Appendices

Lissenhall East

Local Area Plan January 2023

Appendix 2: Appropriate Assessment Screening and

Natura Impact Report

Prepared by Brady Shipman Martin



Appendices

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Appropriate Assessment Screening and Natura Impact Report



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Environment.

Assessment Built Environment

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1 Appropriate Assessment Screening

1.1 Introduction

1.1.1 Background

This document comprises a Natura Impact Report, prepared in order to support the Appropriate Assessment of the Local Area Plan (LAP) for the Lissenhall East development lands in Fingal (as identified in the *Fingal County Development Plan 2017 – 2023* and the *Draft Fingal Development Plan 2023-2029*), in line with the requirements of Article 6(3) of the EU Habitats Directive and Section 177T of the Planning and Development Act 2000 (as amended).

The term LAP is used in this report to refer to the lands which have been identified in the *Fingal County Development Plan 2017 – 2023* (Map Sheet 8, LAP 8.B) and *Draft Fingal County Development Plan 2023 – 2029* (Map Sheet 8, LAP 8.A). A LAP is a statutory document prepared in accordance with Part II, Section 20 of the *Planning and Development Act 2000 (as amended)*. The Lissenhall East LAP provides for land use, zoning and objectives for the Lissenhall East area. The *Fingal Development Plan 2017-2023* includes specific objectives (Objective ED89, Objective ED94 and Objective SWORDS 27) to prepare and implement a Local Area Plan for Lissenhall East. It is noted that during its preparation, the *Fingal County Development Plan 2017 – 2023* and *Draft Fingal County Development Plan 2023 – 2029*, including the Lissenhall area, was subject to full SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA)¹.

The potential impacts on European sites (also known as Natura 2000 sites), both as a result of the LAP and incombination with other plans and projects, are appraised in this report.

This report should be read in conjunction with the Lissenhall East LAP and the Strategic Environmental Assessment (SEA) – Environmental Report prepared by Brady Shipman Martin.

1.1.2 Expertise and Qualifications

This report has been prepared by Namrata Kaile, Ecologist and Environmental Consultant at Brady Shipman Martin. She holds a Bachelor's Degree (BSc) in Life Sciences from University of Delhi and a Master's Degree (MSc) with distinction in Environmental Sciences from Trinity College Dublin. She is a Qualifying member of Chartered Institute of Ecology and Environmental Management (CIEEM) and has been working professionally in the field of environmental consultancy for the last three years. Namrata is experienced in drafting and reviewing AA Screening Reports, Natura Impact Statements, EIA Screening Report as well as in coordination of EIARs. She is also experienced in undertaking baseline ecological surveys and preparing Ecological Impact Assessments Reports (EcIA).

This report has been technically reviewed by Ecologist Matthew Hague BSc MSc Adv. Dip. Plan. & Env. Law CEnv MCIEEM. Matthew is an Associate with Brady Shipman Martin and is a highly experienced and qualified ecologist, with a master's degree in Ecosystem Conservation and Landscape Management. He has 20 years of experience in ecological and environmental consultancy, across a wide range of sectors. He has prepared numerous reports for AA Screening as well as Natura Impact Statements, for projects of all scales, from small residential developments to nationally important infrastructure projects. Matthew is a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental

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¹ https://www.fingal.ie/fingal-development-plan-2017-2023 https://www.fingal.ie/development-plan

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Management (MCIEEM). Matthew has also completed an Advanced Diploma in Planning and Environmental Law, at King's Inns and is a member of the Irish Environmental Law Association (IELA).

1.1.3 Legal requirement for Appropriate Assessment

European sites make up a network of sites designated for nature conservation under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive") and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the "Birds Directive"). The requirements for Appropriate Assessment are set out under Article 6 of the Habitats Directive, transposed into Irish law by the European Union (Birds and Natural Habitats) Regulations 2011-2015² (the "Birds and Natural Habitats Regulations") and the Planning and Development Act, 2000 - 2022 (the "Planning Acts").

European sites are also known as Natura 2000 Sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA)). As defined in section 177R of the Planning Acts "European site" means:

- (a) a candidate site of Community importance,
- (b) a site of Community importance,
- (ba) a candidate special area of conservation,
- (c) a special area of conservation,
- (d) a candidate special protection area and
- (e) a special protection area.

Article 6(3) of the Habitats Directive states that:

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

The first test is to establish whether, in relation to a particular plan or project, appropriate assessment is required. Sections 177U of the Planning Acts requires that the AA screening test must be applied to the LAP, as follows:

- To assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project is likely to have a significant effect on the European site;
- An appropriate assessment is required if it cannot be excluded, on the basis of objective information, that the development (plan or project), individually or in combination with other plans or projects, will have a significant effect on a European site.

1.1.4 Baseline data collection

This report takes the following guidance documents into account:

 Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision);

² SI No. 477 of 2011

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- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.
 Circular NPWS 1/10 & PSSP 2/10;
- Assessment of plans and projects in relation to Natura 2000 sites- Methodological guidance on Article
 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021);
- Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC. Guidance issued by the European Commission (21st November 2018);
- Guidance document on the strict protection of animal species of Community Interest under the Habitats Directive (Directorate General for Environment (European Commission, 2021);
- Practice Note PN01 Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, March 2021);
- Guidance for Public authorities on the Application of Articles 12 and 16 of the EU Habitats Directive to development/works undertaken by or on behalf of a Public authority (National Parks and Wildlife Services (NPWS) (2021)).

Information was collated from the organisations and websites listed below:

- Data on European sites and rare and protected plant and animal species contained in the following databases:
 - ☐ The National Parks and Wildlife Service (NPWS) of the Department of Culture, Heritage and the Gaeltacht (www.NPWS.ie);
 - ☐ The National Biodiversity Data Centre (NDBC) (www.biodiversityireland.ie);
 - ☐ BirdWatch Ireland (www.birdwatchireland.ie);
 - ☐ Bat Conservation Ireland (www.batconservationireland.org).
- Information on land-use zoning from the online mapping of the Department of Housing, Planning and Local Government (http://www.myplan.ie/en/index.html);
- Recent and historical OSi mapping and aerial photography, including www.geohive.ie;
- Information on local watercourses from www.catchments.ie;
- Information on water quality in the area (www.epa.ie);
- Information on soils, geology and hydrogeology in the area (www.gsi.ie);
- Information on the Status of EU Protected Habitats and Species in Ireland (Article 17 report) (NPWS, August 2019);
- Third National Biodiversity Plan 2017 2021 (Department of Culture, Heritage and the Gaeltacht, 2017);
- Fingal Development Plan 2017 2023 and the accompanying reports;
- Draft Fingal Development Plan 2023 2029 and the accompanying reports;
- Fingal Biodiversity Action Plan 2018 2023;
- Fingal Biodiversity Action Plan 2022 2030 (adopted 12 December 2022).

The report has regard to the following legislative instruments:

- Planning and Development Act 2000, as amended;
- Planning and Development Regulations 2001, as amended;
- European Commission (EC) Habitats Directive 92/43/EEC;
- European Commission (EC) Birds Directive 2009/147/EC; and
- European Communities (Birds and Natural Habitats) Regulations 2011-2015.

The report takes full account of the details of the LAP and a detailed examination of all relevant elements was undertaken. The Strategic Environmental Assessment Report (Brady Shipman Martin, 2022) was also reviewed in the preparation of this report.

1.2 Screening for Appropriate Assessment - Methodology

1.2.1 Background

The first part of the Appropriate Assessment process is the screening phase. Screening identifies the likely effects of the LAP on European sites that could arise, either alone or in combination with other plans or projects, and considers whether these impacts are likely to have a significant effect on the European site in view of the site's conservation objectives.

In accordance with section 177U of the Planning Acts, screening for appropriate assessment must be carried out:

- To assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project <u>is likely to have</u> a significant effect on the European site;
- An appropriate assessment is required <u>if it cannot be excluded</u>, on the basis of objective information, that the development, individually or in combination with other plans or projects, will have a significant effect on a European site.

Screening must be undertaken without the inclusion of mitigation and it is in this context that this AA Screening is prepared.

Following screening therefore, if there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of Article 6(3) of the Habitats Directive. This means that if the conclusions at the end of the screening exercise are that significant effects on any European sites, as a result of the LAP, either alone or in combination with other plans and projects, are likely, uncertain or unknown, then an Appropriate Assessment must be carried out. This is in accordance with established precedent and case law.

1.2.2 Potential Zone of Influence

For the risk of a significant effect to occur there must be a 'source', such as a construction site; a 'receptor', such as a designated site for nature conservation; and a pathway between the source and the receptor, such as a watercourse that links the construction site to the designated site. A construction site or completed development may also create a barrier to movement, for example by preventing the migration of fauna along a river corridor, or by obstructing the migration of birds.

Although there may be a risk of an impact it may not necessarily occur, and if it does occur, it may not be significant.

Identification of a potential effect means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the potential effect and the characteristics of the receptor.

There are no set recommended distances for projects to consider European sites as being relevant for assessment. Rather, for a project NPWS (2010) recommends that 'Any Natura 2000 sites within the likely zone of impact of the plan or project' should be appraised. For projects 'the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects'.

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In the case of plans, such as the Lissenhall East LAP, the guidance states that 'A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al. 2006)³'.

In addition, the guidance states that 'Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.'

Therefore, in some instances where there are hydrological connections a whole river catchment or a groundwater aquifer may need to be included. Similarly where bird flight paths are involved the impact may be on an SPA more than 15 km away. Taking the guidance into account, as a starting point a search was carried out for all European sites within 15km of the LAP area. This search was then extended in order to ensure that all European sites with any potential links to the LAP area (i.e. those within the Zone of Influence) were accounted for in the study.

Throughout the preparation of the LAP area the contents were reviewed in the context of Article 6(3) of the Habitats Directive.

1.3 Description of the Lissenhall East Local Area Plan 2022

This section provides an overview of the content of the Lissenhall East LAP. The preparation of the LAP seeks to provide for the optimum future development framework for the lands. The requirement for the preparation of the Lissenhall East LAP is identified in the *Fingal Development Plan 2017-2023*, under:

"Objective SWORDS 27: Prepare and / or implement the following Local Area Plans and Masterplans during the lifetime of this Plan:

- Lissenhall East Local Area Plan (see Map Sheet 8, LAP 8.B)
- Oldtown / Mooretown Local Area Plan (see Map Sheet 8, LAP 8.C)
- Estuary West Masterplan (see Map Sheet 8, MP 8.A)
- Estuary Central Masterplan (see Map Sheet 8, MP8.B)
- Estuary East Masterplan (see Map Sheet 8, MP 8.C)
- Watery Lane Masterplan (see Map Sheet 8, MP 8.D)
- Seatown North Masterplan (see Map Sheet 8, MP 8.E)
- Seatown South Masterplan (see Map Sheet 8, MP 8.F)
- Brackenstown Masterplan (see Map Sheet 8, MP 8.G)
- Barrysparks Masterplan (see Map Sheet 8, MP 8.H)
- Fosterstown Masterplan (see Map Sheet 8, MP 8.1)
- Crowscastle Masterplan (see Map Sheet 8, MP 8.J)."

As per the Fingal Development Plan 2017-2023 and the Draft Fingal Development Plan 2023-2029, the LAP lands are zoned as 'High Technology (HT)- Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment.' Therefore, the LAP intends to establish new employment development on site which is consistent with the strategic planning policy and also takes into account the future development of the MetroLink scheme. Refer to Figure 1.1 (Extract from the 2017 – 2023 Plan).

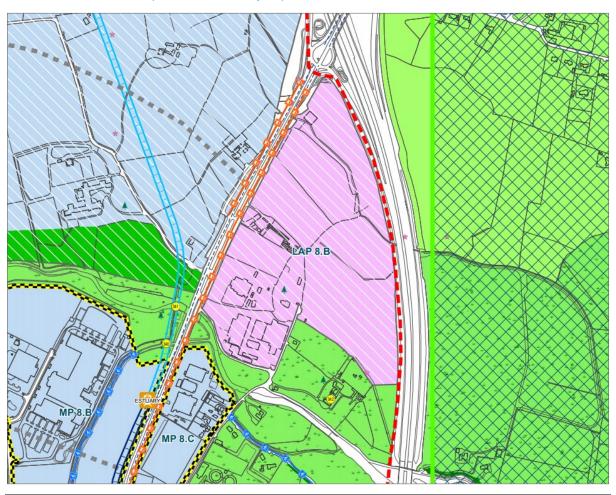
³ Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants. 2006. Appropriate Assessment of plans.

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The Broadmeadow River and its wider corridor lies to the south of the LAP lands. Lissenhall and its surrounding grounds lie on the north bank of the Broadmeadow and the entire area between the LAP lands and the river is zoned 'HA - High Amenity: Protect and enhance high amenity areas.'

Along with the Appropriate Assessment, the LAP has also been subject to Strategic Environmental Assessment (SEA) and Strategic Flood Risk Assessment (SFRA). The reports are included as Appendix 01 and Appendix 03 of the Lissenhall East LAP, respectively. Furthermore, an ecological characterisation and green infrastructure assessment was undertaken by RPS Group Ltd. for the Lissenhall East LAP lands. The findings of this assessment are set out in the Ecology and Green Infrastructure Report included as Appendix 07 to the LAP. The report informed the development framework, policies and overall ecology and green infrastructure objectives of the LAP.

Figure 1.1 Extract from Fingal Development Plan 2017-2023 Sheet No. 8: SWORDS indicating location of Lissenhall East LAP lands (LAP 8.B – shaded pink)



Symbol	Description	Symbol	Description
LAP 8.A	Lissenhall East LAP (LAP 8.B)	<u> </u>	Indicative cycle / pedestrian route
	Indicative route for MetroLink	342	Protected Structures
泉	MetroLink Stop		Road proposal
227	Development Boundary	MP 8.A	Masterplan Area
	Quality Bus Corridor	*	Protect & Preserve Trees, Woodlands and
*	Recorded Monuments		Hedgerows

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1.3.1 Vision of the LAP

The **strategic vision** which intends to guide the future growth of the Lissenhall East Lands as a strategic employment area within the Dublin Metropolitan Area Spatial Plan (MASP) and consistent with its High Technology (HT) zoning objective states:

"Facilitate opportunities for high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity."

1.3.1.1 Vision Statement

The **vision** statement for Lissenhall East is stated as follows:

"To establish a location for high-end, high quality value-added businesses, blending sustainable urban design and architecture with nature to create a distinct, enjoyable sense of place."

1.3.1.2 Guiding Principles of the LAP

The vision of the LAP is directed by the following guiding principles, as stated in the Lissenhall East LAP:

"Central to delivering the vision is to develop the lands in a sustainable manner, in a way that reflects its existing landscape, heritage and environmental assets. Any development on the LAP lands shall promote an urban design approach and built form which contributes positively to the quality of life of those who work in and visit Lissenhall East.

Through evidence-based analysis of the environment and its strategic policy context, three key themes were identified in order to shape and inform the vision for the lands and act as guiding principles underpinning the policies, objectives, and actions in the LAP.

These themes reflect those contained in the Regional Spatial and Economic Strategy (RSES) for the East and Midlands Region (EMRA) 2019-2031 and include:

- Economic opportunity
- Healthy Placemaking
- Climate Action."

1.3.1.3 Achieving the Vision

In order to achieve the vision of the LAP, green infrastructure and nature-based solutions will be fully integrated into the development of the LAP lands. Green infrastructure including open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, natural heritage and the open countryside; and nature based solutions including green roofs, tree pits, rain gardens and green walls have been addressed in the LAP namely under the following themes

- Biodiversity;
- Parks, open space and recreation;
- Sustainable water management;
- Archaeological and architectural heritage; and
- Landscape.

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Each of these themes describes the proposed LAP approach and the relevant LAP objectives for each theme. These in turn inform the overall approach to the other key issues of the LAP namely, Infrastructure and Services and Movement and Transportation. The overall policies and objectives of the plan are integrated and inform the development framework for the development of the Lissenhall East LAP lands.

1.3.2 Nature and Extent of Planned Works

As detailed previously, the Lissenhall LAP lands are zoned for 'High Technology' and the LAP is underpinned by a strategic vision which is intended to guide the future growth of the Lissenhall East lands as a strategic employment area within the Dublin Metropolitan Area Spatial Plan (MASP) and consistent with its High Technology (HT) zoning objective.

As per the *Fingal Development Plan 2017-2023* and *Draft Fingal Development Plan 2023-2029*, the uses classes relating to HT zoning objective are set out as follows:

- Enterprise Centre;
- High Technology Manufacturing;
- Hospital;
- Industry Light;
- Office Ancillary to Permitted Use;
- Office </= 100 sqm;</p>
- Office > 100 sqm and < 1,000 sqm;</p>
- Office >/= 1,000 sqm;
- Open Space;
- Research and Development;
- Restaurant/café*;
- Retail Local < 150 sqm nfa*;</p>
- Sustainable Energy Installation*;
- Telecommunications Structures;
- Training Centre; and
- Utility Installations.

The Lissenhall East LAP states-

"The uses for the Lissenhall LAP include those specifically 'Permitted in Principle' and other uses which will make a positive contribution towards the achievement of the HT zoning objective. They are informed by the characteristics of other high-quality business campus developments across the Dublin region including:

- High quality business campus developments generally are serviced by a range of on-site amenities
 e.g., convenience store, pharmacy, dry cleaners, ATM, sandwich bars / cafés/restaurants.
- High quality business campus developments often provide childcare and early learning facilities.
 This can make the child care drop off and pick up convenient for employees.
- High quality business campus developments often include a Health Centre. Having such a service on site means employees can more easily integrate health visits into their working day.
- High quality, highly accessible, business campus settings typically include a hotel. There are natural synergies between the business community and the hotel offering hospitality and accommodation facilities.
- High quality business campus developments usually include a range of amenity and ancillary services which can extend to include a fitness club / gym. Such facilities mean employees can easily avail of the facilities before work, during lunchtime, and in the evening.

^{*}To serve the local working population only

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The uses are also informed by the specific characteristics of the lands at Lissenhall East, including:

- The location of the Lissenhall East lands would require some level of on-site amenities to service office workers in the pre-Metro Link Phase.
- There are several established uses / developments within the Lissenhall East LAP and potential exists for the redevelopment / refurbishment / extension of these premises.
- [..] However, the uses which allow for the economic provision of buildings, ancillary services and recreational opportunities, whilst also being reflective of current road network capacity and modal split assumptions are considered to be:
 - Office, research and development and high technology/high technology manufacturing type uses.
 - Ancillary retail, cafe and other service facilities to an appropriate level to support the local working community. These services may childcare facilities, gym, retail, concierge service, and café / sandwich bar, management offices, etc.
 - Hotel use to complement the office, research and development uses and take advantage of the location of the lands relative to the Airport, and at the northern 'gateway' to Swords.
 - Telecommunications, utility and services infrastructure (including sustainable energy installations)if / as required.
 - Open space."

As per the LAP focus for the new development will be in the Initial Development Area on the western boundary and central area of the overall lands.

Regarding the future development of the remaining lands relevant considerations as per the LAP are set out below.

- "There is potential for landmark buildings at key locations on the LAP lands where architectural punctuation and definition is required. There is an opportunity for taller buildings at the northernmost point of the site, where dominant structures may act as a landmark / gateway to North Dublin. In accordance with good conservation practice, buildings will be back from the boundary with Lissen Hall. Building height in this area need to be carefully considered.
- Lissen Hall, a protected structure, (RPS No. 0342) is located adjacent to the LAP lands to the south is set behind an attractive boundary wall and trees. Development within the plan lands should be set back from this boundary to create an adequate buffer to protect this protected structure and its setting.
- A soft, planted edge to the eastern boundary will contain the LAP lands and act as a sound buffer from the M1.
- Surface water attenuation ponds and dry detention basins will need to be incorporated as design features within open space areas along the boundary with the M1."

The overall development framework for the Lissenhall East LAP lands is illustrated on Figure 1.2.

Figure 1.2 Lissenhall East LAP Proposed Development Framework



1.4 Description of the Receiving Environment

The description of the receiving environment presented in this section has been based on a desktop study of relevant available information, as cited in the text.

1.4.1 The Local Area Plan Area

The Lissenhall East LAP area covers an area of c.27.7 hectares within the existing northern development boundary of Swords. The lands are located west of the M1 motorway, east of the R132 (Old Swords Road), south of the M1 / R132 Junction, and north of the Broadmeadow River Valley and adjoining lands. The lands are located c. 5km north of the Dublin Airport. Refer to Figure 1. below.

The majority of the LAP lands are in agricultural use, with a c.1.4 hectare (ha) area of woodland at the centre. However, there are several existing commercial buildings within the LAP lands along the southern and western portion of the LAP lands including HSE buildings incorporating the Swords National Ambulance Service Base and day care facilities, a veterinary and kennelling facility and a food logistics facility along with a temperature-controlled storage facility to the west and existing sheds and yards to the north.

The LAP lands are located within the designated 'Low Lying' character type as defined by the Fingal Development Plans. The development lands are generally flat and covered largely by agricultural lands-mostly arable crops (Fossitt code BC1, as described in the Ecology and Green Infrastructure Report prepared by RPS Group Limited). The remainder of the lands are characterized by buildings and artificial surfaces (BL3), immature woodland (WS2) and (mixed) broadleaved woodland (WD1) and spoil/ and bare ground (ED2). Other notable features include boundary hedgerows and scrub vegetation. The main woodland areas are associated with the banks of Staffordstown_08 or Lissenhall Stream (EPA code: 08S15), which is a narrow and modified watercourses and classified as Depositing/ Lowland River (FW2). The stream flows west to east across the lands (and is a dry ditch during much of the year) towards the M1 motorway where it is culverted and further continues eastwards towards Seapoint where it discharges into Malahide Estuary. The LAP lands are located in close proximity to the Broadmeadow River (EPA code: 08B02) which flows south of the lands into the transitional coastal waters of Malahide Estuary. Refer to Figure 1. below.

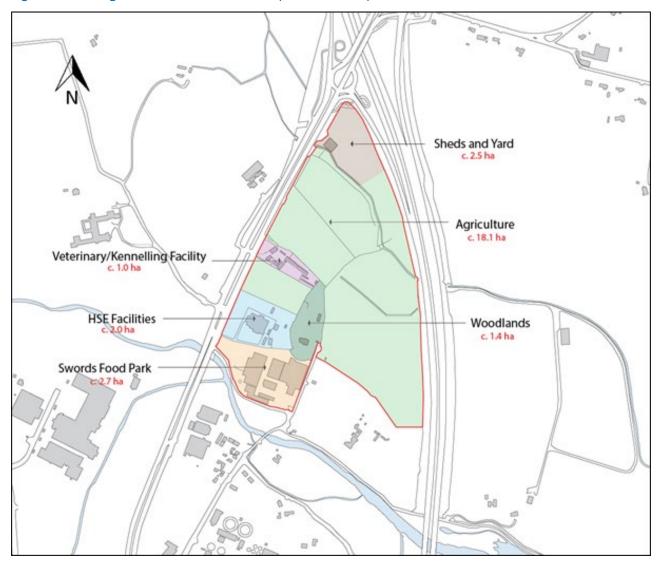


Figure 1.3 Existing Land Uses of the LAP lands (outlined in red)

The surrounding area is a mix of residential and commercial development. Swords wastewater treatment plant is c. 300m south of the LAP boundary. The area to the south of the LAP lands is dominated by Swords townland, lands to the west and north are mainly agricultural fields with lands to the east comprising of M1 motorway, agricultural lands and Broadmeadow Estuary and Malahide Estuary. There is a limestone quarry c. 3.5km to the south-east. There is one Seveso site (Sk Biotek Ireland Limited, Watery Lane, Swords) in Swords (lower tier) which is >1km from the LAP lands.

At present the Lissenhall East LAP lands are served by the existing M1 motorway and the R132 (Old Swords Road/ Swords Bypass). The site is also close to a cycling tunnel at the M1 Lissenhall Interchange and is served by local bus services from Dublin City Centre to Dublin Airport, Swords, Balbriggan and Skerries. The lands are also in close proximity to upcoming road projects namely the Swords Western Distributor Road and the R132 Connectivity Project, as well as the proposed MetroLink Estuary Park and Ride. There are also proposals underway for the bus corridor between Swords and Dublin City Centre under BusConnects.

The LAP area is situated in the Nanny-Delvin (08) catchment with the northern part of the LAP lands within the Ballough [Stream] SC_010 sub catchment and the southern part of the lands within the Broadmeadow_SC_010 sub catchment. As per the WFD 2013-2018 status mapping, the Broadmeadow_040 River (IE_EA_08B020800) adjacent to the southern boundary of the site and Staffordstown_08 or Lissenhall Stream or Turvey_010 River

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(IE_EA_08T020700) that traverses the northern part of the LAP lands are of 'Poor' status. They are 'At risk' of failing to achieve its WFD objective / good status by 2027. The associated identified significant pressures on the Broadmeadow_040 River (IE_EA_08B020800) are due to agriculture and hydromorphology. The pressures on the Turvey_010 River (IE_EA_08T020700) are due to agriculture, urban run-off (diffuse sources run-off) and urban wastewater (combined sewer overflows). As per the EPA maps, the Broadmeadow Estuary (Inner) is classified as a nutrient sensitive estuary (WFD code EA_060_0100) and is 'At risk' of achieving of failing to achieve its WFD objective / good status by 2027. The ecological status of the Estuary has degraded from 'Moderate' in WFD 2010-2015 cycle to 'Poor' in the WFD 2013-2018 cycle.

In terms of groundwater, the LAP area is predominantly underlain by 'locally important aquifer' and consists of argillaceous bioclastic limestone and shale of Malahide Formation, as shown in Figure 1.. The groundwater vulnerability on the lands is majorly 'moderate' with a section of 'low' vulnerability on the eastern section of the lands. The groundwater body- Swords (IE_EA_G_011) is consistently rated as having 'good status' for all parameters, and is 'not at risk' of failing to achieve its WFD objectives / good status by 2027.

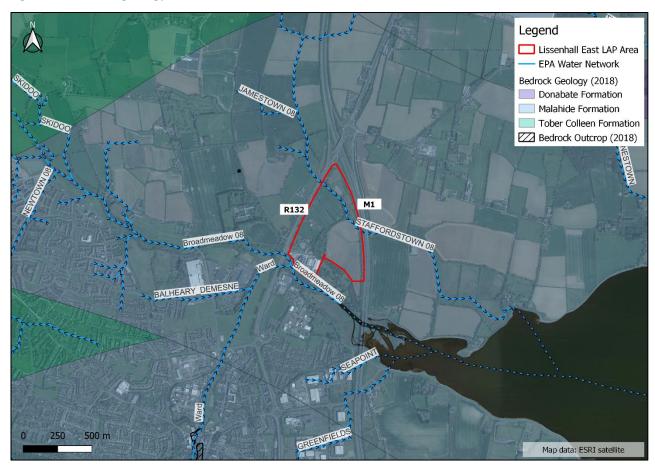


Figure 1.4 Bedrock geology and watercourses within the Lissenhall East LAP area

Strategic Flood Risk Assessment (SFRA) has been carried out for the purposes for the Lishenhall East LAP by RPS Group Ltd. The report is included as Appendix 03 to the LAP. There is no evidence of historical flooding within the lands, however, there has been historical flooding in the surrounding area of the site. The flood maps indicate that part of the site adjacent the Lissenhall Stream is vulnerable to fluvial and tidal flooding and these lands are within Flood Zones A and B, see Figure 1.. However, the lands within the LAP proposed for initial development are predominantly within Flood Zone C. The flood zone areas have been identified as open green space, however, some of these areas are designated for future development lands. The risk of groundwater flooding and pluvial flooding on site is deemed to be low.

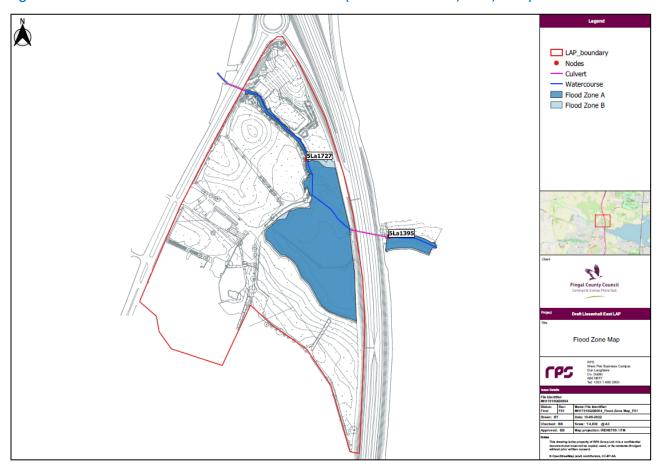


Figure 1.5 Flood Zones A and B in relation to the LAP area (Lissenhall East LAP, SFRA, 2022)

In 2018, a habitat survey of the Lissenhall East LAP lands was carried out by RPS Group limited on behalf of Fingal County Council. The initial survey was also informed by updated surveys, whereby changes in agricultural management and other factors impacted the habitat classification. The habitat survey map is included in Appendix 07 of the LAP. The Ecology and Green Infrastructure Report (RPS Group Limited, 2022) submitted as Appendix 07 to the LAP stated-

"Although a number of the habitats described from the site have links to Annexed habitats of the Habitats Directive, owing to the nature and composition of the habitats, none of the habitats within the LAP lands correspond to Habitats Directive Annex I habitats.

The majority of the larger fields were given over to *Arable Crops (BC1)*, with wheat and barley noted in summer 2017, although this changed annually, as is typical of rotational sowing. [..].

Non-agricultural grasslands account for a smaller portion of the LAP lands. There are a number of variants. One such distinctive variant occupies a single field located between the kennels and a mature beech treeline on the western side of the study area is not intensively managed. A single isolated mature tree stands within the grassland. The field was not surveyed as it is in private ownership. However, a visual assessment of the habitat suggest that it conforms to *Dry Calcareous and Neutral Grassland (GS1)* habitat owing to the greater range of plant species including grasses and an obvious absence of intense management practices.

A small area of disturbed ground dominated by the presence of perennial ryegrass (Lolium perenne) was noted in the south-eastern part of the study area. [..]. There is limited development of *Improved Agricultural Grassland (GA1)*, from the site and it largely occurs in mosaic with *Dry calcareous and*

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neutral grassland (GS1), is land that is not under agricultural production or represents a former hedgeline that has been scrubbed out.

A closely linked habitat is noted around built land and gardens. **Amenity Grassland (GA2)** is typical of such areas and holds little floristic value.

There are areas of rough grassland for which no obvious active management is being undertaken. This includes much of the land to the northern part of the site, which was not previously given over to the motorway construction compound. It contains characteristics of some of the above grasslands with elements of *Dry Meadows and Grasslands (GS2)*, although scrub both bramble and Butterfly bush were noted to be patchily distributed across it.

There is some development of **Wet Grassland (GS4)** vegetation. It is not widespread owing to the managed agricultural nature of the site.

There is a noticeable diversity of tree composition and age throughout the site.[..]. Much of the vegetation is tentatively classified as Mixed Broadleaf Woodland (WD1), although it is recognised that a detailed habitat study would likely unveil a number of distinct woodland habitats.[...]. The WD1 woodland that occurs along either side of the Lissenhall/Staffordstown 08 stream, has elements of Wet Pedunculate Oak-Ash Woodland (WN4). This habitat is not mapped and does not correspond to the Annex I alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-padion, Alnion incanaem Salicion albae (91E0), a priority Annex I habitat.[..].

A long linear swathe of mixed planting along boundary between the LAP lands and the M1 motorway boundary is described as *Immature Woodland (WS2)*.[...] *Scrub (WS1)* vegetation occurs widely across the site, typically as an edge component of woodland copses/treelines particularly along the perimeter or having replaced boundary vegetation that might have previously supported hedgerows. This habitat is typically, although not always characterised by low botanical diversity. In many instances is characterised by single shrubby species, mostly bramble (Rubus fruticosus agg.) but occasionally blackthorn (Prunus spinosa) or non—native of garden escape including butterfly bush (Buddleia davidii). There is some development of rose (Rosa spp.) in linear woodland, but it is often a distinctive component around the central woodland copse.

Individual trees occur throughout the site, some remnants possibly of former **Parkland (WD5)** setting, whilst other are of recent origin having become established in areas with little or no active management. [..]

There are a number of areas of permanently unvegetated areas – mapped as **Buildings and Artificial surfaces** (BL3). These include buildings – residential and commercial, roadway and paths and structures/walls of modern construction.[..] There is some occurrence of both of **Spoil and Bare Ground** (ED2) and **Recolonising Bare Ground** (ED3) habitats around the site, although the majority is intimately linked with areas of disturbance such as the abandoned motorway construction compound at the northern end of the site.

There are a number of narrow linear features mapped within the LAP lands which can drain water. Most of these features are classified as **Drainage Ditches (FW4)**, mostly occurring on field margins or outside the LAP lands alongside the existing M1. The drains vary between dry or wet, mostly dry, although those towards the eastern boundary contained some water or had vegetation indicative of wet conditions.

There was limited linear development of common reed (Phragmites australis) separating the two large arable fields to the east of the LAP lands. The species poor vegetation although corresponding to **Reed and large sedge Swamp (FS1)**, is likely a remnant of winter flooding in the low lying ditch in this area.

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While the LAP lands are located in close proximity to the Broadmeadow river which flows into the transitional coastal waters of Malahide Estuary, only one EPA-named watercourse occurs in the LAP lands. TheStaffordstown_08 stream flows through the northern part of the study area. Although narrow and modified, it is classified as a **Depositing/Lowland Rivers (FW2)**. There is little development of riparian vegetation other than pioneer plants such as nettles (Urtica dioica) and thistles (Cirsium spp.) and rank grasses along the edge of the arable crops.

Much of the LAP lands are characterised by agricultural or wooded habitats. However, the narrow watercourse running west to east across the LAP lands (Staffordstown_08 or Lissenhall stream) is characterised by an absence of instream vegetation owing to the overshadowing of the linear wooded feature along both banks. The low riparian vegetation was typically characterised not by aquatic vegetation, but rather by a mixtures of agricultural crops and their associated weed coupled with **wet grassland (GS4)** vegetation."

The green infrastructure within the LAP lands was also mapped, see Figure 1.. The LAP documents account for green infrastructure measures to be incorporated into the developing design and include sustainable drainage systems (SUDS) measures such as green roofs, swales, attenuation ponds and pollinator friendly planting. The Ecology and Green Infrastructure Report (RPS Group Limited, 2022) included as Appendix 07 to the LAP stated-

"The site has its own inherent ecological value, and the features therein indicate that the biodiversity potential is somewhat greater than surrounding developed areas. The proximity of the relatively small refuge to Malahide estuary and the compliment of wintering wildfowl for which the SPA site has been designated for, increases this intrinsic biodiversity ranking as the lands potentially provide isolated and disturbance-free forage land for species such as Brent Geese as suggested by consultative response.

[..] Currently there is no publicly accessible, open ground associated with the proposed LAP territory, as art of it already developed or is privately owned and managed largely for agricultural purposes. Accessibility to and the need for the provision of a range of open spaces is an integral requirement of the Fingal Green Infrastructure policy, providing community connectivity to surrounding areas.

The proposed LAP lands contain both Flood Zones A and B (RPS 2019). Following from this, some of the agricultural lands are within Zone A and as such the justification test would be prohibited. In respect of watercourses, riverine floodplains and vulnerable coastal flood zones, there is a 0.1% (1 in 1000 chance per year) flood risk in east zone of site (RPS, 2019), with hydrological connectivity to downstream coastal zones.

[..] The proposed LAP lands is classed as a 'Highly Sensitive Landscape' as per GI development plan. While much of the open lands are given over to Agriculture with peripheral areas are managed/planted, much of recent origin, nonetheless, it is envisaged that the landscaping will focus on existing tree belts/hedges and water features as part of the wider landscaping recommendations reinforcing proposed green corridors and public open space."

Figure 1.6 Habitat mapping at Lishenhall East LAP land (RPS Group Limited, 2022)

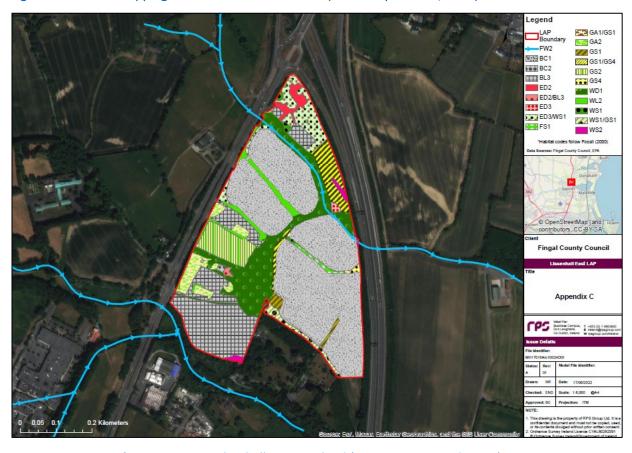
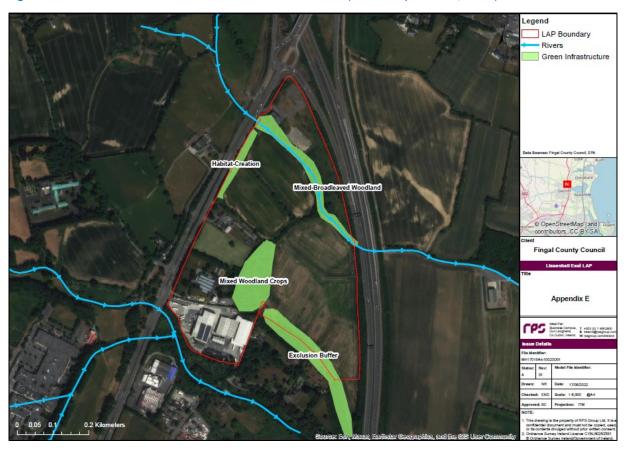


Figure 1.7 Green Infrastructure at Lishenhall East LAP land (RPS Group Limited, 2022)



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1.4.2 European sites

While there are no European (Natura 2000) sites within the LAP area, Malahide Estuary SAC (site code 000205) and Malahide Estuary SPA (site code 004025) are located adjacent to the south of the LAP area boundary. The Straffordstown stream or Lissenhall stream flowing through the northern section of the LAP area and the Broadmeadow River flowing adjacent the southern boundary of the LAP land, flow into the Malahide Estuary. Thus, there is a hydrological pathway linking the Lissenhall LAP lands and these European sites (see Figure 1.).

Under the Fingal Biodiversity Action Plan 2022 – 2030, Malahide Estuary is listed as a core site.

The Department of the Environment (2009) Guidance on Appropriate Assessment recommends a 15 km buffer zone to be considered. Although sites beyond this buffer zone would be considered if relevant, however, in the absence of significant hydrological links the characteristics of the Plan will not impose effects beyond the 15 km buffer.

The sites examined were as follows:

- Malahide Estuary SPA (site code 004025), c. 60m to the south-east. The site is designated for 14no. bird species along with wetland and waterbirds.
- Malahide Estuary SAC (site code 000205), c. 50m to the south-east. The site is designated for mudflats and sandflats, Salicornia and other annuals colonising mud and sand, salt meadows, shifting dunnes and fixed coastal dunnes.
- **Rogerstown Estuary SPA** (site code 004015), c. 3km to the north-east. The site is designated for The site is designated for 11no. bird species along with wetland and waterbirds.
- Rogerstown Estuary SAC (site code 000208), c. 2.8km to the north-east. The site is designated for estuaries, mudlfats and sandflats, Salicornia and other annuals colonising mud and sand, salt meadows, shifting dunnes and fixed coastal dunnes.
- Lambay Island SPA (site code 004069), c. 11.4km to the east. The site is designated for 10no. bird species.
- **Lambay Island SAC** (site code 000204), c. 11.4km to the east. The site is designated for reefs, vegetated sea cliffs, Halichoerus grypus and Phoca vitulina.
- **Baldoyle Bay SPA** (site code 004016), c. 7.2km to the south-east. The site is designated for 7no. bird species.
- **Baldoyle Bay SAC** (site code 000199), c. 7.2km to the south-east. The site is designated for mudlfats and sandflats, Salicornia and other annuals colonising mud and sand and salt meadows.
- Ireland's eye SPA (site code 004117), c. 11km to the south-east. The site is designated for 5no. bird species.
- Ireland's eye SAC (site code 002193), c. 11.3km to the south-east. The site is designated for perennial vegetation of stony banks and vegetated sea cliffs of the Atlantic and Baltic coasts.
- Howth Head Coast SPA (site code 004113), c. 13.2km to the south-east. The site is designated for one species (Kittiwake).
- Howth Head Coast SAC (site code 000202), c. 13.4km to the south-east. The site is designated for vegetated sea cliffs of the Atlantic and Baltic coasts and European dry heaths.
- North Bull island SPA (site code 004006), c. 10.3km to the south-east. The site is designated for 17no. bird species along with wetland and waterbirds.
- North Dublin Bay SAC (site code 000206), c. 10.3km to the south-east. The site is designated for mudflats and sandflats, annual vegetation of drift lines, Salicornia and other annuals colonising mud and sand, salt meadows, embryonic shifting dunes, shifting dunes, fixed coastal dunes, humid dune slacks and Petalophyllum ralfsii.

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- South Dublin Bay and River Tolka Estuary SPA (site code 004024), c. 14.7km to the south-east. The site is designated for 13no. bird species along with wetland and waterbirds.
- **South Dublin Bay SAC** (site code 000210), c. 14.7km to the south-east. The site is designated for mudflats and sandflats, annual vegetation of drift lines, Salicornia and other annuals colonising mud and sand and embryonic shifting dunes.
- Skerries Island SPA (site code 004122), c. 13km to the north-east. The site is designated for 6no. bird species.
- **Rockabill SPA** (site code 004014), c. 14.1km to the north-east. The site is designated for 4no. bird species.
- **Rockabill to Dalkey Island SAC** (site code 003000), c. 8.9km to the north-east. The site is designated for reefs and *Phocoena phocoena* (Harbour Porpoise).
- **Dalkey Island SPA** (site code 004172), c. 22.4km to the south-east. The site is designated for 3no. bird species.
- **River Nanny Estuary and Shore SPA** (site code 004158), c. 19.5km to the north. The site is designated for 6no. bird species and wetland and waterbirds.

Note that the above-listed distances are linear (i.e. 'as the crow flies'). However, there are no realistic or likely pathways between the LAP area and these sites or any other European site, with the exception of the Malahide Estuary SPA and Malahide Estuary SAC. Therefore, only these two sites are considered further in this report.

The Qualifying Interests (QIs) / Special Conservation Interests (SCIs) of the two sites located within the potential zone of influence of the LAP are as follows:

Malahide Estuary SPA

- ☐ Great Crested Grebe (*Podiceps cristatus*) [A005]
- ☐ Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- ☐ Shelduck (*Tadorna tador*na) [A048]
- □ Pintail (*Anas acuta*) [A054]
- ☐ Goldeneye (*Bucephala clangula*) [A067]
- □ Red-breasted Merganser (*Mergus serrator*) [A069]
- □ Oystercatcher (*Haematopus ostralegus*) [A130]
- ☐ Golden Plover (*Pluvialis apricaria*) [A140]
- ☐ Grey Plover (*Pluvialis squatarola*) [A141]
- □ Knot (*Calidris canutus*) [A143]
- □ Dunlin (*Calidris alpina*) [A149]
- ☐ Black-tailed Godwit (*Limosa limosa*) [A156]
- ☐ Bar-tailed Godwit (*Limosa lapponica*) [A157]
- □ Redshank (*Tringa totanus*) [A162]
- □ Wetland and Waterbirds [A999]

Malahide Estuary SAC:

- ☐ Mudflats and sandflats not covered by seawater at low tide [1140]
- □ Salicornia and other annuals colonising mud and sand [1310]
- □ Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
- ☐ Mediterranean salt meadows (Juncetalia maritimi) [1410]
- □ Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]
- ☐ Fixed coastal dunes with herbaceous vegetation (grey dunes)* [2130]

*Indicates a priority habitat under the Habitats Directive

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Mobile species (e.g. light-bellied Brent goose) associated with these sites may also use the Broadmeadow River and associated habitats.

1.4.3 Other designated areas (other than European sites)

Designated sites other than European sites (i.e. designated Natural Heritage Areas (NHA) and Proposed Natural Heritage Areas (pNHA)) within the potential Zone of Influence have been included in this assessment in order to address their potential to act as supporting sites for European sites. There are no NHAs in close proximity to the Lissenhall LAP lands. However, Malahide Estuary pNHA (000205) is located c. 50m to the south and south-east of the LAP lands. Refer to Figure 1.. The NPWS does not provide an online description for the pNHA. However, the site largely overlaps with the Malahide SAC. Other sites included are as follows:

- Natural Heritage Areas (NHA)
 - ☐ Skerries Island NHA (site code 001218), c. 13km north-east.
- Proposed Natural Heritage Areas (pNHA)
 - ☐ Malahide Estuary pNHA (site code 000205), c. 50m south-east;
 - □ Rogerstown Estuary pNHA (site code 000208), c. 2.8km north-east;
 - □ Portraine Shore pNHA (site code 001215), c. 6km north-east;
 - ☐ Feltrim Hill pNHA (site code 001208), c. 3.6km south-east;
 - □ Lambay Island pNHA (site code 000204), c. 11.3km east;
 - □ Sluice River Marsh pNHA (site code 001763), c. 6km south-east;
 - □ Baldoyle Bay pNHA (site code 000199), c. 7.3km south-east;
 - ☐ Ireland's Eye pNHA (site code 000203), c.11.2km south-east;
 - □ Loughshinny Coast pNHA (site code 002000), c. 12.2km north-east;
 - ☐ Howth Head pNHA (site code 000202), c. 13.5km south-east;
 - □ Santry Demesne pNHA (site code 000178), c. 7.8km south-west;
 - □ North Dublin Bay pNHA (site code 000206), c.10.6km south;
 - ☐ Knock Lake pNHA (site code 001203), c. 11km north;
 - ☐ Bog of the Ring pNHA (site code 001204), c. 11.8km north.

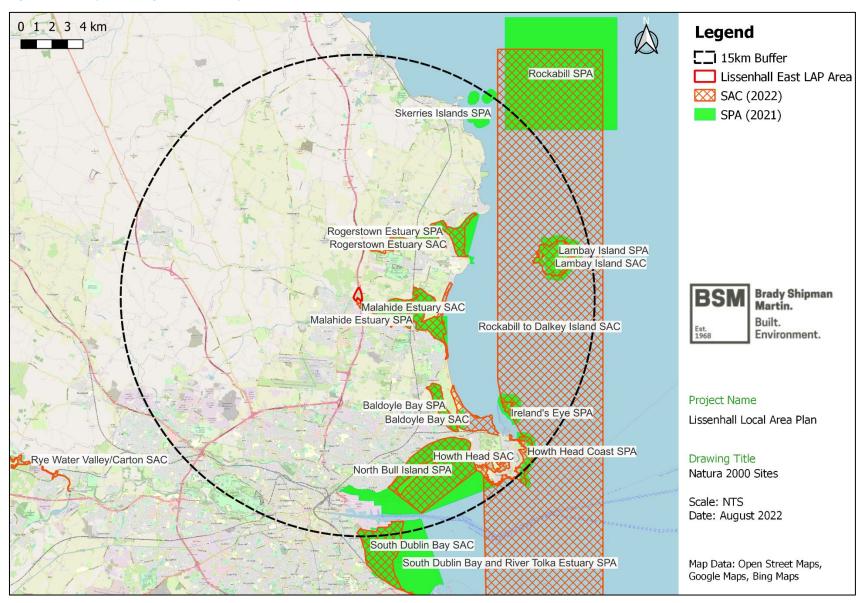
Note that above distances are as crow flies (i.e. linear distances). No impacts are expected on Malahide Estuary pNHA, nor on any other NHA or pNHA in the zone of influence.

Broadmeadow estuary Ramsar site (833) is located c. 150m to the east of the site. The site includes an estuary cut off the sea by a large sand spit. The site includes well-developed saltmarshes, salt meadows, rocky shores, a well-developed outer dune ridge and sand mudflats exposed at low tide. Vegetation consists of a large bed of eelgrass (*Zostera noltii* and *Zostera angustifolium*) and extensive mats of green algae (Enteromorpha spp., *Ulva lactuca*). The estuary is an important wintering site for numerous species of waterbirds. Th Brent goose population is of international importance. The high numbers of diving birds reflects the lagoon-type nature of the inner estuary.

Malahide Shellfish area is c. 6.2km to the east of the LAP boundary and 'All Beds' are classified for bivalave mollusc and species of interest include razor clams. The site has seasonal classification and is classified as Class A (August to January) and then reverts to Class B at other times.

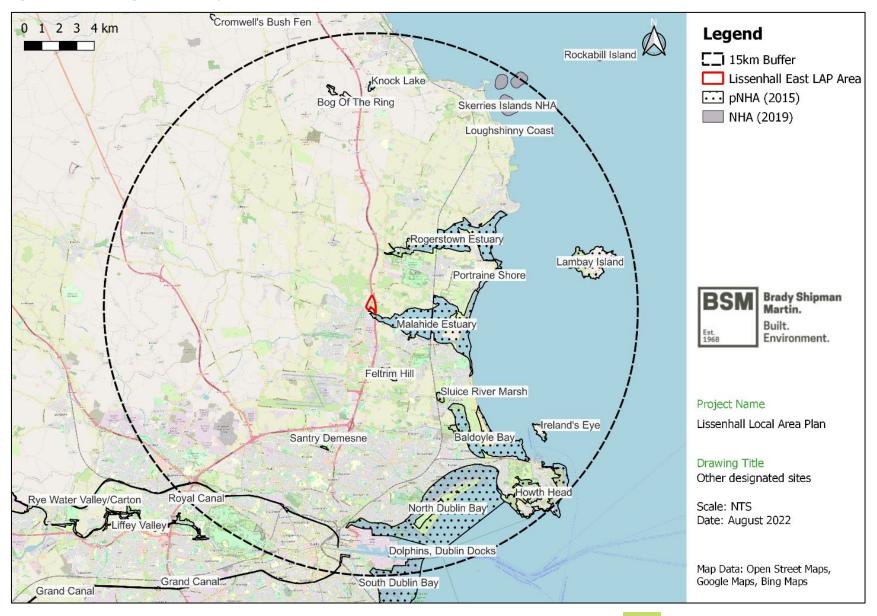
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Figure 1.8 European designated sites adjacent and within 15km to the LAP area.



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Figure 1.9 Other designated sites adjacent and within 15km to the LAP area.



1.4.4 Rare and protected plant species

The NBDC database was consulted with regard to rare species (Curtis & McGough, 1988) and species protected under the *Flora Protection Order* (2015). There are records of 3no. protected species within the 10km grid square (O14) that covers the LAP area, and includes Blue Fleabane (*Erigeron acer*) (threatened species: endangered), Meadow Barley (*Hordeum secalinum*) (threatened species: endangered) and Smooth Brome (*Bromus racemosus*) (threatened species: vulnerable). Blue Fleabane was recorded in 2017, c. 10km to the south-west of the site near Huntstown Quarry.

The Ecology and Green Infrastructure Report (included as Appendix 7 to the LAP) states-

"Historically, meadow barley (Hordeum secalinum) was identified from the surrounding area with a number of records between 1903 to 1960. It has not since been knowingly identified. This is a species which is typically found in clay-rich soils in floodplains and coastal marshes where livestock graze. Given the considerable change in the surrounding landscape agricultural regime of the LAP lands, it is unlikely to occur here.

Smooth brome (Bromus racemosus), which is listed on the Irish Red List as 'Near Threatened', was recorded on the NBDC database from the surrounding area in 2014. However, this record is more than 5km to the south west of the LAP lands and this species was not recorded from suitable habitat within the accessible parts of the LAP lands."

However, none are known to occur within the LAP area.

1.4.5 Invasive Alien Plant Species

The NBDC database was consulted with regard to invasive alien plant species and a few records of invasive plant species within the 10km grid square (O14) that covers the LAP area were noted and include Butterfly bush (Buddleja davidii), Canadian Fleabane (Conyza canadensis), Cherry Laurel (Prunus laurocerasus). Common Cord-grass (Spartina anglica), Evergreen Oak (Quercus ilex), Giant Hogweed (Heracleum mantegazzianum), Himalayan Honeysuckle (Leycesteria formosa), Japanese Knotweed (Fallopia japonica), Russian-vine (Fallopia baldschuanica), Sycamore (Acer pseudoplatanus), Three-cornered Garlic (Allium triquetrum), Wild Parsnip (Pastinaca sativa).

However, during the field surveys no species listed on Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011-2015 were noted on site.

Furthermore, the Ecology and Green Infrastructure Report (included as Appendix 7 to the LAP) states-

"The NBDC notes a number of records of IAPS from the vicinity of the LAP East lands including common cordgrass (Spartina anglica) — a species locally abundant in the estuarine saltmarsh and further upstream along the brackish areas of the Broadmeadow river. Other records include two third schedule species namely; giant hogweed and Japanese knotweed, although neither were recorded from within the study area.

While no third schedule IAPS were recorded during the field surveys, two medium impact species butterfly bush (Buddleia davidii) and sycamore (Acer pseudoplatanus) were noted. Two distinct clumps of the butterfly bush are mapped, whilst the Sycamore which is occasional along the site perimeter and some internal woodland copses. Butterfly bush was not recorded in this area during the ecological walkover survey in August 2022. However, due to access issues the entire area was not covered and therefore it is likely that this species is still present on site."

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1.4.6 Mammals

The surveys undertaken in 2019, 2020 and further in 2022 noted evidence of badger and fox activity towards the north of the site. Evidence of badger activity in terms of prints and trails were noted in the northern part of the site. Other areas where a number of trails (possibly fox and rabbit) were noted included the eastern perimeter of Lissenhall House.

The area along the Ward and Broadmeadow rivers are known for presence of Otters (*Lutra lutra*) and has been confirmed during the survey and also as per the NBDC database and original EIS for Metro North. The area along Broadmeadow river close to the upper stretches of Malahide Estuary has a number of records for otter sightings. However, the lands proposed for development within the LAP are further inland and no evidence of otter activity was recorded within the LAP lands during the surveys undertaken by RPS Group Limited in summer and autumn of 2018. Furthermore, the absence of significant water flow in Staffordstown 08/ Lissenhall stream makes it unsuitable for commute or forage by otters. This was further confirmed by otter surveys undertaken on site during 2020.

Bat surveys were also undertaken on-site during summer 2018 and two bat species were recorded foraging and commuting within the LAP lands during the surveys and includes soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle (*Pipistrellus pipistrellus*).

During the surveys, there was no sightings for any other mammals. As per the NBDC database, there is record of grey squirrel to the south and south-west and of hedgehog to the south-west of the site, however none were sighted during the surveys within the LAP lands.

The Ecology and Green Infrastructure Report (included as Appendix 07 to the LAP) states-

"There was evidence of rabbit, particularly towards the northern half of the site, but no hares were observed. A single grey squirrel was noted alongside Lissen Hall House grounds, outside of the LAP lands."

1.4.7 Birds

A breeding and wintering bird survey was undertaken within the LAP lands during 2017 and 2018. No species listed on Annex I of the Birds Directive were recorded on the LAP lands during breeding bird surveys, however, the survey recorded red listed species yellowhammer along the M1 embankment on the eastern side of the LAP lands. Along the Ward River to the south of the LAP lands species noted included mallard (*Anas platyrhynchos*), grey wagtail (*Motacilla cinerea*) and kingfisher (*Alcedo atthis*).

During the wintering bird survey, no species listed as special conservation interest (SCI) of the Malahide Estuary SPA were noted within the LAP lands.

The Ecology and Green Infrastructure Report (included as Appendix 7 to the LAP) states-

"During the course of the visits over two seasons, there was no evidence of brent geese having used the LAP fields. There were no signs of their characteristic faecal pellets. While three duck were noted flying across the northern tip of the site in a westerly direction, no geese were observed overflying or landing on the site during the course of the surveys.

The proximal area to the LAP lands where brent geese were noted was east of the M1 Motorway bridge which crosses the upper estuary [....].

Golden plover were not recorded at any time from the LAP lands, overflying or grazing. Small flocks were noted interspersed with gulls, terns and geese in upper estuarine areas of the SPA, particularly as the turning tide exposed mudflats."

1.4.8 Aquatic Ecology

Consultations were undertaken with Inland Fisheries Ireland (IFI) and it was noted that the Ward and Broadmeadow act as important salmonid systems as they both support Brown trout population and the Ward supports the Atlantic salmon- an Annex II EU Habitats Directive Species. The Ward River flows into the Broadmeadow River prior to discharging to the Malahide Estuary, and neither of these rivers is directly impacted by the proposed LAP lands. Further, IFI noted that the Staffordstown 08 / Lissenhall stream is a narrow watercourse which crosses the LAP lands, starts upstream of the LAP lands, flows under the M1 motorway at the eastern side of the LAP lands and discharges into Malahide Estuary at Seapoint and is classified as non-salmonid due to agricultural pressure, extensive culverting and urbanisation. The visual assessment of the Lissenhall stream during 2018 noted that within the LAP lands the stream was dry with little water during the summer season, however, during the winter visits in 2019 and 2020 improved flow was noted due to connectivity to seasonally wet ground in the flood zone to the east of the site.

1.4.9 Other species

During the surveys, marsh fritillary (Habitats Directive Annex II species) was not recorded. No evidence of frogs were found on site during the survey.

1.5 Screening for Appropriate Assessment - Summary

According to the draft Guidance published by the European Commission (*Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*, 21st November 2018) the "integrity of a site" relates to the site's conservation objectives. For example, it is possible that a plan or project will adversely affect the site only in a visual sense or only affect habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for the purposes of Article 6(3). If none of the habitat types or species for which the site has been designated is significantly affected then the site's integrity cannot be considered to be adversely affected.

In addition, plans or projects or applications for developments which have "no appreciable effect" on the protected site are excluded from the requirement to proceed to appropriate assessment⁴ (Opinion of Advocate General Sharpston in *Sweetman*, para. 48).

In other words, if, following Screening, there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of Article 6(3) of the Habitats Directive.

Given the location of the LAP area at Lissenhall East, as well as its nature and scale, and connections to services including water supply and surface water/foul infrastructure, it is possible to rule out potential significant adverse effects arising out of the development on most European sites (i.e. sites with no pathway to the LAP area).

These sites are at such a distance from the LAP site that there would not be any significant effects on them as a result of:

- Habitat loss and/or fragmentation;
- Impacts to habitat structure;
- Disturbance to species of conservation concern;
- Mortality to species (such as roadkill);
- Noise pollution;

⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62011CC0258

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- Emissions to air;
- Emissions to water.

European sites not connected to the LAP lands can be screened out (Appropriate Assessment Screening) and they are not considered any further in this report

However, the LAP is not connected with or necessary for the management of a European site, and has the potential to have significant impacts on two European sites:

- Malahide Estuary SAC;
- Malahide Estuary SPA.

Table 1.1 Relevant Natura 2000 sites, reasons for designation and further assessment

European site (site	Reasons for designation (information correct as of August 2022)	Source-pathway-receptor
code)		
Special Areas of Cons	ervation	
Malahide Estuary SAC (000205)	 [1140] Mudflats and sandflats not covered by seawater at low tide [1310] Salicornia and other annuals colonising mud and sand [1320] Spartina swards (Spartinion maritimae) [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1410] Mediterranean salt meadows (Juncetalia maritimi) [2120] Shifting dunnes along the shoreline with Ammophila arenaria (white dunes) [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)* *indicates a priority habitat under the Habitats Directive 	There is a potential link between the LAP Area and the SAC, specifically the habitat and species Qualifying Interests for which the site is designated, via disturbance (human activity) and emissions to water and air during construction and operation. There is no potential for habitat loss within the SAC.
	According to the SAC's Natura 2000 information (updated 10-2020) the site is situated in north Co. Dublin, between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct, built in the 1800s, crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well sheltered from the sea by a large sand spit, known as the island. This spit is now mostly converted to golf-course though some sand dunes and salt marshes remain. A section of bedrock shore extending towards Portmarnock is included as it represents the only continuous section through the fossiliferous Lower Carboniferous rocks in the Dublin Basin, and is the type locality for several species of fossil coral.	
	The site has an important example of intertidal sand and mud flats, with Zostera spp. Their quality is variable but generally good. Salt marshes are well represented, particularly Atlantic salt meadows and Salicornia flats. Most of the sand dune system is managed for a golf course but significant areas of fixed dunes and shifting white dunes remain. The site has <i>Viola</i>	

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European site (site	Reasons for designation (information correct as of August 2022)	Source-pathway-receptor
code)	,	
Special Protection Are		
Malahide Estuary SPA (004025)	 A005 Great Crested Grebe (Podiceps cristatus) A046 Brent Goose (Branta bernicla hrota) A048 Shelduck (Tadorna tadorna) A054 Pintail (Anas acuta) A067 Goldeneye (Bucephala clangula) A069 Red-breasted Merganser (Mergus serrator) A130 Oystercatcher (Haematopus ostralegus) A140 Golden Plover (Pluvialis apricaria) A141 Grey Plover (Pluvialis squatarola) A143 Knot (Calidris canutus) A149 Dunlin (Calidris alpina alpina) A156 Black-tailed Godwit (Limosa limosa) A157 Bar-tailed Godwit (Limosa lapponica) A162 Redshank (Tringa tetanus) A999 Wetlands According to the SPA's Natura 2000 information (updated 10-2021) the SPA is situated in north Co. Dublin, between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct, built in the 1800s, crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well-sheltered from the sea by a large sand spit, known as 'the island'. This spit is now mostly converted to golf-course. The outer part empties almost completely at low tide and there are extensive intertidal flats. Salt marshes occur in parts of the outer estuary and in the extreme inner part of the inner estuary. The site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It has an internationally important population of Branta bernicla hrota (4.8% of national total), and nationally important populations of a further 12 species. Of particular note are the populations of Tadorna tadorna (3.0% of national total), Anas acuta (2.9% of national total), Mergus serrator (2.8% of national total), Pluvialis squatarola (2.7% of national total) and Calidris canutus (3.7% of national total). The site is one of the few in eastern Ireland where substantial numbers of Bucephala clangula occur. It has a regionally	There is a potential link between the LAP area and the SPA, specifically the Special Conservation Interests for which the site is designated, via disturbance (human activity) and emissions to water and air during construction and operation. There is no potential for habitat loss within the SPA.

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European site (site	Reasons for designation (information correct as of August 2022)	Source-pathway-receptor
code)		
	Philomachus pugnax. It supports a regular flock of non-breeding Cygnus olor.	

Applying the precautionary principle therefore, and in accordance with Article 6(3) of the Habitats Directive, Stage 2 Appropriate Assessment is required.

2 Natura Impact Report

2.1 Introduction

As set out in Section 1.5, the implementation of the LAP has the potential to impact on two European sites, the Malahide Estuary SPA and the Malahide Estuary SAC.

In Stage 2, Appropriate Assessment, is necessary to determine whether the LAP for Lissenhall East would result in *significant adverse impacts on the integrity of any European site* with respect to the site's structure, function, and/or conservation objectives.

These potential adverse effects may arise either alone or in-combination with other plans or projects.

The Lissenhall East LAP is an overarching plan that will guide the future development of the Lissenhall East lands in line with national and local policy and is driven by sustainability. Nevertheless, as set out in the preceding sections, there is the potential that the implementation of the LAP could lead to pollution or other impacts on water quality and/or disturbance to key species via increased human activity, or via construction.

It is not expected that there will be any direct <u>reduction of habitat area</u>, or any <u>loss of habitat</u> within any European site. However, any development works adjacent to the Broadmeadow River and Staffordstown 08 / Lissenhall Stream, have the potential to cause habitat loss or a reduction in habitat / water quality, with indirect effects on the European sites themselves. Similarly no works are expected within any European sites that would lead to <u>fragmentation</u> (breakup) of habitats, resulting in impacts on site integrity. No works are proposed that would interfere with integrity of the breeding sites in Malahide Estuary SPA or degrade any habitats associated with Malahide Estuary SAC.

There is the possibility of <u>disturbance to key species</u> arising as a result of the implementation of the LAP. In the case of the European sites this particularly applies to special conservation interest of the Malahide Estuary SPA, species which are sensitive to disturbance from noise, light, vibration and other construction activities including inappropriately timed works, as well as from recreational and amenity activity. Estuaries and coastal sites such as Malahide Estuary rely on large quantities of sediment to function, however, they are prone to contamination risk due to surface water runoffs during construction. Although no works are expected within the European sites themselves, any works near the Malahide Estuary could lead to disturbance of these species.

There is the possibility of changes to key indicators of conservation value arising as a result of the implementation of the LAP, should water quality be affected in any way. There are potential pathways between the LAP area and the Malahide Estuary, via the Broadmeadow River and Staffordstown 08 / Lissenhall Stream. Implementation of the LAP may result in changes to the hydrological regime. The potential for run off of silt and other pollutants may arise from development works within the plan area. Any pollution-related impacts on the qualifying interest of the SAC or the special conservation interest of the SPA could adversely affect the integrity of the sites. Also, the presence of Malahide Shellfish area downstream of the Malahide Estuary in the Irish Sea, highlights the importance of maintaining good water quality in the Malahide Estuary.

2.2 Potential impacts from the LAP, including in-combination effects

2.2.1 Is the LAP necessary for the management of European sites?

As set out in the Habitats Directive, plans that are directly connected with or necessary to the management of a European site do not require Appropriate Assessment. Management in this context means management for nature conservation and the qualifying interests of the European site, specifically the conservation objectives

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– to maintain or restore the favourable conservation condition of the habitats and species for which the site has been selected.

While the LAP has regard to sustainability and climate action, and has been developed with biodiversity and sustainability as core elements, its purpose is to develop a location for high technology and advanced manufacturing, major office and research area. It is rooted in national and local planning policy, however, its primary purpose is not the nature conservation management of the sites, but to provide for development.

The LAP promotes public transport usage, walking and cycling, implementation of energy efficiency in site layout and building design, the use of renewable energy sources, surface water management and protection and integration of natural features including trees, hedgerows and existing flood plains to mitigate the effects of climate change. The LAP also aims to integrate green infrastructure (including open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, natural heritage and the open countryside) and nature-based solutions (including green roofs, tree pits, rain gardens and green walls) into the development of the LAP lands.

As per the *Fingal Biodiversity Action Plan 2022 - 2030*, the LAP lands are located directly outside the buffer zone for Malahide Estuary. The LAP is not directly connected with or necessary to the management of European designated sites.

2.2.2 Are there elements of the LAP with potential to give rise to significant effects on European sites?

As set out in the LAP, the primary land use will be for a high quality business campus development, comprising a range of office, research, development and high technology manufacturing type uses. It will also include ancillary retail, café and other service facilities to support the local working community (and may include childcare facilities, gym, retail, concierge service, and café / sandwich bar, management offices, etc), hotel use to complement the office, research and development uses, telecommunications, utility and services infrastructure if / as required, open space, public walkway areas, cycling infrastructure, improved access to the lands and attenuation ponds and SuDs measures.

The LAP envisions a campus-style office development within a parkland setting with individual office buildings around the perimeter. The park creates the sense of place with the buildings orientated towards this. Initial development of the LAP lands will focus on the western boundary and the central area of the overall LAP land followed by potential subsequent development on the remaining lands.

The plan details that the main vehicular access into / out of the lands will be via a signalised junction that will align with the proposed Swords Western Distributor Road. The plan aims to facilitate strong pedestrian and cyclist connections through the site and onwards to Estuary Station, the Broadmeadow River and Swords Main Street.

A central open space is proposed as a key green infrastructure feature. The open space area shall include existing woodland and the surrounding area landscaped to provide a high quality and useable open space for employees and visitors in including seating / eating areas. The attenuation for flooding and surface water run off associated with development of the LAP lands shall be integrated with the proposed central water feature within the central urban park.

It is proposed to use a SUDS approach to storm-water management throughout the LAP lands. SUDS implementation aims to provide an effective system to mitigate the adverse effects of urban stormwater runoff on the environment by reducing runoff rates, volumes and frequency, reducing pollutant concentrations in stormwater, contributing to amenity, aesthetics and biodiversity enhancement and allowing

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for the maximum collection of rainwater for re-use where possible. SUDS features will aim to replicate the natural characteristics of rainfall runoff by providing control of run-off at source.

The LAP, if implemented, will provide a high quality business campus development, designed with sustainability as a priority. Nevertheless, in order to implement the LAP significant new development will be required, on a phased basis, over several years. Any such development has the potential to give rise to impacts on European sites, via demolition and construction, habitat loss/replacement (both temporary and permanent), increased risk of pollution of surface water and, potentially disturbance due to an increase in human activity in the vicinity of European sites.

All objectives and policies of the Lissenhall East LAP were reviewed and assessed in terms of their potential to result in negative effects on the conservation status of the Malahide Estuary SAC and Malahide Estuary SPA. The objectives and policies of the Plan that have the potential to result in negative effects on the Malahide Estuary SAC and Malahide Estuary SPA are identified in Appendix 2.

Table 2.1 below summarises the objectives of the Lissenhall East LAP, as listed in Appendix 2, that have been identified as having the potential to result in potential adverse effects. Table 2.1 also summarises the potential for impacts resulting from the LAP's strategic vision, vision and guiding principles.

2.2.2.1 Direct, indirect or secondary impacts?

None of the actions in the LAP require any land take from any European site, and there are no resource requirements from any European site as a result of any of the actions contained within the LAP area.

No European sites are located either within the LAP lands, however at its closest point – the south corner of the LAP lands is c.50m to the Malahide Estuary SAC and c.60m to the Malahide Estuary SPA. Due to this proximity there is a potential pathway between the LAP lands and these protected sites via the Staffordstown_08 / Lissenhall Stream that traverses the northern part of the LAP lands and drains into the Malahide Estuary. The Broadmeadow_040 River flows adjacent to the southern boundary of the LAP lands and also discharges into the Broadmeadow Estuary / Malahide Estuary.

Any development related to the LAP has the potential to impact on the qualifying interests of Malahide Estuary SAC, should it result in any reduction in water quality. Development could, for example, lead to siltation, sedimentation and contamination or pollution of the Staffordstown_08 / Lissenhall Stream or the Broadmeadow River. Any such pollution could adversely affect the habitats and species listed as qualifying interests in the SAC, many of which rely on good water quality. Also, during the construction phase there is potential for an increase in run-off due to compaction of the soil which will in turn reduce the infiltration capacity and increase the rate and volume of surface water run-off. This can increase surface water run-off and sediment loading which has potential to impact the local drainage and in turn the Malahide Estuary downstream.

It is proposed that a new foul sewer will connect the LAP lands to the public foul sewer system discharging at Swords Waste Water Treatment Plant (WWTP) located south of Broadmeadow River. Hence, there is also a potential indirect hydrological pathway between the proposed LAP lands and the Estuary, via the municipal wastewater drainage and treatment network, which features overflow arrangements and discharges treated effluent from Swords WWTP to the Estuary / Sea. Foul water management could thereby have a potential impact on the waters of the Estuary / Sea.

Bird species listed as special conservation interest of the Malahide Estuary SPA may be sensitive to disturbances arising as a result of any proposed development. Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due

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to noise, vibration, air quality, and disturbance due to human activities. In addition there is a potential risk to flora and fauna arising from dust deposition, which in extreme cases can inhibit photosynthesis in plants and can increase turbidity in watercourses. The lighting facilities for the LAP lands could also have potential to impact the bats, badgers and bird species.

2.2.3 Other plans or projects

It is a requirement of Article 6(3) of the Habitats Directive that when considering whether a plan or project will adversely affect the integrity of a European site the assessment must take into account in-combination effects with other current or reasonably foreseeable plans and projects.

If it can be clearly demonstrated that the plan or project will not result in any impact on the integrity of a European site then the plan or project should proceed without considering the in-combination test; further, If there are identified effects arising from the plan or project even if they are perceived as minor and not likely to have an impact on the integrity of a European site alone, then any such impacts must be considered 'incombination' with the effects arising from other plans and projects.

As noted in Section 1.3 of this Natura Impact Report, the *Fingal Development Plan 2017-2023* and the *Draft Fingal Development Plan 2023-2029*, already provides for land use, zoning and objectives for the Lissenhall area. The development plan also includes a specific objective (Objective SWORDS 27) to prepare a local area plan for the Lissenhall area. It is noted that during its preparation, the *Fingal Development Plan 2017-2023*, including the Lissenhall area, was subject to full SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA).

All projects within the Plan area and receiving environment will be considered in combination with any and all lower tier projects that may arise due to the implementation of the Plan. This includes the potential for other pollution sources within the Nanny Delvin WFD catchment and any other catchments that also drain to the Broadmeadow Estuary / Malahide Estuary to cumulatively affect water quality in the receiving aquatic environments.

This includes the other local area plans referenced in the Fingal Development Plan 2017-2023, such as Oldtown / Mooretown, Cherryhound, Kilmartin, Kellystown, Barnhill, Navan Road Parkway, Kenure, Hacketstown, Rowan's Little, Lissenhall, Dublin Airport, Cloghran, Turnapin, Dardistown, Rivermeade and Navan Road Parkway Local Area Plan and the Draft Fingal Development Plan 2023-2029 namely Flemington, Coolquay, Balscadden, Ballymadun and Belcamp Local Area Plans. Fingal County Council has adopted local area plans for Rivermeade, Barnhill, Dublin Airport and Kellystown, as well as Portmarnock South and Baldoyle - Stapolin.

The potential for in combination effects to arise in the Malahide Estuary from any existing or proposed land use plans or developments is regulated and controlled by the environmental protection policies and objectives of the *Fingal Development Plan 2017-2023* and *the Draft Fingal Development Plan 2023-2029*. All the local area plans cited above will be subject to Appropriate Assessment as part of their preparation.

The LAP and this Natura Impact Report have had full regard to the *Fingal Development Plan 2017-2023* and the *Draft Fingal Development Plan 2023-2029*. It has also had regard to EU Environmental Directives and National Planning and Environmental policy, as well as local plans and programmes including the following:

- National Planning Framework;
- National Development Plan (2018-2027);
- Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region (EMRA) (2019 2031);
- Greater Dublin Strategic Drainage Study;

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- Greater Dublin Transport Strategy;
- Greater Dublin Area Cycle Network Plan;
- River Basin Management Plan 2018-2021;
- Fingal Biodiversity Action Plan 2022 2030;
- Draft Noise Action Plan for Fingal County 2019-2023;
- Swords Masterplan 2019.

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Table 2.1 Summary list of Objectives from the LAP with potential to result in adverse effects to Malahide Estuary SAC and SPA

Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA
Strategic Vision		
	Facilitate opportunities for high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide
Vision Statement	To establish a location for high end, high quality value-added businesses, blending sustainable urban design and architecture with nature to create a distinct, enjoyable sense of place.	It is proposed that a new foul sewer will connect the LAP lands to the public foul sewer system discharging at Swords Waste Water Treatment Plant (WWTP) located south of Broadmeadow River. Hence, there is also a potential indirect hydrological pathway between the proposed LAP lands and the estuary, via the municipal wastewater drainage and treatment network, which features overflow arrangements and discharges treated effluent from Swords WWTP to the Estuary / sea. Foul water management could thereby impact the waters of the Malahide Estuary/ Irish Sea. Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.
Parks, Open Space and F	Recreation Objectives	,
Objective PO3- Open Space and SuDS	The open space provision will include surface water management [SuDS] and Nature Based Solutions (NBS) in line with the requirements of the Development Plan and best practice.	The objective will have positive effects on biodiversity. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River.

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA		
		Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.		
		Construction works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.		
Sustainable Water Mana	agement			
Objective SW5 — Attenuation Pond Areas	The new surface water drainage networks should discharge at the proposed attenuation pond areas. Pond(s) should be constructed in the central eastern area close to the location of the culvert which drains under the M1. Attenuation volumes should be incorporated in the design of the pond(s).	The objective will have positive effects on biodiversity. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary. Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.		
Infrastructure and Servi	ces			
Objective IS2 – New Foul Sewer	Provide a new foul sewer to connect the LAP lands to the public foul sewer system discharging at Swords WWTP.	The objective will have positive effects on the environment. However, given the scale of works there is potential for uncertain negative		
Objective IS3 – Pumping Station	Provide a pumping station with 24-hour emergency storage capacity.	effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential indirect hydrological pathway between the proposed LAP lands and the estuary, via the municipal wastewater drainage and treatment network, which features overflow arrangements and discharges treated		

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	
		effluent from Swords WWTP to the sea. Foul water management could thereby impact the waters of the Dublin Bay/ Irish Sea.	
		Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.	
Objective IS5 – Gas and Electricity	Facilitate the provision of an adequate supply of electricity and gas to developments in the plan area, to the requirements of the relevant	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	
·	service provider and in accordance with the principles of proper planning and sustainable development. All future ESB services shall be undergrounded.	There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream an Broadmeadow River. Any contamination arising through poor working	
Objective IS7 — Telecommunications Infrastructure	Facilitate the provision of adequate telecommunication infrastructure within the plan area, including telephone and broadband services, to the requirements of the relevant services providers and in accordance with the principles of proper planning and sustainable development.	practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.	
Objective IS6 – Strategic Telecommunications	Ensure that strategic telecommunications including fibre optic broadband links is provided for the Initial Development Area, in a manner that can be extended to service future development of the wider LAP lands in the future.	Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.	
Movement and Transpor	tation		
Objective MT3 – Improvements along the R132 Frontage	 Ensure proposals for improvements along the R132 frontage integrate with existing public transport services as well as future services such as BusConnects and MetroLink to include: Improved bus facilities on the R132 including sheltered stops. Provide for the upgrade of pedestrian and cycle infrastructure on the R132 bordering the LAP lands. As existing sites / businesses come forward for extension and or redevelopment applicants will need to sufficient space along the boundary for such upgrades. 	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.	

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA			
Objective MT5 – Junction with R132	Require the junction design to integrate and align with proposals for the R132 regional road, the future Western Distributor Road and MetroLink.	Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential			
Objective MT6 – New Access Junction	Ensure the design of the new access junction to the lands from the R132 is capable of enhanced pedestrian and cycle connectivity across the R132 to link with a future MetroLink Estuary Stop and MetroLink Park and Ride.	impacts include habitat degradation as well as disturbance to habitate species and ecosystem dynamics due to noise, vibration, air quality, demissions, disturbance due to human activities and lighting.			
Objective MT8 – Internal Pedestrian and Cycle Routes	Facilitate the delivery of a new north-south combined pedestrian / cyclist route through the LAP lands; linking the main access on the R132, Development Area No. 1 with the laneway to the south the eastern boundary of the food logistics park and Lissenhall.	The protective environmental nature of the objective will have positive effects on the environment. However, given the scale of works there potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.			
Objective MT9 — Cycling Facilities	All development proposals within the LAP shall be required to demonstrate provision of high-quality cycle facilities for employees, to include secure bike parking facilities, and changing and shower facilities to incentivise sustainable transport. Cycle facilities shall comply with the National Cycle Manual and shall be designed in accordance with best practice.	There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.			
		Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.			
Objective MT10 – Parking Strategy	Require a parking strategy to be agreed with the Council prior to commencement of development; addressing the short, medium and	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.			
Turking strucesy	long-term parking requirements having regard to the delivery of public transport.	There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.			
		Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential			

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA
		impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust emissions, disturbance due to human activities and lighting.
Development Frame	ework	
Objective DF1 Objective DF4	Applications for development proposals shall have regard to the detailed requirements set out in Sections 11.3 to Section 11.7 of this Draft Local Area Plan. The overall Design Statement should show how the proposal generally	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA. There is a potential surface water pathway between the LAP lands and the Malahide Estuary via Staffordstown_08 / Lissenhall stream and
	demonstrates/provides for: a. Building layout and design which maximises daylight, natural ventilation, active transport and public transport use;	Broadmeadow River. Any contamination arising through poor working practices, leakages or accidental spillage of materials during the lifetime of the LAP has potential to impact local watercourses and thereby Malahide Estuary.
	 b. Sustainable building/services/site design to maximise energy efficiency; c. Sensitive energy efficiency improvements to existing buildings; d. Energy efficiency, energy conservation, and the increased use of 	It is proposed that a new foul sewer will connect the LAP lands to the public foul sewer system discharging at Swords Waste Water Treatment Plant (WWTP) located south of Broadmeadow River. Hence, there is also a potential indirect hydrological pathway between the proposed LAP lands and the estuary, via the municipal wastewater drainage and treatment
	renewable energy in existing and new developments; e. On-site renewable energy infrastructure and renewable energy; f. Minimising the generation of site and construction waste and	network, which features overflow arrangements and discharges treated effluent from Swords WWTP to the Estuary / sea. Foul water management could thereby impact the waters of the Dublin Bay/ Irish Sea.
	maximising reuse or recycling; and g. The use of construction materials that have low to zero embodied energy and CO2 emissions.	Construction and operational works have the potential for indirect impacts on the Natura 2000 sites and their qualifying features of interest. Potential impacts include habitat degradation as well as disturbance to habitats, species and ecosystem dynamics due to noise, vibration, air quality, dust
Objective DF6	All proposals for the Initial Development Area will be required to submit an infrastructure masterplan showing how the proposed development will be serviced and how the infrastructure extended to service the future development of the LAP lands.	emissions, disturbance due to human activities and lighting.

2.3 Conservation objectives, threats and vulnerabilities of the European Sites

A key aim of the Habitats Directive is to 'maintain or restore the favourable conservation status of habitats and species of community interest'. Site-specific conservation objectives aim to define favourable conservation condition for particular habitats or species within a European site. In the case of European sites for which site-specific conservation objectives have not yet been prepared, generic conservation objectives have been provided by NPWS.

The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

Site specific conservation objectives for **Malahide Estuary SAC** were published on 27 May 2013 (Version 1.0). The conservation objectives are:

- To maintain the favourable conservation condition of each of the Qualifying Interests (habitats), as defined by the range of attributes and targets set out;
- The attributes include habitat area, habitat distribution, community extent, community structure, community distribution, physical structure (sediment supply, creeks and pans, flooding regime), vegetation structure (zonation, vegetation height, vegetation cover, typical species and sub-communities, negative indicator species, plant health of dune grasses, bare ground, sward height,)
- For each attribute the target as set out in the Conservations Objectives document is to maintain the existing conditions.

Site specific conservation objectives for Malahide Estuary SPA were published on 16 Aug 2013 (Version 1.0). The conservation objectives are:

- To maintain the favourable conservation condition of each of the Special Conservation Interests (the bird species and the wetland habitat), as defined by the range of attributes and targets set out;
- The attributes include population trend and distribution (bird species) as well as the wetland habitat;
- For each attribute the target as set out in the Conservations Objectives document is as follows:
 - □ Population trend: the long term population should be stable or increasing;
 - □ <u>Distribution</u>: There should be no significant decrease in the range, timing or intensity of use of areas by waterbird species of Special Conservation Interest other than that occurring from natural patterns of variation;
 - □ <u>Wetland habitat</u>: The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 765ha, other than that occurring from natural patterns of variation.

2.4 Mitigation measures

Despite the fact that the Lissenhall East LAP has been designed with a focus on sustainability and environmental quality, it cannot be demonstrated with certainty that there will be no adverse effects arising as a result of the implementation of the LAP. Therefore, mitigation measures are required, which are consistent with the requirements of the *Fingal Development Plan 2017-2023* and the *Draft Fingal Development Plan 2023-2029* and with the Lissenhall East Draft Strategic Environmental Assessment – Environment Report.

All development projects arising from the Lissenhall East LAP will be subject to Appropriate Assessment Screening. If necessary, applications for development within the LAP area will be accompanied by a Natura Impact Statement. Permission for development will only be granted if the Competent Authority is satisfied that the proposed development will not have any significant effects on a European site (at screening stage),

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or that the proposed development will not give rise to significant adverse effects on the integrity of a European site (following Appropriate Assessment), taking project-specific mitigation measures into account.

No projects will be permitted that could give rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects, either individually or in combination with other plans or projects.

All development proposals will have regard to the ecological sensitivity of the overall LAP area, particularly features that have the potential to act in support of the European sites. All construction works will be required to have regard to all relevant guidelines such as Inland Fisheries Ireland's *Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters* (2016) when construction works are being planned or carried out.

All development proposals will incorporate measures to ensure that water is managed appropriately, both during construction and operation, with sustainable urban drainage systems (SuDS) a key part of every development.

The Lissenhall East LAP comes under the *Fingal Development Plan 2017-2023* (and the *Draft Fingal Development Plan 2023-2029*) in the planning and development hierarchy. As such all development proposals arising will be required to comply with the relevant policies and objectives of the Development Plan. Section 4.9 of the Natura Impact Report prepared for the *Fingal Development Plan 2017-2023* and Section 8 of the Natura Impact Report prepared for the *Draft Fingal Development Plan 2023-2029* includes measures intended to mitigate against potential effects on European sites. Such measures that may be applied to the implementation of the LAP include requirements to ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Other measures include those related to sustainability, green infrastructure, connectivity and movement, climate resilience, protected habitats and species, biodiversity protection outside of designated areas, green infrastructure, hedgerows, wetlands, pollinators, lighting, flooding, water quality and air quality.

As detailed in the Site Specific Flood Risk Assessment (SSFRA) prepared in respect of the LAP, there are areas of Flood Zone A and flood Zone B within the LAP boundaries. The Initial Development Area of the LAP has been identified as lying predominantly within Flood Zone C. However, future development lands have been identified as containing Flood Zones A and B. Some areas may be in areas sensitive to increases flood extents due to climate change therefore their finished floor levels will be set at 0.5m above the flood zone levels.

Nevertheless, for development units located within Flood Zone C, but adjoining or in close proximity to Flood Zone A or B there could be a risk of flooding associated with factors such as future scenarios (climate change). Development of the LAP lands will incorporate a network of SuDS measures into storm-water management throughout the LAP lands. SUDS features will aim to replicate the natural characteristics of rainfall runoff by providing control of run-off at source.

The LAP has been informed by the sensitivities of the receiving environment as identified both in this NIR and in the SEA Environmental Report. Various characteristics of the LAP proposals that will have the effect of avoiding and / or minimising potential adverse environmental effect comprise the following:

- All habitats will be protected appropriately according to their ecological value including retention, protection and enhancement of existing woodland and hedgerows, where possible;
- Native species shall be integrated into new development and will be consistent with species found locally. Planting of riparian buffer zones will be required where development interacts with the Lissenhall Stream;

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- The LAP promotes linkages between the Lissenhall East LAP lands and the other green infrastructure elements in and around Swords. The main public open space provision within the LAP lands themselves will be centrally located, and facilitate future connections to the wider LAP area and adjoining lands to the south at Broadmeadow. The mature tree stand and wooded areas, will form an important element of the open space while also providing for higher levels of biodiversity for the LAP lands;
- The LAP facilitates sustainable approach to water management and in doing so enhances biodiversity, recreation and local character. This will be achieved by incorporating a variety of measures including an attenuation pond, swales and landscaped areas;
- The proposed SuDS Strategy for the Lissenhall East LAP implements a Management Train whereby runoff will pass through a series of SuDS techniques prior to outfall. Each technique will provide different treatment processes settlement, filtration, removal of nutrients, removal of heavy metals and biological treatment through vegetation;
- The LAP focuses on the retention and supplementation of key landscape features such as mature trees, hedgerows, water features and boundary treatments.
- The LAP proposals will promote sustainable mobility and reduce through traffic, thereby minimising environmental effects (including greenhouse gas emissions, noise and air quality impacts) associated with vehicles with internal combustion engines;

The Lissenhall East LAP sits at a lower level in the planning and development hierarchy than the *Fingal Development Plan 2017-2023* and the *Draft Fingal Development Plan 2023-2029*. The LAP has been prepared in accordance with the policies and objectives contained in the Development Plan, as well as the measures set out in the corresponding Natura Impact Report (NIR), SEA Environmental Report / Statement and Strategic Flood Risk Assessment (SFRA).

Furthermore a number of mitigatory Objectives are included throughout the various sections of the LAP to ensure that the Plan affords protection to European Sites against specific policies and objectives that could otherwise result in likely significant effects. Table 2.1 lists the objectives of the LAP for which potential for an uncertain / negative environmental effects on the Malahide Estuary SAC / SPA has been identified. For each objective appropriate mitigation has been identified to ensure that the objective does not adversely affect the Natura 2000 sites. Refer to Table 2.2.

Potential impacts on habitat area, habitat distribution, physical structure, vegetation structure and vegetation composition, due to scouring, erosion, pollution, sedimentation, urbanisation, human intrusion, spread of invasive species or loss of or damage to Qualifying Interest habitat will be avoided by appropriate construction and water management measures and other mitigation measures as set out in Table 2.2. Together, these measures will also ensure that the attributes and their respective targets defined as part of the conservation objectives for the SPA, will not be impacted upon by the proposed development.

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Table 2.2 Summary list of Objectives from the LAP with potential to act as mitigatory measures for any adverse effects to Malahide Estuary SAC and SPA

Description of objectives with potential to negatively impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigatory objectives of the Lissenhall East LAP
Facilitate opportunities for high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity.	The LAP includes a Strategic Flood Risk Assessment (SFRA) and sustainable drainage strategy (Appendices 03 and 04), a Transport Assessment (Appendix 05) and Ecology and Green Infrastructure Report (Appendix 07). These assessments have influenced the preparation of the Draft and Final LAP and have provided for sustainable management of the water regime, for protection of the transport network and for the incorporation of existing flora and fauna, together with sustainable development of the lands.
	The LAP includes the following objectives which will mitigate these potential
To establish a location for high end, high quality value-added businesses, blending sustainable urban design and architecture with nature to create a distinct, enjoyable sense of place.	uncertain or negative environmental effects. Biodiversity objectives BI1 to BI10; Parks, Open Space and Recreation objective PO4; Sustainable Water Management objectives SW1 to SW12; Landscape objectives L1 to L4; Infrastructure and Services objective IS1; Movement and Transport objectives MT1, MT11; and Development Framework objectives DF1 and DF3 to DF7.
· · · · · · · · · · · · · · · · · · ·	
The open space provision will include surface water management [SuDS] and Nature Based Solutions (NBS) in line with the requirements of the Development Plan and best practice.	The LAP includes the following protective objective which will mitigate the potential uncertain or negative effects on the Malahide Estuary SAC and Malahide Estuary SPA: Biodiversity objectives BI1 to BI7, BI10; Parks, Open Space and Recreation objective PO4; Sustainable Water Management objectives SW1 to SW12; Landscape objectives L1 to L4; Development Framework objectives DF1, DF3, DF4, DF7.
	Facilitate opportunities for high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high quality, value added businesses and corporate headquarters. An emphasis on exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity. To establish a location for high end, high quality value-added businesses, blending sustainable urban design and architecture with nature to create a distinct, enjoyable sense of place. Recreation Objectives The open space provision will include surface water management [SuDS] and Nature Based Solutions (NBS) in line with the requirements of the

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Objective	Description of objectives with potential to negatively impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigatory objectives of the Lissenhall East LAP
Objective SW5 — Attenuation Pond Areas	The new surface water drainage networks should discharge at the proposed attenuation pond areas. Pond(s) should be constructed in the central eastern area close to the location of the culvert which drains under the M1. Attenuation volumes should be incorporated in the design of the pond(s).	The LAP includes the following protective objective which will mitigate the potential uncertain or negative effects on the Malahide Estuary SAC and Malahide Estuary SPA: Biodiversity objectives BI1 to BI7, BI10; Parks, Open Space and Recreation objective PO4; Sustainable Water Management objectives SW1 to SW4 and SW6 to SW12; Development Framework objectives DF1, DF3, DF4, DF7.
Infrastructure and Servic	es es	
Objective IS2 – New Foul Sewer	Provide a new foul sewer to connect the LAP lands to the public foul sewer system discharging at Swords WWTP.	The LAP includes the following protective objective which will mitigate the potential uncertain or negative effects on the Malahide Estuary SAC and Malahide Estuary SPA:
Objective IS3 – Pumping Station	Provide a pumping station with 24-hour emergency storage capacity.	Biodiversity objectives BI1 to BI10;
Objective IS5 – Gas and Electricity	Facilitate the provision of an adequate supply of electricity and gas to developments in the plan area, to the requirements of the relevant service provider and in accordance with the principles of proper planning and sustainable development. All future ESB services shall be undergrounded.	 Parks, Open Space and Recreation objective PO3; Sustainable Water Management objectives SW1 to SW12; Landscape objectives L1 to L4; Development Framework objectives DF3, DF7.
Objective IS7 – Telecommunications Infrastructure	Facilitate the provision of adequate telecommunication infrastructure within the plan area, including telephone and broadband services, to the requirements of the relevant services providers and in accordance with the principles of proper planning and sustainable development.	
Objective IS6 – Strategic Telecommunications	Ensure that strategic telecommunications including fibre optic broadband links is provided for the Initial Development Area, in a manner that can be extended to service future development of the wider LAP lands in the future.	
Movement and Transpor	tation	

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ive	Description of objectives with potential to negatively impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigatory objectives of the Lissenhall East LAP
i ve MT3 – vements along 32 Frontage	 Ensure proposals for improvements along the R132 frontage integrate with existing public transport services as well as future services such as BusConnects and MetroLink to include: Improved bus facilities on the R132 including sheltered stops. Provide for the upgrade of pedestrian and cycle infrastructure on the R132 bordering the LAP lands. As existing sites / businesses come forward for extension and or redevelopment applicants will need to sufficient space along the boundary for such upgrades. 	The LAP includes the following protective objective which will mitigate the potential uncertain or negative effects on the Malahide Estuary SAC and Malahide Estuary SPA: Biodiversity objectives BI1 to BI10; Sustainable Water Management objectives SW1 to SW12; Landscape objectives L1 to L4; Development Framework objectives DF3, DF7.
cive MT5 – on with R132 cive MT6 – New s Junction	Require the junction design to integrate and align with proposals for the R132 regional road, the future Western Distributor Road and MetroLink. Ensure the design of the new access junction to the lands from the R132 is capable of enhanced pedestrian and cycle connectivity across the R132 to link with a future MetroLink Estuary Stop and MetroLink Park and Ride.	
cive MT8 – al Pedestrian and Routes	Facilitate the delivery of a new north-south combined pedestrian / cyclist route through the LAP lands; linking the main access on the R132, Development Area No. 1 with the laneway to the south the eastern boundary of the food logistics park and Lissenhall.	
sive MT9 – g Facilities	All development proposals within the LAP shall be required to demonstrate provision of high-quality cycle facilities for employees, to include secure bike parking facilities, and changing and shower facilities to incentivise sustainable transport. Cycle facilities shall comply with the National Cycle Manual and shall be designed in accordance with best practice.	
cive MT10 – g Strategy	Require a parking strategy to be agreed with the Council prior to commencement of development; addressing the short, medium and long-term parking requirements having regard to the delivery of public transport.	
	commencement of development; addressing long-term parking requirements having regard transport.	the short, medium and

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Objective	Description of objectives with potential to negatively impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigatory objectives of the Lissenhall East LAP
Objective DF1	Applications for development proposals shall have regard to the detailed requirements set out in Sections 11.3 to Section 11.7 of this Draft Local Area Plan.	The LAP includes the following protective objective which will mitigate the potential uncertain or negative effects on the Malahide Estuary SAC and Malahide Estuary SPA:
Objective DF4	The overall Design Statement should show how the proposal generally demonstrates/provides for: a. Building layout and design which maximises daylight, natural ventilation, active transport and public transport use; b. Sustainable building/services/site design to maximise energy efficiency; c. Sensitive energy efficiency improvements to existing buildings; d. Energy efficiency, energy conservation, and the increased use of renewable energy in existing and new developments; e. On-site renewable energy infrastructure and renewable energy; f. Minimising the generation of site and construction waste and maximising reuse or recycling; and g. The use of construction materials that have low to zero embodied energy and CO2 emissions.	 Biodiversity objectives BI1 to BI10; Parks, Open Space and Recreation objectives PO1 to PO4; Sustainable Water Management objectives SW1 to SW12; Landscape objectives L1 to L4; Infrastructure and Services objective IS1; Movement and Transport objectives MT1, MT11; and Development Framework objectives DF3, DF5, DF7.
Objective DF6	All proposals for the Initial Development Area will be required to submit an infrastructure masterplan showing how the proposed development will be serviced and how the infrastructure extended to service the future development of the LAP lands.	

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2.5 **Summary and Conclusion**

This Natura Impact Report has considered the potential impacts of the implementation of the Lissenhall East LAP on the integrity of the relevant European sites.

This report concludes on the best scientific evidence that it can be clearly demonstrated that no elements of the LAP will result in any impact on the integrity or Qualifying Interests/Special Conservation Interests of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives, provided mitigation measures are implemented.

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3 References

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Appropriate Assessment Screening Determination 4

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Natura Impact Report Determination 5

Appendices

Appendix 1 – Background to Appropriate Assessment

The European⁵ network is a Europe-wide network of ecologically important sites (SPAs and cSACs – also known as 'European Sites' or 'Natura 2000 sites') that have been designated for protection under either the EU Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds) or the EU Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna).

The main aim of the Habitats Directive is "to contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies". Any actions taken must be designed to "maintain or restore, at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest". Under Article 6 of the Habitats Directive, an assessment is required where a plan or project may give rise to significant effects upon a European site.

In addition, it is a matter of law that candidate SACs (cSACs) and Sites of Community Importance (SCI) are considered in this process;

Article 6 (paragraphs (3) and (4)) of the Habitats Directive states that:

- (3) Any plan or project not directly connected with or necessary to the management of the site but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.
- (4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of European is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The requirements of the Habitats Directive are transposed into Irish law by means of the *European Communities (Birds and Natural Habitats) Regulations 2011-2015* (hereafter referred to as the *Birds and Habitats Regulations*)⁶ and by the *Planning and Development Act 2000*, as amended.

In Ireland, the statutory agency responsible for the designated areas is NPWS.

⁵ The EU Habitats Directive, Article 3.1, states "A Coherent European ecological network of Special Areas of Conservation and Special Protection Areas pursuant to Directive 79/409/EEC shall be set up under the title European"

⁶ SI No. 477 of 2011 and subsequent amendments

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Stages in the assessment

European Commission guidance (2001)⁷ sets out the principles on how to undertake decision making in applying the Habitats Directive. The requirements of the Habitats Directive comprise four distinct stages:

Stage 1: Screening is the process which initially identifies the likely significant effects upon a European site of a project or plan, either alone or in combination with other projects or plans. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, then an Appropriate Assessment must be made.

Stage 2: Appropriate Assessment is the detailed consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's conservation objectives and its structure and function. This is to determine with scientific certainty whether or not there will be adverse effects on the integrity of the site in light of its conservation objectives. This stage also includes the development of mitigation measures to avoid or reduce any possible impacts.

Stage 3: Assessment of alternative solutions is the process which examines alternative ways of achieving the objectives of the project or plan that would avoid impacts on the integrity of the European site, should avoidance or mitigation measures be unable to cancel out adverse effects.

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain. At Stage 4 an assessment is made with regard to whether or not the development is necessary for imperative reasons of overriding public interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the European network.

Conservation objectives of European sites

The conservation objectives for a European Site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below:

The conservation status of a natural habitat will be taken as 'favourable' when:

- Its natural range and the area it covers within that range are stable or increasing;
- The specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future;
- Conservation status of typical species is favourable as defined in Article 1(i).

The conservation status of a species will be taken as favourable when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;

⁷ European Commission (2001) Assessment of Plans and Projects Significantly Affecting European Sites: Methodological Guidance on the Provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC

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 There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Guidance from the European Commission⁸ indicates that the Habitats Directive intends FCS to be applied at the level of an individual site, as well as to habitats and species across their European range. Therefore, in order to properly express the aims of the Habitats Directive for an individual site, the conservation objectives for a site are essentially to maintain (or restore) the habitats and species of the site at (or to) FCS.

The European Commission guidance recommends that screening should fulfil the following steps:

- 1 Determine whether the plan (or policy) is directly connected with or necessary for the management of European sites;
- 2 Describe the plan and describe and characterise any other plans or projects which, in combination, have the potential for having significant effects on European sites;
- **3** Identify the potential effects on European sites;
- **4** Assess the likely significance of any effects on European sites.

⁸ Managing European sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC. (European Commission 2000)

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Appendix 2- Assessment of Likely Significant Effect of Objectives and Policies of the Lissenhall East LAP

Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective		
	Strategic Vision					
major office and res quality, highly acces providing a location corporate headquar	ties for high technology and advanced manufacturing, search and development-based employment within high sible, campus style settings. The HT zoning is aimed at for high end, high quality, value added businesses and ters. An emphasis on exemplar sustainable design and be promoted to enhance corporate image and identity.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-		
	Vision Stat	ement				
	tion for high end, high quality value-added businesses, a urban design and architecture with nature to create a crose of place.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-		
	Guiding Pri	nciples				
in a way that reflects Any development on	the vision is to develop the lands in a sustainable manner, its existing landscape, heritage and environmental assets. the LAP lands shall promote an urban design approach a contributes positively to the quality of life of those who enhall East.	The principle provides for positive effects on the environment and results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-		
context, three key ti	ased analysis of the environment and its strategic policy hemes were identified in order to shape and inform the and act as guiding principles underpinning the policies, as in the LAP.					

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
_	those contained in the Regional Spatial and Economic ne East and Midlands Region (EMRA) 2019-2031 and			
1. Economic Opp	ortunity;			
2. Healthy Placer	making; and			
3. Climate Action).			
	Achieving th	ne Vision		
Local Area Plans to proin an integrated and Infrastructure themes biodiversity; parks, open sp sustainable wa archaeological landscape. Each of these themes		The objective provides for positive effects on the environment and results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
	Biodive	rsity		
Objective BI1- Conservation and Enhancement	Provide for the protection, conservation and enhancement of wild life habitats and natural resources, including the existing water courses on site and features such as ecologically important hedgerows and mature trees within the LAP area.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective BI2- Bio- Diversity	Conserve, protect and manage the existing natural resources, where appropriate, in a sustainable manner and develop measures and provide conditions to enhance bio-diversity where possible.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI3- Green Infrastructure and Management Plan	A practical management plan for managing Green Infrastructure, open space, and ecologically valuable habitats within the LAP lands shall be prepared and submitted along with any initial planning application for the development of the Initial Development Area and shall be updated with each subsequent application.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI4- Pollinators	Identify areas of habitat and associated features, that could be practically managed, to benefit bees and other pollinators.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI5- Planting and Screening	Reinforce planting and screening particularly around perimeter areas such as the western perimeter of the LAP lands. Careful consideration must be given to species selection and priority should be given to the use of species of local origin where possible.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI6- Hedgerows and Watercourses	Protect the integrity of existing townland hedgerows and watercourses for their biodiversity and amenity value including surface water management. To this end, ensure that no development, including clearance and storage of materials, takes place within a	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
	minimum distance of 10-15 metres measured from each bank of the Lissenhall Stream.			
Objective BI7- Invasive Alien Species	Manage the potential for establishment of Invasive Alien Species (IAS) at all stages of development, so that the threat including outcompeting of retained vegetation including the woodland as well as water features.	The protective management nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI8- Lighting Design and Bats	Ensure that the lighting design will be cognisant of bat commuting trails and follows the guidance of recent guidance (BCT 2018) including the location and type of lighting and the need for continuously lit areas.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI9- Mammal Underpass	Rectify and maintain the existing mammal underpass along the eastern boundary.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective BI10- Environmental Assessments	All development proposals on the LAP lands will be subject to Screening for the requirement for Appropriate Assessment (AA), and the preparation of a Natura Impact Statement (NIS) if required, and to Screening for the requirement for Environmental Impact Assessment (EIA), and the preparation of an Environmental Impact Assessment Report (EIAR) if required.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC, Malahide Estuary SPA or any other Natura 2000 sites.	No	Yes
	Parks, Open Space and R	Recreation Objectives		
Objective PO1- Park and Protected Woodland	Provide open space in a new centrally located park and integrating the protected mature tree stand / woodland area as part of the Initial Development Area.	The objective results in no significant negative effects on Malahide Estuary SAC, Malahide Estuary SPA or any other Natura 2000 sites.	No	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
	This open space will be capable of being extended as future development is introduced into the rest of the LAP lands.			
Objective PO2- Meudon Ruins	Landscape proposals for the central open space and protected wooded area will be required to explore incorporating the ruins of Meudon House as a landscape feature, where practicable.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective PO3- Open Space and SuDS	The open space provision will include surface water management [SuDS] and Nature Based Solutions (NBS) in line with the requirements of the Development Plan and best practice.	The objective will have positive effects on the biodiversity. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective PO4- Biodiversity and Open Space	Ensure that the management of the proposed open spaces is pollinator-friendly, provides more opportunities for biodiversity, and is carried out without the use of pesticides where possible.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
	Sustainable Wate	r Management		
Objective SW1 – SuDS and NBS	Achieve best practice and innovation in SuDS design and nature based solutions as part of the Initial Development Area including the successful coordination of surface water management with biodiversity features and amenity functions of open space and landscaped areas.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective SW2 – Flood Risk Management	To manage flood risk in Lissenhall East in accordance with the requirements of The Planning System and Flood Risk Management Guidelines for Planning Authorities, DECLG and OPW (2009) and Circular PL02/2014 (August 2014).	The protective management nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective SW3 – Site Specific Flood Risk Assessment	All development proposals within a flood zone as indicated in Appendix 3 — Strategic Flood Risk Assessment shall be required to provide an appropriately detailed site specific Flood Risk Assessment as set out in Section 6 Summary and Conclusion of Appendix 3, page 30 and 31.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective SW4 – Surface Water Drainage Network	The new surface water drainage network provided within the Lissenhall East LAP lands shall be designed in accordance with the SuDS Strategy set out in Appendix 4, Ciria C753 The SuDS Manual and the Greater Dublin Strategic Drainage Systems (GDSDS).	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective SW5 – Attenuation Pond Areas	The new surface water drainage networks should discharge at the proposed attenuation pond areas. Pond(s) should be constructed in the central eastern area close to the location of the culvert which drains under the M1. Attenuation volumes should be incorporated in the design of the pond(s).	The objective will have positive effects on the biodiversity. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective SW6 – Permeable Paving	Permeable Paving is recommended for use in all parking areas and landscaped areas to collect, clean, attenuate and store rainwater before discharging to the development's sustainable drainage system;	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective SW7 – Rainwater Harvesting	New buildings will incorporate rainwater harvesting for use within the building and planning applications for new development should include a consideration of the feasibility of green roofs and green walls for new buildings of the LAP lands.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective SW8 – Filter Drains	Subject to subsoil permeability, filter drains may be required to drain landscaped areas and other small green areas within the development. Runoff from green areas should, where possible, infiltrate directly to groundwater.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective SW9 – Swales	Swales shall be constructed adjacent to the proposed drainage route to provide conveyance and treatment of runoff from the carriageway. These swales can also be used to provide separation between footpaths / cycle tracks and the carriageway.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective SW10 – Runoff and Attenuation	Runoff from each development upstream of ponds should be limited to existing greenfield runoff rates. Attenuation should be provided for the 1% AEP rainfall event + 10% allowance for Climate Change.	The protective management nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective SW11 – Flood Plain and SuDS	Locate SUDS measures outside the predicted flood plain so that they can operate during extreme storm events.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective SW12 – Water Quality	Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner	The protective environmental nature of the objective results in no significant negative effects	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
	consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any subsequent plan and the Groundwater Protection Scheme.	on Malahide Estuary SAC and Malahide Estuary SPA.		
	Archaeological and Arc	chitectural Heritage		
Objective AAH1- Meudon House	Landscape proposals for the central park and protected wooded area will be required to explore incorporating the ruins of Meudon House as a landscape feature, where practicable.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective AAH2 – Geophysical Survey	The rectilinear enclosure identified by the geophysical survey will be investigated and recorded to inform future development appropriate development in the immediate area.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective AAH3 – Townland Boundaries	Ensure trees, hedgerows and other features which demarcate townland boundaries are preserved and incorporated into the design of developments.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective AAH4 – Signage and Education	Promote and facilitate appropriate interpretative concepts and signage illustrating the archaeological, built and natural heritage features within and adjoining the plan area, thus facilitating opportunities for education and understanding.	The objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective AAH5 – Archaeological Impact Assessment	An Archaeological Impact Assessment will accompany applications for development in proximity to the archaeological features shown on Figure 7-5:	The protective environmental nature of the objective results in no significant negative effects	No	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
	'RMP/SMR, RPS and NIAH Sites within 1km' with all such applications to be referred to the relevant Prescribed Bodies".	on Malahide Estuary SAC and Malahide Estuary SPA.		
	Landsc	ape		
Objective L1 – Trees, Woodlands and Hedgerows	To seek to ensure key trees, woodlands and high value hedgerows are retained and contribute to the landscape character of the area insofar as practical and incorporate same into future development proposals.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective L2 — Protected Woodland	The protected mature tree stand / woodland area shall be assessed by a qualified arborist. The condition of the trees shall be recorded, and recommendations shall inform a conservation, replacement and management strategy for this protected woodland as part of proposals for this area.	The protective environmental and management nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective L3 — Hedgerows and Design	Ensure trees, hedgerows and other features which demarcate townland boundaries are preserved and incorporated into the design of development proposals.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective L4 — Native Planting	Require the use of native planting where appropriate in new developments. Indigenous, non-invasive species should be considered to provide habitat for locally occurring fauna ensuring, at a minimum, there should be no net loss of the tree and hedgerow resource.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
	Infrastructure a	and Services		

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective IS1 – Public Sewer and Water Mains	Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect all waters in the plan area.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Objective IS2 – New Foul Sewer	Provide a new foul sewer to connect the LAP lands to the public foul sewer system discharging at Swords WWTP.	The objective will have positive effects on the environment. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective IS3 – Pumping Station	Provide a pumping station with 24-hour emergency storage capacity.	The objective will have positive effects on the environment. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective IS4 – Gas and Electricity	Ensure that gas and electricity infrastructure is provided for the Initial Development Area, in a manner that can be extended to service future development of the wider LAP lands in the future.	The nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective IS5 – Gas and Electricity	Facilitate the provision of an adequate supply of electricity and gas to developments in the plan area, to the requirements of the relevant service provider and in accordance with the principles of proper planning and sustainable development. All future ESB services shall be undergrounded.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective IS7 — Telecommunications Infrastructure	Facilitate the provision of adequate telecommunication infrastructure within the plan area, including telephone and broadband services, to the requirements of the relevant services providers and in accordance with the principles of proper planning and sustainable development.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective IS6 — Strategic Telecommunications	Ensure that strategic telecommunications including fibre optic broadband links is provided for the Initial Development Area, in a manner that can be extended to service future development of the wider LAP lands in the future.	The nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
	Movement and T	ransportation		
Objective MT1 – Lissenhall East Transport Assessment	Implement the recommendations of the Lissenhall East Transport Assessment in respect of the Initial Development Area. It shall be a requirement that any planning application clearly demonstrate compliance with the recommendations of the Transport Assessment. In the interests of clarity, it should be noted that in the pre-MetroLink scenario development will be limited to 1,000 additional employees for the entire local area plan, which includes all developed and undeveloped lands within the LAP boundary.	This objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective MT2 – South Fingal Transport Study	Implement the relevant objectives of the South Fingal Transport Study. It shall be a requirement that any planning applications that result in an increased demand for travel, shall clearly demonstrate the required transport infrastructure and measures to accommodate the proposed increase in line with the recommendations of the South Fingal Transport Study.	This objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective MT3 – Improvements along the R132 Frontage	Ensure proposals for improvements along the R132 frontage integrate with existing public transport services as well as future services such as BusConnects and MetroLink to include: Improved bus facilities on the R132 including sheltered stops. Provide for the upgrade of pedestrian and cycle infrastructure on the R132 bordering the LAP lands. As existing sites / businesses come forward for extension and or redevelopment applicants will need to sufficient space along the boundary for such upgrades.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective MT4 – Special Development Contribution for Improvement Works	Implement the provisions of Section 48 including Section 48 (2)(c) of the Planning and Development Act, 2000, as amended to generate financial contributions towards the capital costs of providing local and strategic transport infrastructure, including the upgrade of pedestrian and cycle infrastructure along the boundary of the lands with the R132.	This objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective MT5 – Junction with R132	Require the junction design to integrate and align with proposals for the R132 regional road, the future Western Distributor Road and MetroLink.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective MT6 – New Access Junction	Ensure the design of the new access junction to the lands from the R132 is capable of enhanced pedestrian and cycle connectivity across the R132 to link with a future MetroLink Estuary Stop and MetroLink Park and Ride.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective MT7 – Rationalise Existing Entrances	Rationalise existing vehicular entrances / exits onto the R132. As existing sites / businesses come forward for extension and or redevelopment applicants will need to provide alternative access arrangements to the R132.	The nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective MT8 – Internal Pedestrian and Cycle Routes	Facilitate the delivery of a new north-south combined pedestrian / cyclist route through the LAP lands; linking the main access on the R132, Development Area No. 1 with the laneway to the south the eastern boundary of the food logistics park and Lissenhall.	The objective will have positive effects on the environment. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective MT9 – Cycling Facilities	All development proposals within the LAP shall be required to demonstrate provision of high-quality cycle facilities for employees, to include secure bike parking facilities, and changing and shower facilities to incentivise sustainable transport. Cycle facilities shall comply with the National Cycle Manual and shall be designed in accordance with best practice.	The objective will have positive effects on the environment. However, given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective MT10 – Parking Strategy	Require a parking strategy to be agreed with the Council prior to commencement of development; addressing the short, medium and long-term parking requirements having regard to the delivery of public transport.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective MT11 – Mobility Management Plans	All development proposals for the LAP lands will require a Mobility Management Plan to be submitted with planning application.	Protective management nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
	Development	Framework		
Objective DF1	Applications for development proposals shall have regard to the detailed requirements set out in Sections 11.3 to Section 11.7 of this Draft Local Area Plan.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective DF2	Applications for development proposals for the Initial Development Area shall include a design statement demonstrating how the proposal addresses the design guidelines for Business Parks and Industrial Areas.	This objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	-
Objective DF3	Applications for development proposals for the Initial Development Area shall provide details as to how the proposed development shall addresses, and provide for the requirements for biodiversity, open space, surface water management, archaeological and architectural heritage, landscape, infrastructure and services, and movement and transportation set out in this LAP.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective DF4	The overall Design Statement should show how the proposal generally demonstrates/provides for: a. Building layout and design which maximises daylight, natural ventilation, active transport and public transport use; b. Sustainable building/services/site design to maximise energy efficiency; c. Sensitive energy efficiency improvements to existing buildings; d. Energy efficiency, energy conservation, and the increased use of renewable energy in existing and new developments;	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	
	e. On-site renewable energy infrastructure and renewable energy; f. Minimising the generation of site and construction waste and maximising reuse or recycling; and g. The use of construction materials that have low to zero embodied energy and CO2 emissions.			
Objective DF5	All proposals for the Initial Development Area will be required to submit a Climate Action Energy Statement as part of the overall Design Statement to demonstrate how low carbon energy and heating solutions, have been considered as part of the overall design and planning of the proposed development.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Objective DF6	All proposals for the Initial Development Area will be required to submit an infrastructure masterplan showing how the proposed development will be serviced and how the infrastructure extended to service the future development of the LAP lands.	Given the scale of works there is potential for uncertain negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	Yes	-
Objective DF7	Applications for development proposals shall provide details to avoid and mitigate potential adverse effects from noise, vibration, air quality, dust, and lighting during construction and operation as appropriate and with regard to national guidance.	The protective environmental nature of the objective results in no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
	Append	ices		
Appendix 01: SEA Environmental Report, Appendix 02: Natura Impact Report, and Appendix 03: Strategic Flood Risk Assessment	Appendices 01, 02 and 03 detail the SEA, AA and SFRA assessments carried out in tandem with the preparation of the Draft and Final LAP.	Appendices 01, 02 and 03 provide for significant positive effects on the Environment. There are no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Appendix 04 – SuDS Strategy	 The scope of this report is: Review of existing surface water and foul drainage network in respect of SuDS for current situation, future scenario with all live planning permissions built and with all proposed development and infrastructure in place as set out in both Fingal 	Appendix 04 provides for a detailed appraisal, description and understanding of the surface water regime together with a strategy for sustainable urban drainage systems that incorporate climate change, groundwater, and surface water.	No	Yes

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
	Development Plan 2011- 2017 and the proposals in the Lissenhall East LAP.	There are no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.		
	 Prepare a SuDS Strategy with recommendations regarding appropriate SuDS systems and devices for the implementation of the SuDS strategy for all proposed development and Planning Permission applications and development as determined by the Lissenhall East LAP, currently being developed, including maps showing possible layout, locations and sizing of proposed recommended SuDS devices and/or systems 			
	 Incorporate the effects of Climate Change, groundwater and the existing surface water drainage system into the SuDS Strategy 			
	 Determine the effects on and of flooding, groundwater and surface water drainage system in the LAP area due to the incorporation of the SuDS Strategy 			
	 Provide an assessment of the attenuation requirements needed and identify the regional attenuation structures necessary for the LAP area 			
	 Provide information gathered or generated from the Flood Risk Identifications and Assessments, by liaising and attending meetings with Consultants completing the Strategic Environmental Assessment (SEA) and Flood Risk Assessment (FRA) for the Lissenhall LAP. 			

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Appendix 05 — Transport Assessment	The Transport Assessment for Lissenhall East is based on the Area Based Transport Assessment (ABTA) Guidance Notes published by Transport Infrastructure Ireland in April 2018. The assessment focuses on establishing the development potential of the LAP lands Pre-MetroLink based on a detailed analysis using the National Transport Agency's (NTA) Eastern Regional Model to identify future travel demand, patterns and modal splits based on overall projections for population and employment. The recommended strategy is based on a scenario for provision of 1000 jobs, as it would not have an undue negative impact on the local road network or the motorway junction. The assessment, which feeds in to the LAP includes the following transport objectives: Maximise opportunities for walking and cycling trips; Maximise travel by Public Transport, both preand post-delivery of the Metro; Manage demand for car travel to the development to minimise the impact on the safety and operation of the local and National Road Network; and Maximise opportunities for sustainable travel through the integration of land use and transport.	Appendix 05 sets the LAP within the existing and planned transport context of the local and wider area. The assessment sets out the transport strategy, including walking, cycling and public transport, for the development of the LAP lands to ensure that development does not adversely affect the existing network. There are no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	

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Objective	Description	Potential to Negatively Impact Malahide Estuary SAC and Malahide Estuary SPA	Mitigation Required	Protective Objective
Appendix 06 — Archaeological, Architectural and Cultural Heritage	The report provides an archaeological, architectural and cultural heritage appraisal of lands located at Lissenhall Great townland, Swords, County Dublin. The appraisal describes the archaeological and historical background of the landscape within which the study area lies. The main purpose of the baseline study is to assess the significance of the receiving archaeological, architectural heritage and cultural heritage environment, and to identify areas of archaeological and cultural heritage potential which may provide constraints for any future development.	Appendix 06 provides for a detailed appraisal, description and understanding of the known and potential heritage of the LAP lands. The appendix includes recommendations in relation to Archaeological Heritage, Architectural Heritage and Cultural Heritage, which have informed the preparation of the LAP. There are no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes
Appendix 07 – Ecology Survey and Green Infrastructure	 The purpose of the study is to: Survey, map and assess habitats within the development boundary of the LAP lands; Identify green infrastructure; To liaise with Fingal Council staff in the development of policies and objectives to protect and conserve the green infrastructure; and To raise awareness about the biodiversity of the LAP lands. In this regard, it is the intention that the report will inform the design and layout of the development and amenity lands within the LAP boundary as they are bought forward in due course. 	Appendix 07 provides for a detailed appraisal, description and understanding of the ecological and green infrastructure of the LAP lands. The review of green infrastructure includes biodiversity; parks, open space and recreation; sustainable water management; archaeological and architectural heritage; landscape and other relevant objectives. There are no significant negative effects on Malahide Estuary SAC and Malahide Estuary SPA.	No	Yes

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