



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council



NATURA IMPACT REPORT

DUBLIN CITY COUNCIL
**DRAFT CLIMATE CHANGE
ACTION PLAN**

2019-2024

Dublin City 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

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.

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1.0 INTRODUCTION

DEC Ltd have been appointed by Dublin City 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 Dublin City 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 the 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 16 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 Dublin City Council's administrative area. All lands occurring within the Dublin City 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 1.3). 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 16 actions listed in Table 6.1 below. A total of 5 European Sites, which are as follows:

North Dublin Bay SAC (Site Code: 000206);

North Bull Island SPA (Site Code: 004006);

South Dublin Bay SAC (Site Code: 000210);

South Dublin Bay River Tolka Estuary SPA (Site Code: 4024); and

Baldoye Bay SAC (Site Code: 000199);

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 16 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 five 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

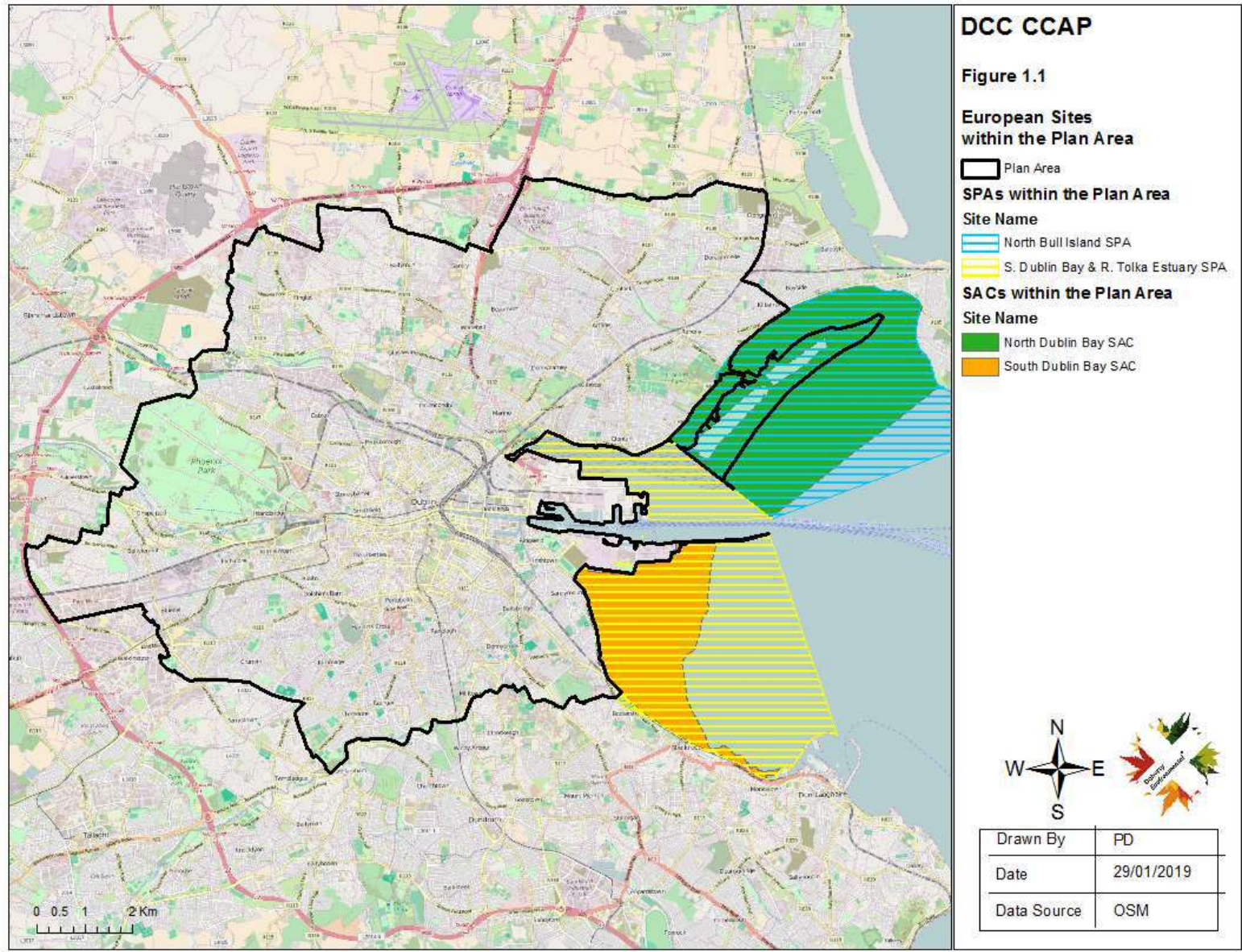
Section 4: Overview of the CCAP and related European Sites

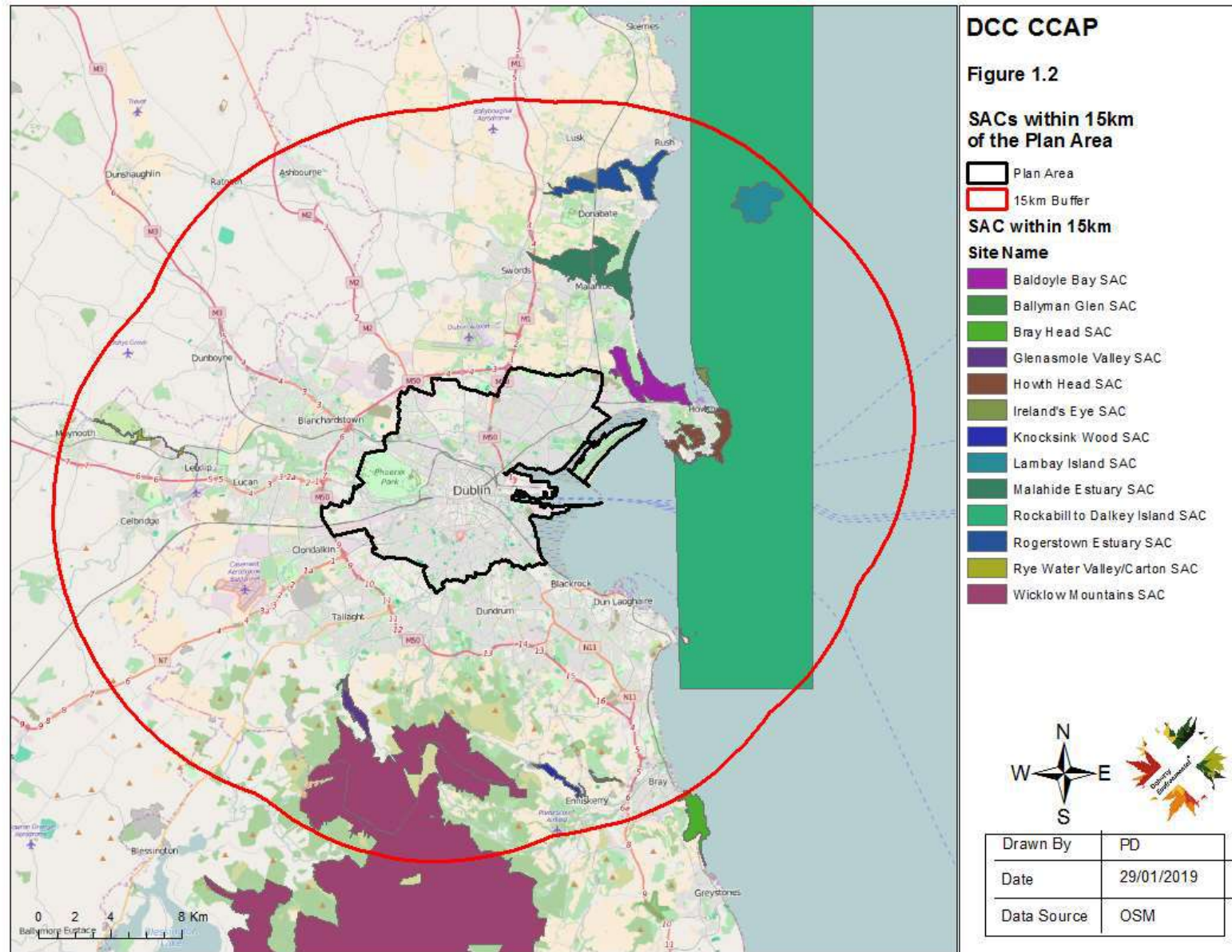
Section 5: Conservation Objectives Assessment of the Plan

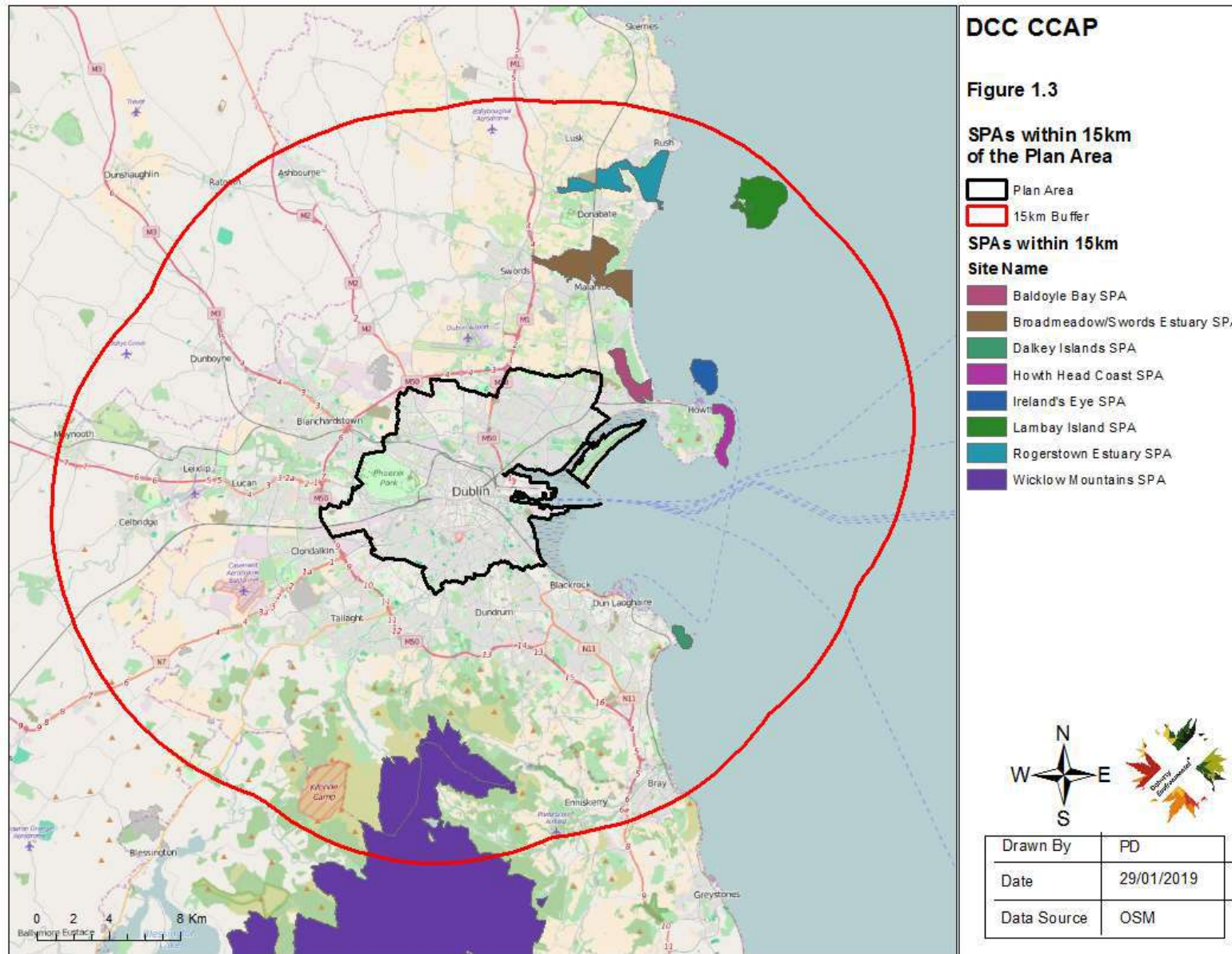
Section 6: Assessment of the Plan

Section 7: Mitigation Measures

Section 8: Conclusions







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 Dublin City 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 Objective CC02 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 Dublin City 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 Dublin City 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 117 km².

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

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

4.1.1 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 4.1 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 site¹. 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 4.1: 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 (<i>Glauco-Puccinellietalia maritimae</i>)	Favourable	Poor
Petalwort (<i>Petalophyllum ralfsii</i>)	Not established	Good
Mediterranean salt meadows	Favourable	Poor

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

(Juncetalia maritimi)		
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

4.1.2 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 4.2: North Bull Island SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Amber listed species- Species of medium conservation concern
Shelduck (<i>Tadorna tadorna</i>)	Amber listed species- Species of medium conservation concern
Teal (<i>Anas crecca</i>)	Amber listed species- Species of medium conservation concern
Pintail (<i>Anas acuta</i>)	Red listed species – Species of high conservation concern [†]
Shoveler (<i>Anas clypeata</i>)	Red listed species – Species of high conservation concern [†]
Oystercatcher (<i>Haematopus ostralegus</i>)	Amber listed species- Species of medium conservation concern
Golden Plover (<i>Pluvialis apricaria</i>)	Red listed species – Species of high conservation concern
Grey Plover (<i>Pluvialis squatarola</i>)	Amber listed species- Species of medium conservation concern
Knot (<i>Calidris canutus</i>)	Red listed species – Species of high conservation concern [†]

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

4.1.3 South Dublin Bay SAC

This site lies south of the River Liffey in Co. Dublin, and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake.

Qualifying features for which this site has been designated as a SAC are listed in Table 4.3 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 4.3: South 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	Not Reported	Poor
Annual vegetation of drift lines	Not Reported	Poor
Salicornia and other annuals colonising mud and sand [Not Reported	Poor
Embryonic shifting dunes	Not Reported	Poor

4.1.4 South Dublin Bay River Tolka Estuary SPA

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.

The qualifying features for which this site has been designated as a SPA are listed in Table 4.4 below. 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 SPA are as follows:

- Walking, horseriding and non-motorised vehicles
- Reclamation of land from sea, estuary or marsh
- Discharges
- Roads, motorways
- Industrial or commercial areas

Table 4.4: South Dublin Bay River Tolka Estuary SPA Special Conservation Interests & Conservation Status

SCIs	Conservation Status
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Amber listed species- Species of medium conservation concern
Oystercatcher (<i>Haematopus ostralegus</i>)	Amber listed species- Species of medium conservation concern
Ringed Plover (<i>Charadrius hiaticula</i>)	Amber listed species- Species of medium conservation concern
Grey Plover (<i>Pluvialis squatarola</i>)	Amber listed species- Species of medium conservation concern
Knot (<i>Calidris canutus</i>)	Red listed species – Species of high conservation concern [†]
Sanderling (<i>Calidris alba</i>)	Green listed species – Species not threatened

Dunlin (<i>Calidris alpina</i>)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (<i>Limosa lapponica</i>)	Amber listed species- Species of medium conservation concern
Redshank (<i>Tringa totanus</i>)	Red listed species – Species of high conservation concern
Black-headed Gull (<i>Croicocephalus ridibundus</i>)	Red listed species – Species of high conservation concern
Roseate Tern (<i>Sterna dougallii</i>)	Green listed species – Species not threatened
Common Tern (<i>Sterna hirundo</i>)	Amber listed species- Species of medium conservation concern
Arctic Tern (<i>Sterna paradisaea</i>)	Amber listed species- Species of medium conservation concern
Wetlands & Waterbirds	

4.1.5 Baldoye Bay SAC

Baldoye 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 (Glaucopuccinellietalia maritimae)	Favourable	Poor
Mediterranean salt meadows (Juncetalia maritimi)	Favourable	Poor

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 SAC 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. SSCOs have been published for the five 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 five European Sites occurring within the zone of influence of the Plan are the 16 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
Energy Planning	2	Requirement for all new developments to be district heating-enabled in Poolbeg West, North Lotts and Grand Canal SDZs;

Energy & Buildings	27	District heating system;
Planning and Public Realm	13	Regular maintenance of regional and local roads;
Planning and Public Realm	28	Dodder Greenway;
Public Transport	45	Sustainable transport hubs – various locations;
Public Transport	46	Develop bus routes including the Bus Connects programme;
Flood Risk Management	9	Develop and Implement Coastal Zone Management Plan for Dublin Bay;
Flood Defence:	25	Poddle flood alleviation scheme;
Flood Defence:	26	Camac flood alleviation scheme;
Flood Defence:	29	Sandymount Promenade flood alleviation scheme;
Flood Defence:	30	Sandymount Phase 2 flood alleviation scheme;
Flood Defence:	31	Chapelizod flood alleviation scheme;
Flood Defence:	32	Island Bridge flood alleviation scheme;
Flood Defence:	33	Santry River Regeneration Project;
Flood Defence:	34	River Dodder Flood Defence Works in the fluvial section upstream of Ballsbridge; and
Green Infrastructure:	11	Continued development of the Dodder Greenway

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, SO_x and NO_x 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 five 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	
North Dublin Bay SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
					for this assessment and the potential for such spread to this habitat is not ruled out.	
Annual vegetation of drift lines [1210]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 with coastal zone management, flood schemes or road maintenance within or adjacent to this SAC could have the potential to result in negative	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	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	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	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	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
	effects to the conservation status of this habitat.	completed for the Actions identified in Table 6.1 above will have the potential to result in downstream impacts to this habitat.	stage.	emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	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.	
Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	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	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	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
		impacts to this habitat.		status of this habitat.	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 (<i>Juncetalia maritimi</i>) [1410]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
					approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Embryonic shifting dunes [2110]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SAC could have the potential	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water quality. Any perturbations to the	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	Yes. Rationale: There is potential for construction works associated with coastal zone management, flood schemes or road	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
	to result in negative effects to the conservation status of this habitat.	Santry River draining to the North Dublin Bay SAC will not have the potential to undermine the status of this habitat.		to result in emissions to atmosphere that could result in negative effects to the conservation status of this habitat.	maintenance to 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 with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 with coastal zone management, flood schemes or road maintenance within or	No. Rationale: This is a terrestrial coastal habitat and its status is not influenced by lotic or estuarine water	Yes. Rationale: This is a terrestrial coastal habitat whose status highly influenced by groundwater quality.	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 coastal zone	Yes. Rationale: Any works associated with coastal zone management, flood schemes or road maintenance actions within or adjacent to this SAC

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	adjacent to this SAC could have the potential to result in negative effects to the conservation status of this habitat.	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.	Any perturbions to groundwater quality or processes as a result of works associated with coastal zone management, flood schemes or 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.	management, flood schemes or road maintenance to result in the spread of non-native invasive species that could undermine the status of this habitat.	could result in disturbance to this habitat.
Petalophyllum ralfsii (Petalwort) [1395]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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 perturbions to groundwaters quality or processes as a result of works associated with coastal zone management, flood schemes or road maintenance could result in negative effects to this species.	No Rationale: See rationale outlined for Mudflats and Sandflats above.	Yes. Rationale: There is potential for construction works associated with coastal zone management, flood schemes or road maintenance to result in the spread of non-native invasive species that could undermine the status of this species.	No Rationale: See rationale outlined for Mudflats and Sandflats above.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
South Dublin Bay SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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: At least one un-named stream 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 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 construction works associated with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or road maintenance actions within or adjacent to this SAC could result in disturbance to this habitat.
Annual vegetation of drift lines [1210]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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 watercourses draining to the South Dublin Bay SAC will not have the potential to	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	Yes. Rationale: There is potential for construction works associated with coastal zone management, flood schemes or road maintenance to result in the spread of non-native invasive species	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
		undermine the status of this habitat.		negative effects to the conservation status of this habitat.	that could undermine the status of this habitat.	
Salicornia and other annuals colonising mud and sand [1310]	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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: At least one un-named stream 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 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.	There is potential for construction works associated with coastal zone management, flood schemes or road maintenance to result in the spread of non-native invasive species that could undermine the habitat requirements for this 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.	Yes. Rationale: Any works associated with coastal zone management, flood schemes or 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	
Embryonic shifting dunes [2110]						
South Dublin Bay & Tolka Estuary SPA						
Wintering Waterbirds	Yes. Rationale: Any works associated with coastal zone management, flood schemes or road maintenance 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 works associated with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or road maintenance 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 construction works associated with coastal zone management, flood schemes or 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
Breeding Terns	Yes. Rationale: Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SPA	Yes. Rationale. Watercourses flowing through the Plan area discharge to this SPA. Perturbations to these watercourses from any	Yes. Rationale. Perturbations to groundwaters from any works associated with coastal zone	No. Rationale: The land use activities associated with coastal zone management, flood schemes or road	Yes. Rationale: There is potential for construction works associated with coastal zone management, flood	Yes. Rationale: There is potential for construction works associated with coastal zone management, flood schemes or road maintenance within or adjacent to the SPA to result in disturbance and

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 negative effects to the conservation status of habitats (particularly nesting habitat) upon which these species rely.	works associated with coastal zone management, flood schemes or road maintenance could, in theory, result in negative downstream at coastal foraging ground for tern species.	management, flood schemes or road maintenance could, in theory, result in negative downstream at coastal foraging ground for tern species.	maintenance are not predicted to have the potential to result in emissions to atmosphere that could result in negative effects to breeding tern colonies.	schemes or road maintenance to result in the spread of non-native invasive species that could undermine the status of tern breeding colonies.	displacement of breeding terns from their colonies within this SPA.
North Bull Island SPA						
Wintering Waterbirds	Yes. Rationale: Any works associated with coastal zone management, flood schemes or road maintenance 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 works associated with coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or 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 coastal zone management, flood schemes or road maintenance 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 construction works associated with coastal zone management, flood schemes or 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

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Baldoyle Bay SAC						
Mudflats and sandflats not covered by seawater at low tide [1140]	No. Rationale: This habitat is located at a remote distance from the Plan area will not be subject to direct impacts from the land use activities supported by the Plan. Due to the distance buffering the Plan area from this habitat there will be not potential for habitat fragmentation to occur.	No. Rationale: There is no hydrological pathway linking the Plan area to this qualifying habitats.	No. Rationale: There is no groundwater hydrological pathway linking the Plan area to this qualifying habitats.	No. The land use works likely to be supported by the Actions listed in Table 6.1 will not have the potential to result in emissions to atmosphere that will undermine the conservation status of this habitat.	No. land use works likely to be supported by the Actions listed in Table 6.1 will be completed at a remote distance from this habitat and will not be linked to it via any potential impact pathways. There will be no potential for activities associated with these works to result in the spread of such species to this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that disturbance to it will not arise during land use works associated with the actions listed in Table 6.1 above.
Salicornia and other annuals colonising mud and sand [1310]	No. Rationale: This habitat is located at a remote distance from the Plan area will not be subject to direct impacts from the land use activities supported by the Plan. Due to the distance	No. Rationale: There is no hydrological pathway linking the Plan area to this qualifying habitats.	No. Rationale: There is no groundwater hydrological pathway linking the Plan area to this qualifying habitats.	No. The land use works likely to be supported by the Actions listed in Table 6.1 will not have the potential to result in emissions to atmosphere that	No. land use works likely to be supported by the Actions listed in Table 6.1 will be completed at a remote distance from this habitat and will not be	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that disturbance to it will not arise during land use works associated with the actions listed in Table 6.1 above.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	buffering the Plan area from this habitat there will be not potential for habitat fragmentation to occur.			will undermine the conservation status of this habitat.	linked to it via any potential impact pathways. There will be no potential for activities associated with these works to result in the spread of such species to this habitat.	
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	No. Rationale: This habitat is located at a remote distance from the Plan area will not be subject to direct impacts from the land use activities supported by the Plan. Due to the distance buffering the Plan area from this habitat there will be not potential for habitat fragmentation to occur.	No. Rationale: There is no hydrological pathway linking the Plan area to this qualifying habitats.	No. Rationale: There is no groundwater hydrological pathway linking the Plan area to this qualifying habitats.	No. The land use works likely to be supported by the Actions listed in Table 6.1 will not have the potential to result in emissions to atmosphere that will undermine the conservation status of this habitat.	No. land use works likely to be supported by the Actions listed in Table 6.1 will be completed at a remote distance from this habitat and will not be linked to it via any potential impact pathways. There will be no potential for activities associated with these works to result in the spread of such species to this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that disturbance to it will not arise during land use works associated with the actions listed in Table 6.1 above.

European Sites & Qualifying Features	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	No. Rationale: This habitat is located at a remote distance from the Plan area will not be subject to direct impacts from the land use activities supported by the Plan. Due to the distance buffering the Plan area from this habitat there will be not potential for habitat fragmentation to occur.	Yes. Rationale: There is hydrological pathway via the Mayne River linking the Plan area to this qualifying habitat. Any adverse effects to water quality in this river as a result of works associated with land use actions listed in Table 6.1 above could result in adverse effects to the status of this habitat.	No. Rationale: There is no groundwater hydrological pathway linking the Plan area to this qualifying habitats.	No. The land use works likely to be supported by the Actions listed in Table 6.1 will not have the potential to result in emissions to atmosphere that will undermine the conservation status of this habitat.	No. land use works likely to be supported by the Actions listed in Table 6.1 will be completed at a remote distance from this habitat and will not be linked to it via any potential impact pathways. There will be no potential for activities associated with these works to result in the spread of such species to this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that disturbance to it will not arise during land use works associated with the actions listed in Table 6.1 above.

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	<p>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</p> <p>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</p>	<p>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</p>
National Planning Framework	<p>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 (RSEs) by the three Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act</p>	<p>A NIR was prepared for this plan and an Appropriate Assessment was completed. The Appropriate Assessment concluded that, subject to mitigation measures</p>

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
	<p>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.</p>	<p>of the Plans</p>
<p>Neighbouring County Development Plans</p>	<p>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.</p>	<p>No in-combination impacts were predicted as a result of implementation of the Plans</p>
<p>River Basin District Management Plans.</p>	<p>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.</p>	<p>No in-combination impacts are predicted as a result of implementation of the Plans</p>

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	<p>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.</p> <p>Luas, heavy rail and orbital bus routes are of particular relevance to the elements of this Plan.</p>	Positive effects in relation to the prioritisation of public transport modes above private transport.

7.0 MITIGATION MEASURES

The Dublin City CCAP sits within the frameworks of the Dublin City Development Plan and has been prepared in line with Objective CC02 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: DCC CDP Environmental Safeguards

CDP Ref.	Mitigation Measure	Evaluation
SI4	To promote and maintain the achievement of at least good status in all water bodies in the city.	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 maintain good status in water bodies. 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.
SI5	To promote the enhancement of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystem	The successful implementation of this Policy will required land use activities to put in place measures that do not undermine the enhancement of aquatic ecosystems within and adjacent to the Plan area.
SI6	To promote the protection and improvement of the aquatic environment, including through specific measures for the progressive reduction or cessation of discharges and emissions.	The successful implementation of this Policy will require future land use project to demonstrate that they will not have the potential to undermine the status of the aquatic environment.
SI7	To promote the progressive reduction of pollution of groundwater and prevent its further pollution	This objective will require, where necessary, land use activities to put in place measures that minimise or eliminate any risk posed by the activities to groundwater quality.

SIO6	It is an Objective of Dublin City Council to implement the European Union Water Framework Directive through the implementation of the appropriate River Basin Management Plan and Programme of Measures.	The implementation of the programme of measures provide a basis for the protection and improvement of water quality within the Plan area. In order to satisfy this Objective future land use activities will be require, where necessary to demonstrated, that they are not undermining the ultimate goal of these measures which is to protect good water status for water bodies within the Plan area.
SI17	To require an environmental assessment of all proposed flood protection or flood alleviation works.	The implementation of this policy will ensure that all flood schemes proposed by the CCAP will be subject to project environmental assessment.
GI2	That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s), shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives.	The implementation of this policy will ensure that any land use project facilitated by the CCAP will be subject to project-level Article 6(3) and where necessary Article 6(4) assessments. The requirement to carry out these assessments will ensure that only those projects that do not result in likely significant effects European Sites or that are of over-riding public interest will be permitted. The implementation of this Policy establishes a strict process of pre-consent for all land use projects facilitated by the CCAP.
GI20:	To seek continued improvement in water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city, having regard to the sensitivities of Dublin Bay and to protect the ecology and wildlife of Dublin Bay.	The successful implementation of this Policy will require future land use project to demonstrate that they will not have the potential to undermine the status of the aquatic environment.

GI23	To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.	The successful implementation of this Policy will require future land use actions facilitated by the CCAP to demonstrate that they will not undermine the status of qualifying features of interest/special conservation interests European Sites occurring within the zone of influence of this Plan.
GI24	To conserve and manage all-Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	The successful implementation of this Policy will require future land use projects to demonstrate that they will not have the potential to undermine the conservation status of European Sites within the zone of influence of the CCAP.
GI26:	To have regard to the conservation and enhancement of significant non-designated areas of ecological importance	This Policy sets out the intention for DCC to conserve and enhance features of ecological importance occurring within the Plan area. The successful implementation of this Policy will require future land use activities facilitated by the Plan to demonstrate that they will not result in likely significant effects to such features.

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
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		Yes/no?
Flood Resilience	Recommended text in green	
3	Prepare and Implement an Integrated Coastal Zone Management Plan that addresses natural and cultural heritage and aligns with the Marine Spatial Planning Directive	
7	Develop template to capture impacts, response and costs (including ecosystem services/natural capital costs) for all major climate events	
10	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	
New text before Actions 11- 18 in Flood Resilience Section	The following flood storage actions will incorporate nature based solutions and biodiversity enhancement measures where possible.(Refers to actions 11 to 18)	
New measures to be consistent with neighbouring Local	Communication and awareness campaigns on flood risk management and natural flood management measures	

Authorities		
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7.1 RESPONSIBILITY FOR IMPLEMENTING MITIGATION MEASURES

The responsibility for implementing land use actions proposed by the CCAP lies with the relevant departments of Dublin City 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. Dublin City 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 five 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 and public transport networks; maintain roads; provide coastal and flood protection; provide district heating; provide sustainable transport hubs; and provide coastal zone management. Section 7 outlines the environmental safeguards within the Dublin City 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.

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 rationale has been provided to demonstrate how these mitigation measures will provide effective safeguards against any land use projects arising from the actions of the CCAP that aim to: expand the walking and public transport networks; maintain roads; provide coastal and flood protection; provide district heating; provide sustainable transport hubs; and provide coastal zone management.

The measures and requirements of the Dublin City CDP and particularly Objectives GI12 and GI26 that aim to protect, conserve and appropriately manage 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.

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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.*

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European Commission (1992). EU Habitats Directive.

APPENDIX 1: SCREENING STATEMENT FOR APPROPRIATE ASSESSMENT



Dublin City Council

Climate Change Action Plan 2019 -
2024

Statement in Support of

Screening for Appropriate
Assessment

31st January 2019

Dublin City Council

Climate Change Action Plan 2019 - 2024

Statement in support of Screening for Appropriate Assessment

Document Stage	Document Version	Prepared by
Final	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 Dublin City 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

Dublin City Council intends to implement its first Climate Change Action Plan (CCAP) for the period 2019 to 2024. Minogue and Associates have been appointed by Dublin City 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 Dublin City 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 objectives¹. 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 Dublin City 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 Dublin City 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 117 km².

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 identified as having potential positive impacts for the environment. However a small number of actions, 16 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 16 actions that could not be screened out that this stage of the Habitats Directive Assessment process are as follows:

Energy Planning: Action No. 2 – Requirement for all new developments to be district heating-enabled in Poolbeg West, North Lotts and Grand Canal SDZs;

Energy & Buildings: Action No. 27 – District heating system

Planning and Public Realm: Action No. 13 – Regular maintenance of regional and local roads;

Planning and Public Realm: Action No. 28 – Dodder Greenway;

Public Transport: Action No. 45 - Sustainable transport hubs – various locations

Public Transport: Action No. 46 - Develop bus routes including the Bus Connects programme

Flood Risk Management: Action No. 9 – Develop and Implement Coastal Zone Management Plan for Dublin Bay;

Flood Defence: Action No. 25 – Poddle flood alleviation scheme

Flood Defence: Action No. 26 – Camac flood alleviation scheme

Flood Defence: Action No. 29 – Sandymount Promenade flood alleviation scheme

Flood Defence: Action No. 30 – Sandymount Phase 2 flood alleviation scheme

Flood Defence: Action No. 31 – Chapelizod flood alleviation scheme

Flood Defence: Action No. 32 – Island Bridge flood alleviation scheme

Flood Defence: Action No. 33 – Santry River Regeneration Project

Flood Defence: Action No. 34 – River Dodder Flood Defence Works in the fluvial section upstream of Ballsbridge

Green Infrastructure: Action No. 11 – Continued development of the Dodder Greenway.

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.

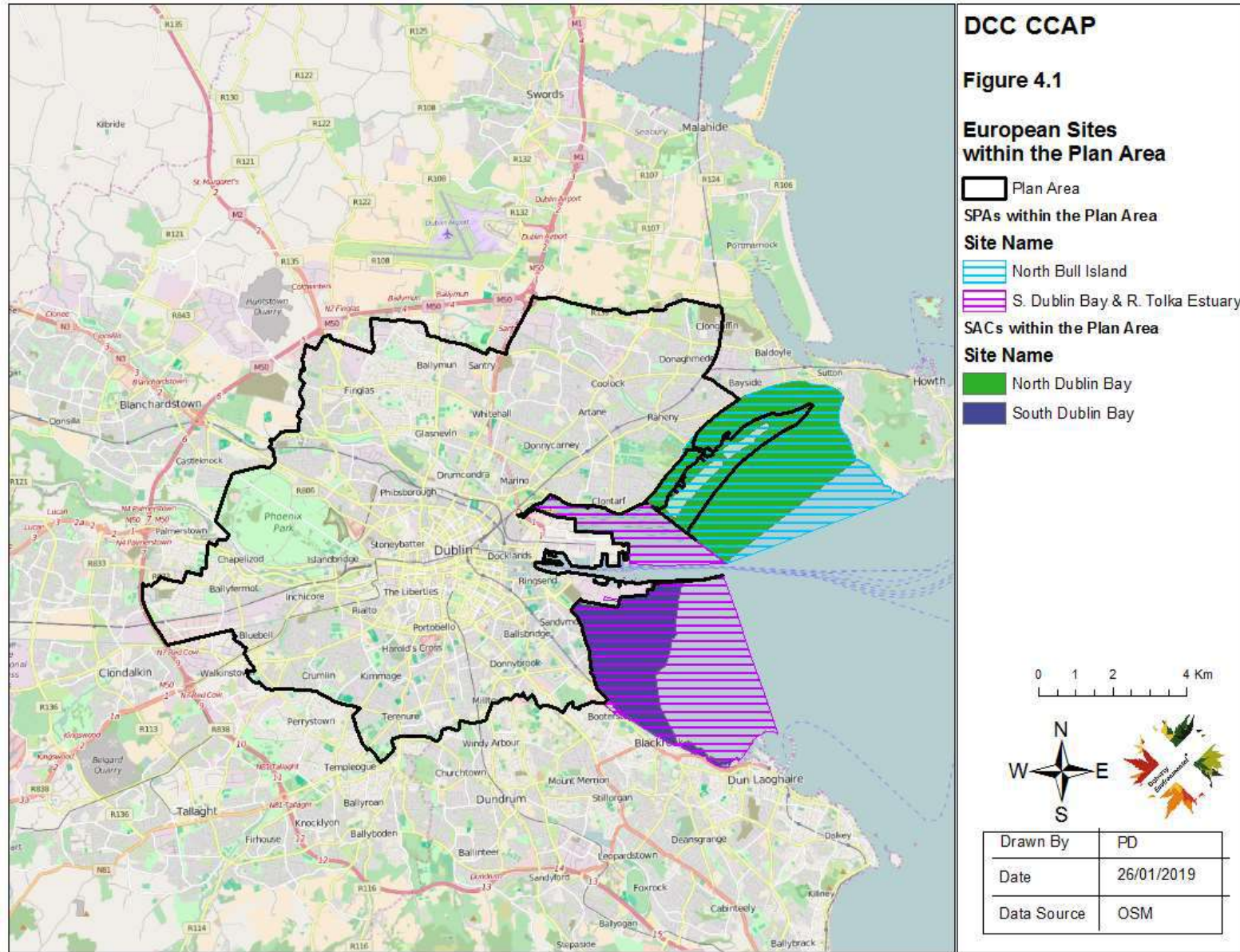
4.0 IDENTIFICATION OF EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE OF THE PLAN

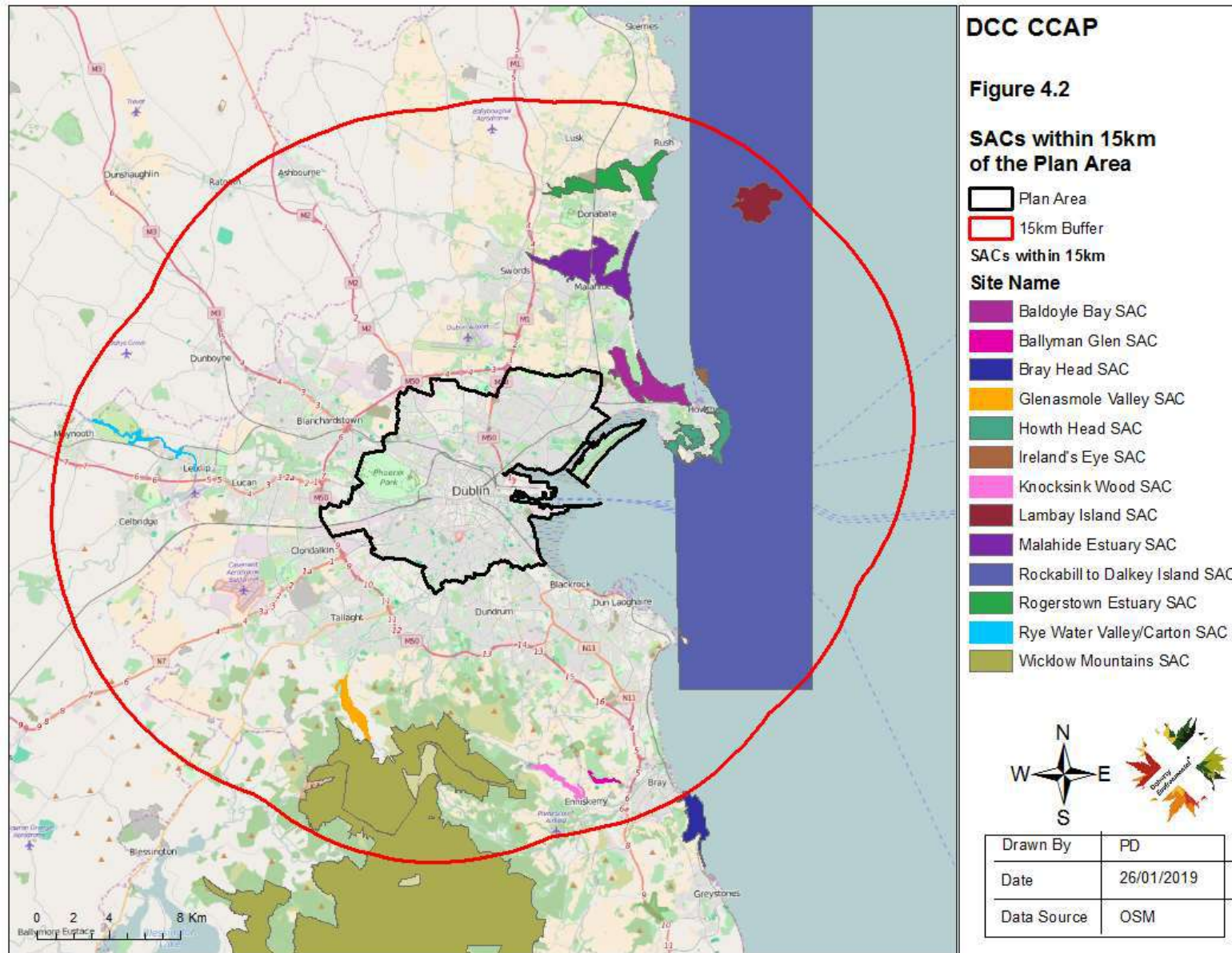
In order to identify the European Sites that could be significantly affected by the implementation of the proposed CCAP an initial long-list of sites occurring within a 15km radius of the Plan area (i.e. Dublin City Council) has been compiled. The establishment of a 15km buffer area surrounding the Plan 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 two SACs and two SPAs occur within the Plan Area (see Figure 4.1). In addition to these European Sites a total of 13 SACs and 8 SPAs occur within a 15km radius of the Plan Area (see Figure 4.2 and Figure 4.3).

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.





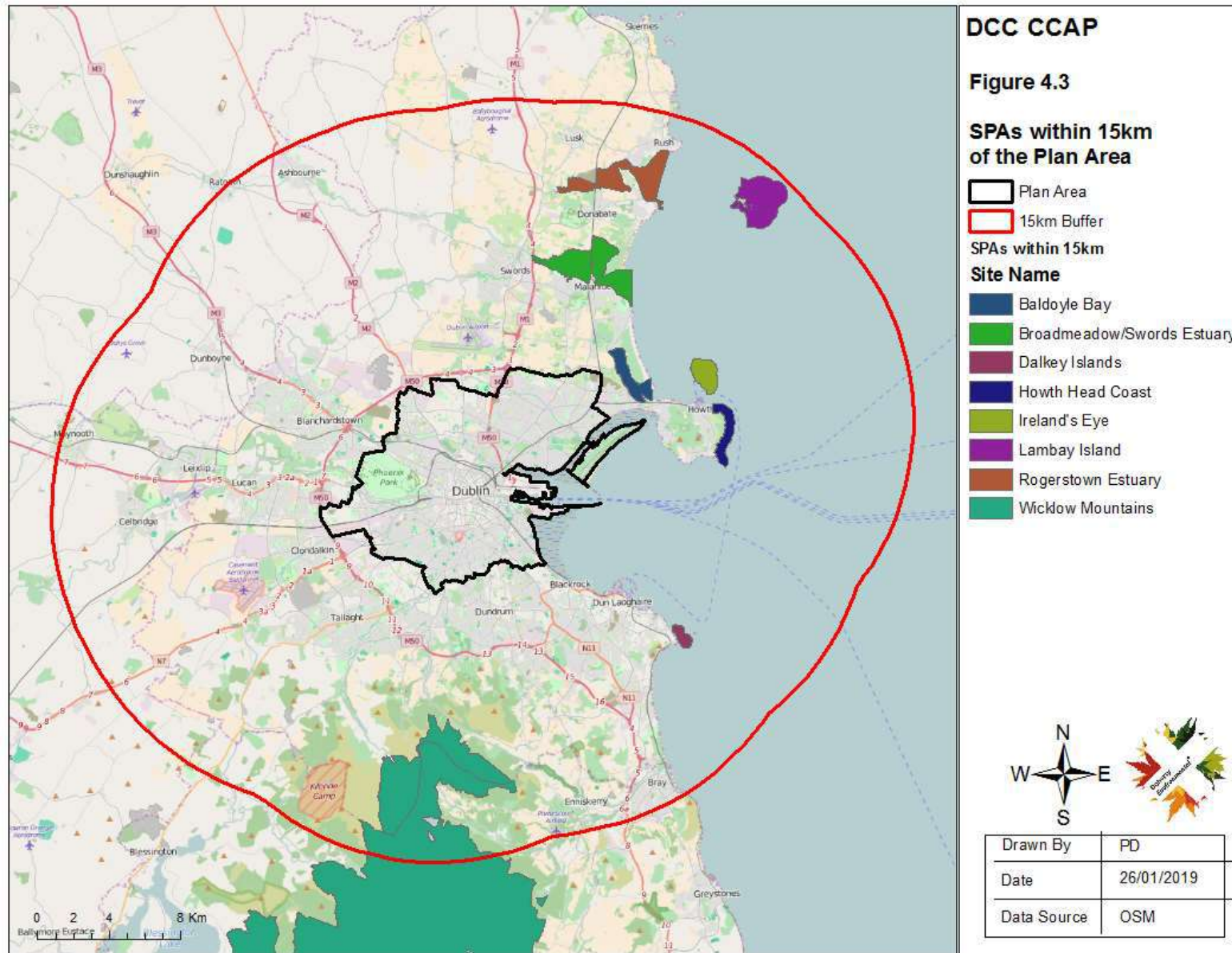


Table 4.1: European Sites within 15km of the Plan Area

European Sites	Distance from Plan Area	Qualifying Features of Interest/Special Conservation Interests	Broad QI/SCI Category
European Sites within the Plan Area			
North Dublin Bay SAC	Within Plan area	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey</p>	<p>Coastal habitats</p> <p>Plant species (Petalwort liverwort)</p>

		<p>dunes) [2130]</p> <p>Humid dune slacks [2190]</p> <p>Petalophyllum ralfsii (Petalwort) [1395]</p>	
North Bull Island SPA	Within Plan area	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p>	<p>Wintering coastal waterbirds</p> <p>Coastal habitats</p>

		<p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Turnstone (<i>Arenaria interpres</i>) [A169]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>	
<p>South Dublin Bay & Tolka Estuary SPA</p>	<p>Within Plan area</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p>	<p>Wintering coastal waterbirds</p> <p>Breeding Terns</p> <p>Coastal habitats</p>

		Arctic Tern (<i>Sterna paradisaea</i>) [A194] Wetland and Waterbirds [A999]	
South Dublin Bay SAC	Within 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] Embryonic shifting dunes [2110]	Coastal habitats
European Sites within 15km of the Plan area			
Rogerstown Estuary SPA	10km to the north	Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141]	Wintering waterbirds Wetland habitats

		<p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Wetland and Waterbirds [A999]</p>	
Rogerstown Estuary SAC	10km to the north	<p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p>	Coastal Habitats
Lambay Island SAC	12km to the northeast	<p>Reefs [1170]</p> <p>Vegetated sea cliffs of the Atlantic and Baltic coasts</p>	<p>Coastal Habitats</p> <p>Marine Species</p>

		[1230] Halichoerus grypus (Grey Seal) [1364] Phoca vitulina (Harbour Seal) [1365]	
Lambay Island SPA	12km to the northeast	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	5km to the north	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	Coastal Habitats

		<p>maritima) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p>	
Broadmeadow/Swords Estuary SPA	5km km to the north	<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Goldeneye (<i>Bucephala clangula</i>) [A067]</p> <p>Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p>	<p>Wintering wetland birds</p> <p>Wetland habitats</p>

		Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Wetland and Waterbirds [A999]	
Baldoyle Bay SAC	1km to the east	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	Coastal habitats
Baldoyle Bay SPA	1km to the east	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	Wintering coastal waterbirds Coastal habitats

		Wetland and Waterbirds [A999]	
Howth Head SAC	4.5km to the east	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	Terrestrial exposed rock and peatland habitats
Howth Head Coast SPA	1.5km to the southeast	Kittiwake (<i>Rissa tridactyla</i>) [A188]	
Ireland's Eye SAC	11km to the north	Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Terrestrial peatland habitats
Ireland's Eye SPA	8km to the northeast	Cormorant (<i>Phalacrocorax carbo</i>) [A017] Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200]	Terrestrial peatland habitats
Dalkey Island SPA	8km to the southeast	Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Breeding waterbirds

<p>Wicklow Mountain SAC</p>	<p>7km to the south</p>	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</p> <p>Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p>	<p>Surface water dependent habitats</p> <p>Terrestrial grassland, peatland, woodland and exposed rock habitat</p> <p>Mammals (otters)</p>
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		Lutra lutra (Otter) [1355]	
Wicklow Mountain SPA	7km to the south	Merlin (Falco columbarius) Peregrine (Falco peregrinus)	Breeding raptor bird species
Ballyman Glen SAC	11km to the south	Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230]	Groundwater dependent habitats
Knocksink Woods SAC	11km to the south	Petrifying springs with tufa formation (Cratoneurion) [7220] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	Groundwater dependent habitats
Glenasmole Valley SAC	7km to the southwest	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
Bray Head SAC	15km to the south	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Terrestrial exposed rock and peatland habitats

		European dry heaths [4030]	
Rye Water Valley SAC	7.5km to the west	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Terrestrial woodland habitats
Rockabill to Dalkey Island SAC	2.5km to the southeast	Reefs [1170] Phocoena phocoena (Harbour Porpoise) [1351]	Marine Habitat Marine mammal

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 16 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				
North Dublin Bay SAC	Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SAC could have the potential to result in interactions with coastal habitats supported by this SAC.	Petalwort is the only Annex 2 species listed as a qualifying feature of interest for this SAC. The habitat supporting this species is located at remote distance from any local or regional roads and works associated with the maintenance of these roads are not predicted to have the potential to interact with the habitat supporting this species. Any coastal zone management works on Bull Island could have the potential to interact with the habitats supporting this species.	Any works on Bull Island associated with coastal zone management will have the potential to result in interactions with the petalwort habitat supported by the island and the habitats that this species relies on.	Yes.
North Bull Island SPA	Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SPA could have the potential to result in interactions with the wetland habitats supported by this SPA.	Any works associated with coastal zone management or road maintenance within or adjacent to this SPA 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 road maintenance or coastal management in the vicinity of these watercourses could result in interactions with this SPA downstream.	Yes.

South Dublin Bay & Tolka Estuary SPA	Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SPA could have the potential to result in interactions with the wetland habitats supported by this SPA.	Any works associated with coastal zone management or road maintenance within or adjacent to this SPA 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 River Dodder Greenway, road maintenance or coastal management in the vicinity of these watercourses could result in interactions with this SPA downstream.	Yes.
South Dublin Bay SAC	Any works associated with coastal zone management, flood schemes or road maintenance within or adjacent to this SAC could have the potential to result in interactions with 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 River Dodder Greenway, road maintenance, flood schemes or coastal management in the vicinity of these watercourses could result in interactions with this SAC downstream.	Yes.
European Sites within 15km of the Plan area				
Rogerstown Estuary SPA	Any works associated with road maintenance, the Dodder Greenway or coastal zone management 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 road maintenance, the River Dodder Greenway or coastal zone management is not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	This SPA 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 SPA.	No.
Rogerstown Estuary SAC	Any works associated with road maintenance, the Dodder Greenway or coastal zone management will be	No Annex II species are listed as qualifying features of interest for this	This SAC is located within a separate surface water catchment to the Plan area and as such there is no	No.

	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.	SAC.	hydrological pathway linking the Plan area and associated land use elements to this SAC.	
Lambay Island 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.	Any works associated with road maintenance, the Dodder Greenway or coastal zone management 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.
Lambay Island SPA	Any works associated with road maintenance, the Dodder Greenway or coastal zone management 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 road maintenance, the River Dodder Greenway or coastal zone management is 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 expansion of the walking and cycling network or with road maintenance upstream of this SAC could result in negative effects to qualifying species and qualifying habitats of the SAC.	No.
Malahide Estuary SAC	Any works associated with road maintenance, the Dodder Greenway or coastal zone management 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.	No Annex II species are listed as qualifying features of interest for 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.

Broadmeadow/Swords Estuary SPA	Any works associated with the expansion of the walking and cycling network, with road maintenance, the expansion of the rail network or coastal zone management 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 road maintenance, the River Dodder Greenway or coastal zone management is not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	This SPA 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 SPA.	No.
Baldoyle Bay SAC	Any works associated with road maintenance, flood schemes, the Dodder Greenway or coastal zone management will be completed at locations well buffered from this SAC by existing urban land cover and will not have the potential to result in direct interactions with the qualifying habitats of this SAC.	No Annex II species are listed as qualifying features of interest for this SAC.	The Mayne River which flows along the northern boundary of the Plan area also bounds this SAC downstream of the Plan area. Qualifying habitats Mediterranean saltmarsh habitat of the SAC occur alongside this watercourses. Any works associated with road maintenance adjacent to the River Mayne upstream of this SAC could result in interactions with the SAC and the Mediterranean saltmarsh habitat occurring downstream.	Yes.
Baldoyle Bay SPA	Any works associated with road maintenance, the Dodder Greenway or coastal zone management will be completed at locations well buffered from this SPA by existing urban land cover and will not have the potential to result in direct interactions with the qualifying habitats of this SPA.	The Plan area is well buffered from this SPA by areas of existing urban land and any land use works associated with road maintenance, the River Dodder Greenway or coastal zone management is not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	There is no hydrological pathway linking the Plan area and associated land use elements to this SPA.	No.

Howth Head SAC	Any works associated with road maintenance, the Dodder Greenway or coastal zone management will be completed at locations well buffered from this SAC by existing urban land cover and will not have the potential to result in direct interactions with the qualifying habitats of this SAC.	No Annex II species are listed as qualifying features of interest for 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.
Howth Head Coast SPA	Any works associated with the expansion of the walking and cycling network, with road maintenance, the expansion of the rail network 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 at a remote distance from this SPA and any land use works associated with road maintenance, the River Dodder Greenway or coastal zone management is 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.
Ireland's Eye 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.	No Annex II species are listed as qualifying features of interest for 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.
Ireland's Eye SPA	Any works associated with the expansion of the walking and cycling network, with road maintenance, the expansion of the rail network or coastal zone management will be completed at a remote distance from	The Plan area is located at a remote distance from this SPA and any land use works associated with road maintenance, the River Dodder Greenway or coastal zone management is not predicted to have	This SPA 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	No.

	the wetland habitats of this SPA. There will be no potential for the project to directly interact with these habitats.	the potential to result in interactions with the special conservation interest bird species of this SPA.	elements to this SPA.	
Dalkey Island SPA	Any works associated with the expansion of the walking and cycling network, with road maintenance, the expansion of the rail network 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 at a remote distance from this SPA and any land use works associated with road maintenance, the River Dodder Greenway or coastal zone management is 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.
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 expansion of the walking and cycling network within the County or with road maintenance and rail network expansion could have the potential to result in negative effects to the wetland habitats of this SPA.	The Plan area is located at a remote distance from this SPA and any land use works associated with road maintenance, the River Dodder Greenway or coastal zone management is not predicted to have the potential to result in interactions with the special conservation interest bird species of this SPA.	This SPA 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 SPA.	No

Ballyman Glen 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.	No Annex II species are listed as qualifying features of interest for 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.
Knocksink Woods 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.	No Annex II species are listed as qualifying features of interest for 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.
Glenasmole Valley 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.	No Annex II species are listed as qualifying features of interest for 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.
Bray Head 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	No Annex II species are listed as qualifying features of interest for 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.

	habitats.			
Rye Water Valley 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 also located downstream of it. Any land use measures facilitated by the Plan will not have the potential to result in interactions with Vertigo snail species, which are 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.
Rockabill to Dalkey Island 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.	Any works associated with road maintenance, the Dodder Greenway or coastal zone management 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 porpoise 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, five have been identified as occurring within the zone of influence of the Plan. These European Sites are:

- North Bull Island SPA;
- North Dublin Bay SAC;
- South Dublin Bay SAC;
- South Dublin Bay River Tolka Estuary SPA; and
- Baldoyle Estuary SAC.

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 Adaptation Framework

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

Dublin City Development Plan 2016-2022

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 Dublin City 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:

- North Bull Island SPA;

- North Dublin Bay SAC;
- South Dublin Bay SAC;
- South Dublin Bay River Tolka Estuary SPA; and
- Baldoyle Estuary SAC.

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.

APPENDIX 1: ACTION PLAN SCREENING

	Action Area	Potential for Land Use Effects
	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	Requirement for all new developments to be district heating-enabled in Poolbeg West, North Lotts and Grand Canal SDZs	Yes. The implementation of infrastructure to enable district heating in these areas is likely to require land use works. Given that the detail of such works are not available at this stage, the potential for likely significant effects to the following European Sites cannot be ruled out at this stage: North Dublin Bay SAC; North Bull Island SPA; and South Dublin Bay River Tolka Estuary SPA.
3	Prepare Dublin City 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.
4	Evidence-based climate change chapter in County Development Plan 2022-2028	No. This action which calls for the preparation of this chapter within the CDP will not in itself result in land use effects.
	ENERGY Management	
5	Develop ISO 50001 compliant energy management system	No. This action will not result in land use effects or likely significant effects to European Sites.
6	Annual Monitoring and Reporting to SEAI	No. This action will not result in land use effects or likely significant effects to European Sites.
7	Publish Energy Review annually	No. This action will not result in land use effects or likely significant effects to European Sites.

8	Display Energy Certificates for public buildings	No. This action will not result in land use effects or likely significant effects to European Sites.
	ENERGY EFFICIENCY & RENEWABLES	
9	Identify sites for trialling renewable energy projects, including Solar PV	No. The identification for sites for trialling such projects will not in itself result in land use effects or likely significant effects to European Sites.
10	Energy efficiency works in 30 Council owned and operated buildings	No. This action will not result in land use effects or likely significant effects to European Sites.
11	Dublin Fire Brigade energy efficiency works	No. This action will not result in land use effects or likely significant effects to European Sites.
12	Continue the Fabric Upgrade Programme of housing stock	No. This action will not result in land use effects or likely significant effects to European Sites.
13	Develop and implement Public Lighting Master Plan	No. This action will not result in land use effects or likely significant effects to European Sites.
14	Landlord lighting upgrades in 15 complexes across the City	No. This action will not result in land use effects or likely significant effects to European Sites.
15	Facilitate EPC project in 7 leisure centres/dry sports centres across Dublin City	No. This action will not result in land use effects or likely significant effects to European Sites.
16	Install PV panels on Council buildings in Dominick Street, North King Street, Cornamona Court	No. This action will involve the installation of PV panels on existing buildings and will not have the potential to result in likely significant effects to European Sites.
17	New nZEB Super Depots	No. This action to transform existing depots into nZEB depots will not have the potential to result in likely significant effects to European Sites.

	RESEARCH & INNOVATION	
18	Develop proposal to use Docklands SDZ to test smart public lighting infrastructure	No. This action will not result in land use effects or likely significant effects to European Sites.
19	Expand and develop Small Business Innovation & Research (SBIR) programme	No. This action will not result in land use effects or likely significant effects to European Sites.
20	Work with CARO on research and project proposals for grant funding	No. This action will not result in land use effects or likely significant effects to European Sites.
	ENERGY AWARENESS	
21	Continued staff energy awareness in Council buildings	No. This action will not result in land use effects or likely significant effects to European Sites.
22	Engage with students about energy and buildings through CPD Programme/Engineers Week	No. This action will not result in land use effects or likely significant effects to European Sites.
23	Provide citizens with energy awareness material in public buildings	No. This action will not result in land use effects or likely significant effects to European Sites.
24	Provide City Council tenants with energy awareness materials at home, particularly at the time of taking up new tenancy	No. This action will not result in land use effects or likely significant effects to European Sites.
25	Monitor and develop the Home Energy Savings Kits in DCC's public libraries	No. This action will not result in land use effects or likely significant effects to European Sites.
	ENERGY & BUILDINGS	
26	<i>Develop research and funding opportunities for renewable and efficiency projects</i>	No. This action will not result in land use effects or likely significant effects to European Sites.

27	Dublin District Heating System	<p>Yes. The implementation of infrastructure to enable district heating in Dublin is likely to require land use works. Given that the detail of such works are not available at this stage, the potential for likely significant effects to the following European Sites cannot be ruled out at this stage:</p> <p>North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay River Tolka Estuary SPA South Dublin Bay SAC; Baldoyle Bay SAC</p>
28	Undertake programme of flat complex regenerations	No. This action will not result in land use effects or likely significant effects to European Sites.
	TRANSPORT	
1	Develop strategy to convert fleet to low emission vehicles	No. This action will not result in likely significant effects to European Sites. It is predicted that this action will result in positive environmental effects.
2	Pilot more electric vehicles within Council fleet	No. This action will not result in likely significant effects to European Sites. It is predicted that this action will result in positive environmental effects.
3	Conduct detailed study of staff modal split	
4	Promote Cycle-to-Work Scheme to DCC staff	No. This action will not result in likely significant effects to European Sites. It is predicted that this action will result in positive environmental effects.
5	Implement Smart Mobility Hub in Civic Offices	
6	Carbon offset programme for staff flights	No. This action will not result in likely significant effects to European Sites. It is predicted that this action will result in positive environmental effects.

7	Occupational driver training for fleet staff	No. This action will not result in land use effects or likely significant effects to European Sites.
8	Assess potential for using an e-mobile for real time air quality monitoring in the City Centre	No. This action will not result in land use effects or likely significant effects to European Sites.
	PLANNING & PUBLIC REALM	
9	Implement the measures outlined in the Dublin City Centre Transport Study 2016	No. The measures in this Plan have been reviewed and it is considered that they do not have the potential to result in likely significant effects to European Sites.
10	Implement traffic calming programme	No. This action will not result in likely significant effects to European Sites.
11	Expand 30 km/h speed limit zones to all residential areas of the City	No. This action will not result in land use effects or likely significant effects to European Sites.
12	D30 public awareness campaign of speed limits in City	No. This action will not result in land use effects or likely significant effects to European Sites.
13	Regular maintenance of regional and local roads	<p>Yes. Road maintenance works could involve land use works in the vicinity of European Sites. Given the absence of specific details regarding future projects associated with improvements that may be supported by and facilitated by this Action the potential likely significant effects to the following European Sites cannot be ruled out at this stage:</p> <p>North Dublin Bay SAC;</p> <p>North Bull Island SPA;</p> <p>South Dublin Bay River Tolka Estuary SPA</p> <p>South Dublin Bay SAC;</p> <p>Baldoye Bay SAC</p>
14	Rolling out last mile delivery eco	No. This action will not result in land use effects or likely

	hubs in the City Centre Area	significant effects to European Sites.
15	Develop 'last mile' delivery solutions, as part of SBIR challenge	No. This action will not result in land use effects or likely significant effects to European Sites.
16	<p>Phase I Pedestrian Zones (2016-2022):</p> <ul style="list-style-type: none"> • Liffey Street • Mary Street • Talbot Street • Castle Street/Cork Hill • Barnardo's Square • Temple Bar Public Realm 	No. Screening for Appropriate Assessment for the pedestrianisation of Liffey Street has been completed and found that this project will not have the potential to result in likely significant effects to European Sites. It is considered that pedestrianisation works for other streets will be of a similar nature to Liffey Street and will not have the potential to result in likely significant effects to European Sites.
17	<p>Phase II Pedestrian Zones (2023-2028):</p> <ul style="list-style-type: none"> • Dame Street West • Lord Edward Street • Parnell Street • O'Connell Bridge • D'Olier Street • Lombard Street • Westland Row • Nassau Street • Aungier Street/Valentine District • Merrion Square • Pearse Street • North Lotts <p>North Quays</p>	No. Works associated with pedestrianisation of these streets are not predicted to have the potential to result in likely significant effects to European Sites.
18	<p>Phase III Pedestrian Zones (2029 and beyond):</p> <ul style="list-style-type: none"> • South Quays • Tara Street <p>Parkgate Street</p>	No. Works associated with pedestrianisation of these streets are not predicted to have the potential to result in likely significant effects to European Sites.
19	<p>To investigate the introduction of traffic-free areas on sections of</p> <ul style="list-style-type: none"> • Drury Street • South William Street • Exchequer Court • Dame Court • Dame Lane 	No. This action will not result in land use effects or likely significant effects to European Sites.

	retaining access for car parks and deliveries	
20	World Car Free Day	No. This action will not result in land use effects or likely significant effects to European Sites.
21	European Mobility Week	No. This action will not result in land use effects or likely significant effects to European Sites.
22	DCC to liaise with NTA on BusConnects programme	No. This action will not in itself result in land use effects or likely significant effects to European Sites.
23	2 EV Charging point trials in the Docklands	No. This action will not result in land use effects or likely significant effects to European Sites.
24	Assessment of Council public car parks for trickle and rapid charge EV points	No. This action will not result in land use effects or likely significant effects to European Sites.
	ACTIVE TRAVEL & BEHAVIOUR CHANGE	
25	Organise Pedestrian Days in areas with high footfall	No. This action will not result in land use effects or likely significant effects to European Sites.
26	Identify and promote use of new routes on Hike It! Bike It! Like It! platform	No. This action will not result in land use effects or likely significant effects to European Sites.
27	Develop cycle network strategy	No. The development of this strategy will not in itself not result in land use effects or likely significant effects to European Sites.
28	Dodder Greenway (Pedestrian and Cycle Improvement) - 7.5Km section	Yes. Given the absence of specific details (no finalised route was available at the time of writing; a preferred emerging route was published in Oct. 2018) regarding this projects the potential likely significant effects to the follows European Sites cannot be ruled out at this stage: North Dublin Bay SAC;

		North Bull Island SPA; South Dublin Bay River Tolka Estuary SPA
29	4 km Clontarf-to-City Centre Cycle Scheme	No. This project has been subject to environmental assessment as part of a Part VIII planning application.
30	Liffey Cycle Route	No. This project utilises existing infrastructure and will not have the potential to result in likely significant effects to European Sites.
31	Fitzwilliam Cycle Route - 1 km route with upgrades for junctions	No. This project utilises existing infrastructure and will not have the potential to result in likely significant effects to European Sites.
32	Sandyford-to-City Centre Cycle Scheme - proposal and options for 9 km route	Yes. Given the absence of specific details (no finalised route was available at the time of writing) regarding this projects the potential for likely significant effects to the following European Sites cannot be ruled out at this stage: North Dublin Bay SAC; North Bull Island SPA; and South Dublin Bay River Tolka Estuary SPA
33	Royal Canal Phase 3 - 2.1 km two-way cycle track with pedestrian route	No. This project has undergone assessment as part of a Part 8 planning application.
34	Grand Canal Premium Cycle Route - 4.4 km addition to route linking Portobello to Blackhorse	No. This project has undergone assessment as part of a Part 8 planning application.
35	Pedestrian and cycle bridges over the Royal Canal at North Wall Quay	No. This project has been subject to Screening for Appropriate Assessment which found that there will be no potential for likely significant effects to European Sites.
36	Cycle Training Programme for 6th Class students / Pedal Power Labs	No. This action will not result in land use effects or likely significant effects to European Sites.

37	Emissions-linked parking charges in City Centre	No. This action will not result in land use effects or likely significant effects to European Sites.
38	Increase number of public bike parking facilities	No. The provision of bike parking facilities within the city will represent is predicted to involve small-scale land use works that will not have the potential to result in significant effects to European Sites.
39	Expand Stationless Bike scheme	No. This action will not result in land use effects or likely significant effects to European Sites.
40	Expand Dublinbikes scheme	No. This action will not result in land use effects or likely significant effects to European Sites.
41	Implement policy to increase modal shift to cycling	No. This action will not result in land use effects or likely significant effects to European Sites.
42	DCC to host Velo City 2019	No. This action will not result in land use effects or likely significant effects to European Sites.
43	Install pilot Electric Vehicle charging station at John Rogersons Quay	No. The provision of charging station at this location is predicted to involve small-scale land use works that will not have the potential to result in significant effects to European Sites
44	Samuel Beckett Bridge segregated cycle lane	No. This will involve the provision of a cycle lane within the footprint of the existing bridge. It will not have the potential to result in likely significant effects to European Sites.
	PUBLIC TRANSPORT	
45	Sustainable transport hubs – various locations	Yes. Given that the location of these hubs are not known and that their provision is likely to result in land use works the potential for likely significant effects to the following European Sites cannot be ruled out at this stage: North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay River Tolka Estuary SPA;

		South Dublin Bay SAC; and Baldoye Bay SAC.
46	Develop bus routes including the Bus Connects programme	Yes. Given that the location of these bus routes are not known and that their provision may result in land use works the potential for likely significant effects to the following European Sites cannot be ruled out at this stage: North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay River Tolka Estuary SPA; South Dublin Bay SAC; and Baldoye Bay SAC.
47	Carry out Canal Cordon Count	No. This action will not result in land use effects or likely significant effects to European Sites.
48	Implement policy to increase modal shift to public transport	No. This action will not result in land use effects or likely significant effects to European Sites.
49	Implement policy to give bus priority on core bus network	No. This action will not result in land use effects or likely significant effects to European Sites.
	TRANSPORT	
50	<i>Develop a strategy to promote car sharing</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
51	<i>Expand availability of EV charging points</i>	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
52	<i>Replace diesel hand sweepers/power washers with electric models</i>	No. This action will not result in land use effects or likely significant effects to European Sites.

53	<i>Dublin City Council to promote Mobility-as-a-Service (MaaS) initiatives in the City to increase active travel options</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
	FLOOD RESILIENCE	
	FLOOD RISK MANAGEMENT	
1	Implement flood risk management guidelines	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	Coordinate Emergency Response Plans	No. This action will not in itself result in land use effects or likely significant effects to European Sites.
3	Implement flood awareness campaign with the OPW	No. This action will not result in land use effects or likely significant effects to European Sites.
4	Monitoring of flood forecasting and warning system	No. This action will not result in land use effects or likely significant effects to European Sites.
5	Produce new Design Guide for SuDS	No. This action will not in itself result in land use effects or likely significant effects to European Sites.
6	Implement Sustainable urban Drainage Guidelines in Council buildings	No. These guidelines outline best practice measures for SuDS and the implementation for Council buildings will not result in land use effects or likely significant effects to European Sites.
7	Build demonstration sites to show options for SuDS	
8	Establish a Dublin Bay Sentinel Group, led by DCC and including other key stakeholders, to monitor tide levels and other marine related flood risk issues in Dublin Bay.	No. This action will not result in land use effects or likely significant effects to European Sites.
9	Develop and implement Coastal Zone	Yes. Given that the details of the Dublin City Council

	Management plan for Dublin Bay, aligned with County Climate Change Action Plans and other local authority plans and strategies	Coastal Zone Management Plan have yet to be prepared; that this Plan may contain land use measures for coastal protection; and the presence of a number of coastal European Sites within the Plan area the potential for likely significant effects to these European Sites cannot be ruled out at this stage. The European Sites that could be at risk of likely significant effects from any actions associated with coastal zone management land use measures are: <ul style="list-style-type: none"> • North Dublin Bay SAC; • North Bull Island SPA; • South Dublin Bay SAC; and • South Dublin Bay River Tolka Estuary SPA
10	Implement the Dublin Bay Biosphere work programme	No. This action will not result in land use effects or likely significant effects to European Sites.
11	Trial hemp baskets for flood protection	No. This action will not result in land use effects or likely significant effects to European Sites.
12	Identify areas for integrated constructed wetlands	No. The process of identifying these areas will not in itself result in land use effects and likely significant effects to European Sites.
13	Expansion of rainfall sensors and weather stations, as part of the Connect Flooding Demonstrator programme	No. This action will not result in land use effects or likely significant effects to European Sites.
14	Phase 2 of Gully Monitoring SBIR Challenge	No. This action will not result in land use effects or likely significant effects to European Sites.
15	Develop a climate change impact GIS risk map with scenarios for the Dublin Region	No. This action will not result in land use effects or likely significant effects to European Sites.
16	Develop template to capture impacts, response and costs for all major climate events	No. This action will not result in land use effects or likely significant effects to European Sites.
17	Establish a Working Group to deal with the issue of pluvial	No. This action will not result in land use effects or likely significant effects to European Sites.

	<p>flood risk. This shall include:</p> <ul style="list-style-type: none"> • How to manage “urban creep” and the increase in impermeable surfaces • Promotion of SuDS early in design process • Development of pluvial flood forecasting through use of point rainfall forecasting • Interim use of DCC “FLAG” meetings as a model for DLAs in relation to pluvial flood forecasting and response. • Water quality 	significant effects to European Sites.
18	Update DLA urban drainage and flooding policies for current knowledge of flood risk and the latest best practice in drainage design	No. This action will not result in land use effects or likely significant effects to European Sites.
19	Risk workshops to assess impacts on Council services	No. This action will not result in land use effects or likely significant effects to European Sites.
	FLOOD DEFENCE	
20	South Campshires Flood Defence	No. This project has been subject to environmental assessment and construction was completed in 2017.
21	Sir John Rogerson's Quay flood alleviation scheme	No. This project has been subject to environmental assessment and is currently being constructed.
22	North Campshires flood alleviation scheme	
23	Clanmoyle flood alleviation scheme	No. This project has been subject to Part 8 planning and construction was completed in 2014.
24	Wad flood alleviation scheme	No. This project has been subject to Part 8 planning and construction was completed in 2014.
25	Poddle flood alleviation scheme	Yes. A NIS of the Eastern Region Flood Risk Assessment and Management Study for both the Camac and Poddle rivers. This identified the potential for flood measures to result in likely significant effects to European Sites at Dublin Bay. Given that the project level details for this scheme are as yet not available and the presence of a

		<p>hydrological pathway between this watercourses and European Sites at Dublin Bay the potential for likely significant effects to the following European Sites cannot be ruled out:</p> <p>North Dublin Bay SAC</p> <p>North Bull Island SPA</p> <p>South Dublin Bay SAC</p> <p>South Dublin Bay River Tolka Estuary SPA</p>
26	Camac flood alleviation scheme	<p>Yes. A NIS of the Eastern Region Flood Risk Assessment and Management Study for both the Camac and Poddle rivers. This identified the potential for flood measures to result in likely significant effects to European Sites at Dublin Bay. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourses and European Sites at Dublin Bay the potential for likely significant effects to the following European Sites cannot be ruled out:</p> <p>North Dublin Bay SAC</p> <p>North Bull Island SPA</p> <p>South Dublin Bay SAC</p> <p>South Dublin Bay River Tolka Estuary SPA</p>
27	Dollymount flood alleviation scheme	<p>No. This project has received planning approval and construction commenced in 2015.</p>
28	Clontarf Promenade flood alleviation scheme	<p>No. This project has received planning approval and construction commenced in 2015.</p>
29	Sandymount Promenade flood alleviation scheme	<p>Yes. Given that the project level details for this scheme are as yet not available; that the location of this scheme will be potentially within and adjacent to the South Dublin Bay SAC and South Dublin Bay River Tolka Estuary SPA: the potential for likely significant effects to these European Sites cannot be ruled out.</p>

30	Sandymount Phase 2 flood alleviation scheme	Yes. Given that the project level details for this scheme are as yet not available; that the location of this scheme will be potentially within and adjacent to the South Dublin Bay SAC and South Dublin Bay River Tolka Estuary SPA: the potential for likely significant effects to these European Sites cannot be ruled out.
31	Chapelizod flood alleviation scheme	Yes. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourses and European Sites at Dublin Bay the potential for likely significant effects to the following European Sites cannot be ruled out: North Dublin Bay SAC North Bull Island SPA South Dublin Bay SAC South Dublin Bay River Tolka Estuary SPA
32	Island Bridge flood alleviation scheme	Yes. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourses and European Sites at Dublin Bay the potential for likely significant effects to the following European Sites cannot be ruled out: North Dublin Bay SAC North Bull Island SPA South Dublin Bay SAC South Dublin Bay River Tolka Estuary SPA
33	Santry River Regeneration Project	Yes. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourse and North Dublin Bay SAC and North Bull Island SPA the potential for likely significant effects to these European Sites cannot be ruled out.
34	River Dodder Flood Defence Works in the fluvial section upstream of Ballsbridge	Yes. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourse and North Dublin Bay SAC and North Bull Island SPA the potential for likely

		<p>significant effects to the following European Sites at Dublin Bay cannot be ruled out:</p> <p>North Dublin Bay SAC</p> <p>North Bull Island SPA</p> <p>South Dublin Bay SAC</p> <p>South Dublin Bay River Tolka Estuary SPA</p>
	FLOOD RESILIENCE	
35	<i>Study impacts and benefits of increased buffer distances to watercourses</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
36	<i>Promote and encourage community involvement in the retrofit of SuDS in existing developments</i>	No. This action will not in itself result in land use effects or likely significant effects to European Sites.
	NATURE-BASED SOLUTIONS	
	OPERATIONS	
1	Establish regional working group on nature-based solutions	No. This action will not result in land use effects or likely significant effects to European Sites.
2	Agree joint action plans to protect native habitats and species across all 4 DLAs	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
3	Establish a cross-departmental Trees and SUDS Working Group to promote and pilot water sensitive urban design incorporating urban tree planting	No. This action will not result in likely significant effects to European Sites. This action will have potential positive environmental effects.
4	Workshop on Trees and SUDS	No. This action will not result in land use effects or likely significant effects to European Sites.

5	Produce regional river basin management guidelines. Use Santry River as demonstration	No. This action will not result in land use effects or likely significant effects to European Sites.
6	Facilitate an annual workshop for information exchange between biodiversity experts	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
7	Collect data to inform the preparation of a list of habitats and species in Dublin City vulnerable to climate change	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
	GREEN INFRASTRUCTURE	
8	Develop Green Infrastructure Strategy for region	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
9	Implement Public Open Space and Parks Strategy	No. This action will not result in land use effects or likely significant effects to European Sites.
10	Map access to green space in City to identify areas of need	No. This action will not result in land use effects or likely significant effects to European Sites.
11	Continued development of the Dodder Greenway	Yes. Given that the project level details for this scheme are as yet not available and the presence of a hydrological pathway between this watercourse and North Dublin Bay SAC and North Bull Island SPA the potential for likely significant effects to the following European Sites at Dublin Bay cannot be ruled out: North Dublin Bay SAC North Bull Island SPA South Dublin Bay SAC South Dublin Bay River Tolka Estuary SPA
12	Assess the feasibility of green walls	No. This action will not result in land use effects or likely significant effects to European Sites.

	TREE MANAGEMENT	
13	Implement <i>Dublin City Tree Strategy</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
14	Continue to map and collect data on trees in Dublin City	No. This action will not result in land use effects or likely significant effects to European Sites.
15	Promote and expand Native Tree Trails programme	No. This action will not result in land use effects or likely significant effects to European Sites.
16	Produce guidance on species of public trees for urban planting in accordance with Action 3.1 of the <i>Dublin City Tree Strategy</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
17	Tree-planting activities with schools including annual National Tree Week and National Tree Day	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
18	Investigate the use of the DAFM NeighbourWood Planting scheme for use in suitable urban area as part of the DCC Tree Strategy	No. This action will not result in land use effects or likely significant effects to European Sites.
	NATURE CONSERVATION	
19	Implement <i>Dublin City Council Invasive Alien Species Action Plan</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
20	Promote international World Wetlands Day	
21	Provide data to RAMSAR	
22	Prepare and publish <i>Flora of Bull Island</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.

23	Conduct a common cord-grass management study and monitoring for North Bull Island SPA	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
24	Prepare a GIS-based ecological sensitivity map of Dublin Bay Biosphere	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
25	Participate in the INTERREG-funded Acclimatize research project	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
26	Conduct light-bellied brent goose roost survey	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
27	Implement the North Bull Island Management Plan	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
	NATURE-BASED SOLUTIONS	
28	<i>Pilot projects for green roofs on civic buildings</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
29	<i>Develop demonstration sites to showcase nature-based solutions with existing land uses</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
30	North East Inner City Greening Strategy	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
31	<i>Develop urban woodland strategy</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
32	<i>Incorporate tree and shrub planting in all new Council housing developments</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.

33	<i>Assess feasibility of urban orchards</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
34	<i>Produce A Guide to Sustainable Living in Dublin City</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
35	<i>Identify sites suitable for community gardens for local food production</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
36	<i>Assessment of causes and impacts of Ectocarpus brown algal growth in Dublin Bay</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
37	<i>Prepare a preliminary list of species and habitats vulnerable to climate change for informing environmental impact assessments</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
38	<i>Prepare an analysis of soil sealing in Dublin City to determine levels of permeability</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
	RESOURCE MANAGEMENT	
	WASTE MANAGEMENT	
1	Monitor and enforce waste regulation	No. This action will not result in land use effects or likely significant effects to European Sites.
2	Assess waste in Council buildings and plan actions	No. This action will not result in land use effects or likely significant effects to European Sites.
3	Run staff recycling awareness campaign	No. This action will not result in land use effects or likely significant effects to European Sites.
4	Identify areas in need of civic amenity sites and waste transfer stations	No. This action will not result in land use effects or likely significant effects to European Sites.

5	Apply for LAPN (Local Authority Prevention Network) grants	No. This action will not result in land use effects or likely significant effects to European Sites.
6	Create Stop Food Waste campaign for businesses and schools	No. This action will not result in land use effects or likely significant effects to European Sites.
7	Promote Reuse Month annually	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
8	Use Eco-Merit programme to advise businesses on reducing waste	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
9	Promote recycling to householders through a range of workshops, talks and programmes	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
10	Continue to work with the Rediscovery Centre to promote sustainability	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
11	Research and implement sustainable procurement guidelines	No. This action will not result in land use effects or likely significant effects to European Sites.
	LITTER & RECYCLING IN PUBLIC REALM	
12	Run anti-dumping and-anti-litter campaigns	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
13	Organise Marine Litter clean up days	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
14	Solar Compactor Bins provided in City -	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
15	Mapping and tagging of City bins	No. This action will not result in land use effects or likely

		significant effects to European Sites.
16	Identify areas in need of recycling infrastructure	No. This action will not result in land use effects or likely significant effects to European Sites.
17	Develop pilot projects for recycling	No. This action will not result in land use effects or likely significant effects to European Sites.
18	Engage with relevant stakeholders and deliver an energy efficiency, circular economy and sustainability training programme targeting micro and small enterprises	No. This action will not result in land use effects or likely significant effects to European Sites.
19	Investigate introducing a leaf composting programme across the City	No. This action will not result in land use effects or likely significant effects to European Sites.
20	Support and promote Tidy Towns/ Green Schools/ City Neighbourhoods initiatives	No. This action will not result in land use effects or likely significant effects to European Sites.
21	Develop sustainability guidelines and terms and conditions for any events supported, facilitated or organised by DCC	No. This action will not result in land use effects or likely significant effects to European Sites.
22	Review terms and conditions for all events approved by DCC to incorporate possible sustainability conditions	No. This action will not result in land use effects or likely significant effects to European Sites.
23	Any events supported, facilitated or organised by DCC will not permit balloon or Chinese lantern releases	No. This action will not result in land use effects or likely significant effects to European Sites.
24	DCC to consult with the events industry on alternatives to non-compostable single use food and beverage containers at DCC events	No. This action will not result in land use effects or likely significant effects to European Sites.
25	DCC to select an appropriate event as a pilot to trial alternatives to non-compostable single use food and	No. This action will not result in land use effects or likely significant effects to European Sites. This action will

	beverage containers	have potential positive environmental effects.
26	Phase out the use of single use plastic cups from all DCC canteens and replace with the use of ceramic cups and personal reusable cups	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
27	Identify pilot locations for water access points	No. This action will not result in land use effects or likely significant effects to European Sites.
28	Host and select sites for the Composting Demonstration using Master Composter EPA Stop Food Waste Programme or similar programme to assist sustainable gardening and management of landscaping waste	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
29	Continue to investigate best practice in street recycling facilities	No. This action will not result in land use effects or likely significant effects to European Sites.
	WATER CONSERVATION	
30	Implement water conservation campaign in civic buildings	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
31	Develop and implement an education programme to tackle climate issues related to the water sector	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
	RESOURCE MANAGEMENT	
32	<i>Green street cleaning; use biodegradable cleaning agents</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.
33	<i>Develop sustainable construction waste policy</i>	No. This action will not result in land use effects or likely significant effects to European Sites.
34	<i>Trial of low flush toilets in Council headquarters and social housing</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will

		have potential positive environmental effects.
35	<i>Research feasibility of rainwater harvesting in Council buildings and social housing</i>	No. This action will not result in land use effects or likely significant effects to European Sites. This action will have potential positive environmental effects.