag Goose	Green listed species – Species of low conservation concern
Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Shelduck (*Tadorna tadorna*)	Amber listed species- Species of medium conservation concern
Shoveler (*Anas clypeata*)	Red listed species – Species of high conservation concern†
Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Ringed Plover (*Pluvialis apricaria*)	Red listed species – Species of high conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†
Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Black-tailed Godwit (*Limosa limosa*)	Amber listed species- Species of medium conservation concern

Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Wetlands & Waterbirds	

4.1.3 Malahide Estuary SAC

The qualifying features of interest for which this site has been designated as a SAC are listed in Table 4.3 below. The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SAC are as follows:

- Reclamation
- Bridge and viaduct
- Urbanised areas, human habitation
- Non-native invasive species
- Nautical sports
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas
- Discharges

Table 4.3: Malahide Estuary SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)

Mudflats and sandflats not covered by seawater at low tide	Not Reported	Poor
Salicornia and other annuals colonizing mud and sand	Not Reported	Poor
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Not Reported	Poor
Mediterranean salt meadows (Juncetalia maritimi)	Not Reported	Poor
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Not Reported	Inadequate
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Not Reported	Bad

4.1.4 Broadmeadow/Swords Estuary SPA

The special conservation interests for which this site has been designated as a SPA are listed in Table 4.4 below. The threats and pressures to this SPA have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SPA are as follows:

- Reclamation
- Bridge and viaduct
- Urbanised areas, human habitation
- Non-native invasive species
- Nautical sports
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas

- Discharges

Table 4.4: Broadmeadow/Swords Estuary SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Great Crested Grebe (Podiceps cristatus)	Amber listed species- Species of medium conservation concern
Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Shelduck (*Tadorna tadorna*)	Amber listed species- Species of medium conservation concern
Goldeneye (Bucephala clangula)	Red listed species – Species of high conservation concern†
Red-breasted Merganser (Mergus serrator)	Red listed species – Species of high conservation concern†
Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Golden Plover (*Pluvialis apricaria*)	Red listed species – Species of high conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†

Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Black-tailed Godwit (*Limosa limosa*)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (*Limosa lapponica*)	Amber listed species- Species of medium conservation concern
Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Wetlands & Waterbirds	

4.1.5 Baldoyle Estuary SAC

Baldoyle Bay SAC extends from just below Portmarnock village to the west pier at Howth in Co. Dublin. It is a tidal estuarine bay protected from the open sea by a large sand-dune system. Two small rivers, the Mayne and the Sluice, flow into the bay. Qualifying features for which this site has been designated as a SAC are listed in Table 4.5 below. The distribution of the habitats associated with this SAC are outlined in the Conservation Objectives for this SAC (see NPWS, 2013).

The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SAC are as follows:

- Urbanised areas, human habitation
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas
- Discharges

Table 4.5: Baldoyle Bay SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Mudflats and sandflats not covered by seawater at low tide	Favourable	Poor
Salicornia and other annuals colonizing mud and sand	Unfavourable	Poor
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Favourable	Poor
Mediterranean salt meadows (Juncetalia maritimi)	Favourable	Poor

4.1.6 Baldoyle Estuary SPA

The special conservation interests for which this site has been designated as a SPA are listed in Table 4.6 below. The threats and pressures to this SPA have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SPA are as follows:

- Disposal of household / recreational facility waste
- Golf Course
- Industrial or commercial areas
- Walking, horseriding and non-motorised vehicles
- Bridge, viaduct
- Roads, motorways
- Discharges

Table 4.6: Baldoyle Bay SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Shelduck (*Tadorna tadorna*)	Amber listed species- Species of medium conservation concern
Teal (*Anas crecca*)	Amber listed species- Species of medium conservation concern
Pintail (*Anas acuta*)	Red listed species – Species of high conservation concern†
Shoveler (*Anas clypeata*)	Red listed species – Species of high conservation concern†
Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Golden Plover (*Pluvialis apricaria*)	Red listed species – Species of high conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†
Sanderling (*Calidris alba)*	Green listed species – Species not threatened

Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Black-tailed Godwit (*Limosa limosa*)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (*Limosa lapponica*)	Amber listed species- Species of medium conservation concern
Curlew (*Numenius arquata*)	Red listed species – Species of high conservation concern
Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Turnstone (*Arenaria interpres*)	Green listed species – Species not threatened
Black-headed Gull (*Larus ridibundus*)	Red listed species – Species of high conservation concern
Wetlands & Waterbirds	

4.1.7 North Dublin Bay SAC

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. Qualifying features for which this site has been designated as a SAC are listed in Table 4.7 below. The distribution of the habitats associated with this SAC are outlined in the Conservation Objectives for this SAC (see NPWS, 2013).

The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form for the site (NPWS, 2017). The documented threats and pressures to this SAC are as follows:

- Urbanised areas, human habitation
- Walking, horseriding and non-motorised vehicles
- Golf course
- Industrial or commercial areas
- Discharges

Table 4.7: North Dublin Bay SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Mudflats and sandflats not covered by seawater at low tide	Favourable	Poor
Annual vegetation of drift lines	Not established	Poor
Salicornia and other annuals colonizing mud and sand	Unfavourable	Poor
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Favourable	Poor
Petalwort (Petalophyllum ralfsii)	Not established	Good
Mediterranean salt meadows (Juncetalia maritimi)	Favourable	Poor
Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	Unfavourable-inadeqaute	Poor
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Unfavourable-Bad	Bad
Humid dune slacks	Unfavourable-inadeqaute	Bad

4.1.8 North Bull Island SPA

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The special conservation interests for which this site has been designated as a SPA are listed in Table 4.2 below. The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SPA are as follows:

- Disposal of household / recreational facility waste
- Golf Course
- Industrial or commercial areas
- Walking, horseriding and non-motorised vehicles
- Bridge, viaduct
- Roads, motorways
- Discharges

Table 4.8: North Bull Island SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Shelduck (*Tadorna tadorna*)	Amber listed species- Species of medium conservation concern
Teal (*Anas crecca*)	Amber listed species- Species of medium conservation concern
Pintail (*Anas acuta*)	Red listed species – Species of high conservation concern†
Shoveler (*Anas clypeata*)	Red listed species – Species of high conservation concern†
Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Golden Plover (*Pluvialis apricaria*)	Red listed species – Species of high conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†
Sanderling (*Calidris alba)*	Green listed species – Species not threatened

Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Black-tailed Godwit (*Limosa limosa*)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (*Limosa lapponica*)	Amber listed species- Species of medium conservation concern
Curlew (*Numenius arquata*)	Red listed species – Species of high conservation concern
Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Turnstone (*Arenaria interpres*)	Green listed species – Species not threatened
Black-headed Gull (*Larus ridibundus*)	Red listed species – Species of high conservation concern
Wetlands & Waterbirds	

4.1.9 Howth Head SAC

The qualifying features of interest for which this site has been designated as a SAC are listed in Table 4.9 below. The threats and pressures to this SAC have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SAC are as follows:

- Urbanised areas, human habitation
- Non-native invasive species
- Burning
- Quarrying

- Abandonment of pastoral systems, lack of grazing
- Walking, horseriding and non-motorised vehicles
- Paths, tracks and cycle paths
- Intensive maintenance
- Vandalism

Table 4.9: Howth Head SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Vegetated sea cliffs of the Atlantic and Baltic coasts [	Not Reported	Inadequate
European dry heaths [4030]	Not Reported	Bad

4.1.10 Howth Head SPA

The special conservation interests for which this site has been designated as a SPA are listed in Table 4.10 below The threats and pressures to this SPA have been documented in the Standard Natura 2000 Data Form for the site. The documented threats and pressures to this SPA are as follows:

- Urbanised areas, human habitation
- Non-native invasive species
- Burning
- Quarrying
- Abandonment of pastoral systems, lack of grazing
- Walking, horseriding and non-motorised vehicles
- Paths, tracks and cycle paths
- Intensive maintenance

- Vandalism

Table 4.10: Howth Head SPA Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status
Kittiwake	Amber listed species- Species of medium conservation concern

5.0 CONSERVATION OBJECTIVES

The function of this NIR in support of Appropriate Assessment is to determine whether the Plan could have significant effects on the European Sites occurring within its zone of influence, in view of the Conservation Objectives for the qualifying features of interest/special conservation interests of these European Sites that also occur within the zone of influence of the project. Generic Conservation Objectives have been published for all European Sites occurring in Ireland. The generic Conservation Objectives for SACs and their qualifying habitats and qualifying species are:

- To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status;
- To maintain the Annex II species for which the SAC has been selected at favourable conservation status;
- To maintain the extent, species richness and biodiversity of the entire site; and
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The generic Conservation Objectives for SPAs and their special conservation interests are:

To maintain the bird species of special conservation interest, for which the SPA has been designated, at favourable conservation status.

Favourable Conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing; •
- The specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future; and •
- The conservation status of its typical species is “favourable”. •

Favourable Conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats; •

- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and •
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis. •

In addition to the published generic Conservation Objectives for all European Sites, Site Specific Conservation Objectives (SSCOs) have been published for a number of individual European Sites. These SSCOs identify the attributes that underpin the conservation status of qualifying features of interest/special conservation interests and provide targets for ensuring that their favourable status is maintained and/or restored. SSCO's have been published for the 10 European Sites occurring within the zone of influence of the CCAP and are available from the NPWS at the following website: https://www.npws.ie/protected-sites/conservation-management-planning/conservation-objectives.

6.0 ASSESSMENT OF THE PLAN

As outlined in Section 3.3 above, the recommended steps for an Appropriate Assessment are as follows:

1. A description of the elements of the project that are likely to give rise to significant effects to European Sites;
2. The Setting out the Conservation Objectives of the Site;
3. A description of how the project will affect key species and key habitats;
4. A description of how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes etc.);
5. A description of the mitigation measures that are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of European Sites.

6.1 ELEMENTS OF THE PLAN THAT HAVE THE POTENTIAL TO RESULT IN SIGNIFICANT EFFECTS

The elements of the Plan that have the potential to give rise to likely significant effects to the 10 European Sites occurring within the zone of influence of the Plan are the 11 Actions identified during the Screening stage. These Actions are listed in Table 6.1 below.

Table 6.1: Land Use Actions Identified as having the Potential to Result in Likely Significant Effects to European Sites

Action Theme	Action Theme No.	Action
Active Travel & Behaviour Change	12	Build out Fingal's cycle network offering direct routes to local destinations and public transportation hubs. Develop linked cycling trails, greenways and green belts for recreation and biodiversity protection

Active Travel & Behaviour Change	13	Advance the provision of new cycle network across the County such as the Fingal Coastal Way, the Sutton to Malahide Cycleway, the Broadmeadow Way, the Harry Reynolds Road Cycle Route and the Royal Canal Urban Greenway, etc.
Active Travel & Behaviour Change	14	Advance the construction of the following road schemes which will include high quality cycle network - Donabate Distributor Road, Rathbeale Road Upgrade and Snugborough Interchange and Ongar - Barnhill Link Road, etc.
Active Travel & Behaviour Change	16	Regular maintenance of regional and local roads to encourage modal shift to cycling.
Public Transport	23	Support the development and expansion of existing public transport services including MetroLink, BusConnects and DART expansion to Balbriggan.
Flood Defence	11	Develop and implement Coastal Protection Plan for Portrane.
Flood Defence	12	Progress OPW flood protection scheme at Mill Stream Skerries.
Flood Defence	13	Progress OPW flood protection scheme at Bissett Strand and The Green Malahide Village.
Flood Defence	14	Progress OPW flood protection scheme at Portmarnock Bridge.
Nature Based Solutions	18	Prepare a fire management plan for heathland on Howth.
Nature Based Solutions	19	Create multi-functional master plans for Rogerstown & Baldoyle Estuaries and their surroundings.

The potential ecological effects of such activities relate to:

- Habitat loss and fragmentation: the direct loss of habitat occurring within European Sites as a result of land use activities facilitated by the Plan.
- Habitat degradation resulting from emissions to surface water: the construction phase of projects resulting from the land use actions identified in Table 6.1 above could result in the discharge of contaminated surface water to receiving watercourses.
- Habitat degradation resulting from emissions to groundwater: as above, the development of projects can result in the discharge of polluted waters to groundwaters during the construction phase and operation phase of project.
- Habitat degradation resulting from emissions to air: the construction phase and operation phase of project can result in the emission of pollutants, such as dust, particulate matter, SOx and NOx to the atmosphere.
- Habitat degradation resulting from the spread of non-native invasive species during works facilitated by the land use actions listed in Table 6.1: If present on site development projects can result in the spread of these species; and
- Disturbance and/or displacement of qualifying species/special conservation interest bird species from within or outside European Sites: where project works facilitated by the actions listed in Table 6.1 above are located in close proximity to habitats upon which qualifying species/special conservation interest bird species of European Sites rely, then they could result in disturbance to these species and where disturbance stimuli persist they could result in displacement of these species from habitats.

Table 6.2 below lists the qualifying feature of interest/special conservation interests of the 10 European Sites occurring within the zone of influence of the Plan and assesses whether each of these features are risk from the ecological effects listed above.

Table 6.2: Potential for Ecological Effects to result in adverse effects to the Qualifying Features/special conservation interests of European Sites

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Rogerstown Estuary SAC						
Estuaries [1130]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			impacts to this habitat.		habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			downstream impacts to this habitat.		this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Salicornia and other annuals colonising mud and sand [1310]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary and works associated with these activities could result in the spread of such species. In addition while it is	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			potential to result in downstream impacts to this habitat.		acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary and works associated with these activities could result in the spread of such species. In addition	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			could have the potential to result in downstream impacts to this habitat.		while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in downstream impacts	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary and works associated with these activities could result in the spread of such	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
		to this habitat.	Rogerstown Estuary could have the potential to result in downstream impacts to this habitat.	habitat.	species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the watercourses draining to this SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation	Yes. Rationale: There is potential for activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary to result in the spread of non-native invasive species that could undermine the status of this habitat.	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
				status of this habitat.		
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the watercourses draining to this SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary to result in the spread of non-native invasive species that could undermine the status of this habitat.	Yes. Rationale: Any works associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SAC could result in disturbance to this habitat.
Rogerstown Estuary SPA						
Wintering Waterbirds	Yes. Rationale: Land use activities associated with the expansion of the cycle network, road	Yes. Rationale. Watercourses flowing through the Plan area discharge	Yes. Rationale. Perturbations to groundwaters from any land use	No. Rationale: The land use activities associated with the expansion of	Yes. Rationale: There is potential for land use activities associated with the	Yes. Rationale: There is potential for land use activities associated with the expansion of the cycle network, road maintenance

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	maintenance and the provision of a Masterplan for Rogerstown Estuary within or adjacent to this SPA could have the potential to result in negative effects to the conservation status of wetland habitats upon which these species rely.	to this SPA. Perturbations to these watercourses from any land use activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could result in negative downstream effects to the status of wetland habitats that support wintering waterbirds.	activities associated with the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary could result in negative effects to the status of wetland habitats that support wintering waterbirds	the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to foraging or roosting wintering waterbirds.	expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary to result in the spread of non-native invasive species that could undermine the status of wetland habitats upon which wintering waterbirds rely.	and the provision of a Masterplan for Rogerstown Estuary within or adjacent to the SPA to result in disturbance and displacement of wintering waterbirds from foraging and/or roosting grounds within the SPA
Malahide Estuary SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle and public transport networks,	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	Bissets Strand could have the potential to result in negative effects to the conservation status of this habitat.	the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	habitat.
Salicornia and other annuals colonising mud and sand [1310]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in negative effects to the conservation status of this habitat.	these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	road, and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this habitat.
Atlantic salt meadows (Glauco-Puccinellietalia	Yes. Rationale: Land use activities associated	Yes. Rationale: A number of watercourses	Yes. Rationale: The potential for effects	No. Rationale: The land use activities	Yes. Rationale: There is potential for non-	Yes. Rationale: Any works associated with the expansion

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
maritimae) [1330]	with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in negative effects to the conservation status of this habitat.	discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	native invasive species to occur at project site locations associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not	of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					ruled out.	
Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand could have the potential to result in downstream impacts to this	No. Rationale: The land use activities associated the expansion of the cycle network, road maintenance and the provision of a Masterplan for Rogerstown Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			habitat.		approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the watercourses draining to this SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand and works associated with these activities could result in the spread of such species. In addition while it is	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road, and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
				habitat.	acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the watercourses draining to this SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand are not predicted to have the potential to result in emissions to atmosphere that	Yes. Rationale: There is potential for activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand to result in the spread of non-native invasive species that could undermine the	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
				could result in negative effects to the conservation status of this habitat.	status of this habitat.	
Broadmeadow/Swords Estuary SPA						
Wintering waterbirds	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand within or adjacent to this SPA could have the potential to result in negative effects to the conservation status of wetland habitats upon which these species rely.	Yes. Rationale. Watercourses flowing through the Plan area discharge to this SPA. Perturbations to these watercourses from any land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand could result in negative downstream effects to the status of wetland habitats	Yes. Rationale. Perturbations to groundwaters from any land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand could result in negative effects to the status of wetland habitats that support wintering waterbirds	No. Rationale: The land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand y are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to foraging or	Yes. Rationale: There is potential for land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand to result in the spread of non-native invasive species that could undermine the status of wetland habitats upon which wintering	Yes. Rationale: There is potential for land use activities associated with the expansion of the cycle and public transport networks, road maintenance, the construction of the Donadate Distributor road and flood protection works at Bissets Strand y within or adjacent to the SPA to result in disturbance and displacement of wintering waterbirds from foraging and/or roosting grounds within the SPA

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
		that support wintering waterbirds.		roosting wintering waterbirds.	waterbirds rely.	
Baldoyle Bay SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in	No. Rationale: The land use activities associated the expansion of expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that	Yes. Rationale: Any works associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			downstream impacts to this habitat.		this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Salicornia and other annuals colonising mud and sand [1310]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and	No. Rationale: The land use activities associated the expansion of expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary and works associated with these activities	Yes. Rationale: Any works associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
		potential to result in downstream impacts to this habitat.	the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	negative effects to the conservation status of this habitat.	could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in negative effects to the conservation status of	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses as a result of land use activities associated with expansion of the cycle and public	No. Rationale: The land use activities associated the expansion of expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary are not predicted	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a	Yes. Rationale: Any works associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	this habitat.	maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Masterplan for Baldoyle Estuary and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for	Yes. Rationale: A number of watercourses discharge to this habitat and any perturbations to water quality within these watercourses as a result of land use activities associated with the expansion of	Yes. Rationale: The potential for effects to groundwater that drain to the watercourses discharging to this habitat. Any perturbations to water quality within these watercourses	No. Rationale: The land use activities associated the expansion of expansion of the cycle and public transport networks, works at Portmarnock Bridge and road	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations associated expansion of the cycle and public transport networks,	Yes. Rationale: Any works associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	Baldoyle Estuary could have the potential to result in negative effects to the conservation status of this habitat.	the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	as a result of land use activities associated with expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could have the potential to result in downstream impacts to this habitat.	maintenance and the provision of a Masterplan for Baldoyle Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary and works associated with these activities could result in the spread of such species. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Baldoyle Estuary SPA						

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Wintering Waterbirds	Yes. Rationale: Land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to this SPA could have the potential to result in negative effects to the conservation status of wetland habitats upon which these species rely.	Yes. Rationale. Watercourses flowing through the Plan area discharge to this SPA. Perturbations to these watercourses from any land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could result in negative downstream effects to the status of wetland habitats that support wintering waterbirds.	Yes. Rationale. Perturbations to groundwaters from any land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary could result in negative effects to the status of wetland habitats that support wintering waterbirds	No. Rationale: The land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to foraging or roosting wintering waterbirds.	Yes. Rationale: There is potential for land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary to result in the spread of non-native invasive species that could undermine the status of wetland habitats upon which wintering waterbirds rely.	Yes. Rationale: There is potential for land use activities associated with the expansion of the cycle and public transport networks, works at Portmarnock Bridge and road maintenance and the provision of a Masterplan for Baldoyle Estuary within or adjacent to the SPA to result in disturbance and displacement of wintering waterbirds from foraging and/or roosting grounds within the SPA

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Howth Head SAC						
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Yes. Rationale: Land use activities associated with a fire management plan for Howth Head could have the potential to result in negative effects to the conservation status of this habitat.	No. This habitat is not reliant on surface water quality.	No. This habitat is not reliant on groundwater quality.	No. Rationale: The land use activities associated a fire management plan are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Operations associated with fire management could result in the spread of non-native invasive species within this habitat.	Yes. Fire management will result in disturbance to this habitat and if not implemented in an adequate manner result in the negative effects to the long term status of this habitat.
European dry heaths [4030]	Yes. Rationale: Land use activities associated with a fire management plan for Howth Head could have the potential to result in negative effects to the conservation status of	No. This habitat is not reliant on surface water quality.	No. This habitat is not reliant on groundwater quality.	No. Rationale: The land use activities associated with a fire management plan are not predicted to have the potential to result in emissions to atmosphere that	Yes. Operations associated with fire management could result in the spread of non-native invasive species within this habitat.	Yes. Fire management will result in disturbance to this habitat and if not implemented in an adequate manner result in the negative effects to the long term status of this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	this habitat.			could result in negative effects to the conservation status of this habitat.		
Howth Head SPA						
Kittiwake (Rissa tridactyla) [A188]	Yes. Rationale: Land use activities associated with a fire management plan for Howth Head could have the potential to result in negative effects to the habitats supporting this species.	No. This habitat that this species relies upon are not reliant on surface water quality.	No. This habitat that this species relies upon are not reliant on groundwater quality.	No. Rationale: The land use activities associated with a fire management plan are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Operations associated with fire management could result in the spread of non-native invasive species within this habitat.	Yes. Fire management could result in the disturbance to nest sites of this species at this SPA.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
North Dublin Bay SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: The Santry River discharges to mudflat habitats of this SAC. Any perturbations to water quality within this watercourse as a result of land use activities completed for the Actions identified in Table 6.1 above will have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the Santry River and downstream to this habitat cannot be ruled out at this stage.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations within the Plan area and such species could be conveyed downstream via the Santry River and the Liffey estuary to this habitat. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Annual vegetation of drift lines [1210]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the Santry River draining to the North Dublin Bay SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance to result in the spread of non-native invasive species that could undermine the status of this habitat.	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.
Salicornia and other annuals colonising mud and sand [1310]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: The Santry River discharges to mudflat habitats of this SAC. Any perturbations to water quality within this watercourse as a result of land use activities completed for the Actions identified in Table 6.1 above will have	Yes. Rationale: The potential for effects to groundwater that drain to the Santry River and downstream to this habitat cannot be ruled out at this stage.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations within the Plan area and such species could be conveyed downstream via the Santry River and the Liffey estuary	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
		the potential to result in downstream impacts to this habitat.		the conservation status of this habitat.	to this habitat. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: The Santry River discharges to mudflat habitats of this SAC. Any perturbations to water quality within this watercourse as a result of land use activities completed for the Actions identified in Table 6.1 above will have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the Santry River and downstream to this habitat cannot be ruled out at this stage.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations within the Plan area and such species could be conveyed downstream via the Santry River and the Liffey estuary to this habitat. In addition while it is acknowledged that this is a coastal habitat, a	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Mediterranean salt meadows (Juncetalia maritimi) [1410]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	Yes. Rationale: The Santry River discharges to mudflat habitats of this SAC. Any perturbations to water quality within this watercourse as a result of land use activities completed for the Actions identified in Table 6.1 above will have the potential to result in downstream impacts to this habitat.	Yes. Rationale: The potential for effects to groundwater that drain to the Santry River and downstream to this habitat cannot be ruled out at this stage.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for non-native invasive species to occur at project site locations within the Plan area and such species could be conveyed downstream via the Santry River and the Liffey estuary to this habitat. In addition while it is acknowledged that this is a coastal habitat, a precautionary approach is taken for this assessment and the potential for such spread to	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					this habitat is not ruled out.	
Embryonic shifting dunes [2110]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the Santry River draining to the North Dublin Bay SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance to result in the spread of non-native invasive species that could undermine the status of this habitat.	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the Santry River draining to the North Dublin	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance to	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	negative effects to the conservation status of this habitat.	Bay SAC will not have the potential to undermine the status of this habitat.		atmosphere that could result in negative effects to the conservation status of this habitat.	result in the spread of non-native invasive species that could undermine the status of this habitat.	
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the Santry River draining to the North Dublin Bay SAC will not have the potential to undermine the status of this habitat.	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by groundwater water quality.	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance to result in the spread of non-native invasive species that could undermine the status of this habitat.	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.
Humid dune slacks [2190]	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine	Yes. Rationale: The status of terrestrial coastal habitat is highly influenced by groundwater	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above	Yes. Rationale: There is potential for construction works associated with the expansion of the	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance actions within or

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	water quality. Any perturbations to the Santry River draining to the North Dublin Bay SAC will not have the potential to undermine the status of this habitat.	quality. Any perturbtions to groundwater quality or processes as a result of works associated with the expansion of the cycle and public transport networks and road maintenance could result in negative effects to this habitat.	are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	cycle and public transport networks and road maintenance to result in the spread of non-native invasive species that could undermine the status of this habitat.	adjacent to this SAC could result in disturbance to this habitat.
Petalophyllum ralfsii (Petalwort) [1395]	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in negative effects to the conservation status of this species.	No. Rationale: This species is not reliant on surface water bodies and its status is not influenced by lotic or estuarine water quality.	Yes. Rationale: This species status is highly influenced by groundwater quality. Any perturbtions to groundwaters quality or processes as a result of works associated with the expansion of the cycle and public transport networks and road maintenance could	No. Rationale: The land use activities associated with the actions listed in Table 6.1 above are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance to result in the spread of non-native invasive species that could undermine the status of this	Yes. Rationale: Any works associated with the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SAC could have the potential to result in disturbance to this species.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			result in negative effects to this species.		species.	
North Bull Island SPA						
Wintering Waterbirds	Yes. Rationale: Any works associated the expansion of the cycle and public transport networks and road maintenance within or adjacent to this SPA could have the potential to result in negative effects to the conservation status of its wetland habitats.	Yes. Rationale. Watercourses flowing through the Plan area discharge to this SPA. Perturbations to these watercourses from any works associated with the expansion of the cycle and public transport networks and road maintenance could result in negative downstream effects to the status of wetland habitats that support wintering waterbirds.	Yes. Rationale. Perturbations to groundwaters from any works associated with the expansion of the cycle and public transport networks and road maintenance could result in negative effects to the status of wetland habitats that support wintering waterbirds	No. Rationale: The land use activities associated with the expansion of the cycle and public transport networks and road maintenance are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to foraging or roosting wintering waterbirds.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance could undermine the status of wetland habitats upon which wintering waterbirds rely.	Yes. Rationale: There is potential for construction works associated with the expansion of the cycle and public transport networks and road maintenance within or adjacent to the SPA to result in disturbance and displacement of wintering waterbirds from foraging and/or roosting grounds within the SPA

6.2 IN-COMBINATION EFFECTS

This Section provides an outline of the potential cumulative effects on the European Sites within the zone of influence of the Plan. There is potential for a wide range of plans and project to combine with the CCAP and documented threats and pressures to these European Sites. Table 6.3 below provides a non-exhaustive list of the Plans that represent those most likely to combine with the CCAP to result in potential cumulative effects. An assessment for potential cumulative effects to arise is provided for each of the Plans listed in Table 6.3.

Table 6.3: Assessment For Potential Cumulative Effects With Other Plans & Projects

Plan	Comment	Cumulative effects
Climate Change Action Plans 2019-2024 for other Dublin Local Authorities	During the formulation of the CCAPs for the Dublin Region, a suite of common thematic actions have been prepared for each of the local authority areas The individual action plan for each Local Authority has undergone Habitats Directive Assessment and Strategic Environmental Assessment. It has been found that by implementing the mitigation policies and objectives of the relevant CDP as identified in the NIR and SEA ER, effects to the environment and European Sites are not likely to occur	It has been found that by implementing the mitigation policies and objectives of the relevant CDP as identified in the NIR and SEA ER, effects to the environment and European Sites are not likely to occur
National Planning Framework	The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. It will provide a framework for the new Regional Spatial and Economic Strategies (RSESs) by the three Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act	A NIR was prepared for this plan and an Appropriate Assessment was completed. The Appropriate Assessment concluded that, subject to mitigation measures

Plan	Comment	Cumulative effects
	2014. The draft NPF will co- ordinate the strategic planning of urban and rural areas in a regional development context to secure overall proper planning and development as well as co-ordination of the RSES's and city/ county development plans in addition to local economic and community plans and local area plans and other local development.	proposed in the NIR, there will be no adverse effects to the integrity of any European Sites as a result of the implementation of this Plan.
Regional Spatial & Economic Strategy	The RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. At this strategic level it provides a framework for investment to better manage spatial planning and economic development throughout the Region	A NIR was prepared for this plan and concluded that, subject to mitigation measures proposed in the NIR, there will be no adverse effects to the integrity of any European Sites as a result of the implementation of this Plan.
The Transport Strategy for the Greater Dublin Area, 2016-2035	This Strategy sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the strategy and was subject to SEA and AA.	No in combination effects are identified.
Water Services Strategic Plan	Ireland's first integrated national plan for the delivery of water services, the Water Services Strategic Plan (WSSP) addresses six key themes and was adopted in 2015. It was subject to full SEA and AA and	No in-combination impacts were predicted as a result of implementation

Plan	Comment	Cumulative effects
	concluded that overall, the assessment has identified that the implementation of the draft WSSP is likely to have positive effects on the environment and provided adequate environmental assessments and mitigations measures are implemented at lower plan and project levels it will not have the potential to result in likely significant effects to European Sites.	of the Plans
Neighbouring County Development Plans	These plans were subject to full SEA and AA and concluded that subject to full adherence and implementation of all measures and particularly those that aim to safeguard the environment, there will be no potential for adverse effects to European Sites.	No in-combination impacts were predicted as a result of implementation of the Plans
River Basin District Management Plans.	The National River Basin District Management Plan is now published (2018). The second cycle River Basin Management Plan aims to build on the progress made during the first cycle with a greater emphasis on ensuring the evidence base is available and the administration supports are fully in place to support key measures. The approach to the plan development involves characterisation of Ireland's water bodies in order to develop a tailored programme of measures to allow for the protection of good status or the restoration of good status for all water bodies. The outcomes are then monitored in order to feed into further characterisation and measures setting as the cycle moves forward. The plan was subject to SEA and Appropriate Assessment.	No in-combination impacts are predicted as a result of implementation of the Plans

Plan	Comment	Cumulative effects
CFRAMS Study	The Eastern CFRAM study has been commissioned in order to meet the requirements of the Floods Directive, as well as to deliver on core components of the 2004 National Flood Policy, in the Eastern district.	No in-combination impacts are predicted as a result of implementation of the Plans.
Greater Dublin Drainage	Irish Water made a planning application for strategic infrastructure development to An Bord Pleanála for the Greater Dublin Drainage Project in June 2018. The GDD project proposes a new regional wastewater treatment facility to be located in the townland of Clonshaugh in north county Dublin, an underground orbital sewer from Blanchardstown to Clonshaugh, a new pumping station at Abbotsown, a partial diversion of the north fringe sewer, and an outfall pipeline to return the treated water to the Irish Sea. The project also includes a regional sludge treatment centre at the new GDD facility and an associated biosolids storage facility at Newtown near Kilshane Cross.	Chapter 23 of the EIAR was reviewed with a focus on the cumulative impacts, No in-combination impacts are predicted as a result of implementation of the Project

Plan	Comment	Cumulative effects
The Greater Dublin Transport Strategy 2016-2035	The Transport Strategy for the Greater Dublin Area, 2016-2035 has been prepared and published by the National Transport Authority. It sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the strategy and has been approved by the Minister for Transport, Tourism and Sport in accordance with the relevant legislation. Luas, heavy rail and orbital bus routes are of particular relevance to the elements of this Plan.	Positive effects in relation to the prioritisation of public transport modes above private transport.

7.0 MITIGATION MEASURES

The Fingal County CCAP sits within the frameworks of the Fingal County Development Plan and has been prepared in line with policies and objectives of the CDP. The CDP also outlines a range of policies and objectives that aim to safeguard the environment and ensure that low tier plans and project facilitated by the CDP do not have the potential to result in likely significant effects to European Sites. The protection afforded to the environment by these policies and objectives will also apply for all future land use actions facilitated by the CCAP. The key policies and objectives of the CCAP that will protect the European Sites occurring within the zone of influence of this Plan from likely significant effects are listed and evaluated in Table 7.1 below. An evaluation of the effectiveness of these policies and objectives to establish a framework that minimises or eliminates the potential for likely significant effects to European Sites is also provided in Table 7.1. This evaluation examines how each mitigatory policy and objective of the CDP will provide safeguards for European Sites and also demonstrates how these policies and objectives can be applied to safeguard European Sites from the potential land use effects of the CCAP Actions listed in Table 6.1 above.

In addition to the environmental safeguard measures of the CDP identified in Table 7.1 further mitigation in the form of proposed amendments to specific Actions of the CCAP are outlined in Table 7.2. The amendments to these Actions emphasise the need to ensure protection of the natural environment during the implementation of these actions.

Table 7.1: Fingal County Council CDP Environmental Safeguards

CDP Ref.	Mitigation Measure	Evaluation
DW03	Protect both ground and surface water resources and work with Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing	The successful implementation of this objective will require land use activities to put in place safeguards that aim to satisfy the goal of this Policy to protect groundwater and surface waters within the Plan area. Such safeguards will be required to minimise to an insignificant level the potential for land use activities associated with the CCAP to result in adverse effects to the water quality status of water bodies within and surrounding the Plan area.
WQ01	Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.	The successful implementation of this objective will require land use activities to put in place safeguards that aim to satisfy the goal of this Policy to protect groundwater and surface waters within the Plan area. Such safeguards will be required to minimise to an insignificant level the potential for land use activities associated with the CCAP to result in adverse effects to the water quality status of water bodies within and surrounding the Plan area.
WQ02	Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any	The successful implementation of this Policy will require land use activities to put in place safeguards that aim to satisfy the goal of this Policy to protect groundwater within the Plan area. Such safeguards will be required to minimise to an insignificant level the potential for land use activities associated with the CCAP to result in adverse effects to the water quality status of water bodies

	subsequent plan and the Groundwater Protection Scheme	within and surrounding the Plan area.
WQ03	Implement the recommendations of the Groundwater Protection Scheme. Objective	The successful implementation of this Policy will require land use activities to put in place safeguards that aim to satisfy the goal of this Policy to protect groundwater within the Plan area. Such safeguards will be required to minimise to an insignificant level the potential for land use activities associated with the CCAP to result in adverse effects to the water quality status of water bodies within and surrounding the Plan area.
WQ04	Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.	All European Sites occurring within the zone of influence of the Plan area are coastal, while some of these can also be influenced by riverine processes. The implementation of this objective will provide protection for this features from any future land use activities supported by the Plan.
WQ05	Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15-metre-wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.	The implementation of this objective will have the potential to minimise to an insignificant level or even eliminate potential impacts to coastal European Sites from land use activities in the vicinity of watercourses upstream of these sites within the Plan area.
SW12	Require an environmental assessment of all proposed flood protection or alleviation works	The implementation of this objective will ensure that all flood schemes supported by the CCAP will be first subject to environmental assessment and potential impacts to the natural

		environment and European Sites will be identified as part of these assessments. This will provide the opportunity for the design of suitable mitigation measures that will avoid likely significant effects to European Sites, or otherwise allow for an informed decisions on the approach to be taken for such schemes at the project level.
NH04	Undertake necessary ecological surveys and complete habitat mapping for the County during the lifetime of the Plan, prioritising sensitive coastal areas	The implementation of this objectives will provide a rescoures of baseline ecological information that can be used to identify ecological constraints and inform the sensitive design of projects that may be supported by the CCAP at an early stage of the project design.
NH09	Support the National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, in the maintenance and, as appropriate, the achievement of favourable conservation status for the habitats and species in Fingal to which the Habitats Directive applies	The implementation of this objective will provide a planning framework that will seek to ensure projects do not undermine its aim, which is to achieve the favourable conservation status European Sites and the interest features.
NH10	Ensure that the Council takes full account of the requirements of the Habitats and Birds Directives, as they apply both within and without European Sites in the performance of its functions.	The implementation of this objectives will require the Council assess land use projects that may be supported by the CCAP against the provisions of Article 6(3) and, where necessary 6(4) of the Habitats Directive. This requirement will ensure that all projects supported by the CCAP will be approved in compliance with this Directive.
NH12	Undertake field studies and map invasive species throughout the County and initiate control programs with all relevant	The implementation of this objectives will provide a rescoures of baseline information that can be used to identify constraints

	stakeholders and landowners to control the key invasive species	relating to the spread of non-native invasive species at early stages of a projects design. Such information will provide opportunities to ensure that projects do not result in the spread of such species.
NH13	Ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are or were previously present, the applicants will be required to submit a control and management program for the particular invasive species as part of the planning process and to comply with the provisions of the European Communities Birds and Habitats Regulations 2011 (S.I. 477/2011).	The implementation of this objective will minimise to an insignificant level or eliminate the risk posed by non-native invasive species to European Sites as a result of projects that may be supported by the CCAP.
NH15	Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.	The implementation of this objective will require the Council assess land use projects that may be supported by the CCAP against the provisions of Article 6(3) and, where necessary 6(4) of the Habitats Directive. This requirement will ensure that all projects supported by the CCAP will be approved in compliance with this Directive.
NH17	Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats	The implementation of this objective will ensure that protection is afforded to special conservation interests or qualifying features of interest of European Sites for projects supported by the CCAP.

NH24	Protect rivers, streams and other watercourses and maintain them in an open state capable of providing suitable habitat for fauna and flora, including fish	The successful implementation of this objective will require land use activities to put in place safeguards that aim to satisfy the goal of this Policy to protect groundwater and surface waters within the Plan area. Such safeguards will be required to minimise to an insignificant level the potential for land use activities associated with the CCAP to result in adverse effects to the water quality status of water bodies within and surrounding the Plan area.
NH25	Provide for public understanding of and public access to rivers, waterway corridors and wetlands, where feasible and appropriate, in partnership with the National Parks and Wildlife Service, Waterways Ireland and other relevant stakeholders, while maintaining them free from inappropriate development and subject to Ecological Impact Assessment and screening for Appropriate Assessment as appropriate.	The implementation of this objective will ensure that where necessary land use projects supported by the CCAP will be subject to ecological impact assessment and Appropriate Assessment and will only be supported where it can be demonstrated that such projects are in compliance with the Habitats Directive and the aims of this objective.

Table 7.2: Recommended Rewording of CCAP Actions

Overarching measure	An integrated approach to decision making in relation to these climate change actions is recommended.	Included in CCAP yes/no?
New measure – for consistency with DLR and DCC	**Prepare and** Implement an **Integrated** Coastal Zone Management Plan **that addresses natural and cultural heritage and aligns with the Marine Spatial Planning Directive**	
New Measure – again for consistency with the three other DLAs	Update DLA urban drainage and flooding policies for current knowledge of flood risk and the latest best practice in drainage design **promoting natural flood measures as a priority**	
Flood Resilience Action 8	Develop template to capture impacts, response and costs (**including ecosystem services/natural capital costs** for all major climate events	
Preamble to Flood Defence actions	The following flood defence will incorporate nature based solutions and biodiversity enhancement measures where possible	
Nature Based Solutions Action 4	Map access to green space in County to identify areas of need **and integrate green infrastructure in access considerations.**	
Action 8	Identify sites for woodland planting that promotes an appropriate native species mix	

Action 17	Prepare a heathland management plan for Howth **with ecological input**	
Action 18	Prepare a fire management plan for heathland on Howth **that includes environmental considerations.**	

7.1 RESPONSIBILITY FOR IMPLEMENTING MITIGATION MEASURES

The responsibility for implementing land use actions proposed by the CCAP lies with the relevant departments of Fingal County Council. Departments seeking to implement land use actions proposed by the CCAP are obliged to ensure that the implementation of these actions are consistent with the Objectives and requirements of the environmental safeguards of the CDP as listed in Table 7.1 above. It is a statutory requirement for a competent authority (e.g. Fingal County Council) to carry out screening for appropriate assessment for all land use projects and all land use actions implemented under the CCAP will be assessed for their potential to result in likely significant effects. However, such effects are not likely to occur if the Objectives in the CDP as listed in Table 7.1 above are adhered to, where appropriate.

7.2 MONITORING OF MITIGATION MEASURES

Whilst there is no legal requirement to monitor the outputs of the AA process, there is an obligation to monitor the implementation of the CDP through the E.C. SEA Directive as implemented in Ireland. Contingency measures may have to be applied if there is evidence that Objectives cannot be implemented successfully. The *European Communities (Environmental Liability) Regulations 2008* will also apply in the event of any environmental damage to habitats and species both within and outside of the European sites.

8.0 CONCLUSION

This NIR has reviewed the potential impacts arising from the CCAP and found that, without the implementation of mitigation measures, the Plan will have the potential to impact upon the Conservation Objectives of 10 European Sites and their relevant qualifying features that occur within the zone of influence of the Plan.

The potential impacts that could negatively affect these European Sites have been outlined in Section 6 this NIR. These potential impacts relate to actions of the CCAP that aim to expand the walking, cycling, road and public transport networks; maintain roads; provide coastal and flood protection; provide fire management at Howth Head; and provide masterplans for the Baldoyle and Rogerestown estuaries. Section 7 outlines the environmental safeguards within the Fingal County CDP that will be applied for all land use activities supported by the CCAP. The purpose of these safeguards is to minimise and/or eliminate potential impacts associated with the CCAP land use actions to European Sites and the wider environment in general.

The mitigation measures outlined in Section 7 of this NIR will protect these Sites from potential adverse impacts. Table 7.1 has listed these mitigation measures and evaluated their potential to safeguard European Sites from these actions. A rational has been provided to demonstrate how these mitigation measures will provide effective safeguards against any landuse projects arising from the actions of the CCAP that aim to expand the walking, cycling, road and public transport networks; maintain roads; provide coastal and flood protection; provide fire management at Howth Head; and provide masterplans for the Baldoyle and Rogerestown estuaries.

The measures and requirements of the Fingal County CDP and particularly Objectives NH10, NH15 and NH25 that aim to protect, conserve and appropriately management European Sites provide a basis for eliminating or minimising to an insignificant level potential adverse land use effects that could arise from the land use actions identified in Table 6.1 of this NIR. These objectives along with the additional safeguards within the CDP as outlined above will provide a basis for ensuring any future land use facilitated by the CCAP will not be supported where they present a risk of likely significant effects to European Sites.

REFERENCES

Department of the Environment Heritage and Local Government (DEHLG) (2010). Appropriate Assessment of Plans and Projects. Guidance for Local Authorities.

English Nature (1999). Habitats *regulations guidance note no. 3 (HRGN No. 3). Determination of Likely Significant Effect under The Conservation (Natural Habitats &c) Regulations 1994*.

European Commission (2000). *Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC*. Luxembourg.

European Communities (2001). *Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Luxembourg.

European Commission (1992). EU Habitats Directive.

APPENDIX 1: SCREENING STATEMENT FOR APPROPRIATE ASSESSMENT

Fingal County Council

Climate Change Action Plan 2019 - 2021

Statement in Support of

Screening for Appropriate Assessment

26th January 2019

Fingal County Council

Climate Change Action Plan 2019 - 2021

Statement in support of Screening for Appropriate Assessment

Document Stage	Document Version	Prepared by
Draft	1	Pat Doherty MSc, MCIEEM

This report has been prepared by DEC Ltd with all reasonable skill, care and diligence. Information report herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is prepared for Fingal County Council and we accept no responsibility to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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1.1 INTRODUCTION

Fingal County Council intends to implement its first Climate Change Action Plan (CCAP) for the period 2019 to 2021. Minogue and Associates have been appointed by Fingal County Council to prepare a statement in support of Screening for Appropriate Assessment for the CCAP.

The function of this Screening Exercise is to identify the potential for the proposed CCAP to result in likely significant effects to European Sites and to provide information so that Fingal County Council can determine whether a Natura Impact Report and Appropriate Assessment is required for the Action Plan.

1.2 HABITATS DIRECTIVE ASSESSMENT

Article 6(3) of the Habitats Directive requires an assessment of the potential effects of a land use plan or project on one or more Natura 2000 (N2K) Sites. It is noted that a Habitats Directive Assessment is commonly referred to as an "Appropriate Assessment" (Dodd *et al*, 2007). However "Appropriate Assessment" forms only one stage of the HDA process (all stages making up the assessment process are outlined in detail below). The EU Habitats Directive provides the legislative framework for the protection of habitats and species throughout Europe through the establishment of a network of designated conservation areas known as the N2K network. The N2K network includes sites designated as Special Areas of Conservation (SACs), under the EU Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive. Under the European Communities (Birds and Natural Habitats Regulations 2011, as amended) SACs and SPAs are referred to as European Sites. SACs are designated in areas that support habitats listed on Annex I and/or species listed on Annex II of the Habitats Directive. SPAs are designated in areas that support: 1% or more of the all-Ireland population of bird species listed on Annex I of the EU Birds Directive; 1% or more of the population of a migratory species; and more than 20,000 waterfowl.

Articles 6(1) & (2) of the Habitats Directive set out provisions for the conservation management of European Sites. Articles 6(3) and 6(4) of this Directive set out a series of procedural steps to test whether or not a plan or project is likely to affect a European Sites. Article 6(3) also establishes the requirement for a HDA:

"*any plan or project not directly connected with or necessary to the management of the (European) site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*".

Therefore, the objective of this Screening is to identify whether or not land use measures supported by the Plan will have the potential to adversely affect the Conservation Objectives of European Sites. Such a conclusion will be arrived at by assessing the implications of future developments that will be supported by the Plan on each European Site occurring within its zone of influence.

The HDA is underpinned by the precautionary principle. Therefore, if the risk of adverse impacts to the conservation objectives of a European Site cannot be ruled out it is assumed that the potential for an adverse impact will exist. Where such uncertainties are identified during the assessment, measures will be proposed to avoid or mitigate the risk of adverse impacts occurring.

The Screening was undertaken with reference to the following guidance documents on Habitats Directive Assessments:

- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2009). DEHLG.

- Managing Natura 2000 Sites – The provisions of Article 6 of the Habitats directive 92/43/EEC. European commission (2018).

- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance of the Provisions of Article 6(3) and (4) of the Habitats directive 92/43/EEC. European Commission (2001).

1.3 STAGES OF THE HABITATS DIRECTIVE ASSESSMENT

The European Commission (2001) Guidance has outlined a staged process for the completion of a HDA.

- Stage 1 – Screening: This stage defines the proposed plan, establishes whether the proposed plan is necessary for the conservation management of the European Site and assesses the likelihood of the plan to have a significant effect, alone or in combination with other plans or projects, upon a European Site.

- Stage 2 – Appropriate Assessment: If a plan or project is likely to have a significant effect an Appropriate Assessment must be undertaken. In this stage the impact of the plan or project to the Conservation Objectives of the European Site is assessed. The outcome of this assessment will establish whether the plan will have an adverse effect upon the integrity of the European Site.

- Stage 3 – Assessment of Alternative Solutions: If it is concluded that, subsequent to the implementation of mitigation measures, a plan has an adverse impact upon the integrity of a European Site it must be objectively concluded that no alternative solutions exist before the plan can proceed.

- Stage 4 – Where no alternative solutions exist and where adverse impacts remain but imperative reasons of overriding public interest (IROPI) exist for the implementation of a plan or project an assessment of compensatory measures that will effectively offset the damage to the Natura site 2000 will be necessary.

The remainder of this document sets out the Methodology and Results of the Screening exercise. It is structured as follows:

Section 2: Habitats Directive Assessment Methodology;

Section 3: Description of the proposed Climate Change Action Plan & Screening of Actions for likely significant effects;

Section 4: Identifies the European Sites within the zone of influence of the Plan;

Section 5: Identifies the Likely Significant Effects of the Plan to European Sites occurring within its zone of influence; and

Section 6: Provides a Screening conclusion.

2.0 SCREENING METHODOLOGY

The function of the Screening Assessment is to identify whether the Plan will have a likely significant effect on European Sites. In this context "likely" means any effect that may be reasonably predicted and "significant" means not trivial or inconsequential but an effect that is potentially relevant to the Site's conservation objectives[1]. Any effect, which would compromise the functioning and viability of a Site and interfere with achieving the conservation objectives of the Site would constitute a significant effect.

The nature of the likely interactions between the Plan and the Conservation Objectives of European Sites will depend upon the potential for future land use activities supported by the Plan to interact with European Sites and their associated qualifying features of interest; the sensitivity of European Site qualifying features to potential impacts associated with land use activities facilitated by the Plan; the current conservation status of the European Site qualifying features; and the likely changes that will result from the implementation of the Plan, in combination with other plans and projects.

The European Commission Guidelines (2001) outline the stages involved in undertaking a Screening assessment of a plan or project that has the potential to have likely significant effects on European Sites. The methodology adopted for the Screening of the Plan is informed by these guidelines and was undertaken in the following stages:

- A brief description of the Plan is provided and determine whether it is necessary for the conservation management of European Sites;
- Identification of European Sites occurring within the zone of influence of the Plan;
- Identification of potential likely significant effects to European Sites; and

[1] **See English Nature's Habitat Regulations Guidance Note No. 3, 1999.**

- Identification of other plans or projects that, in combination with the Plan, have the potential to affect European Sites.

3.0 DESCRIPTION OF THE CCAP

3.1 OVERVIEW

For the first time, Dublin's four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.

These CCAPs follow on from the publication of A Strategy for Climate Change Action Plans for the Dublin Local Authorities (DLAs), which was published in January 2017. The strategy used a structured approach that focused on seven key areas (Citizen Engagement, Planning, Energy, Transport, Water, Waste, and Ecosystems & Biodiversity), and set out how the DLAs would develop the four climate change action plans. The action plans will be unique to each local authority area but synchronised in their methodology.

This plan concentrates on the two approaches required to tackle climate change. The first, mitigation, consists of actions that will reduce current and future GHG emissions; examples of these include reductions in energy use, switching to renewable energy sources and carbon sinks. The second approach, adaptation, consists of actions that will reduce the impacts that are already happening now from our changing climate and those that are projected to happen in the future.

The actions in this draft CCAP for Fingal will be continually monitored and updated by a dedicated climate action team working across all Council departments. They will be assisted by the newly established Dublin Metropolitan Climate Action Regional Office, which will ensure that the overall plan is fully updated every five years to reflect latest policy, technology and climate-related impacts. The new office will work with Codema, as technical support and research partner, to ensure that the plans continue to be informed by national and international best practice.

The actions in the CCAP are presented around a number of themes as follows:

- Energy and Buildings

- Transport
- Flood Resilience
- Nature Based Solutions
- Resource Management.

Collectively, these collectively address the four targets of this plan, which are:

- A 33% improvement in the Council's energy efficiency by 2020
- A 40% reduction in the Council's greenhouse gas emissions by 2030
- To make Dublin a climate resilient region, by reducing the impacts of future climate change -related events
- To actively engage and inform citizens on climate change.

As such, this CCAP encompasses the functional area of Fingal County Council. This area is referred to throughout this report as the "Plan area". The administrative area of the County Council for which the Plan has been prepared comprises 117 km^2.

3.2 SCREENING OF CCAP ACTIONS

All CCAP actions outlined in the Plan are presented in Appendix 1. A screening of each of these actions is also provided in Appendix 1. The majority of these actions have been identified as not having the potential to result in any land use effects or where land use effects arise, they are likely to have the potential to result in positive impacts for the environment. However a small number of actions, 11 in total, associated with transport and flood mitigation measures, have been identified as having the potential, in the absence of mitigation, to result in likely significant effects to European Sites. It is noted that the identification of likely significant effects associated with these actions is underpinned by a precautionary approach and the broad level of information available for each of these three actions at the Plan stage.

In the absence of definitive locations that will be subject to land use activities facilitated by these actions it cannot be ruled out that such activities will not have the potential to result in likely significant effects to European Sites.

The 11 actions that could not be screened out that this stage of the Habitats Directive Assessment process are as follows:

Active Travel & Behaviour Change: Action No. 12 - Build out Fingal's cycle network offering direct routes to local destinations and public transportation hubs. Develop linked cycling trails, greenways and green belts for recreation and biodiversity protection.

Active Travel & Behaviour Change: Action No. 13 - Advance the provision of new cycle network across the County such as the Fingal Coastal Way, the Sutton to Malahide Cycleway, the Broadmeadow Way, the Harry Reynolds Road Cycle Route and the Royal Canal Urban Greenway, etc.

Active Travel & Behaviour Change: Action No. 14 - Advance the construction of the following road schemes which will include high quality cycle network - Donabate Distributor Road, Rathbeale Road Upgrade and Snugborough Interchange and Ongar - Barnhill Link Road, etc.

Active Travel & Behaviour Change: Action No. 16 - Regular maintenance of regional and local roads to encourage modal shift to cycling.

Public Transport: Action No. 23 - Support the development and expansion of existing public transport services including MetroLink, BusConnects and DART expansion to Balbriggan.

Flood Defence: Action No. 11 - Develop and implement Coastal Protection Plan for Portrane.

Flood Defence: Action No. 12 - Progress OPW flood protection scheme at Mill Stream Skerries.

Flood Defence: Action No. 13 - Progress OPW flood protection scheme at Bissett Strand and The Green Malahide Village.

Flood Defence: Action No. 14 - Progress OPW flood protection scheme at Portmarnock Bridge.

Nature Based Solutions: Action No. 18 – Prepare a fire management plan for heathland on Howth.

Nature Based Solutions: Action No. 19 - Create multi-functional master plans for Rogerstown & Baldoyle Estuaries and their surroundings.

3.3 PROPOSED CCAP & NATURA CONSERVATION MANAGEMENT

The proposed CCAP seeks to implement measures that will reduce the greenhouse gas emissions and provide improved resilience to climate change within the local authority area.

It is clear from this overarching objective of the proposed CCAP, that it is not necessary for the management of any European Site for nature conservation purposes. Therefore consideration is given to the Plan and whether it has the potential to result in likely significant effects to European Sites and their Conservation Objectives.

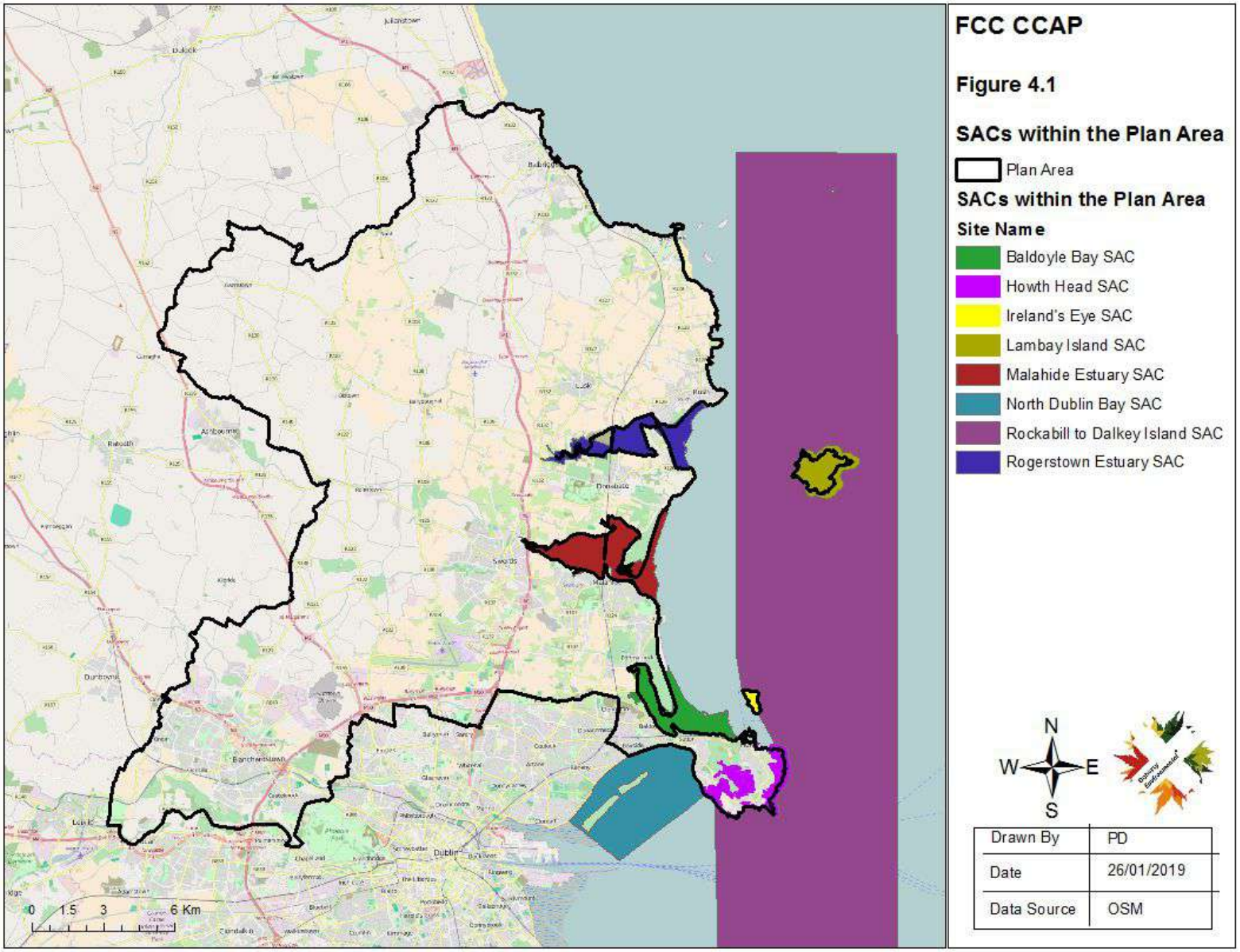
4.0 IDENTIFICATION OF EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE OF THE PLAN

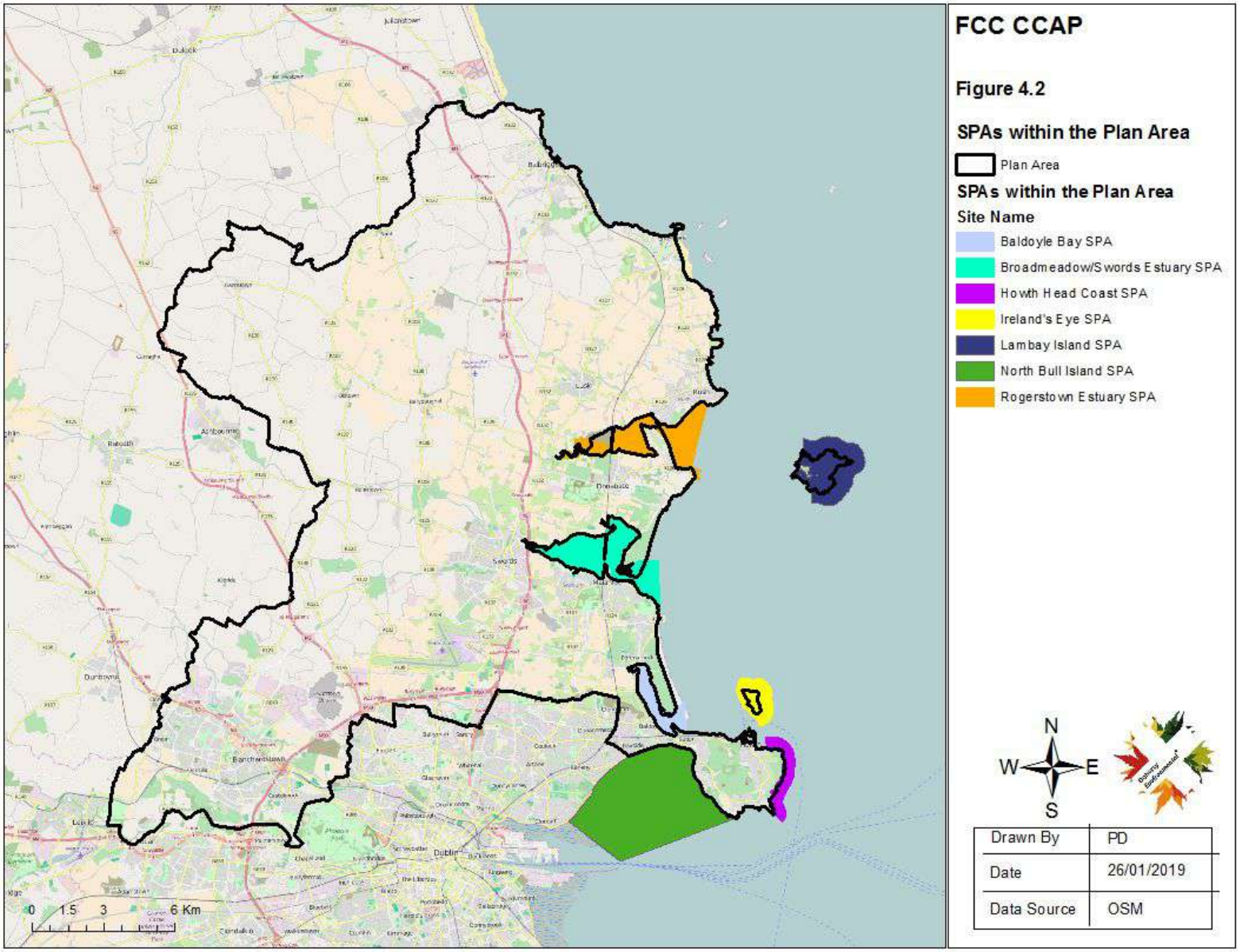
In order to identify the European Sites that could be significantly affected by the implementation of the proposed CCAP an initial long-list of sites occurring within a 15km radius of the Plan area (i.e. Fingal County Council) has been compiled. The establishment of a 15km buffer area surrounding the Plan area is in line with the DAHLG recommended procedures for identifying European Sites. The buffer distance of 15km was also considered sufficient to ensure all potential impacts to European Sites arising from the implementation of the Plan were taken into account (see Section 4.1 below for more information). This is based on the absence of any impact pathways (i.e. the absence of a hydrological pathway) between the Plan area and other European Sites occurring at a distance greater than 15km from the Plan area.

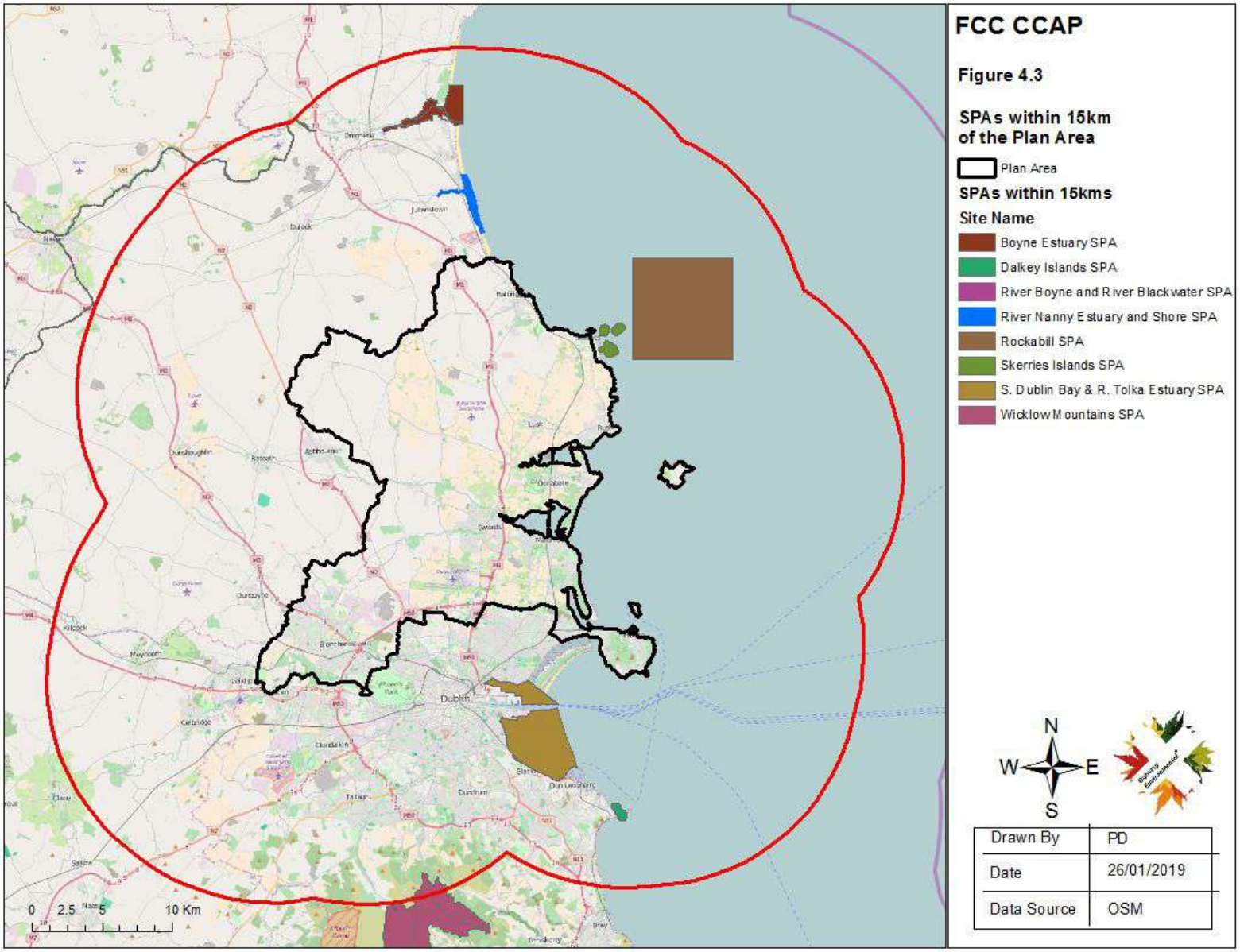
4.1 EUROPEAN SITES WITHIN 15KM OF THE PLAN

Table 4.1 lists all European Sites occurring within and surrounding the Plan area. A total number of four European Sites, comprising eight SACs and seven SPAs occur within the Plan Area (see Figure 4.1 and Figure 4.2). In addition to these European Sites a total of six SACs and eight SPAs occur within a 15km radius of the Plan Area (see Figure 4.3 and Figure 4.4).

Table 4.1 lists the qualifying features of interest of the SAC and the special conservation interests of the SPAs occurring within the Plan area and the surrounding 15km buffer zone. In addition the broad habitat types and species for which each site is designated are also outlined.


FCC CCAP
Figure 4.1
SACs within the Plan Area
Plan Area
SACs within the Plan Area
Site Name
Baldoyle Bay SAC
Howth Head SAC
Ireland's Eye SAC
Lambay Island SAC
Malahide Estuary SAC
North Dublin Bay SAC
Rockabill to Dalkey Island SAC
Rogerstown Estuary SAC
N
W
E
S
Drawn By
PD
Date
26/01/2019
Data Source
OSM
0 1.5 3 6 Km


FCC CCAP
Figure 4.2
SPAs within the Plan Area
Plan Area
SPAs within the Plan Area
Site Name
Baldoyle Bay SPA
Broadmeadow/Swords Estuary SPA
Howth Head Coast SPA
Ireland's Eye SPA
Lambay Island SPA
North Bull Island SPA
Rogerstown Estuary SPA
N
W
E
S
0 1.5 3 6 Km
Drawn By PD
Date 26/01/2019
Data Source OSM


FCC CCAP
Figure 4.3
SPAs within 15km of the Plan Area
Plan Area
SPAs within 15kms
Site Name
Boyne Estuary SPA
Dalkey Islands SPA
River Boyne and River Blackwater SPA
River Nanny Estuary and Shore SPA
Rockabill SPA
Skerries Islands SPA
S. Dublin Bay & R. Tolka Estuary SPA
Wicklow Mountains SPA
N
W
E
S
Drawn By PD
Date 26/01/2019
Data Source OSM
0 2.5 5 10 Km
Dublin

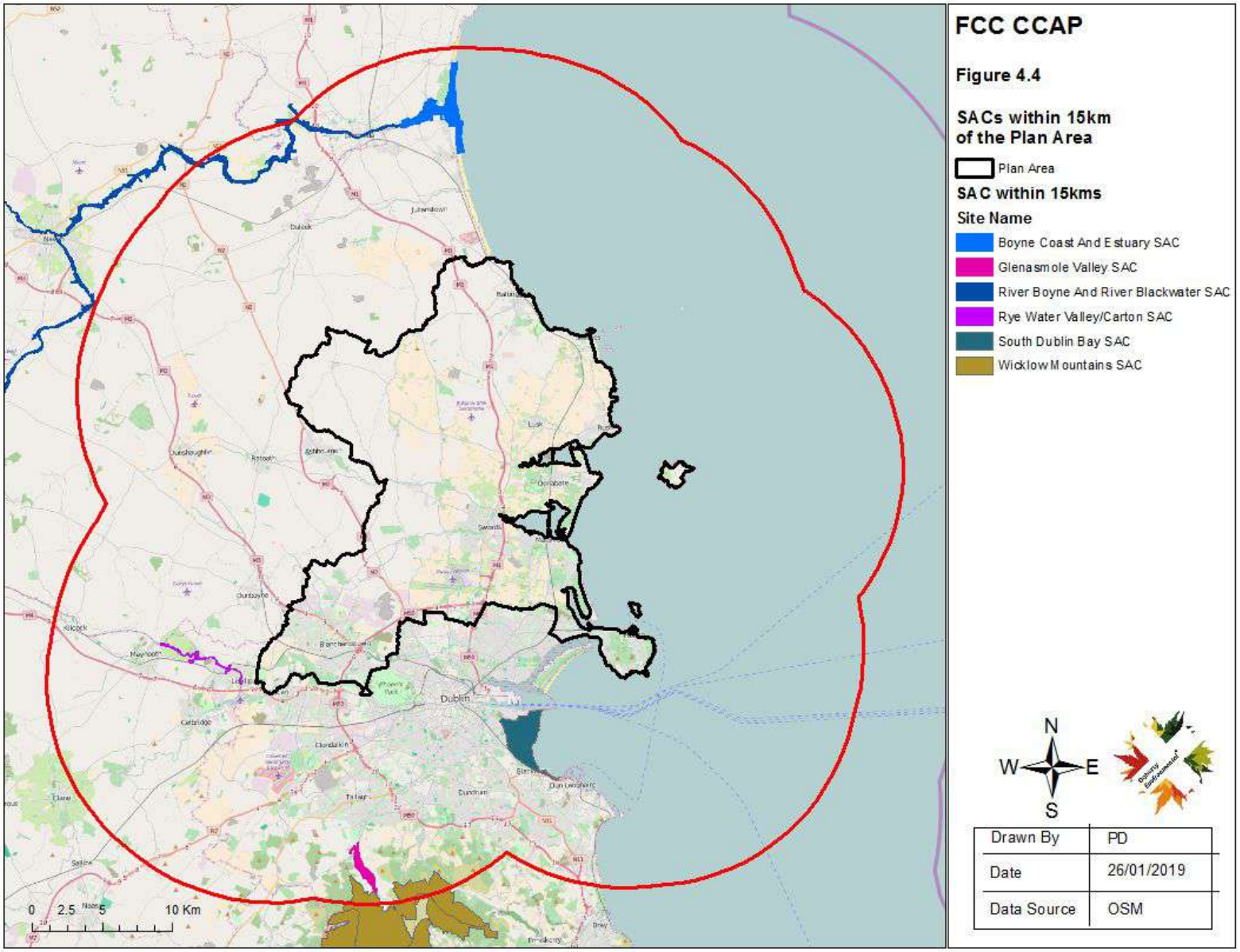

FCC CCAP
Figure 4.4
SACs within 15km of the Plan Area
Plan Area
SAC within 15kms
Site Name
Boyne Coast And Estuary SAC
Glenasmole Valley SAC
River Boyne And River Blackwater SAC
Rye Water Valley/Carton SAC
South Dublin Bay SAC
Wicklow Mountains SAC
N
W
E
S
0 2.5 5 10 Km
Drawn By PD
Date 26/01/2019
Data Source OSM

Table 4.1: European Sites within 15km of the Plan Area

European Sites	Distance from Plan Area	Qualifying Features of Interest/Special Conservation Interests	Broad QI/SCI Category
European Sites within the Plan Area			
Rogerstown Estuary SPA	Within the Plan area.	Greylag Goose (Anser anser) [A043] Light-bellied Brent Goose (Branta bernicla hrota) [A046] Shelduck (Tadorna tadorna) [A048] Shoveler (Anas clypeata) [A056] Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Dunlin (Calidris alpina) [A149] Black-tailed Godwit (Limosa limosa) [A156]	Wintering waterbirds Wetland habitats

		Redshank (Tringa totanus) [A162] Wetland and Waterbirds [A999]	
Rogerstown Estuary SAC	Within the Plan area.	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Coastal Habitats
Lambay Island SAC	Within the Plan area.	Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Halichoerus grypus (Grey Seal) [1364] Phoca vitulina (Harbour Seal) [1365]	Coastal Habitats Marine Species

Lambay Island SPA	Within the Plan area.	Fulmar (Fulmarus glacialis) [A009] Cormorant (Phalacrocorax carbo) [A017] Shag (Phalacrocorax aristotelis) [A018] Greylag Goose (Anser anser) [A043] Lesser Black-backed Gull (Larus fuscus) [A183] Herring Gull (Larus argentatus) [A184] Kittiwake (Rissa tridactyla) [A188] Guillemot (Uria aalge) [A199] Razorbill (Alca torda) [A200] Puffin (Fratercula arctica) [A204]	Breeding waterbirds
Malahide Estuary SAC	Within the Plan area.	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Shifting dunes along the shoreline with Ammophila	Coastal Habitats

		arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	
Broadmeadow/Swords Estuary SPA	Within the Plan area.	Great Crested Grebe (Podiceps cristatus) [A005] Light-bellied Brent Goose (Branta bernicla hrota) [A046] Shelduck (Tadorna tadorna) [A048] Pintail (Anas acuta) [A054] Goldeneye (Bucephala clangula) [A067] Red-breasted Merganser (Mergus serrator) [A069] Oystercatcher (Haematopus ostralegus) [A130] Golden Plover (Pluvialis apricaria) [A140] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Dunlin (Calidris alpina) [A149] Black-tailed Godwit (Limosa limosa) [A156] Bar-tailed Godwit (Limosa lapponica) [A157] Redshank (Tringa totanus) [A162]	Wintering wetland birds Wetland habitats

		Wetland and Waterbirds [A999]	
Baldoyle Bay SAC	Within the Plan area.	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410]	Coastal habitats
Baldoyle Bay SPA	Within the Plan area.	Light-bellied Brent Goose (Branta bernicla hrota) [A046] Shelduck (Tadorna tadorna) [A048] Ringed Plover (Charadrius hiaticula) [A137] Golden Plover (Pluvialis apricaria) [A140] Grey Plover (Pluvialis squatarola) [A141] Bar-tailed Godwit (Limosa lapponica) [A157] Wetland and Waterbirds [A999]	Wintering coastal waterbirds Coastal habitats
Howth Head SAC	Within the Plan area.	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Terrestrial exposed rock and peatland habitats

		European dry heaths [4030]	
Howth Head Coast SPA	Within the Plan area.	Kittiwake (Rissa tridactyla) [A188]	
Ireland's Eye SAC	Within the Plan area.	Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Terrestrial peatland habitats
Ireland's Eye SPA	Within the Plan area.	Cormorant (Phalacrocorax carbo) [A017] Herring Gull (Larus argentatus) [A184] Kittiwake (Rissa tridactyla) [A188] Guillemot (Uria aalge) [A199] Razorbill (Alca torda) [A200]	Terrestrial peatland habitats
North Dublin Bay SAC	Within the Plan area.	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi)	Coastal habitats Plant species (Petalwort liverwort)

		[1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalophyllum ralfsii (Petalwort) [1395]	
North Bull Island SPA	Within the Plan area.	Light-bellied Brent Goose (Branta bernicla hrota) [A046] Shelduck (Tadorna tadorna) [A048] Teal (Anas crecca) [A052] Pintail (Anas acuta) [A054] Shoveler (Anas clypeata) [A056] Oystercatcher (Haematopus ostralegus) [A130] Golden Plover (Pluvialis apricaria) [A140] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144]	Wintering coastal waterbirds Coastal habitats

		Dunlin (Calidris alpina) [A149] Black-tailed Godwit (Limosa limosa) [A156] Bar-tailed Godwit (Limosa lapponica) [A157] Curlew (Numenius arquata) [A160] Redshank (Tringa totanus) [A162] Turnstone (Arenaria interpres) [A169] Black-headed Gull (Chroicocephalus ridibundus) [A179] Wetland and Waterbirds [A999]	
Rockabill to Dalkey Island SAC	Within the Plan area.	Reefs [1170] Phocoena phocoena (Harbour Porpoise) [1351]	Marine Habitat Marine mammal
European Sites within 15km of the Plan area			
Boyne Estuary SPA	9.5km to the north.	Shelduck (Tadorna tadorna) [A048] Oystercatcher (Haematopus ostralegus) [A130] Golden Plover (Pluvialis apricaria) [A140] Grey Plover (Pluvialis squatarola) [A141]	Wintering waterbirds. Coastal wetland habitats.

		Lapwing (Vanellus vanellus) [A142] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144] Black-tailed Godwit (Limosa limosa) [A156] Redshank (Tringa totanus) [A162] Turnstone (Arenaria interpres) [A169] Little Tern (Sterna albifrons) [A195] Wetland and Waterbirds [A999]	
Boyne Coast and Estuary SAC	7.5km to the north	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey	Coastal habitats.

		dunes) [2130	
River Boyne and River Blackwater SPA	14km to the north.	Kingfisher (Alcedo atthis) [A229]	Freshwater bird
River Boyne and River Blackwater SAC	14km to the north.	Alkaline fens [7230] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Lampetra fluviatilis (River Lamprey) [1099] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355]	Groundwater habitat. Groundwater/surface water influenced Woodland Habitat Freshwater fish Freshwater mammal
River Nanny Estuary and Shore SPA	2km to the north.	Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Golden Plover (Pluvialis apricaria) [A140] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144] Herring Gull (Larus argentatus) [A184] Wetland and Waterbirds [A999]	Wintering waterbirds. Coastal wetland habitats.
Skerries Island SPA	300m to the east.	Cormorant (Phalacrocorax carbo) [A017]	Wintering waterbirds

		Shag (Phalacrocorax aristotelis) [A018] Light-bellied Brent Goose (Branta bernicla hrota) [A046] Purple Sandpiper (Calidris maritima) [A148] Turnstone (Arenaria interpres) [A169] Herring Gull (Larus argentatus) [A184]	Breeding waterbirds
Rockabill SPA	2.5km to the east.	Purple Sandpiper (Calidris maritima) [A148] Roseate Tern (Sterna dougallii) [A192] Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194]	Breeding waterbirds
South Dublin Bay & Tolka Estuary SPA	9km to the south.	Light-bellied Brent Goose (Branta bernicla hrota) [A046] Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Grey Plover (Pluvialis squatarola) [A141] Knot (Calidris canutus) [A143] Sanderling (Calidris alba) [A144] Dunlin (Calidris alpina) [A149]	Wintering coastal waterbirds Breeding Terns Coastal habitats

		Bar-tailed Godwit (Limosa lapponica) [A157] Redshank (Tringa totanus) [A162] Black-headed Gull (Chroicocephalus ridibundus) [A179] Roseate Tern (Sterna dougallii) [A192] Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194] Wetland and Waterbirds [A999]	
South Dublin Bay SAC	9km to the south.	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	Coastal habitats
Dalkey Island SPA	8km to the southeast.	Roseate Tern (Sterna dougallii) [A192] Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194]	Breeding waterbirds
Wicklow Mountain	11.5km to the	Oligotrophic waters containing very few minerals of	Surface water dependent habitats

SAC	south.	sandy plains (Littorelletalia uniflorae) [3110] Natural dystrophic lakes and ponds [3160] Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Calaminarian grasslands of the Violetalia calaminariae [6130] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Blanket bogs (* if active bog) [7130] Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Lutra lutra (Otter) [1355]	Terrestrial grassland, peatland, woodland and exposed rock habitat Mammals (otters)

Wicklow Mountain SPA	11.5km to the south.	Merlin (Falco columbarius) Peregrine (Falco peregrinus)	Breeding raptor bird species
Glenasmole Valley SAC	10.5km to the south.	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Petrifying springs with tufa formation (Cratoneurion) [7220]	Terrestrial grassland and peatland habitat Groundwater dependent habitat
Rye Water Valley SAC	1.5km to the west.	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Terrestrial woodland habitats

4.2 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE OF THE PLAN

The next step of this Screening Exercise is to identify which, if any, of European Sites listed in Table 4.1 above occur within the zone of influence of the Plan area.

A source-pathway-receptor model has been used to establish which European Sites could occur within the zone of influence of potential impacts. Under such a model the elements of the Plan for which likely significant effects cannot be ruled out represents the source. As noted above these elements relate to the provision of transport infrastructure and the coastal zone management works.

Impacts will have the potential to arise where these elements of the Plan interact with qualifying features of interest/special conservation interests of European Sites. These interactions may arise as a result of direct impacts to habitats and species through habitat loss and disturbance or where pathways (such as rivers and streams) link land use activities associated with these elements to qualifying feature of interest/special conservation interests.

The receptors represent European Sites and their associated qualifying features of interest/special conservation interests.

European Sites and their associated qualifying features are likely to occur in the zone of influence of the project only where potential for the above interactions and pathways establish a link between the six Plan actions that have been identified to have the potential to result in negative land use effects and European Sites. Table 4.2 provides a determination as to whether each European Site (as listed in Table 4.1) occur within the zone of influence of the project. This determination has been undertaken in line with the following assessment questions:

- Does the Plan Action have the potential to interact with qualifying habitats?
- Does the Plan Action have the potential to interact with qualifying species/special conservation interest bird species?
- Is there a hydrological pathway linking the Plan Action to European Sites and does this pathway have the potential to function as an impact pathway?

Table 4.2: Identification of European Sites within the Zone of Influence of the Plan

European Sites	Potential Interaction with Qualifying Habitats	Potential Interaction with Qualifying Species	Potential Hydrological Pathway	Does the European Sites occur within the zone of influence of the Plan?
European Sites within the Plan Area				
Rogerstown Estuary SPA	Any works associated with the provision of cycle routes, road maintenance and the preparation of a master plan for the Rogerstown estuary could have the potential to result in interactions with the wetland habitats supported by this SPA.	Any works associated with the provision of cycle routes, road maintenance and the preparation of a master plan for the Rogerstown estuary could have the potential to result in interactions with the special conservation interest bird species supported by this SPA.	Watercourses within the Plan area drain to this SPA. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SPA downstream.	Yes.
Rogerstown Estuary SAC	Any works associated with the provision of cycle routes, road maintenance and the preparation of a master plan for the Rogerstown estuary could have the potential to result in interactions with the coastal habitats supported by this SAC.	No Annex II species are listed as qualifying features of interest for this SAC.	Watercourses within the Plan area drain to this SAC. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SAC downstream.	Yes.
Lambay Island SAC	Any works associated with the Actions identified in Section 3.2	Any works associated with the Actions identified in Section 3.2	This SAC is not hydrologically	No.

	above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	above will be completed at a remote distance from this SAC. It is predicted that there will be no potential for these works to interact with the population of harbour seal supported by this SAC.	connected to the Plan area.	
Lambay Island SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the wetland habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it.	No.
Malahide Estuary SAC	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the coastal habitats supported by this SAC.	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the otter population supported by this SAC.	Watercourses within the Plan area drain to this SAC. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SAC downstream.	Yes.
Broadmeadow/Swords Estuary SPA	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the wetland habitats supported by this SPA.	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the special conservation interest bird species supported by this SPA.	Watercourses within the Plan area drain to this SPA. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SPA downstream.	Yes.

Baldoyle Bay SAC	Any works associated with the provision of cycle routes, road maintenance, the preparation of a Masterplan for Baldoyle estuary and the expansion of the public transport network could have the potential to result in interactions with the coastal habitats supported by this SAC.	No Annex II species are listed as qualifying features of interest for this SAC.	Watercourses within the Plan area drain to this SAC. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SAC downstream.	Yes.
Baldoyle Bay SPA	Any works associated with the provision of cycle routes, road maintenance, the preparation of a Masterplan for Baldoyle estuary and the expansion of the public transport network could have the potential to result in interactions with the wetland habitats supported by this SAC.	Any works associated with the provision of cycle routes, road maintenance and the preparation of a master plan for the Baldoyle estuary and the expansion of the public transport network could have the potential to result in interactions with the special conservation interest bird species supported by this SPA.	Watercourses within the Plan area drain to this SPA. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SPA downstream.	Yes.
Howth Head SAC	Any works associated with the provision of cycle routes, road maintenance and the preparation of a fire management plan for Howth could have the potential to result in interactions with the heathland habitats supported by this SAC.	No Annex II species are listed as qualifying features of interest for this SAC.	No. This SAC form a watershed for the surrounding area.	Yes.
Howth Head Coast SPA	Any works associated with the provision of cycle routes, road maintenance and the preparation of a fire management plan for Howth could have the potential to result in interactions with the wetland habitats	Any works associated with the provision of cycle routes, road maintenance and the preparation of a fire management plan for Howth could have the potential to result in interactions with the special conservation interest bird species of	No. This SAC form a watershed for the surrounding area.	Yes.

	supported by this SPA.	the SPA.		
Ireland's Eye SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from this SAC. It is predicted that there will be no potential for these works to interact with the population of harbour seal supported by this SAC.	This SAC is not hydrologically connected to the Plan area.	No.
Ireland's Eye SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the wetland habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it.	No.
North Dublin Bay SAC	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the coastal habitats supported by this SAC.	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions with the otter population supported by this SAC.	Watercourses within the Plan area drain to this SAC. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network in the vicinity of these watercourses could result in interactions with this SAC downstream.	Yes.
North Bull Island SPA	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions	Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport network could have the potential to result in interactions	Watercourses within the Plan area drain to this SPA. Any works associated with the provision of cycle routes, road maintenance and the expansion of the public transport	Yes.

	with the wetland habitats supported by this SPA.	with the special conservation interest bird species supported by this SPA.	network in the vicinity of these watercourses could result in interactions with this SPA downstream.	
European Sites within 15km of the Plan area				
Boyne Estuary SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	This SAC is located within a separate surface water catchment to the Plan area and as such there is no hydrological pathway linking the Plan area and associated land use elements to this SAC.	No.
Boyne Coast and Estuary SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	No Annex II species are listed as qualifying features of interest for this SAC.	This SAC is not hydrologically connected to the Plan area.	No.
River Boyne and River Blackwater SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it..	No.

River Boyne and River Blackwater SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from this SAC. It is predicted that there will be no potential for these works to interact with the population of harbour seal supported by this SAC.	This SAC is not hydrologically connected to the Plan area.	No.
River Nanny Estuary and Shore SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it.	No.
Skerries Island SPA				
Rockabill SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it.	No.
South Dublin Bay & Tolka Estuary SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SPA. There will be no	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to	The Tolka River flows through the Plan area and any works associated with the Actions identified in Section 3.2 within the vicinity of this watercourses will be hydrologically	Yes.

	potential for the project to directly interact with these habitats.	result in interactions with the special conservation interest bird species of this SPA.	connected to the project site.	
South Dublin Bay SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from this SAC. It is predicted that there will be no potential for these works to interact with the population of harbour seal supported by this SAC.	There is no functional hydrological connection between the Plan area and this SAC. The south wall in Dublin Bay has been shown to function as a barrier to the dispersion of waters from the Tolka estuary to South Dublin Bay.	No.
Dalkey Island SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the habitats upon which special conservation interest bird species of this SPA rely. There will be no potential for the project to directly interact with these habitats.	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be hydrological connect to it.	No.
Wicklow Mountain SAC	Any works associated with road maintenance, the Dodder Greenway or coastal zone management will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	The Plan area is located a remote distance from this SAC and is not hydrologically connected to it. Any land use measures facilitated by the Plan will not have the potential to result in interactions with otters, which is the only qualifying species of this SAC.	This SAC is located within a separate surface water catchment to the Plan area and as such there is no hydrological pathway linking the Plan area and associated land use elements to this SAC.	No.
Wicklow Mountain SPA	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the habitats upon	The Plan area is located at a remote distance from this SPA and any land use works associated with Actions identified in Section 3.2 above are	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from SPA and will not be	No.

	which special conservation interest bird species of this SPA rely. There will be no potential for the project to directly interact with these habitats.	not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	hydrological connect to it.	
Glenasmole Valley SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	No Annex II species are listed as qualifying features of interest for this SAC.	This SAC is not hydrologically connected to the Plan area.	No.
Rye Water Valley SAC	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from the qualifying habitats of this SAC. There will be no potential for the project to directly interact with these habitats.	Any works associated with the Actions identified in Section 3.2 above will be completed at a remote distance from this SAC. It is predicted that there will be no potential for these works to interact with the population of harbour seal supported by this SAC.	This SAC is not hydrologically connected to the Plan area.	No.

Table 4.2 above outlines the relationship between the project site and the European Sites occurring within and in the surrounding 15km buffer area of the Plan area. Of the twenty European Sites occurring within and in a 15km radius of the Plan area, 10 have been identified as occurring within the zone of influence of the Plan. These European Sites are:

- Rogerstown Estuary SPA;
- Rogerstown Estuary SAC;
- Malahide Estuary SAC;
- Broadmeadow/Swords Estuary SPA;
- Baldoyle Bay SAC;
- Baldoyle Bay SPA;
- Howth Head SAC;
- Howth Head SPA;
- North Dublin Bay SAC;
- North Bull Island SPA; and

4.3 CONSERVATION OBJECTIVES FOR INTEREST FEATURES OF EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE PROJECT

Generic conservation objectives for all European Sites have been established by the National Parks and Wildlife Service (NPWS). The generic conservation objective for the two habitats occurring within the zone of influence of the project is to maintain the favourable conservation status of these habitats. The favourable conservation status of these habitats is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The generic conservation objective for the qualifying species occurring within the zone of influence of the project is to maintain or restore the favourable conservation status of these species. This is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long- term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

5.0 LIKELY SIGNIFICANT EFFECTS OF THE PLAN TO EUROPEAN SITES OCCURRING WITHIN ITS ZONE OF INFLUENCE

The potential ecological effects of land use activities associated with the provision of cycling and walking routes, road maintenance works, the expansion of the rail network in the county and the provision of coastal zone management works could include:

- Habitat loss and fragmentation;
- Habitat degradation resulting from emissions to surface water;
- Habitat degradation resulting from emissions to groundwater;
- Habitat degradation resulting from the spread of non-native invasive species during works within enterprise zones; and
- Disturbance and/or displacement of qualifying species from within or outside European Sites.

5.1 IN-COMBINATION EFFECTS WITH OTHER PLANS & PROJECTS

As part of the Habitats Directive Article 6(3) assessment process consideration must be given to the potential for the Plan to combine with other plans or projects to result in cumulative negative effects to European Sites. Given the broad level of detail associated with the Plan's

actions and the potential for land use effects to arise as result of the implementation of actions associated with road maintenance, the provision of the Dodder Greenway and coastal zone management measures, the potential for the Plan to combine within other Plans to result in cumulative effects cannot be ruled out. The key plans for which consideration has been given for potential cumulative effects are listed in Table 5.1 below.

Eastern and Midland Assembly Draft Regional Spatial and Economic Strategy 2018 (RSES)

National Planning Framework 2018 (NPF)

National Mitigation Plan

The Transport Strategy for the Greater Dublin Area, 2016-2035

Water Services Strategic Plan

Neighbouring County Development Plans

River Basin District Management Plans

CFRAMS Study

Greater Dublin Drainage

The Greater Dublin Transport Strategy 2016-2035

South Dublin County Council Development Plan 2016-2022

South Dublin Heritage Plan 2014-2019

A Strategy towards a Climate Change Action Plan for Dublin 2017

Catchment-Based Flood Risk Management Plans (CFRMP)

6.0 SCREENING CONCLUSION

The Screening of the proposed Fingal County Council CCAP as set out above shows that, in the absence of appropriate mitigation measures, it cannot be ruled out that the Plan and future land use measures facilitated by it, will not have the potential to result in likely significant effects to the following European Sites and their qualifying features of interest:

- Rogerstown Estuary SPA;
- Rogerstown Estuary SAC;
- Malahide Estuary SAC;
- Broadmeadow/Swords Estuary SPA;
- Baldoyle Bay SAC;
- Baldoyle Bay SPA
- North Dublin Bay SAC;
- North Bull Island SPA; and
- South Dublin Bay & Tolka Estuary SPA.

Due to the potential risk of such effects occurring following the implementation of the CCAP, it has been concluded that the Plan has the potential to result in significant effects to European Sites. As such, a Natura Impact Report (NIR) is required to inform an Appropriate Assessment of the proposed CCAP.

7.0 APPENDIX 1: ACTION PLAN SCREENING

NO.	Action	Screening Assessment
ENERGY & BUILDINGS		
ENERGY PLANNING		
1	Create Energy Master Plan for the Dublin Region	No. This action which calls for the preparation of this Plan will not in itself result in land use effects.
2	Prepare Fingal Sustainable Energy and Climate Action Plan	No. This action which calls for the preparation of this Plan will not in itself result in land use effects.
3	Prepare Local Authority Renewable Energy Strategy	No. This action will not in itself result in land use effects.
4	Outputs and recommendations from the Fingal Spatial Energy Demand Analysis (SEDA) 2016 to inform the review of the Fingal Development Plan 2017-2023	No. This action will not in itself result in land use effects.
ENERGY EFFICIENCY & RENEWABLES		
5	Complete the roll out of LED public lighting by 2021 (27,000 units remaining)	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
6	Fingal Energy Management Team established	No. This action will not result in land use effects.

7	Develop ISO 50001 compliant energy management system	No. This action will not result in land use effects.
8	Comply with S.I. 426 under the EU (Energy Efficiency) Regulations 2014	No. This action will not result in land use effects.
9	Procure upgrades through an Energy Performance Contract for County Hall (Swords) and Civic Offices, Draíocht Arts Centre and public library in Blanchardstown	No. This action will not result in land use effects.
10	Participate in the SEAI Energy Public Partnership Programme	No. This action will not result in land use effects.
11	Annual Monitoring & Reporting to SEAI	No. This action will not result in land use effects.
12	Publish Fingal County Council's Energy Review annually	No. This action will not result in land use effects.
13	Display Energy Certificates for public buildings	No. This action will not result in land use effects.
14	All new Council buildings built to nZEB standard	No. This action will not result in land use effects.
15	Refurbishment programme for Fingal Corporate buildings to include energy reviews and retrofits as standard	No. This action will not result in land use effects.
16	Boiler replacement programme in social housing stock underway	No. This action will not result in land use effects.

17	Insulation of all council owned social housing stock; extended to include acquisitions and long term leasing where feasible	No. This action will not result in land use effects.
18	LED lighting changeover of social housing voids and tenant changeover	No. This action will not result in land use effects.
19	Complete single glazing replacement programme in social housing stock and extend to include long term leases and acquisitions	No. This action will not result in land use effects.
20	Conduct a pilot to deep retrofit social housing voids to inform potential for roll out for all stock	No. This action will not result in land use effects.
21	Automatic shutdown of computers and lighting in all of Fingal's offices and depots	No. This action will not result in land use effects.
RESEARCH & INNOVATION		
22	Study potential for viable district heating projects within Fingal	No. This action will not in itself result in land use effects.
23	Study potential for viable renewable energy projects on a temporary/permanent basis, on council controlled lands	No. This action will not in itself result in land use effects.
24	Work with SMEs in partnership with SEAI to promote energy efficient adaptations	No. This action will not result in land use effects.
25	Engage with SEAI to help develop education programme for SME sector	No. This action will not result in land use effects.
26	Support Small Business Innovation	No. This action will not result in land use effects.

	& Research (SBIR) programme	
27	Work with CARO / Codema on research and project proposals for grant funding	No. This action will not result in land use effects.
ENERGY AWARENESS		
28	Monitor and develop the Home Energy Saving Kits scheme in Fingal Libraries	No. This action will not result in land use effects.
29	Annual energy awareness event	No. This action will not result in land use effects.
30	Promote and support SEAI's Better Energy Communities and Sustainable Energy Communities	No. This action will not result in land use effects.
31	Develop and encourage CPD training in energy awareness amongst Fingal staff	No. This action will not result in land use effects.
32	Expand tenant induction programme to include tenant energy awareness	No. This action will not result in land use effects.
ENERGY & BUILDINGS		
33	Install high visibility PV panels on suitable Council roofs such as libraries and community buildings	No. This action will not result in land use effects.
TRANSPORT - ACTIONS CURRENTLY BUDGETED		
STAFF TRAVEL		

1	Install quality teleconferencing facilities between Blanchardstown and Swords	No. This action will not result in land use effects.
2	Modernise the workplace to facilitate flexible working arrangements to reduce staff travel (e.g. Skype)	No. This action will not result in land use effects.
3	Implement carbon offset programme for official flights	
4	Promotion of Cycle-to-Work Scheme for Council staff	No. This action will not result in land use effects.
5	Provide an electric vehicle in County Hall courtyard and Blanchardstown for use by staff travelling to site visits and meetings	No. This action will not result in land use effects.
OPERATIONS		
6	Continued electrification of the Council's vehicle fleet as market technology develops	No. This action will not result in land use effects.
7	Expand availability of EV charging points for Council staff and operational vehicles	No. The provision of EV charging points is predicted to involve small-scale land use works in urban areas that will not have the potential to result in significant effects to European Sites.
8	Electric vehicle charge points to be provided in car parking for new Fingal Corporate buildings and social housing where technically feasible	No. The provision of EV charging points is predicted to involve small-scale land use works in urban areas that will not have the potential to result in significant effects to European Sites.
9	Provide eco driving training to Council drivers	No. This action will not result in land use effects.
INTEGRATION OF SPATIAL PLANNING &		

TRANSPORT		
10	To plan spatial development patterns which reduce transport demand and encourage low carbon transport modes. E.g. consolidation of the existing communities already served by public transport and close to established social and community infrastructure and the creation of new communities serviced by high quality transport links	No. This action will not in itself result in land use effects.
11	Promote the installation of EV charge points in curtilage, for all new house constructions in Fingal	No. The provision of EV charging points is predicted to involve small-scale land use works in urban areas that will not have the potential to result in significant effects to European Sites.
ACTIVE TRAVEL & BEHAVIOUR CHANGE		
12	Build out Fingal's cycle network offering direct routes to local destinations and public transportation hubs. Develop linked cycling trails, greenways and green belts for recreation and biodiversity protection	Yes.
13	Advance the provision of new cycle network across the County such as the Fingal Coastal Way, the Sutton to Malahide Cycleway, the Broadmeadow Way, the Harry Reynolds Road Cycle Route and the Royal Canal Urban Greenway, etc.	Yes.
14	Advance the construction of the following road schemes which will include high quality cycle network - Donabate Distributor Road, Rathbeale Road Upgrade and Snugborough Interchange and Ongar - Barnhill Link Road, etc.	Yes.
15	Implement traffic calming	No. This action will not result in land use effects

	programme including provision of new signalised pedestrian crossings	that have the potential to result in likely significant effects to European Sites.
16	Regular maintenance of regional and local roads to encourage modal shift to cycling	Yes. Given the absence of specific details regarding future projects associated road maintenance works to encourage a shift to cycling the potential likely significant effects to the following European Sites cannot be ruled out at this stage
17	Improve conditions and uptake of cycling through public realm / local area plans	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
18	Re-organisation of allocation of space to pedestrians in the public realm	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
19	Increase the quantity of bicycle stands in the public domain	No. The provision of bicycle stands is predicted to involve small-scale land use works in urban areas that will not have the potential to result in significant effects to European Sites.
20	Expand Bike Sharing Schemes in urban areas	No. This action will not result in land use effects.
21	Promote and facilitate additional car sharing schemes	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites
PUBLIC TRANSPORT		
22	Develop a policy with NTA for the provision of Park & Ride facilities across the county	No. This action to develop a policy will not in itself result in likely significant effects to European Sites.
23	Support the development and expansion of existing public transport services including MetroLink, BusConnects and DART expansion to Balbriggan	Yes.

TRANSPORT - ACTIONS AWAITING BUDGET		
24	Expand the availability of EV charge points in towns and villages in line with national policy as it develops	No. The provision of EV charging points is predicted to involve small-scale land use works in urban areas that will not have the potential to result in significant effects to European Sites.
25	*Identify and put in place the resources necessary to develop & implement a cycling strategy*	No. The identification and implementation of resources to develop and implement a cycling strategy will not in themselves have the potential to result in land use effects.
FLOOD RESILIENCE		
FLOOD RISK MANAGEMENT		
1	Implement 'The Planning System and Flood Risk Management - Guidelines for Planning Authorities' (2009)	No. These guidelines outline best practice measures for undertaking flood risk management assessments and the implementation of this action will not result in land use effects or likely significant effects to European Sites.
2	Undertake Strategic Flood Risk and SuDS Assessments for all LAPS, SDZs and development plans	No. The carrying out of such assessments will not in themselves result in likely significant effects to European Sites.
3	Finalise a SuDs policy in collaboration with all Fingal departments	No. This actions will not in itself result in likely significant effects to European Sites.
4	Mid-term review of the SFRA for the County Development Plan	No. This actions will not in itself result in likely significant effects to European Sites.
5	Protect and conserve floodplains, wetlands and coastal areas subject to flooding through available policy	No. This actions will have the potential to result in positive effects for European Sites.

	instruments	
6	Assess the feasibility of green roofs on all new Fingal public, operational and social buildings and provide where viable and appropriate	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
7	Update Council Emergency Response Plans to include flood event response	No. This action will not have the potential to result in land use effects.
8	Develop template for extreme weather events to capture details, response and costs	No. This action will not have the potential to result in land use effects.
9	To engage with the Fingal Coastal Liaison Group with the integration of adaptation strategies into planning policies, etc.	No. This action will not have the potential to result in land use effects.
10	Develop a climate change impact GIS risk map with scenarios for the Dublin Region	No. This actions will not have the potential to result in land use effects.
FLOOD DEFENCE		
11	Develop and implement Coastal Protection Plan for Portrane	Yes.
12	Progress OPW flood protection scheme at Mill Stream Skerries	Yes.
13	Progress OPW flood protection scheme at Bissett Strand and The Green Malahide Village	Yes.
14	Progress OPW flood protection scheme at Portmarnock Bridge	Yes.
15	Continued engagement with the OPW to progress further studies of areas within Fingal at risk of	No. The implementation of this action at this stage will not have the potential to result in likely

	flooding, and development of suitable schemes such as Strand Road Sutton and Santry	significant effects to European Sites.
FLOOD RESILIENCE		
16	*Develop a coastal monitoring programme to measure coastal erosion along the Fingal coast*	No. This action will not have the potential to result in land use effects.
17	*Identify sites where flood defence features can be removed or relocated to increase flood capacity of rivers and estuaries*	No. The identification of such sites in itself will not have the potential to result in likely significant effects.
18	*Restore St Ita's wetlands to maximise water attenuation capacity and nature conservation benefits*	No. The aim of this action is likely to have positive effects for nature conservation and European Sites.
19	*Record on a GIS layer the council surface water system and make it available to all relevant staff from Operations & Planning. This must include all SuDs systems and flood embankments*	No. This action will not have the potential to result in land use effects.
20	*Prepare a maintenance register for the entire surface water system within the county, including SuDs, pipes and culverts to aid proactive maintenance, alleviate flooding and maintain water quality*	No. This action will not have the potential to result in land use effects.
21	*Identify and put in place the resources to develop and promote SuDs, including: Promote and encourage community involvement in the retrofit of SuDS in existing developments, maintaining community rain gardens, discourage hard paving in gardens & retrofit raingardens / waterbutt installations*	No. The identification and implementation of resources to develop and promote SuDS will not in themselves have the potential to result in land use effects.

22	*Create a case study of SuDs at LAP level*	No. This action will not have the potential to result in land use effects.
NATURE BASED SOLUTIONS		
OPERATIONS		
1	Engage with sectoral adaptation plan on biodiversity to identify key habitats and species at risk from climate change impacts	No. This action will not result in land use effects and its overall aim will have the potential to result in positive implications for the environment.
2	Engage with regional working group on nature-based solutions once set up	No. This action will not in itself result in land use effects.
GREEN INFRASTRUCTURE		
3	Develop Green Infrastructure Strategy that incorporates climate change mitigation and adaptation to increase climate resilience	No. This action will not in itself result in land use effects.
4	Map access to green space in County to identify areas of need	No. This action will not in itself result in land use effects.
AGRICULTURE		
5	Engage with the agri food sector to gain an understanding of how Fingal might better support more sustainable farming practices	No. This action will not in itself result in land use effects.
6	Develop climate change initiatives in partnership with local farmers	No. This action will not in itself result in land use effects.

	and other stakeholders	
TREE MANAGEMENT		
7	Review and implement Tree Strategy to protect existing trees, increase tree cover, establish guidelines on tree maintenance and investigate feasibility of urban orchards	No. This action will have the potential to result in positive environmental effects.
8	Identify sites for woodland planting	No. This action will not in itself have the potential to result in land use effects.
9	Map and protect strategic agricultural land for national food security purposes	No. This action will not have the potential to result in land use effects.
10	Incorporate SuDs into Constructed Tree Pits provided by the Council and in requirements for Constructed Tree Pits conditioned by the Council in Planning Permissions	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites .
CONSERVATION AND PRESERVATION		
11	Develop a map of habitats and species at risk of climate change	No. This action will not have the potential to result in land use effects.
12	Develop a monitoring programme of the habitats and species considered at risk of climate change	No. This action will not have the potential to result in land use effects.
13	Prepare a climate proof biodiversity plan	No. This action will not in itself have the potential to result in land use effects.
14	Support and promote 'National Biodiversity Data Centre All-Ireland Pollinator Plan Actions for Councils'	No. This action will not have the potential to result in likely significant effects to European Sites. It has the potential to result in positive environmental effects.

15	Increase pollinator areas in public parks and open spaces	No. This action will not have the potential to result in likely significant effects to European Sites. It has the potential to result in positive environmental effects.
16	Support the use of allotments as a way communities can grow their own food, and lower food miles and food waste	No. This action will not have the potential to result in likely significant effects to European Sites
NATURE BASED SOLUTIONS		
17	Prepare a heathland management plan for Howth	No. This action will have the potential to contribute to the conservation objectives for qualifying heathland habitats of the Howth Head SAC.
18	Prepare a fire management plan for heathland on Howth	Yes. This action will be prepared to compliment the Conservation Objectives of the Howth Head SAC.
19	Create multi-functional master plans for Rogerstown & Baldoyle Estuaries and their surroundings	Yes. The preparation of a Masterplan for these estuaries that support European Sites will have the potential to result in likely significant effects to these European Sites.
RESOURCE MANAGEMENT		
Procurement		
1	Implement green procurement where feasible, starting with office consumables	No. This action will not have the potential to result in land use effects.
2	Implement green procurement at Council supported events where feasible, including reduction of single use plastics	No. This action will not have the potential to result in land use effects.
WASTE		

MANAGEMENT		
3	Implement Environmental Management System for Council buildings including reduction in waste and water usage, and increased recycling	No. This action will not have the potential to result in land use effects.
4	Remove all single use items from Council canteens	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
5	Apply for Local Authority Waste Prevention Network grants	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
6	Promote Conscious Cup Campaign	No. This action will not have the potential to result in land use effects.
7	Promote 'Reuse Month' annually	No. This action will not have the potential to result in land use effects.
8	Help implement Recycling Ambassadors Programme	No. This action will not have the potential to result in land use effects.
9	Promote recycling centres and expand the range of materials accepted where possible	No. This action will not have the potential to result in land use effects.
LITTER & RECYCLING IN PUBLIC REALM		
10	Trial recycling bins in regional parks	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
11	Implement a programme for the installation of big belly bins across the County to reduce collection frequencies and emissions	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.

12	Support and promote the inclusion of climate change initiatives in tidy town, green schools and cleaner communities	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
13	Support marine litter clean-up initiatives	No. This action will have the potential to result in positive effects for coastal European Sites within the Plan area.
LANDFILL MANAGEMENT		
14	Maintain landfill gas collection and reuse system at Dunsink and Balleally Landfill	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
15	Look at feasibility of planting trees on Dunsink Landfill	No. This action will not in itself result in land use effects.
WATER CONSERVATION		
16	Provide a water butt retrofit programme for council owned housing on a cost benefit basis, starting with voids and tenant changeovers	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
17	Assess the feasibility of including rainwater harvesting on all new Fingal public, operational and social buildings and provide where viable and appropriate	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
18	Incorporate low flush toilets into Council buildings, depots and housing, in line with refurbishment programmes	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
AWARENESS		
19	Develop and implement an ongoing public Climate Awareness	No. This action will not in itself result in land use

	Programme	effects.
20	Implement a Climate Awareness Programme for staff	No. This action will not in itself result in land use effects.
21	Develop and implement a Climate Change Awareness Grant Programme for schools and communities	No. This action will not in itself result in land use effects.
22	As part of an emerging 'Green City' concept to produce A Guide to Sustainable Business in Swords	No. This action will not in itself result in land use effects.
23	Expand tenant induction programme to include tenant energy, water, waste and environmental awareness	No. This action will not in itself result in land use effects.
RESOURCE MANAGEMENT		
24	Establish a network of public drinking water fountains to help reduce plastic waste	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.
25	Examine the feasibility of retrofitting rainwater harvesting measures in existing council buildings, particularly for vehicle washing, toilet flushing and landscaping	No. This action will not result in land use effects that have the potential to result in likely significant effects to European Sites.