Comhairle Contae
Átha Cliath Theas
South Dublin County Council

Proposed Draft Tallaght Town Centre Local Area Plan 2020–2026

Appendix 6 Natura Impact Statement

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Natura Impact Report

Tallaght Town Centre Local Area Plan 2020-2026

September 2019

Natura Impact Report

Tallaght Town Centre Local Area Plan 2020 -2026

Document Stage	Date	Prepared by
Final	22nd March 2019	P Doherty, MSc,MCIEEM
Final	25th March 2019	Reviewed by R. Minogue, MCIEEM
Updated following changes to draft LAP	10th September 2019	R Minogue MCIEEM

Contents

1.0 INTRODUCTION

Doherty Environmental Ltd. have been appointed by South Dublin County Council to undertake a Natura Impact Report (NIR) of the draft Tallaght Town Centre Local Area Plan (thereafter called the Draft plan). 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 South Dublin County Council's requirement for completing an Appropriate Assessment of the proposed plan.

The Draft plan 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 Screening Report for Appropriate Assessment has been completed and assessed the potential for the plan to result in likely significant effects to European Sites. The location of the proposed plan Lands are shown on Figure 1.1.

1.1 SUMMARY OF THE SCREENING FOR APPROPRIATE ASSESSMENT

A Screening Report for Appropriate Assessment has been completed for the draft plan. 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. All European Sites occurring within a 15km buffer distance of proposed plan boundary were screened for likely significant effects (the location of these sites with respect to proposed plan area are shown on Figure 1.2 & 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 draft 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 9 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 virtue of the spatial relationship or pathway connections between lands subject to the proposed Variation and these European Sites. A total of 6 European Sites, Glensamole Valley SAC (Site Code: 0001209); Wicklow Mountains SAC (site code:002122); Wicklow Mountains SPA (site code: 004040); North Dublin Bay SAC (Site Code: 000206); North Bull Island SPA (Site Code: 004006); and South Dublin Bay River Tolka Estuary SPA (Site Code: 4024) were identified as occurring within the zone of influence of the proposed Variation.
The South Dublin Bay River Tolka Estuary SPA, North Bull Island SPA, North Dublin Bay SAC were screened in due to the presence of a hydrological pathway linking land use elements of the Draft Plan to these European Sites. The land use elements of the Draft Plan were identified as having the potential to result in negative effects to the water quality of surface watercourses, namely the River Poddle and the Whitetown Stream, both of which are connected via a hydrological pathway to the European Sites at Dublin Bay. The hydrological pathway between the Draft Plan lands and these European Sites are shown in Figure 1.4. A precautionary approach was adopted during the Screening and the potential for downstream impacts to water quality at Dublin Bay was identified as a requiring further consideration as part of a Natura Impact Report.

The Wicklow Mountains SAC, Wicklow Mountains SPA and the Glenasmole Valley SAC were were screened in due to the aim of the Draft Plan to strengthen connections between the plan area and the Dublin Mountains, within which these European Sites are located. The strengthening of such links was identified during the Screening as having the potential to increase human activity, in particular recreational activity, within these European Sites with the potential for consequent pressures to qualifying habitats and species.

Accordingly, this NIR has been prepared to inform the Appropriate Assessment of the proposed Draft Plan's potential to result in significant effects to these 6 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 2: Assessment Methodology

Section 3: Overview of the Draft Plan & identification of elements that could result in significant effects to European Sites

Section 4: Conservation Objectives for European Sites

Section 5: Assessment of the Proposed Draft Plan

Section 6: Mitigation

Section 7: Conclusions

Figure 1.1: Location of Tallaght Town Centre Draft Plan and South Dublin County

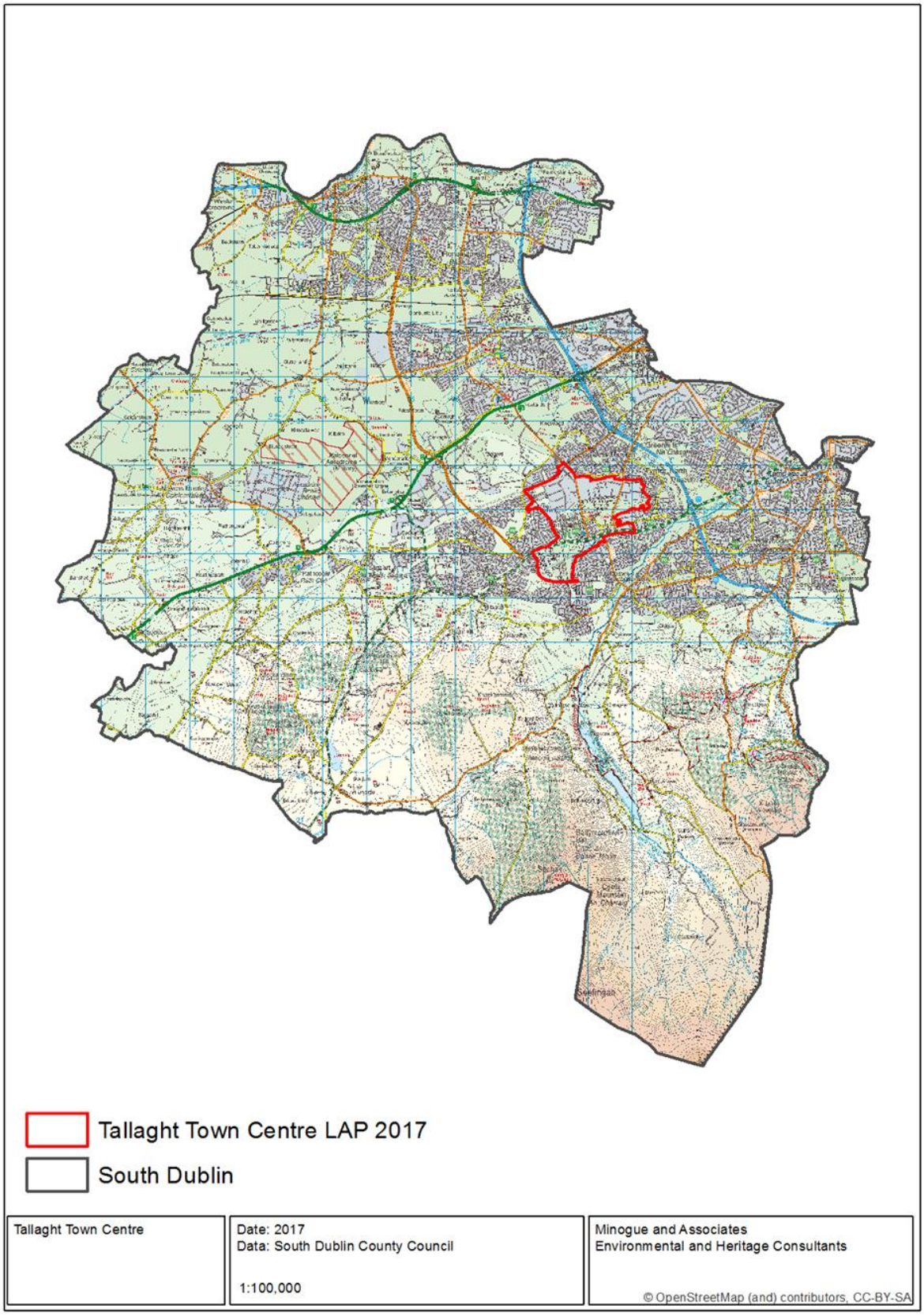
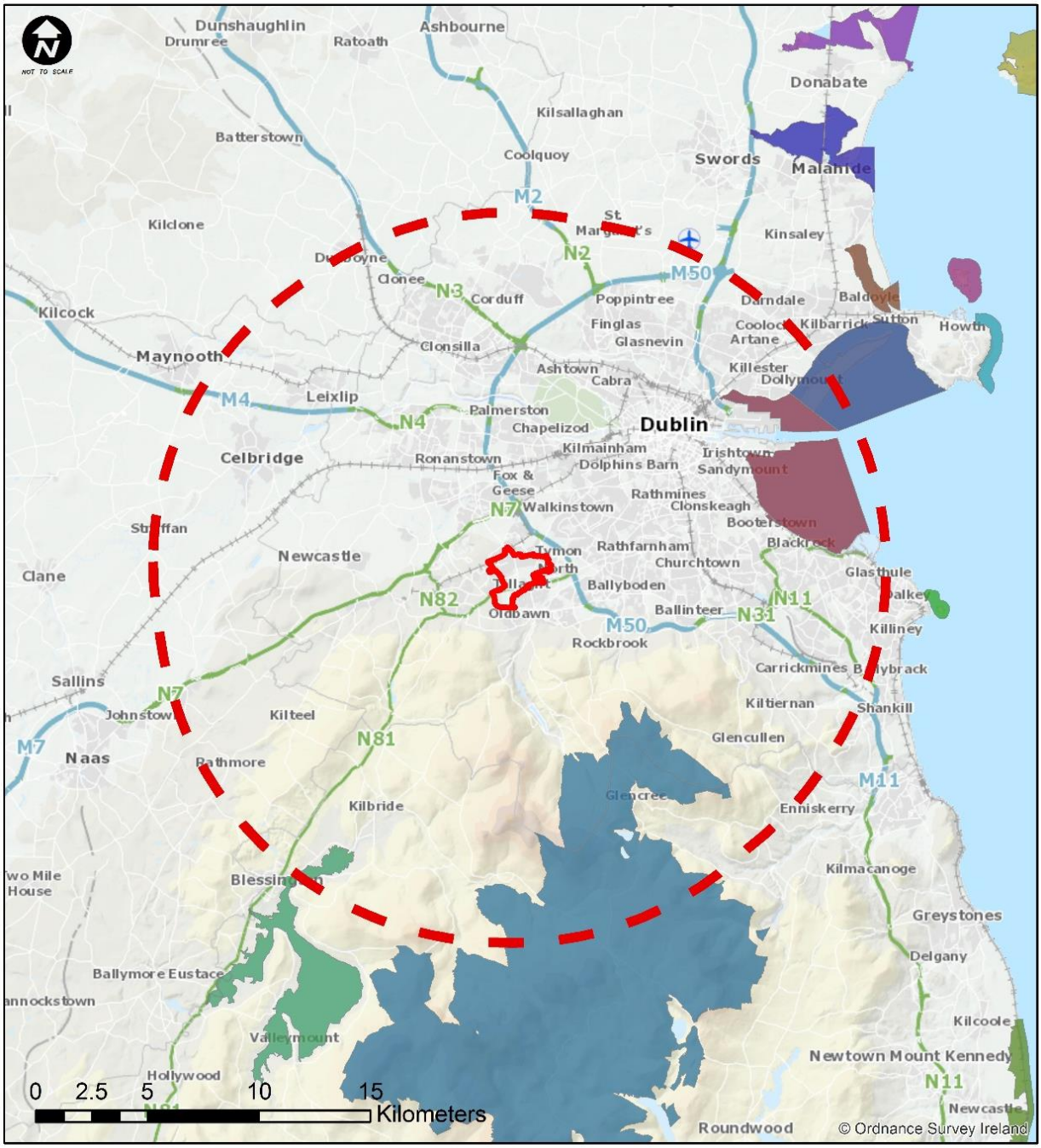


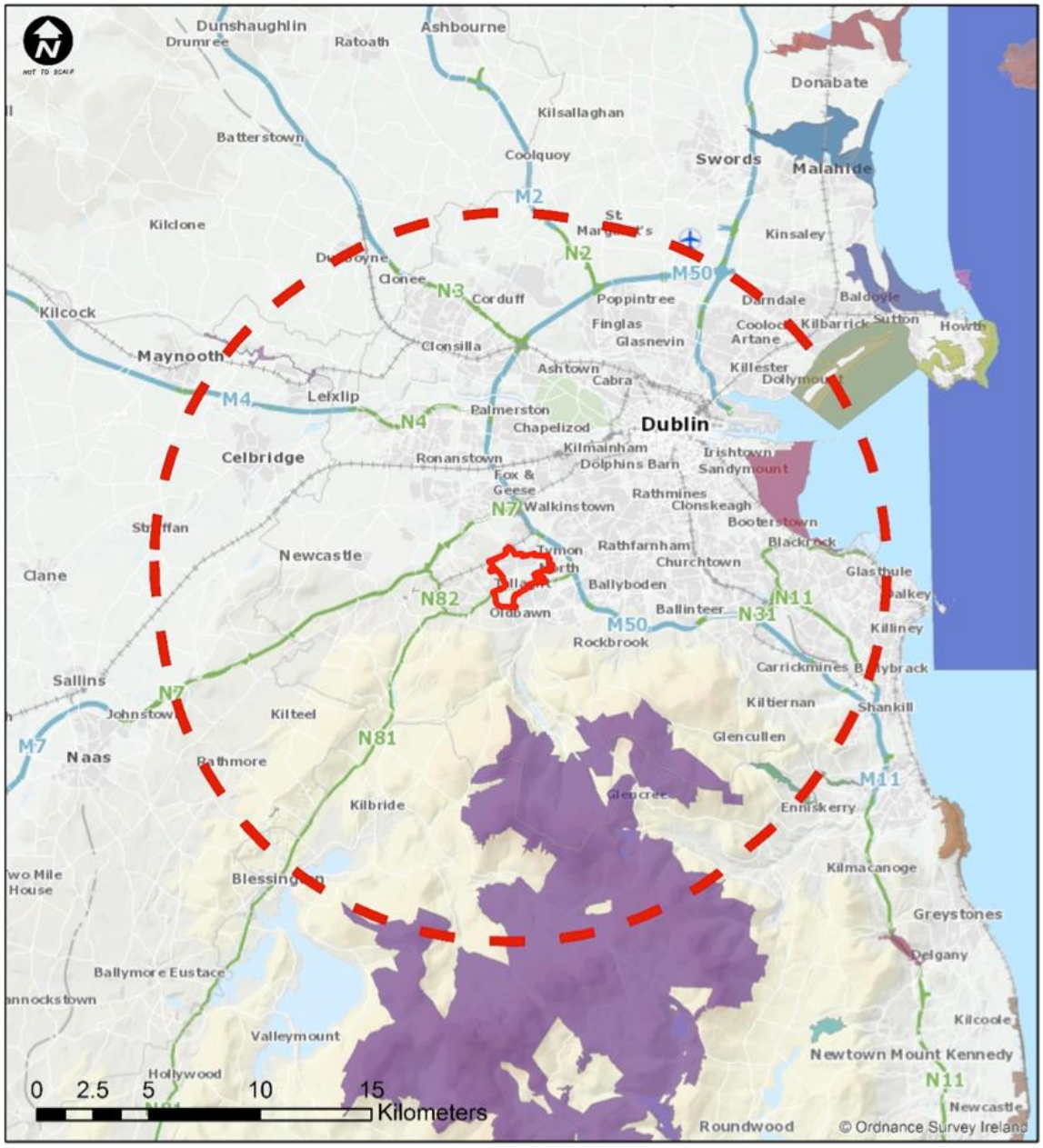
Figure 1.2: SPAs in the wider surrounding area



Key

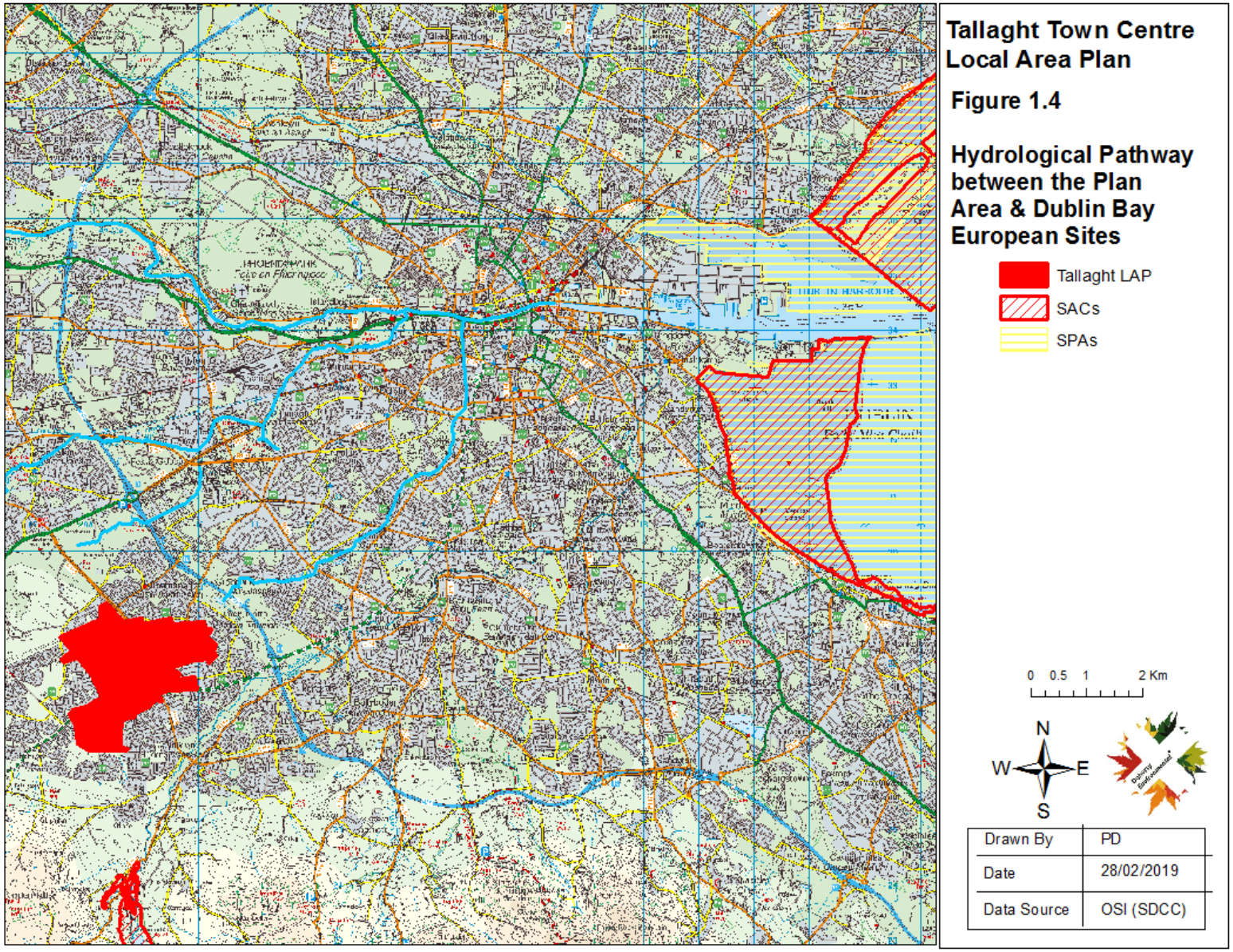
- Local Area Plan Boundary
- 15km Zone of Interest
- Baldoyle Bay SPA
- Broadmeadow/Swords Estuary SPA
- Dalkey Islands SPA
- Howth Head Coast SPA
- Ireland's Eye SPA
- Lambay Island SPA
- North Bull Island SPA
- Poulaphouca Reservoir SPA
- Rogerstown Estuary SPA
- South Dublin Bay and River Tolka Estuary SPA
- The Murrough SPA
- Wicklow Mountains SPA

Figure 1.3: SACs in the wider surrounding area



Key

- Local Area Plan Boundary
- 15km Zone of Interest
- Baldoyle Bay SAC
- Ballyman Glen SAC
- Bray Head SAC
- Carriggower Bog SAC
- Glen Of The Downs SAC
- Howth Head SAC
- Ireland's Eye SAC
- Knocksink Wood SAC
- Lambay Island SAC
- Malahide Estuary SAC
- North Dublin Bay SAC
- Red Bog, Kildare SAC
- Rockabill to Dalkey Island SAC
- Rogerstown Estuary SAC
- Rye Water Valley/Carton SAC
- South Dublin Bay SAC
- The Murrough Wetlands SAC
- Wicklow Mountains SAC


Tallaght Town Centre Local Area Plan
Figure 1.4
Hydrological Pathway between the Plan Area & Dublin Bay European Sites
Tallaght LAP
SACs
SPAs
0 0.5 1 2 Km
N
W
E
S
Drawn By PD
Date 28/02/2019
Data Source OSI (SDCC)

2.0 ASSESSMENT METHODOLOGY

2.1 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).

2.2 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.

2.3 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.

2.4 INFLUENCE OF THE APPROPRIATE ASSESSMENT PROCESS ON THE DRAFT PLAN

The purpose of the Appropriate Assessment of the draft 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 latter element of the Appropriate Assessment process is manifest in the following scenarios:

- Where specific elements of the draft Plan have been identified as having the potential to result in negative land use effects that could in turn result in impacts to European Sites, the relevant text of the Draft Plan will be revised to minimise such effects.
- Where elements of the Draft Plan are of a more general nature that prevented the identification of likely impacts to European Sites, text was provided to ensure that all potential impacts arising out of these elements of the plan are assessed as part of an Appropriate Assessment at the project level.
- Any elements of the draft Plan and the South Dublin CDP that aim to protect the natural environment were identified and evaluated for their their role in safeguarding European Sites.

3.0 OVERVIEW OF THE DRAFT PLAN && ELEMENTS THAT COULD GIVE RISE TO SIGNIFICANT EFFECTS

South Dublin County Council (SDCC) has prepared a draft Local Area Plan for the Tallaght Town Centre. The Proposed Draft Plan seeks to establish South Dublin County Council's vision and ambition for the Tallaght Town Centre within the planning framework of the South Dublin CDP. The vision of this Local Area Plan is for Tallaght to be:

> "*An inclusive and vibrant Town Centre, a connected and accessible place with an attractive built environment for families of all kinds, workers, visitors and tourists. A place where people can live, work, visit and have fun in lively and liveable spaces*.'"

Section 2.1 of the LAP provides the following Overarching Objectives for the plan:

• To direct land uses and intensity of development in a manner that creates a sustainable urban form, based on the integration of land use and transport planning (Objective UF1);

• To promote a mix of uses in a manner that creates a sustainable and active area (Objective UF2);

• To ensure that development is carried out in a design led manner that prioritises place making and accords with the core principles of urban design and the creation of integrated streets (Objective UF3);

• To ensure that development is laid out in a series of blocks and plots that are legible, permeable and appropriate in land use, scale, building height, street widths, urban grain and street frontages (Objective UF4);

• To upgrade existing and design new streets using an integrated approach to pedestrian, cyclist and vehicular movement and ensure that the movement function of each street is reflected by an appropriate design response and design speed (Objective UF5);

• To provide attractive, interesting and well used public realm and open spaces using place making and urban design principles, creating a pedestrian centred environment with active, inviting public space and parks (Objective UF6); and

• To protect, enhance and develop an interconnected green and blue infrastructure network of parks, open spaces, hedgerows, grasslands, rivers and streams for amenity and recreation, biodiversity protection, flood management and adaptation to climate change (Objective UF7);

The Draft Plan comprises a series of chapters and objectives with landuse zonings unchanged from those within the South Dublin County Development Plan 2016-2022. The chapters are as follows:

Chapter One: Introduction and Context

Chapter Two: Urban Framework

Chapter Three: Neighbourhoods

Chapter Four: Economic Development and Regeneration

Chapter Five: Residential and community

Chapter Six: Heritage and Conservation

Chapter Seven: Climate Change: Mitigation and Adaptation

Chapter Eight: Implementation and Sequencing

Chapter Nine: Tallaght Specific Development Standards

Chapters Three and Four includes a number of measures including the identification of a major residential area of development at Cookstown, zoned Regeneration in the South Dublin CDP 2016-2022 (Sections 3.3 Cookstown and 4.2 Economic Development and Regeneration). Chapter Eight Implementation and Sequencing, identifies a number of key for each neighbourhood, some of which relate to physical infrastructure, whilst others relate to social and community infrastructure. Examples include the following:

- Cookstown Urban Square and Belgard Urban Square (no location as yet)
- Improvements to existing roads for pedestrians and cyclists
- New link Belgard North Link Road, Airton Road Extension

- A new Secondary Route connecting Cookstown Road to Old Belgard Road
- A new Secondary Route connecting Cookstown Road to Cookstown Way

3.1 ELEMENTS OF THE DRAFT PLAN THAT COULD GIVE RISE TO SIGNIFICANT EFFECTS

During the screening of the Draft Plan the following elements were identified as requiring further examination for their likelihood to give rise to significant effects to European Sites:

The aim of the Draft Plan to strengthen links between the plan area and the Dublin Mountains, within which are located the Glenasmole Valley SAC and the Wicklow Mountains European Sites;

The objectives of the Draft Plan to undertaken works along existing culverted sections of the River Poddle that is hydrologically connected to European Sites at Dublin Bay;

Land use objectives for neighbourhoods within the plan area that aim to provide transport infrastructure along and over surface watercourses that are hydrologically connected to European Sites at Dublin Bay; and

Land use objectives for neighbourhoods within the plan area that aim to facilitate redevelopment on existing brownfield sites that may, at the project level, present a risk to water quality within receiving watercourses that are in turn hydrologically connected to European Sites at Dublin Bay.

3.2 OVERVIEW OF THE BASELINE BIODIVERSITY OF THE DRAFT PLAN AREA

The land cover within the draft plan lands is largely representative of Built Land and Artificial Surfaces. However two public parks are present Sean Walsh Park and Bancroft Park of which habitat maps have been prepared. In addition, the mature trees and parkland associated with the Priory and IT Tallaght provide local biodiversity resources and connections.

In turn, this makes the areas of open space and watercourses potentially important as green corridors and stepping stones for biodiversity. The surface water bodies occurring within the Variaton Lands are described below.

3.2.1 Surface Waterbodies in the Plan area

The surface watercourses occurring within the draft lands are shown on Figure 1.4.

3.2.1.1 Poddle Stream

The Poddle Stream is currently unclassified (www.catchments.ie) but is an important river of historical significance. It is 10.13km in length and enters the River Liffey at Wellington Quay in Dublin. It is culverted for a lot of its length but is open as it flows through Bancroft Park. It discharges to the Liffey Estuary Upper. The most recent surface water data is from 2007-2009 when it was classified as poor status.

3.2.1.2 Whitestown/Tallaght Stream

The stream is a tributary of the River Dodder (Subcatchment 040) and flows through Sean Walsh Park at the southern boundary of the plan area.

3.2.1.3 Surface Water quality

The plan area is located within the Liffey and Dublin Bay catchment. The River Poddle forms it own sub-catchment and the northern section of the plan area is located within this sub-catchment. The Whitestown Stream forms part of the Dodder sub-catchment (code SC 040) and the southern portion of the plan area is located within this sub-catchment. According to the EPA's online Map Viewer, the surface water quality of the River Poddle is classified at poor quality, while the Whitestown Stream is classifieid at moderate status. Surface water status is classified under the WFD from 'high' to 'bad' status. In measuring this status both ecological and chemical parameters are measured and the overall status is determined by the lower threshold achieved for both ecological and chemical parameters

3.2.2 Groundwater Quality

Groundwater is a further significant resource and refers to water stored underground in saturated rock, sand, gravel, and soil. Surface and groundwater functions are closely related and form part of the hydrological cycle. The protection of groundwater from land uses is a

critical consideration and groundwater vulnerability is becoming an important management tool. The entire island of Ireland has been designated as a Protected Area for Groundwater under the WFD. Groundwater is important as a drinking water supply as well as the supply to surface waters. In addition, groundwater supplies surface waters. Groundwater is exposed to higher concentrations of pollutants that are retained in the layers of rock and soil. The exposure to pollutants lasts much longer as groundwater moves at a slower pace through the aquifer. The quality of our drinking water supply, fisheries and terrestrial based habitats is intrinsically linked with groundwater quality. The Geological Survey of Ireland (GSI) aquifer categories are based on their vulnerability to pollution, i.e. the ease at which it can enter the subsurface layers. The classification of extreme or high vulnerability means that the groundwater in these areas is very vulnerable to contamination due to hydrogeological and soil factors.

The Geological Survey of Ireland's Groundwater Vulnerability Mapping shows the groundwater vulnerability for the area of the draft plan is considered Low to Moderate; with an area in the northern part of the plan area identified as being of Extreme Vulnerability. The groundwater quality of the area is classified as good. The Draft Plan lands are located within the Dublin Urban Waterbody under the Water Framework Directive and overall status of the Groundwater is good; the main risks are from urban derived pressures.

3.2.3 Non-Native Invasive Species

The control of invasive species in Ireland comes under the Wildlife (Amendment) Act 2000 where it states that '*Any person who— [...] plants or otherwise causes to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores of flora, ['refers only to exotic species thereof'][...] otherwise than under and in accordance with a licence granted in that behalf by the Minister shall be guilty of an offence*.'

Under the European legislation, the Birds and Natural Habitats Regulations 2011 (SI 477 of 2011) , Section 49(2) prohibit the introduction and dispersal of species listed in the Third Schedule (including Japanese Knotweed) whereby "any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow [….] shall be guilty of an offence." Table 4.1 below shows identified invasive species from Biodiversity Ireland database. Note some of these are considered greater risk than others, and the potential for water corridors such as the Dodder to be vectors of the dispersal of these species is important; as well as

accidental transfer or introduction arising from construction activities. Two 2km grid searches were undertaken.

Table 3.1 Recorded Invasive Species in the Plan Area

Species Group	Invasive Species identified in the following 2km Grid Search: O02Y O02Y and O02Z Name
Plants	Butterfly-bush (Buddleja davidii) Sycamore (Acer pseudoplatanus) Wild Parsnip (Pastinaca sativa)
Mammal	European Rabbit (Oryctolagus cuniculus)

3.3 EUROPEAN SITES OCCURRING WITHIN THE ZONE OF INFLUENCE OF THE DRAFT PLAN

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

3.3.1 Glenasmole SAC

Glenasmole Valley in south Co. Dublin lies on the edge of the Wicklow uplands,approximately 5 km from Tallaght. The River Dodder flows through the valley andhas been impounded here to form two reservoirs which supply water to south Dublin. The non-calcareous bedrock of the Glenasmole Valley has been overlain bydeep drift deposits which now line the valley sides. They are partly covered by scruband woodland, and on the less precipitous parts, by a herb-rich grassland. There is much seepage through the deposits, which brings to the surface water rich in bases,which induces local patches of calcareous fen and, in places, petrifying springs. Qualifying features for which this site has been designated as a SAC are listed in Table 4.2 below. Generic Conservation Objectives are available for this SAC (see NPWS, 2018).

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

- Human induced changes in hydraulic conditions (high)

- Forest plantation (medium)
- Fertilisation (medium)
- Non intensive cattle grazing (medium)

Table 3.2: **Glenamole Valley SAC Qualifying Features of Interest & Conservation Status**

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210	Not establihsed	Bad
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	Not established	Bad
Petrifying springs with tufa formation (Cratoneurion) [7220]	Not established	Inadequate

3.3.2 Wicklow Mountains SAC

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 (NPWS, 2017). The documented threats and pressures to this SAC are as follows:

- Off-road motorized driving
- Disposal of household / recreational facility waste
- Damage by herbivores (including game species)
- Grazing in forests/ woodland
- Mountaineering, rock climbing, speleology
- Missing or wrongly directed conservation measures
- Walking, horseriding and non-motorised vehicles
- Invasive non-native species
- Erosion
- Grazing
- Wildlife watching
- Trampling, overuse,
- Stock feeding
- Urbanised areas, human habitation
- Hunting and collection of wild animals (terrestrial)
- Collapse of terrain, landslide
- Collection (fungi, lichen, berries etc.)
- Vandalism

- Outdoor sports and leisure activities, recreational activities
- Tree surgery, felling for public safety, removal of roadside trees
- Military manoeuvres
- Burning down
- Paths, tracks, cycling tracks
- Peat extraction
- Taking from nest (falcons)

Table 3.3: Wicklow Mountains SAC Qualifying Features of Interest & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	Not Reported	Bad
Natural dystrophic lakes and ponds	Not Reported	unfavourable inadequate
Northern Atlantic wet heaths with Erica tetralix	Not Reported	Bad
European dry heaths	Not Reported	Bad
Alpine and Boreal heaths	Not Reported	Bad

Calaminarian grasslands of the Violetalia calaminariae	Not Reported	unfavourable inadequate
Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	Not Reported	Bad
Blanket bogs (* if active bog)	Not Reported	Bad
Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	Not Reported	Inadequate
Calcareous rocky slopes with chasmophytic vegetation	Not Reported	Inadequate
Siliceous rocky slopes with chasmophytic vegetation	Not Reported	Inadequate
Old sessile oak woods with Ilex and Blechnum in the British Isles	Not Reported	Bad
Lutra lutra (Otter)	Not Reported	Good

3.3.3 Wicklow Mountains SPA

Special conservation interests for which this site has been designated as a SPA are listed in Table 4.4 below. The distribution of the habitats associated with this SPA are outlined in the Conservation Objectives for this SAC (see NPWS, 2013).

The threats and pressures to this SPA 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:

- Paths, track and cycle ways
- Improved access to site
- Grazing
- Disposal of household and industrial waste
- Tree surgery
- Camping and caravanning
- Wrongly directed conservation measures
- Discharges

Table 3.4: Wicklow Mountains SPA Special Conservation Interests & Conservation Status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Merlin (Falco columbarius)	Not Reported	Amber listed species- Species of medium conservation concern
Peregrine (Falco peregrinus)	Not Reported	Green listed species- Species of low conservation concern

3.3.4 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 4.5 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 (NPWS, 2017). The documented threats and pressures to this SAC are as follows:

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

Table 3.5 lists each of the qualifying features of interest for this SAC and their conservation status

Table 3.5: North Dublin Bay SAC qualifying features of interest and conservation status

Qualifying Annex Feature	Conservation Status (Site-Level)	Conservation Status (National-Level)
Mudflats and sandflats not covered by seawater at low tide	Favourable	Poor
Annual vegetation of drift lines	Not established	Poor
Salicornia and other annuals colonizing mud and sand	Unfavourable	Poor

Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Favourable	Poor
Petalwort (Petalophyllum ralfsii)	Not established	Good
Mediterranean salt meadows (Juncetalia maritimi)	Favourable	Poor
Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	Unfavourable-inadeqaute	Poor
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Unfavourable-Bad	Bad
Humid dune slacks	Unfavourable-inadeqaute	Bad

3.4 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 qualifying features for which this site has been designated as a SPA are listed in Table 4.6 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:

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

Table 3.6 lists each of the qualifying features of interest for this SAC and their conservation status

Table 3.6: North Bull Island SPA qualifying features of interest and conservation status

SCIs	Conservation Status
Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Shelduck (*Tadorna tadorna*)	Amber listed species- Species of medium conservation concern
Teal (*Anas crecca*)	Amber listed species- Species of medium conservation concern
Pintail (*Anas acuta*)	Red listed species – Species of high conservation concern†
Shoveler (*Anas clypeata*)	Red listed species – Species of high conservation concern†

Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Golden Plover (*Pluvialis apricaria*)	Red listed species – Species of high conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†
Sanderling (*Calidris alba)*	Green listed species – Species not threatened
Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Black-tailed Godwit (*Limosa limosa*)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (*Limosa lapponica*)	Amber listed species- Species of medium conservation concern
Curlew (*Numenius arquata*)	Red listed species – Species of high conservation concern
Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Turnstone (*Arenaria interpres*)	Green listed species – Species not threatened
Black-headed Gull (*Larus ridibundus*)	Red listed species – Species of high conservation concern
Wetlands & Waterbirds	

3.5 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 site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species over-wintering species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Curlew, Redshank, and Black-headed Gull. This SPA is also designated for its role in supporting breeding colonies of the following species: Roseate Tern, Common Tern and Artic Tern. 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 qualifying features for which this site has been designated as a SPA are listed in Table 4.7 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 3.7 lists each of the qualifying features of interest for this SAC and their conservation status

Table 3.7: South Dublin Bay River Tolka Estuary SPA qualifying features of interest, and conservation status

SCIs	Conservation Status

Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber listed species- Species of medium conservation concern
Oystercatcher (*Haematopus ostralegus*)	Amber listed species- Species of medium conservation concern
Ringed Plover (*Charadrius hiaticula*)	Amber listed species- Species of medium conservation concern
Grey Plover (*Pluvialis squatarola*)	Amber listed species- Species of medium conservation concern
Knot (*Calidris canutus*)	Red listed species – Species of high conservation concern†
Sanderling (*Calidris alba*)	Green listed species – Species not threatened
Dunlin (*Calidris alpina*)	Amber listed species- Species of medium conservation concern
Bar-tailed Godwit (*Limosa lapponica*)	Amber listed species- Species of medium conservation concern
Redshank (*Tringa totanus*)	Red listed species – Species of high conservation concern
Black-headed Gull (*Croicocephalus ridibundus*)	Red listed species – Species of high conservation concern
Roseate Tern (*Sterna dougallii*)	Green listed species – Species not threatened
Common Tern (*Sterna hirundo*)	Amber listed species- Species of medium conservation concern
Arctic Tern (*Sterna paradisaea*)	Amber listed species- Species of medium conservation concern
Wetlands & Waterbirds	

4.0 CONSERVATION OBJECTIVES OF EUROPEAN SITES

The NPWS has published generic Conservation Objectives for all European Sites in Ireland and have also published a growing number of Site Specific Conservation Objectives for these sites. The generic Conservation Objectives for European Sites outline the overall aim of the Habitats Directive which is to maintain or restore the favourable conservation status of habitats and species of community interest. The generic Conservation Objectives go on to define in broad times how the favourable conservation status of habitats and species of community importance is achieved.

As per the generic Conservation Objectives for European Sites the favourable conservation status of a habitat 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 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, 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.

These generic Conservation Objectives are in place for the Glenasmole Valley SAC and the Wicklow Mountains SPA. However Site Specific Conservation Objectives have been published for the other 4 European Sites occurring within the plan area's zone of influence (see NPWS, 2013; 2015a; 2015b; & 2017). These Site Specific Conservation Objectives are based on the identification of key attributes that underpin the conservation status of

qualifying habitats and species. The Site Specific Conservation Objectives set targets for each of these attributes that are used as a measures of the favourable conservation status of these features.

The Site Specific Conservation Objectives for these 4 European Sites are considered in Section 6 of this NIR to assess the potential affect of the draft plan to the qualifying features of interest of these European Sites.

5.0 DESCRIPTION OF HOW THE PLAN COULD AFFECT EUROPEAN SITES

The elements of the draft plan identified as requiring further examination for their potential to result in significant effects to European Sites are listed in Section 4.1 above. Each of these elements are examined in the following subsection by providing an assessment of the potential ecological impacts that they pose to relevant European Sites. In advance of this a general discussion of the potential ecological affects associated with the land use elements of the Draft Plan as identified in Secton 4 above is provided.

The land use activities associated with these elements of the Draft Plan will include:

- Demolition activities; Construction activities; and Operational activities.

The potential ecological effects of such activities relate to:

- Habitat loss and fragmentation: the direct loss of habitat occurring within the footprint of project sites as result of developments facilitated by the Draft Plan.

- Habitat degradation resulting from emissions to surface water: the construction phase of development projects can result in the discharge of contaminated surface water to receiving watercourses. The operation of developments, if not properly served by a wastewater treatment facility can lead to the discharge of polluting wastewater to receiving waterbodies downstream. 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 projects can result in the emission of pollutants, such as dust, particulate matter, SOx and NOx to the atmosphere.

- Habitat degradation resulting from the spread of non-native invasive species during development works facilitated by the Draft Plan: If present on site development projects can result in the spread of these species; and

- Disturbance and/or displacement of qualifying species from within or outside European Sites: where development sites are located in close proximity to habitats upon which qualifying species of European Sites rely then they can result in disturbance to these species and where disturbance stimuli persist they can result in displacement of these species from habitats.

Appendix 1 provides a list of the qualifying feature of interest/special conservation interests of the six European Sites occurring within the zone of influence of the Draft Plan and assesses whether each of these features are at risk from the ecological effects listed above. Table 5.1 below provides a summary list of those features which have been identified as being at risk of negative impacts as a result of the ecological effects associated with the land use measures of the Draft Plan.

In advance of Table 5.1, each of the elements of the Draft Plan that have been identified as requiring further examination during the Screening are assessed in the following sub-sections.

5.1 STRENGTHENING OF LINKS WITH THE DUBLIN MOUNTAINS

The strengthening of links between the plan area and the Dublin Mountains could in turn lead to an increase in footfall and recreation within the Dublin Mountains. Much of the Dublin Mountains are designated as part of the Wicklow Mountains European Sites. In addition the Glenasmole Valley SAC is located within the Dublin Mountains region.

As noted in Section 4.3.2 above existing pressures associated with recreational activities have been identified within the Wicklow Mounatains European Sites. These pressures include walking, horseriding, mountaineering etc. An increase in these activities could lead to further pressures on sensitive habitats supported by this SAC and SPA. In addtion an increase in the presence of people within these European Sites could also increase the potential for disturbance to senstive species supported by these European Sites. In particular merlin, which is a special conservation interests of the Wicklow Mountains SPA are sensitive to disturbance

from people and an increase in recreational pressure could have negative effects for this species.

The Molinia grassland and petrifying spring habitat of the Glenasmole Valley SAC are also sensitive to recreational pressure and these habitats can be easily degraded by ongoing trampling.

Table 5.1 provides an assessment of the potential for additional recreational pressures faciliated by the draft plan to result in negative affects to the Wicklow Mountains SAC and SPA and the Glenasmole Valley SAC.

5.2 WORKS TO THE RIVER PODDLE

The draft plan outlines objectives that aim to enhance the landscape amenity and biodiversity value of existing culverted sections of the River Poddle. The provision of these works will have overall long-term benefits for biodiversity in the plan area but the potential will exist for impacts to the water quality of the river during these works. The works along the River Poddle will be completed over 15km upstream of the European Sites at Dublin Bay.

These works will involve the removal of existing culverts, the realignment of the existing watercourses, where required, and the landscaping of the bankside and riparian area. During such works the prinicipal potential emission to this watercourse will be the mobilisation of silts and their transport downstream along the watercourses. There will also be potential for the accidental emission of hydrocarbons to the watercourses during works. However given the nature of the works that are likely to be undertaken to complete this objective the quantities of hydrocarbons and other potentially polluting materials that are required for the works will be small and should they be emitted to the river, will be diluted and degraded within the river and the Liffey catchment downstream well before reaching Dublin Bay.

In addition, the waters of the River Poddle represent a minor fraction of freshwater inputs to the Liffey estuary. It is noted that there are multiple other sources of freshwater (11 in total, some of which include the River Dodder, Royal Canal, River Cammock etc.) entering the Liffey Estuary. These other sources combine with the River Liffey discharges to further

dilute freshwater discharging from the River Poddle. In light of this any discharges to the River Liffey Estuary during works to the River Poddle, will be thoroughly mixed and imperceptible downstream at Dublin Bay.

Given the above the examination of this element of the draft plan has found been that there will be no potential for works associated with this objective to result in significant effects to the conservation status of the European Sites occurring downstream at Dublin Bay.

5.3 PROVISION OF TRANSPORT INFRASTRUCTURE WITHIN NEIGHBOURHOODS

The draft plan outlines objectives that aim to provde transport infrastructure within the plan area across and adjacent to the Whitestown Stream and the River Poddle. In the main this infrastructure will be in the form of new cycling and pedestrian routes, to be located within existing areas of greenfield land or else along existing road ways. During the construction of these routes there will be potential for emissions of polluting materials such as hydrocarbons and silt-laden waters to these watercourses. The emission of such materials will have the potential to result in negative effects to the water quality of these watercourses. However any water quality effects to these watercourses during works will be limited to the freshwater sections of these watercourses and will not have the potential to result in impacts to water quality approximately 15km downstream at the River Liffey Estuary. The absence of any water quality affects downstream at the estuary is supported by the following:

The volumes of surface water draining lands that are to be subject to new transport infrastructure represent a miniscule fraction of the volumes discharging to the Liffey catchment upstream of the Dublin Bay European Sites. In the event of contaminated waters entering the River Poddle or the Whitetown Stream, these waters and any associated pollutants will be adequately diluted within the freshwater sections of the River Poddle and the River Dodder catchment downstream of the plan area.

The waters of the River Poddle and the Whitestown Stream represent a minor fraction of freshwater inputs to the Liffey estuary. It is noted that there are multiple other sources of freshwater (11 in total, some of which include the River Dodder, Royal Canal, River

Cammock etc.) entering the Liffey Estuary. These other sources combine with the River Liffey discharges to further dilute freshwater discharging from the River Poddle and Whitestown Stream. In light of this any discharges to the River Liffey Estuary during works associated with transport infrastructure adjacent to the River Poddle and the Whitestown Stream, will be thoroughly mixed and imperceptible downstream at Dublin Bay.

Finally other studies have shown that pollutants in the estuary are rapidly mixed and become diluted within the estuary and Dublin Bay (O'Higgins and Wilson, 2005; Wilson and Jackson, 2011) again indicating that any potential for the release of contaminants to the River Poddle and the Whitestown Stream during works associated with the provision of the infrastructure objectives of the draft plan will not have the potential to result in any perceptible effect to water quality downstream at Dublin Bay.

Given the above the examination of this element of the draft plan, it has been found that there will be no potential for works associated with this objective to result in significant effects to the conservation status of the European Sites occurring downstream at Dublin Bay.

5.4 FACILITATION OF DEVELOPMENT WITHIN NEIGHBOURHOODS

A significant amount of land use change within existing brownfield sites is provided for by the Draft Plan within each of the neighbourhood plans. In particular a significant amount of regeneration within Cookstown will be promoted over the lifetime of the LAP. The land use activities that will be associated with land use changes within existing brownfield sites facilitated by the Draft Plan will include demolition activities; construction activities; and operational activities.

The potential ecological effects of such activities relate to habitat degradation resulting from emissions to surface water: the demolition and construction phase of development projects within brownfield sites can result in the discharge of contaminated surface water to receiving watercourses (i.e. the River Poddle and the Whitestown Stream) and associated negative impacts on water quality within these watercourses. While it is noted in Section 5.2 and 5.3 that there will be no potential for such water quality effects to be apparent downstream at Dublin Bay, a precautionary approach has been adopted to the assessment of development within neighbourhood brownfield sites. This is based on the potential for unknown sources of

contamination that could be associated with historic industrial land use within brownfield sites and the potential for noxious contaminants to be present within these sites. While (for the reasons outlined in Section 6.2 and 6.3) such substances are likely to be diluted within the freshwater sections of the Liffey catchment (which includes the River Poddle, Whitestown Stream and the River Dodder) downstream of the plan area, the precautionary approach is applied, and the potential for water quality effects downstream at Dublin Bay are not ruled out at the Plan stage.

The operation phase of new developments supported by the Draft Plan in neighbourhoods, if not properly served by a wastewater treatment facility, can lead to the discharge of polluting wastewater receiving waterbodies downstream. Ringsend Wastewater Treatment Plant (WWTP), which will receive wastewater from future developments within the Draft Plan area has historically operated at or above capacity, with a total load of 2.19 million P.E. on average, with significant fluctuations from day to day. Loading has increased in recent years with the rise in population recorded in the Dublin local authorities between 2011 and 2016 of approximately 4-6%. The latest information from Irish Water indicates that the plant is currently operating above its capacity of 1.64 million P.E. (Irish Water, 2017), with a current operational loading of 2.19 million P.E.. In 2017 the plant was non-compliant with several parameters as set under the EPA discharge license. Any existing or proposed projects discharging to the plant have the potential to act cumulatively to reduce water quality in Dublin Bay, affecting European Sites therein. Despite Ringsend WWTP historically operating at or above capacity, no significant effects from wastewater discharges arising from developments within the Draft Plan are predicted due to the following:

- The 2017 Annual Environmental Report for the WWTP concluded that the assessments carried out on water quality in transitional and coastal waterbodies did not indicate a significant impact from the specific pollutants listed on the receiving waters outside the near field of the discharge point or in the Liffey and Tolka Estuaries.
- Even in the absence of an upgrade, there was no proven link between WWTW discharges and nutrient enrichment of sediments in Dublin Bay based on analyses of dissolved and particulate nitrogen signatures in research published in 2011 (Wilson and Jackson, 2011);

- Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005);

- Marine modelling for Ringsend WWTP indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe (Dowly & Bedri 2007); and

- Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018).

5.5 ASSESSMENT OF ECOLOGICAL AFFECTS TO QUALIFYING FEATURE OF INTEREST OF EUROPEAN SITES

Appendix 1 lists the qualifying feature of interest/special conservation interests of the six European Sites occurring within the zone of influence of the Draft Plan and assesses whether each of these features are at risk from the ecological effects listed in Section 5 above.

The results of the assessment provided in Appendix 1 show that certain qualifying features of these European Sites could be adversely affected by some of the ecological effects associated with future land use/regeneration developments within existing brownfield lands occurring in the Draft Plan lands and the strengthening of links between the plan area and the Dublin Mountains. Table 6.1 provides a summary list of these features and the ecological effects that have the potential to result in adverse effects.

Table 6.1: Summary of Qualifying Features of Interest that Could be Negatively Impacted by Ecological Effects Associated with Land Use Elements of the Draft Plan

European Sites	Features at Risk	Type of Ecological Effects
North Dublin Bay SAC	Mudflats and Sandflats Salicornia and other annuals colonising mud and sand Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Habitat degradation through the pollution/contamination to surface waters and groundwater and the potential for the spread of non-native invasive species.
South Dublin Bay River Tolka Estuary SPA	All special conservation interest bird species and wetland habitats.	Habitat degradation through the pollution/contamination to surface waters and groundwater and the potential for the spread of non-native invasive species.
North Bull Island SPA	All special conservation interest bird species and wetland habitats.	Habitat degradation through the pollution/contamination to surface waters and groundwater and the potential for the spread of non-native invasive species.
Wicklow Mountains SAC	All peatland, grassland, scree and woodland habitats	Habitat loss and fragmentation as a result of increased recreational pressure.
	All freshwater habitats	Habitat degradation as a result of negative impacts to water quality and the spread of non-native invasive species as a result of increased recreational pressure in areas bounding these habitats.
	Otters	Habitat loss and fragmentation, habitat degradation as a result of perturbations to water quality and

		the spread of non-native invasive species and disturbance, all potentially arising as a result of increased recreational pressure.
Wicklow Mountains SPA	Peregrine & Merlin	Habitat loss and fragmentation, habitat degradation as a result of the spread of non-native invasive species and disturbance, all potentially arising as a result of increased recreational pressure.
Glenasmole Valley SAC	Semi-natural dry grasslands, Molinia meadows and Petrifying Springs	Habitat loss and fragmentation as a result of increased recreational pressure.

5.6 IN-COMBINATION EFFECTS

All of the streams and rivers in South Dublin County, apart from the Brittas River and the Shinkeen River, drain either northwards into the River Liffey which forms the northern boundary of the County, or they flow north and eastwards through the County into the administrative areas of Dún Laoghaire-Rathdown and Dublin City, before draining directly into Dublin Bay via the Ringsend Basin.

Objectives in the draft plan, particularly around Cookstown Regeneration will facilitate proposals for regeneration projects the draft plan Lands. These projects and any other land use plans and projects occurring within the Liffey catchment that have potential to result in negative effects to water quality could, in theory, result in likely significant effects to the European Sites downstream at Dublin Bay.

Other relevant adopted or proposed land use plans in the surrounding area are listed and assessed for their potential to result in cumulative effects in Table 6.2 below.

Table 6.2: Assessment of Potential for Negative Effects with Other Plans & Projects

Plan	Comment	Cumulative effects
National Planning Framework	The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. It will provide a framework for the new Regional Spatial and Economic Strategies (RSESs) by the three Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act 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.	A NIR was prepared for this plan and an Appropriate Assessment was completed. The Appropriate Assessment 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.
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	No in combination effects are identified.
Dublin Region Climate Change Action Plans 2019-2024	During the formulation of the CCAPs for the Dublin Region, a suite of common thematic actions have been prepared for each of the local authority areas. .	The individual action plan for each Local Authority has undergone Habitats Directive Asssessment and Strategic Environmental Assessment. It has been found that by implementing the

Plan	Comment	Cumulative effects
		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
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 concluded that Overall, the assessment has identified that the implementation of the draft WSSP is likely to have positive effects on the majority of the SEOs that have been used in the assessment to help characterise the environmental effects of the WSSP and no significant negative effects were identified.	No in-combination impacts were predicted as a result of implementation of the Plans
Neighbouring County Development Plans	These plans were subject to full SEA and AA and concluded that subject to full adherence and implementation of measures likely significant effects were not identified.	No in-combination impacts were predicted as a result of implementation of the Plans
River Basin District	The National River Basin District Management Plan is now published (2018). The second cycle	No in-combination impacts are predicted as

Plan	Comment	Cumulative effects
Management Plans.	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.	a result of implementation of the Plans
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.
Variation No 3 to South Dublin County Development Plan 2016-2022	This Variation rezones lands east of the Tallaght LAP to Regeneration. This Variation has been subject to SEA and Appropriate Assessment	No in-combination impacts are predicted as a result of implementation of the Plans.
South Dublin Heritage Plan 2010-2015	Plan under review from 2016.	Positive interactions with SEOs in relation to this plan; no adverse cumulative effects identified.
Projects		

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

Plan	Comment	Cumulative effects
Ballymount Road Extension	New link road though Robinhood from Ballymount Avenue to Longmile Road. To provide improved access to the Ballymount and Robinhood employment area	Identified in the South Dublin CDP 2016-2022 Table 6.5 this is subject to funding over a six year programme. No details are available yet.
Greenhill Road upgrade and links	Upgrade of Greenhills Road from Airton Road to Walkinstown Roundabout with new links to Ballymount Avenue, Limekiln Road and Calmount Road. To provide improved access to/between employment lands within Tallaght, Ballymount and Robinhood and to provide improved access to and from the Greenpark, Limekiln and Greenhills area.	Identified in the South Dublin CDP 2016-2022 Table 6.5 this is subject to funding over a six year programme. No details are available yet.
Ballymount Industrial Estates Street Network	Various streets within the Ballymount employment area. Formation of a strategic street network within the Ballymount and Robinhood employment areas.	Identified as a Medium to long term objective in Table 6.6 of the South Dublin CDP 2016-2022. No additional details currently available.
Oak Road Extension	New road linking Oak Road to Robinhood Road. To provide improved access between the Ballymount, Robinhood and Fox and Geese employment areas.	Identified as a Medium to long term objective in Table 6.6 of the South Dublin CDP 2016-2022. No additional details currently available.

5.7 ASSESSMENT OF EFFECTS TO CONSERVATION OBJECTIVES

As noted in Section 5 above Site Specific Conservation Objectives have been publised for the three European Sites occurring at Dublin Bay and also for the Wicklow Mountains SAC. Site Specific Conservation Objectives published for the qualifying features of interest of the Glenasmole Valley SAC and the Wicklow Mountains SPA have been sourced from other European Sites.

The qualifying habitats that are at risk of negative effects as a result of the implementation of the Draft Plan are summarised in Table 5.1 above and assessed in full in Appendix 1. The Site Specific Conservation Objectives for these habitats lists attributes such as the extent and distribution of the habitat, the typical species supported by the habitat, the composition of species communities and the presence of any negative indicators. The land use elements of the Draft Plan will have the potential, in the abensce of mitigation measures, to undermine the targets for these attributes. For instance increased recreational pressure within the Wicklow Mountains SAC will have the potential to result in the spread of non-native invasive species or undesirable, negative indicator species within habitas of this SAC. Such an effect will have the potential to undermine the targets for achieving the favourable status of attributes.

Table 5.1 also identifies the potential negative impacts that the Draft Plan could result in to otters, merlin and peregrine falcon. Site Specific Conservation Objective attributes for otters include the availability of an adequate prey resources, the number of holts and couching sites and the extent of freshwater habitats. Site Specific Conservation Objectives attributes for merlin and peregrine include the number of nest sites and adequate nest habitat. Elements of the Draft Plan that could result in an increase in recreational pressure within the Dublin Mountains, which could in turn result in disturbance to and possible abandonment of holt and couch sites and nest sites for merlin and peregrine, thereby undermining the target for these attribute which is no decline in the number of holts/nest sites.

6.0 MITIGATION MEASURES

Mitigation measures relating to the potential for surface water and groundwater effects, the spread of non-native invasive species and recreational pressures in the Dublin Mountains are outlined in the following sections. It will be a requirement of any future projects within the Draft Plan lands that, where necessary, all relevant mitigation measures outlined in the following sub-sections are implemented.

In addition, other over-arching policies and objectives of the South Dublin CDP which, through their implementation will have the effect of safeguarding the European Sites downstream at Dublin Bay and in the Dublin Mountains are also outlined below in Table 7.1. The full implementation of these measures will ensure that only those projects proposed in the Plan area that do not have the potential to result in likely significant effects to European Sites as a consequence of impacts to surface water, groundwater, the spread of non-native invasive species, or recreational pressures in the Dublin Mountains, will be considered for approval.

Table 6.1: Over-arching Policies and Objectives of the South Dublin CDP that Safeguard European Sites

Policy/Objective	Details
Heritage, conservation and landscapes (HCL) policy 12 natura 2000 sites	It is the policy of the Council to support the conservation and improvement of Natura 2000 Sites and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site
Heritage, conservation and landscapes (HCL) policy 13	Natural Heritage Areas It is the policy of the Council to protect the ecological, visual, recreational, environmental and amenity value of the County's proposed Natural Heritage Areas and associated habitats.
Heritage, conservation and landscapes (HCL) policy 15	Non-Designated Areas It is the policy of the Council to protect and promote the conservation of biodiversity outside of designated areas and to ensure that species and habitats that are protected under the Wildlife

	Acts 1976 and 2000, the Birds Directive 1979 and the Habitats Directive 1992 are adequately protected
HCL15 objective 1	To ensure that development does not have a significant adverse impact on rare and threatened species, including those protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979 and the Habitats Directive 1992.
HCL15 objective 2:	To ensure that, where evidence of species that are protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979 and the Habitats Directive 1992 exists, appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.
HCL15 objective 3	To protect existing trees, hedgerows, and woodlands which are of amenity or biodiversity value and/ or contribute to landscape character and ensure that proper provision is made for their protection and management in accordance with Living with Trees: South Dublin County Council's Tree Management Policy 2015-2020.

6.1 MITIGATION MEASURES RELATING TO HABITAT DEGRADATION: SURFACE WATER & GROUNDWATER QUALITY

The following Policies and Objectives of the South Dublin CDP outlined in Table 7.2 will be implemented to ensure that any future projects facilitated by the Draft Plan do not result in negative effects to surface water and groundwater quality.

Table 6.2: Policies and Objectives of the South Dublin CDP that Safeguard Surface Water and Groundwaters

Policy/Objective	Details
Infrastructure & environmental quality (IE) policy 1 water & Wastewater	It is the policy of the Council to work in conjunction with Irish Water to protect existing water and drainage infrastructure and to promote investment in the water and drainage network to support environmental protection and facilitate the sustainable growth of the County.

IE1 objective 1	To work in conjunction with Irish Water to protect, manage and optimise water supply and foul drainage networks in the County.
IE1 objective 2:	To work in conjunction with Irish Water to facilitate the timely delivery of ongoing upgrades and the expansion of water supply and wastewater services to meet the future needs of the County and the Region
IE2 policy	It is the policy of the Council to manage surface water and to protect and enhance ground and surface water quality to meet the requirements of the EU Water Framework Directive
IE2 objective 1	To maintain, improve and enhance the environmental and ecological quality of our surface waters and groundwater by implementing the programme of measures set out in the Eastern River Basin District River Basin Management Plan
IE2 objective 2	To protect the regionally and locally important aquifers within the County from risk of pollution and ensure the satisfactory implementation of the South Dublin Groundwater Protection Scheme 2011, and groundwater source protection zones, where data has been made available by the Geological Survey of Ireland
IE2 objective 3	To maintain and enhance existing surface water drainage systems in the County and promote and facilitate the development of Sustainable Urban Drainage Systems (SUDS), including integrated constructed wetlands, at a local, district and County level, to control surface water outfall and protect water quality.
IE2 objective 4	To incorporate Sustainable Drainage at a site and/or district scale, including the potential for wetland facilities
IE2 objective 5	To limit surface water run-off from new developments through the use of Sustainable Urban Drainage Systems (SUDS) and avoid the use of underground attenuation and storage tanks
IE2 objective 6	To promote and support the retrofitting of Sustainable Urban Drainage Systems (SUDS) in established urban areas, including integrated constructed wetlands

IE2 objective 8	To protect salmonid water courses, such as the Liffey and Dodder Rivers catchments (including Bohernabreena Reservoir), which are recognised to be exceptional in supporting salmonid fish species.
IE2 objective 9:	To protect water bodies and watercourses, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains, within the County from inappropriate development. This will include protection buffers in riverine and wetland areas as appropriate. (see also Objective G3 Objective 2 – Biodiversity Protection Zone)
IE2 Objective 10:	To require adequate and appropriate investigations to be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, in particular for brownfield development.
IE2 objective 11	To protect surface water quality by assessing the impact of domestic and industrial misconnections to the drainage network in the County and the associated impact on surface water quality, and by implementing measures to address same.

Developments on brownfield sites within neighbourhood zones will have the potential to result in negative effects to surface water and groundwater quality where there are links between the project site and surface waterbodies or groundwater bodies and where potential contaminants are identified as being present at the development site. Any future developments on brownfield sites that are connected to surface water and/or groundwater bodies and where potential contaminants are present will be required to undertake an assessment to determine the effect of the development on surface water and groundwater quality. Such an assessment will be required to identify the materials and activities associated with the development that could result in pollution to surface waters, the pathways that could convey surface water from the development site to European Sites and the qualifying features of interest of European Sites that could be at risk of experiencing adverse effects in the event of the release of polluted surface water from the development site.

During the construction phase of developments facilitated by the Draft Plan, where applicable all relevant best practice guidelines shall be adhered to. Examples of these guidelines include:

- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016);
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (National Roads Authority, 2008);
- CIRIAC648: Control of water pollution from linear construction projects: Technical Guidance
- CIRIAC649: Control of water pollution from linear construction projects: Site guide

A Pollution Prevention Plan (PPP) and Construction and Environmental Plan (CEMP) will be required to accompany future developments in zones that have been identified as presenting a risk of likely significant effects to European Sites.

Measures will be required to be included in the design of a proposed development that will safeguard water quality from operation phase surface water emissions and wastewater emissions. These design elements will include the inclusion of adequate wastewater treatment facilities/connection to wastewater treatment plants, the implementation of surface water management measures such as swales, interceptors, hydrobrakes and attenuation tanks etc.

With regard to wastewater discharges it is noted that developments within the Plan area will ultimately be serviced by the municipal wastewater treatment plant at Ringsend. Irish Water confirms that there is generally sufficient capacity in the public water services networks in the vicinity of the draft plan lands to connect developer-provided water service infrastructure to their networks (subject to the signing of individual connection agreements with Irish Water). The projected population of the Draft Plan lands have been taken into account in Irish Water's long-term planning for water services capacity in the Greater Dublin Area. A number of major infrastructure projects are being progressed to provide long term capacity to service projected demand into the future through Irish Water's multi annual Investment Programmes.

The proposed scheme is expected to result in an increase in foul loadings being discharged from site of c. 20,000 P.E. Foul water comprising sewage and industrial effluent (and some

surface water run-off) from the Dublin area has historically, and will continue to be treated at Ringsend WWTW prior to discharge to Dublin Bay. Ringsend WWTW has historically operated at or above capacity, with a total load of 2.19 million P.E. on average, with significant fluctuations from day to day. Loading has increased in recent years with the rise in population recorded in the Dublin local authorities between 2011 and 2016 of approximately 4-6%[1]. The latest information from Irish Water indicates that the plant is currently operating above its capacity of 1.64 million P.E. (Irish Water, 2017), with a current operational loading of 2.19 million P.E.

In 2017 the plant was non-compliant with several parameters as set under the EPA discharge license. Any existing or proposed projects discharging to the plant have the potential to act cumulatively to reduce water quality in Dublin Bay, affecting European Sites therein. Despite Ringsend WWTP historically operating at or above capacity, no significant effects from discharge arising from future developments facilitated by the Draft Plan are predicted due to the following:

Irish Water has submitted a planning application for strategic infrastructure development to An Bord Pleanála for a number of upgrade works to Ringsend WWTP. These works are proposed to ensure the plant operates with the highest possible environmental standards into the future. The application seeks permission for works required to facilitate the use of Aerobic Granular Sludge (AGS) technology, to omit the previously permitted long sea outfall tunnel and to upgrade the sludge treatment facilities at Ringsend and to provide for a Regional Biosolids Storage Facility in Newtown, Dublin 11[2]. Aerobic Granular Sludge (AGS) technology allows for faster breakdown of pollutants in water. The upgrade works are planned to proceed in stages to deliver a compliant effluent, at projected increased loads, with the full capacity of 2.4 m population equivalent completed by 2023. There are also plans to construct a new WWTW to the north of Dublin City which will permit flows to be diverted from the Ringsend catchment, thus ensuring that the capacity of Ringsend will be adequate to cater for growth in that catchment well into the future.

[1] According to 2016 Census figures available from the Central Statistics Office www.cso.ie (Accessed 25/06/2018)

[2] https://www.water.ie/projects-plans/ringsend/

6.2 MITIGATION MEASURES RELATING TO HABITAT DEGRADATION: INVASIVE SPECIES

The following Policies and Objectives of the South Dublin CDP outlined in Table 7.3 will be implemented to ensure that any future projects facilitated by the proposed Variation do not result in the spread of non-native invasive species.

Table 6.3: Policies and Objectives of the South Dublin CDP that aim to prevent the spread of non-native invasive species

Policies/Objectivies	Details
G2 objective 12	To seek to control and manage non-native invasive species and to develop strategies with relevant stakeholders to assist in the control of these species throughout the County

It keeping with the above Objective, it will be a requirement of any future development application that a survey for the presence or otherwise of invasive species within the development site and areas affected by the development is completed. If invasive species are identified during such surveys, their species will be identified and their location will be mapped. An Invasive species management plan will be required to detail the measures required to ensure that the proposed development does not result in the spread of the invasive species and to ensure that the species is eradicated from the development footprint.

6.3 MITIGATION MEASURES RELATING TO THE STRENGTHENING OF LINKS WITH THE DUBLIN MOUNTAINS AND POTENTIAL INCREASE IN RECREATIONAL PRESSURE

The Draft Plan will aim to strengthen links between the plan area and areas of the Dublin Mountains that are not sensitive to increases in recreational pressures.

The strengthening of links between the plan area and the Dublin Mountains will be underpinned by the following policies and objectives of the South Dublin County Development Plan:

It is the policy of the Council to support and facilitate the development of an integrated network of Greenways and Trails (combined o road cycle and walking routes) along suitable corridors, including natural linear open spaces such as river banks and canals, with local connections to villages and attractions and ***to take account of the environmental sensitivities along these corridors****.*

ET5 Objective 1:
To support the development of tourism infrastructure, attractions, activities and facilities at appropriate locations subject ***to sensitive design and environmental safeguards****.*

ET7 Objective 1:
To promote the active use of managed forests for tourism and leisure related activities subject to an appropriate scale of development ***having regard to the pertaining environmental conditions and sensitivities****, scenic amenity and availability of services.*

ET7 Objective 3:
To support the development of angling and canoeing/kayaking infrastructure and facilities for tourism in proximity to appropriate water courses or water bodies, subject to an appropriate scale of development ***having regard to the pertaining environmental conditions and sensitivities****, scenic amenity and availability of services.*

Words of these policies and objectives of the CDP have been highlighted in bold for emphasis. The strengthening of any links between the plan area and the Dublin Mountains will be underpinned by a sensitive design and environmental safeguards that will be required to be implemented for any land use measures that are facilitated by the Draft Plan's aim to strengthen links. Appendix 2 to this NIR (and presented in Table 6.4 below) provides environmental safeguards that will be required to be implemented during and land use projects that are facilitated by this aim of the Draft Plan.

6.4 MITIGATION MEASURES FROM THE SEA

The following table presents mitigation measures recommended for the Tallaght Town Centre LAP through rewording or additional text. Where new text is proposed it is presented in **bold, green** font.

Table 6.4: Reworded Text

Reference and Text	Included in LAP Yes/No
1.3.3 Cookstown Cookstown, final objective: Utilising location as source of River Poddle, incorporating it into public realm and open space **and green/blue infrastructure strategies**.	
8.2.6 Green Infrastructure Strategy **Any future developments within Regeneration zones that have been identified as having the potential to result in a deterioration to surface or groundwater quality will be required to undertake an assessment to determine the effect of the development on surface water and groundwater quality. Such an assessment will be required to identify the materials and activities associated with the development that could result in pollution to surface waters, the pathways that could convey surface water from the development site to European Sites and the qualifying features of interest of European Sites that could be at risk of experiencing adverse effects in the event of the release of polluted surface water from the development site.** **During the construction phase of developments facilitated by the draft plan, where applicable all relevant best practice guidelines shall be adhered to. Examples of these guidelines include:** **• Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016);** **• Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (National Roads Authority, 2008);** **• CIRIAC648: Control of water pollution from linear construction projects: Technical Guidance** **• CIRIAC649: Control of water pollution from linear construction projects: Site guide** **A Pollution Prevention Plan (PPP) and Construction and Environmental Plan (CEMP) will be required to accompany future Regeneration developments in zones that have been identified as presenting a risk of likely significant effects to European Sites.** **Measures will be required to be included in the design of a proposed development that will safeguard water quality from operation phase surface water emissions and**	Yes

wastewater emissions. These design elements will include the inclusion of adequate wastewater treatment facilities/connection to wastewater treatment plants, the implementation of surface water management measures such as swales, interceptors, hydrobrakes and attenuation tanks etc.	
	Yes

6.5 MITIGATION MEASURES FROM NATURA IMPACT REPORT

This Natura Impact Report identified the following mitigation measures with regard to the Dublin Mountains. Note, these will be included in the Final LAP.
Where projects that are facilitated by the plan's aim to strengthen links between the Plan area and the Dublin Mountains are proposed within the Dublin Mountains area the following assessments may be required: Habitat Surveys and Assessment: Identification of habitat at and surrounding the project site and the establishment of the presence of any qualifying habitats of the Wicklow Mountains European Sites or the Glenasmole Valley SAC; Watercourse Surveys and Assessment: Identification of any links between the project site and watercourses and appropriate surveys to establish the presence of otters and their holts or couches. Bird Surveys: Where project site are located in suitable nesting habitat for merlin or peregrine bird surveys will be required to establish the presence of these species at or in the vicinity of the project site. The results of surveys and assessment will inform the suitability of projects that aim to strengthen the links between the plan area and Dublin Mountains. Where the findings of surveys and assessment conclude that projects have the potential to result in loss of or significant disturbance to qualifying habitats and/or significant disturbance to qualifying species and their breeding sites, they will not be supported by the Draft Plan.

7.0 EVALUATION OF MITIGATION MEASURES

This section highlights the types of potential likely significant effects that arose during this part of the assessment and how likely significant effects were mitigated to ensure no potential adverse effects on the integrity of European sites would occur.

Impacts on Water quality

Potential Likely Significant Effect: Potential for impacts on water quality as a result of inadequate wastewater treatment and surface water management and treatment and discharge with downstream impacts to a receiving watercourse.

How Mitigation Will Ensure Likely Significant Effects Are Avoided: Ensure any future development application is connected to a WWTP with adequate capacity for foul water during operation, or that it is serviced by an on-site treatment system that will ensure no impact to water quality in the area. Require future developments to include surface water management design measures that will aim to ensure only clean surface water is discharged from the proposed development during the construction phase and operation phase.

Impacts on groundwater

Potential Likely Significant Effect: Potential for impacts on the hydrology of groundwater-dependent Qualifying Interests of European sites.

How Mitigation Will Ensure Likely Significant Effects Are Avoided: Ensure any future development application is connected to a WWTP with adequate capacity for foul water during operation, or that it is serviced by an on-site treatment system that will ensure no impact to groundwater quality in the area. Require future developments to include surface water management design measures that will aim to ensure only clean water is discharged from the proposed development during the construction phase and operation phase.

Impacts caused by Invasive Species

Potential Likely Significant Effect: Potential for introduction or spread of aquatic/terrestrial invasive species to European sites.

How Mitigation Will Ensure Likely Significant Effects Are Avoided: An invasive species survey will be required at development sites and where such species are identified a management plan that will outline measures to eradicate the species and avoid its spread will be required.

Impacts on Habitats and Species as a Result of Recreational Pressure

Potential Likely Significant Effect: Potential for impacts on habitats and species as result of increases in recreational pressure could lead to degradation of qualifying habitats within the Wicklow Mountains European Sites and disturbance to otters, merlin and peregrine.

How Mitigation Will Ensure Likely Significant Effects Are Avoided: The policies and objectives of the CDP that aim to provide tourism and recreation related facilities in the Dublin Mountains in a sensitive manner in full consideration of environmental constraints will ensure that links are strengthened with areas of the Dublin Mountains that can absorb any increases in recreational activity. The implementation of the environmental safeguards as outlined in Appendix 2 to this NIR will further ensure that any land use activities facilitated by the Draft Plan's aim to strengthen links with the Dublin Mountains will be fully assessed for their suitability in advance of their implementation and consideration will be given only where it can be demonstrated that they will not result in significant effects to the qualifying habitats and species of the Wicklow Mountains European Sites.

8.0 RESPONSIBILITY FOR IMPLEMENTING MITIGATION MEASURES

The responsibility for implementing the Draft Plan lies solely with the Planning Authority through the planning consent process. Applicants who intend to develop within the CDP area are obliged to ensure that their application is consistent with the Objectives and requirements within the Tallaght Town Centre LAP and County Development Plan. The statutory requirement for the Planning Authority to carry out screening for appropriate assessment for all planning applications is not affected by any of the statements in this NIR. All applications must be tested for the potential for likely significant effects. However, such effects are not likely to occur if the Objectives in the CDP and the requirements are adhered to as outlined in Technical Guidance, where appropriate.

Applicants must provide information to allow the Planning Authority to screen the application and decide if an Natura Impact Statement is required.

9.0 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.

10.0 CONCLUSION

This NIR has reviewed the impacts arising from the draft Plan and found that, without the implementation of mitigation measures, the Draft Plan will have the potential to impact upon the Conservation Objectives of 6 European Sites and their relevant qualifying features that occur within the zone of influence of the Plan area.

The potential impacts that could negatively affect these European Sites have been outlined in Section 6 this NIR. Section 7 outlines the environmental safeguards within the Draft Plan that aim to ensure these potential impacts are avoided.

The requirements outlined in Section 7 and evaluated in Section 8 of this NIR will protect these Sites from potential adverse impacts during the lifetime of the Plan.

The measures and the requirements the South Dublin CDP Policy HCL 12 to protect European Sites from all plans or projects with potential to result in likely significant effects to them will ensure adverse impacts to the integrity of the 6 European Sites occurring within the zone of influence of the Draft Plan will be prevented from occurring. The additional safeguards within the CDP and outlined in Section 7 of this NIR for the protection of water quality and the protection against the spread of non-native invasive species will provide a basis for ensuring any future developments that are facilitated by the Draft Plan will not be supported where they present a risk to water quality and the spread of non-native invasive species.

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APPENDIX 1: ASSESSMENT OF POTENTIAL ECOLOGICAL

Table 0.1: Potential for Land Use Elements of the Draft Plan to result in Ecological Effects to the Qualifying Features of European Sites

Ecological Effect	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]	No. Rationale: The Variations Lands are located at a remote distance from this qualifying habitats and will not have the potential to result in the loss or fragmentation of some or all of this habitat.	Yes. Rationale: The River Poddle and Whitestown Stream and the River Liffey form a hydrological pathway between the Plan area and this qualifying habitats at Dublin Bay.	Yes. Rationale: The potential for effects to groundwater that drain to the River Poddle and Whitestown Stream cannot be ruled out at this stage.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that projects do not have the potential to result in degradation to this habitat as a result of emissions to atmosphere.	Yes. Rationale: There is potential for non-native invasive species to occur at development site within the Plan area and such species could be conveyed downstream via the River Poddle and Whitestown Stream and the Liffey estuary to this habitat. In addtition	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					while it is acknowledged that this is a coastal habitat and that the Plan area is not likely to support species that can tolerate coastal habitats, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Annual vegetation of drift lines [1210]	No.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No.	No.	No Rationale: there is no pathway that could link the Plan area to this habitat to result in the	No.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					spread of non-native invasive species.	
Salicornia and other annuals colonising mud and sand [1310]	No. Rationale: See rationale outlined for Mudflats and Sandflats above.	Yes. Rationale: The River Poddle and Whitestown Stream and the River Liffey form a hydrological pathway between the Plan area and this qualifying habitats at Dublin Bay.	Yes. Rationale: See rationale outlined for Mudflats and Sandflats above.	No. Rationale: See rationale outlined for Mudflats and Sandflats above.	Yes. Rationale: See rationale outlined for Mudflats and Sandflats above.	No.
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	No Rationale: See rationale outlined for Mudflats and Sandflats above.	Yes. Rationale: the examples of this habitat occurring within this SAC are located between the		No Rationale: See rationale outlined for Mudflats and Sandflats above.		No Rationale: See rationale outlined for Mudflats and Sandflats above.
Mediterranean salt meadows (Juncetalia maritimi) [1410]	No.	No. Rationale: Examples of this habitat are	No. Rationale: Examples of this habitat are	No.	No. Rationale: Examples of this	No.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
		restricted to the northwestern end of Bull Island and are considered to lie outside the influence of the hydrological pathway established by the Cammock River and the River Liffey.	restricted to the northwestern end of Bull Island and are considered to lie outside the influence of the hydrological pathway established by the Cammock River and the River Liffey.		habitat are restricted to the northwestern end of Bull Island and are considered to lie outside the influence of the hydrological pathway established by the Cammock River and the River Liffey.	
Embryonic shifting dunes [2110]	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No. Rationale: there is no pathway that could link the Plan area to this habitat to result in the spread of non-native invasive species.	No Rationale: See rationale outlined for Mudflats and Sandflats above.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]	No.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No.	No.	Rationale: there is no pathway that could link the Plan area to this habitat to result in the spread of non-native invasive species.	No.
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No Rationale: This habitat is not influenced by surface waters and lotic processes.	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No Rationale: there is no pathway that could link the Plan area to this habitat to result in the spread of non-native invasive species.	No Rationale: See rationale outlined for Mudflats and Sandflats above.
Humid dune slacks [2190]	No.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No. Rationale: This habitat is not influenced by	No.	No Rationale: there is no pathway that could link the Plan area to this habitat	No.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
			surface waters and lotic processes.		to result in the spread of non-native invasive species.	
Petalophyllum ralfsii (Petalwort) [1395]	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No. Rationale: This species is not influenced by surface waters and lotic processes.	No. Rationale: This habitat is not influenced by surface waters and lotic processes.	No Rationale: See rationale outlined for Mudflats and Sandflats above.	No Rationale: there is no pathway that could link the Plan area to this habitat to result in the spread of non-native invasive species.	No Rationale: See rationale outlined for Mudflats and Sandflats above.
South Dublin Bay & Tolka Estuary SPA						
Light-bellied Brent Goose (*Branta bernicla hrota*)	No. Rationale: The Variations Lands are located at a remote distance from the wetland habitats upon which this species relies	Yes. Rationale: The River Poddle and Whitestown Stream and the River Liffey form a hydrological pathway between the	Yes. Rationale: The potential for effects to groundwater that drain to the River Poddle and Whitestown Stream	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that projects do not	Yes. Rationale: There is potential for non-native invasive species to occur at development site within the Plan area	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within these lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	and will not have the potential to result in the loss or fragmentation of some or all of this habitat.	Plan area and the wetland habitats at Dublin Bay upon which this species relies.	cannot be ruled out at this stage.	have the potential to result in degradation to this habitat as a result of emissions to atmosphere.	and such species could be conveyed downstream via the River Poddle and Whitestown Stream and the Liffey estuary to this habitat. In addtition while it is acknowledged that this is a coastal habitat and that the Plan area is not likely to support species that can tolerate coastal habitats, a precautionary approach is taken for this assessment and the potential for such spread to this	

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					habitat is not ruled out.	
Oystercatcher (*Haematopus ostralegus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Ringed Plover (*Charadrius hiaticula*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Grey Plover (*Pluvialis squatarola*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Knot (*Calidris canutus*)	No. Rationale: See rationale outlined for Light-	Yes. Rationale: See rationale outlined for	Yes. Rationale: See rationale outlined for	No. Rationale: See rationale outlined	Yes. Rationale: See rationale outlined	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	bellied Brent Geese above.	Light-bellied Brent Geese above.	Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	
Sanderling (*Calidris alba*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Dunlin (*Calidris alpina*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Bar-tailed Godwit (*Limosa lapponica*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Redshank (*Tringa totanus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
Black-headed Gull (*Croicocephalus ridibundus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Roseate Tern (*Sterna dougallii*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Common Tern (*Sterna hirundo*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Arctic Tern (*Sterna paradisaea*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
North Bull Island SPA						

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
Light-bellied Brent Goose (*Branta bernicla hrota*)	No. Rationale: The Variations Lands are located at a remote distance from the wetland habitats upon which this species relies and will not have the potential to result in the loss or fragmentation of some or all of this habitat.	Yes. Rationale: The River Poddle and Whitestown Stream and the River Liffey form a hydrological pathway between the Plan area and the wetland habitats at Dublin Bay upon which this species relies.	Yes. Rationale: The potential for effects to groundwater that drain to the River Poddle and Whitestown Stream cannot be ruled out at this stage.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that projects do not have the potential to result in degradation to this habitat as a result of emissions to atmosphere.	Yes. Rationale: There is potential for non-native invasive species to occur at development site within the Plan area and such species could be conveyed downstream via the River Poddle and Whitestown Stream and the Liffey estuary to this habitat. In addtition while it is acknowledged that this is a coastal habitat and that the Plan area is not likely to support species that can	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within these lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					tolerate coastal habitats, a precautionary approach is taken for this assessment and the potential for such spread to this habitat is not ruled out.	
Shelduck (*Tadorna tadorna*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Teal (*Anas crecca*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Pintail (*Anas acuta*)	No. Rationale: See rationale outlined for Light-	Yes. Rationale: See rationale outlined for	Yes. Rationale: See rationale outlined for	No. Rationale: See rationale outlined	Yes. Rationale: See rationale outlined	No.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	bellied Brent Geese above.	Light-bellied Brent Geese above.	Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	Rationale: See rationale outlined for Light-bellied Brent Geese above.
Shoveler (*Anas clypeata*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Oystercatcher (*Haematopus ostralegus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Golden Plover (*Pluvialis apricaria*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Grey Plover (*Pluvialis squatarola*)	No. Rationale: See rationale outlined for Light-	Yes. Rationale: See rationale outlined for	Yes. Rationale: See rationale outlined for	No. Rationale: See rationale outlined	Yes. Rationale: See rationale outlined	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	bellied Brent Geese above.	Light-bellied Brent Geese above.	Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	
Knot (*Calidris canutus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Sanderling (*Calidris alba)*	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Dunlin (*Calidris alpina*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Black-tailed Godwit (*Limosa limosa*)	No. Rationale: See rationale outlined for Light-	Yes. Rationale: See rationale outlined for	Yes. Rationale: See rationale outlined for	No. Rationale: See rationale outlined	Yes. Rationale: See rationale outlined	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
	bellied Brent Geese above.	Light-bellied Brent Geese above.	Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	for Light-bellied Brent Geese above.	
Bar-tailed Godwit (*Limosa lapponica*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Curlew (*Numenius arquata*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Redshank (*Tringa totanus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Turnstone (*Arenaria interpres*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
Black-headed Gull (*Larus ridibundus*)	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.	Yes. Rationale: See rationale outlined for Light-bellied Brent Geese above.	No. Rationale: See rationale outlined for Light-bellied Brent Geese above.
Wicklow Mountains SAC						
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	No. Rationale:The strengthening of links between the plan area and the Dublin Mountains will not result in increased pressure to this habitat.	Yes. Increased recreational pressure in areas bounding this habitat could result the discharge of silt ladens surface water runoff to this habitat as a result of trampling in peatland habitats adjacent to this habitat.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					underpin the status of this habitat.	
Natural dystrophic lakes and ponds	No. Rationale: The strengthening of links between the plan area and the Dublin Mountains will not result in increased pressure to this habitat.	Yes. Increased recreational pressure in areas bounding this habitat could result the discharge of silt ladens surface water runoff to this habitat as a result of trampling in peatland habitats adjacent to this habitat.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.
Northern Atlantic wet heaths with Erica tetralix	Yes. Rationale: The strengthening of links between the plan area	No. Rationale: This habitat is not influenced by lotic processes and	No. Rationale: Increased recreational will not have the potential to	No. Rationale: Increased recreational	Yes. Rationale: Increased recreational	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	will not be negatively affected in the event of perturbations to water quality.	result in negative impacts to groundwater quality.	pressures will not have the potential to result in negative impacts to air quality	pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	disturbance to it will not arise during developments within the plan lands.
European dry heaths	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	qualifying habitats of the SAC.				potential adverse consequences of vegetation communities that underpin the status of this habitat.	
Alpine and Boreal heaths	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
Calaminarian grasslands of the Violetalia calaminariae	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.
Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event	No. Rationale: Increased recreational will not have the potential to result in negative	No. Rationale: Increased recreational pressures will not have the potential	Yes. Rationale: Increased recreational pressure will have the potential to	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	of perturbations to water quality.	impacts to groundwater quality.	to result in negative impacts to air quality	result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	during developments within the plan lands.
Blanket bogs (* if active bog)	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					vegetation communities that underpin the status of this habitat.	
Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.
Calcareous rocky slopes with	Yes.	No.	No.	No.	Yes.	No.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
chasmophytic vegetation	Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.
Siliceous rocky slopes with chasmophytic vegetation	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	of perturbations to water quality.		negative impacts to air quality	of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	
Old sessile oak woods with Ilex and Blechnum in the British Isles	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and in examples of this qualifying habitats of the SAC.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
					communities that underpin the status of this habitat.	
Lutra lutra (Otter)	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and result in disturbance to otters, particular where such activity overlaps within otter breeding and resting sites.	Yes. Rationale: This species is reliant upon surface water quality and any negative effects to water quality as a result of increased recreational pressure could result in negative impacts to otters.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within watercourses that are relied upon by otters.	Yes. Rational: Increased recreational pressure will have the potential to result in disturbance to otters, particular in the event that such increases overlap with breeding sites.
Wicklow Mountains SPA						
Merlin	Yes. Rationale: The strengthening of links	No. Rationale: This species is not reliant	No. Rationale: Increased recreational will not	No. Rationale: Increased	Yes. Rationale: Increased	Yes. Rational: Increased recreational pressure will have

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and result in disturbance to merlin, particular where such activity overlaps within merlin nesting sites.	upon surface water quality.	have the potential to result in negative impacts to groundwater quality.	recreational pressures will not have the potential to result in negative impacts to air quality	recreational pressure will have the potential to result in the spread of non-native species within nesting habitats for this species.	the potential to result in disturbance to merlin, particular in the event that such increases overlap with nesting sites.
Peregrine Falcon	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within the Dublin Mountains and result in disturbance to merlin, particular where	No. Rationale: This species is not reliant upon surface water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within nesting habitats for this species.	Yes. Rational: Increased recreational pressure will have the potential to result in disturbance to Peregrine falcon, particular in the event that such increases overlap with nesting sites.

Ecological Effect	Habitat Loss & Fragmentation	Habitat Degradation				Disturbance/Displacement
		Surface Water	Groundwater	Air	Non-native invasive species	
	such activity overlaps within Peregrine nesting sites.					
Glenasmole Valley SAC						
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within this SAC and in examples of this qualifying habitats.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within this habitat with potential adverse consequences of vegetation communities that underpin the status of this habitat.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within this SAC and in examples of this qualifying habitats.	No. Rationale: This habitat is not influenced by lotic processes and will not be negatively affected in the event of perturbations to water quality.	No. Rationale: Increased recreational will not have the potential to result in negative impacts to groundwater quality.	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within watercourses that are relied upon by otters.	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.
Petrifying springs with tufa formation (Cratoneurion) [7220]	Yes. Rationale: The strengthening of links between the plan area and the Dublin Mountains could result in increased recreational activity within this SAC and in examples of this qualifying habitats.	Yes. Increased recreational pressure in areas bounding this habitat could result the discharge of silt ladens surface water runoff to this habitat as a result of trampling in peatland	No. Rationale: While this habitat is sensitive to perturbations to groundwater, increased recreational will not have the potential to result in negative	No. Rationale: Increased recreational pressures will not have the potential to result in negative impacts to air quality	Yes. Rationale: Increased recreational pressure will have the potential to result in the spread of non-native species within watercourses that	No. Rationale: The Plan area is sufficiently buffered from this habitat to ensure that physical disturbance to it will not arise during developments within the plan lands.

Ecological Effect	**Habitat Loss & Fragmentation**	**Habitat Degradation**				**Disturbance/Displacement**
		Surface Water	**Groundwater**	**Air**	**Non-native invasive species**	
		habitats adjacent to this habitat.	impacts to groundwater quality.		are relied upon by otters.	

APPENDIX 2: ENVIRONMENTAL SAFEGUARDS

Where projects that are facilitated by the plan's aim to strengthen links between the Plan area and the Dublin Mountains are proposed within the Dublin Mountains area the following assessments may be required:

Habitat Surveys and Assessment: Identification of habitat at and surrounding the project site and the establishment of the presence of any qualifying habitats of the Wicklow Mountains European Sites or the Glenasmole Valley SAC;

Watercourse Surveys and Assessment: Identification of any links between the project site and watercourses and appropriate surveys to establish the presence of otters and their holts or couches.

Bird Surveys: Where project site are located in suitable nesting habitat for merlin or peregrine bird surveys will be required to establish the presence of these species at or in the vicinity of the project site.

The results of surveys and assessment will inform the suitability of projects that aim to strengthen the links between the plan area and Dublin Mountains. Where the findings of surveys and assessment conclude that projects have the potential to result in loss of or significant disturbance to qualifying habitats and/or significant disturbance to qualifying species and their breeding sites, they will not be supported by the Draft Plan.

Where projects that aim to strengthen the links between the plan area and the Dublin Mountains are permitted appropriate monitoring will be undertaken and the results of monitoring will be provided to SDCC.

Where works are undertaken in/adjacent to sensitive environmental receptors all construction/maintenance staff will be inducted by means of a "Tool-box Talk" which will inform them of environmental sensitivities and the best practice to be implemented to avoid disturbance to these receptors

All construction and maintenance works will be undertaken in accordance with the following guidance documents:

- Inland Fisheries Ireland's Requirements for the Protection of Fisheries Habitat during Construction and Development Works.
- CIRIA (Construction Industry Research and Information Association) Guidance Documents
- Control of water pollution from construction sites (C532)
- Control of water pollution from linear construction projects: Technical Guidance (C648)
- Control of water pollution from linear construction projects: Site Guide (C649)
- Environmental Good Practice on Site (C692)
- NRA Guidance Documents
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes
- Guidelines for the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads
- Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub Prior to, during and Post Construction of National Road Schemes

Any excavations and/or vegetation removal will minimised during construction and/or maintenance works.

Excavated material will not be stored immediately adjacent to watercourses.

Disturbance to natural drainage features should be avoided during the construction and/or maintenance of routes.

Construction machinery should be restricted to public and or site roads. As a general rule machinery should not be allowed to access, park or travel over areas outside the footprint of proposed walking/cycling routes.

During route maintenance no construction activities should be undertaken at watercourse crossing in wet weather conditions.

Suitable prevention measures should be put in place at all times to prevent the release of sediment to drainage waters associated with construction areas and migration to adjacent watercourses.

To reduce erosion and silt-laden runoff, create, where possible, natural vegetation buffers and divert runoff from exposed areas, control the volume and velocity of runoff, and convey that runoff away from watercourses.

Where necessary drainage waters from construction areas should be managed through a series of treatment stages that may include swales, check dams and detention ponds along with other pollution control measures such as silt fences and silt mats

Where vegetation removal associated with treelines, hedgerows, individual mature trees, scrub or woodland is required, this shall only be undertaken outside the breeding bird season, between March and August inclusive.

Where extensive areas of ground are to be exposed during route construction or maintenance dust suppression should be undertaken during periods of dry weather.

All chemical substances required during construction and/or maintenance works will be stored in sealed containers.

Any refuelling or lubrication of machinery will not be undertaken within 50m of a watercourse

Spill kits will be required on site during construction and/or maintenance works.

Ensure non-native, invasive species do not occur at construction/maintenance areas, or if occurring, are not spread as a results of works. The NRA Guidance on invasive species,

outlined above will be adhered to as well as the measures in the South Dublin County Development Plan 2016-2022

Disseminate information on sensitive ecological receptors, such as sensitive habitats, breeding birds etc. occurring adjacent to or in the wider area. This information will aim to educate recreational users on the conservation status and sensitivities of such receptors to encourage responsible usage of routes.

Construction Environmental Monitoring Plans (CEMPs) shall be prepared in advance of the physical elements proposed as part of the Tallaght Town Centre LAP as appropriate, and will be implemented throughout. Such plans shall incorporate relevant mitigation measures indicated below.

South Dublin County Council will be informed in advance of construction activities in sensitive environmental areas.

SDCC will be informed of all proposed construction or maintenance works located within the vicinity of SACs and SPAs or in the vicinity of watercourses linked to these designated conservation areas. Assessments of the implications of these works to the Conservation Objectives of European Sites will be required in advance of their completion.

CEMPs typically provide details of intended construction practice for the proposed development, including:

a) location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse
b) location of areas for construction site offices and staff facilities
c) details of site security fencing and hoardings
d) details of on-site car parking facilities for site workers during the course of construction
e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage
f) measures to obviate queuing of construction traffic on the adjoining road network
g) measures to prevent the spillage or deposit of clay, rubble or other debris

h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works
i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels
j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater
k) disposal of construction/demolition waste and details of how it is proposed to manage excavated soil
l) a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains
m) details of a water quality monitoring and sampling plan
n) if peat is encountered - a peat storage, handling and reinstatement management plan
o) measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed)
p) Appointment of an ecological clerk of works at site investigation, preparation and construction phases.