

Strategic Environmental Assessment  
Screening Report for the DLR  
Biodiversity Action Plan 2021-2025

Technical Report

May 22

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**Dún Laoghaire-Rathdown**  
County Council Comhairle Contae  
**Dhún Laoghaire-Ráth an Dúin**

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## Contract

This report describes work commissioned by Anne Murray on behalf of Dun Laoghaire Rathdown County Council, by an email dated 3rd November 2021. Conor O Neill and Declan Egan of JBA Consulting carried out this work.

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# 1 Introduction

Dun Laoghaire Rathdown County Council (DLR) intends to implement a Biodiversity Action Plan for 2021-2025. JBA Consulting Engineers and Scientists Ltd (hereafter JBA) was retained by DLR to prepare a Strategic Environmental Assessment (SEA) Screening Report for the Biodiversity Action Plan.

## 1.1 Strategic Environmental Assessment

Strategic Environmental Assessment is a systematic process for predicting, assessing, and evaluating and mitigating, at the earliest appropriate stage, the environmental effects of a national, regional plan or programme before it is adopted. Its purpose and in accordance with the requirements of the Aarhus Convention, is to give the public and other interested stakeholders an opportunity to participate in the decision-making process, and to be kept informed of decisions about a national programme and how they evolved. It will facilitate the integration of stakeholders and public consultation into the environmental decision making at an early stage and allow for the sustainable implementation of environmental management.

The overarching objective of the SEA process as defined in Article 1 of the 2001/42 EU SEA Directive is the provision 'of a higher level of protection of the environment and to contribute to the integration of environmental considerations in the preparation and adoption of plans and programmes with a view to promoting sustainability'.

The SEA process is a requirement of European law. The EU enacted the Strategic Environmental Assessment (SEA) Directive under Council Directive 2001/42/EC on the 'Assessment of the Effects of Certain Plans and Programmes on the Environment'. The Directive was transposed into Irish legislation under S.I. 435 of 2004 - the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations, 2004 and S.I. 436 of 2004 the Planning and Development (Strategic Environmental Assessment) Regulations. These statutory instruments were amended under S.I. 200 of 2011 and S.I. 201 of 2011, respectively. S.I. 435 of 2004 and S.I. 200 of 2011 are relevant to this SEA Screening Report.

The SEA Directive requires that certain plans and programmes, prepared by statutory bodies, which are likely to have a significant impact on the environment, be subject to the SEA process. Applying Article 9(1) of S.I. 435 of 2004, as amended by S.I. 200 of 2011, verifies the statutory requirement for SEA:

*"an environmental assessment shall be carried out for all plans and programmes*

*(a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism and town and country planning or land use, and which set the framework for future development consent of projects listed in Annexes I and II to the Environmental Impact Assessment Directive, or*

*(b) which are not directly connected with or necessary to the management of a European site but, either individually or in combination with other plans, are likely to have a significant effect on any such site."*

The proposed Biodiversity Action Plan prepared by DLR has not been prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning, or land use. It does not set a framework for future development consent of projects listed as Annex 1 and II of the EU Environmental Impact Assessment Directive.

## 1.2 SEA Screening Process

Schedule 1 of S.I. 435 of 2004, as amended, sets out the criteria for the screening process. DLR will issue a Screening Determination after consultation with the Statutory Consultees. Article 9(5) of S.I. 435 of 2004 lists the consultees. However, several of the departments listed have been reassigned to other Government Departments. For the purposes of this Screening Report, notice will be given to the following consultees:

- Environmental Protection Agency
- Department of Housing, Local Government and Heritage
- Department of Agriculture, Food and the Marine
- Department of the Environment, Climate and Communications.

JBA understands that DLR has consulted with the Dublin City Council and Fingal County Council. A public consultation was undertaken in August 2021 and responses were received from Friend of the Environment only. Consultation is discussed in more detail in Section 4 of this Screening Report.

This Screening Report considers the criteria set out in Schedule 1 of the SEA Regulations, as amended. The qualitative criteria are used to determine if the Biodiversity Plan is likely to have significant effects on the environment. The findings of the assessment are shown in Section 3 of this Screening Report.

This SEA Screening Report is consistent with the process recommended by the EPA publications and guidelines issued in their publication 'Development of Strategic Environmental Assessment Methodologies for Plans and Programmes in Ireland - Synthesis Report 2003'.

## 2 Description of the Biodiversity Action Plan 2021-2025

### 2.1 Introduction to the Plan

The Biodiversity Action Plan 2021-2025 (BAP) is central to DLR's commitment to the restoration and recovery of the County's biodiversity in the face of the National Climate and Biodiversity Emergency. The core aims of the Plan is 'nature recovery, restoration and the reconnection' biodiversity within the County. The Biodiversity Plan requires appropriate management for biodiversity at a local and countywide level. The Plan will identify areas of high conservation value and the means to enhance biodiversity within the County. The first Irish Biodiversity Plan (2002-2006) called for all Local Authorities to produce Local Biodiversity Action Plans to protect and appreciate biodiversity at a local level. This Biodiversity Action Plan has been prepared within the framework of the DLR Draft County Development Plan 2022-2028, their Climate Change Action Plan, DLR Heritage Plan, the Local Agenda 21 programme and the DLR Corporate Plan. The Biodiversity Plan, in its development, has considered the requirements of the EU Biodiversity Strategy 2030, the UN Convention on Biological Diversity post 2020 Global Biodiversity Framework and the National Biodiversity Action Plan 2017-2021.

The preparation of the BAP is informed by:

- Existing knowledge and a review of the information contained in the previous DLR Biodiversity Plan 2009-2013 – Treasuring Our Wildlife
- Consultation with DLR Biodiversity Steering Group, the public, Public Participation Network (PPN) and interested groups such as BirdWatch Ireland (BWI), An Taisce, Coastwatch and others who influence biodiversity conservation in DLR
- Legislation, policy and strategies at Local, National, European, and International level
- National and International best practices and experiences
- DLR Climate Change Action Plan 2019-2024
- DLR County Development Plan 2022–2028 in draft
- DLR Invasive Alien Species Plan 2020
- The Plan is informed by the seven strategic objectives and associated targets of the third National Biodiversity Action Plan, 2017-2021, Ireland's Vision for Biodiversity and the EU Biodiversity Strategy 2030.

The BAP has considered the climate change risk to biodiversity and how that action might help the climate change risk, for example making biodiversity more resilient to climate change through protection of important conservation areas in the County.

DLR's Biodiversity Plan recognises the need for recovery of biodiversity and has already formulated actions such as the 'Slow to Mow' campaign in the County. The Action Plan is aimed towards the recovery of ecosystems such as rivers, wetlands and marine habitats within the County. The council recognises the need to restore biodiversity and they have already started the restoration process by their work on managing invasive species in the river catchments. DLR aims to reconnect humans with nature and encourage local communities to take ownership of the biodiversity in their local area.

DLR hosts several designated sites as illustrated in Table 2-1 below.

**Table 2-1:** Designated Sites in Dun Laoghaire Rathdown County

Site no.	Site Name	SPA	pNHA	SAC
00210	South Dublin Bay SAC		x	x
004024	South Dublin Bay and River Tolka Estuary SPA (includes Booterstown Marsh)	x		
004172	Dalkey Islands SPA	x	x	
001205	Booterstown Marsh pNHA	x	x	

001206	Dalkey Coastal Zone and Killiney Hill pNHA		x	
001753	Fitzsimons Wood pNHA		x	
001211	Loughlinstown Woods pNHA		x	
001207	Dingle Glen pNHA		x	
001202	Ballybetagh Bog pNHA		x	
000713	Ballyman Glen SAC		x	x
00725	Knocksink Woods SAC (also a Nature Reserve)		x	x
002122	Wicklow Mountains SAC	x		x
003000	Rockabill to Dalkey Islands SAC			x

The designations listed in Table 2-1, is to conserve habitats and species of European importance pursuant to the EU Habitats and Birds Directives. The NPWS designates Special Protection Areas (SPAs) for wild birds listed on Annex 1 of the EC Birds Directive. They also designate sites of Special Areas of Conservation (SACs) under the EC Birds and Habitat Directive for habitats listed on Annex 1, and for species listed in Annex II of the EC Habitats Directive. SPA's and SAC's from part of the European network of Natura 2000 sites.

## 2.2 The Plans Themes and Objectives

The Biodiversity Action Plan is divided into several themes with accompanying objectives and Actions. Full details are provided in Appendix 1 and the themes and objectives are shown in Table 2-2.

**Table 2-2:** Themes and Objectives Biodiversity Action Plan 2021-2025.

Theme	Objective
1. Reaching a deeper understanding of our County's biodiversity.	1. Strengthen the knowledge base for conservation, management, and sustainable use of biodiversity.
2. Making good decisions for biodiversity.	2. Mainstream biodiversity into decision-making and improve the management of this valuable resource.
3. Powerful actions to protect biodiversity and us.	3. Conserve and restore biodiversity and ecosystems, and support ecosystem services in DLR, including coastal and marine.
4. Connecting People and Nature and Inspire a Positive Future.	4. Increase awareness, training and appreciation of biodiversity, ecosystems and ecosystem services.
5. Strength in Working Together	5. Strengthen the effectiveness of collaboration between all stakeholders for the conservation of biodiversity, including with Local Communities, Local Authority Biodiversity Officers, Local Authority Waters Programme (LAWPRO), the National Biodiversity Data Centre, BirdWatch Ireland, NPWS and other State Bodies.



## 3 SEA Screening Assessment

### 3.1 Introduction

Schedule 1 of the 2014 SEA Regulations, as amended, sets out the criteria for determining whether a plan or programme is likely to have a significant effect on the environment. If the plan or programme is predicted to have a significant effect on the environment, then a full SEA Report is required.

### 3.2 Appropriate Assessment

This report should be read in conjunction with the Appropriate Assessment Screening Report prepared for the Biodiversity Action Plan.

### 3.3 Considerations of the SEA Screening criteria in Schedule 1 of S.I. 435 of 2004, as amended

This report includes a consideration of the criteria set out in Schedule 1 of S.I. 435 of 2004, as amended, to assess as to whether the proposed Biodiversity Action Plan is likely to have a significant effect on the environment. To determine if the Biodiversity Action Plan requires an SEA, a pre-screening checklist is necessary. Figure 3.1 provides details of the pre-screening checklist, that is based on the decision tree published by the Environmental Protection Agency, 2003 ('Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland - Synthesis Report' (Scott & Marsden 2003).

### 3.4 SEA Screening Determination

The BAP was screened using the criteria contained in Schedule 1 of the 2004, as amended, Regulations (Annex II of the SEA Directive). Table 3.1 details the screening assessment using the criteria given in Schedule 1 of 435 of 2004, as amended.



Figure 3-1: SEA Pre-Screening Checklist (P.Scott & P.Marsden, 2003).

**Table 3-1:** Screening Determinations for Schedule 1 of the 2004, SEA Regulations (as amended)

<b>Criteria 1: The Characteristics of the Biodiversity Plan having regard, in particular, to:</b>
<i>The degree to which the Plan sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources</i>
<p>The purpose of the Biodiversity Action Plan (BAP) is to identify the risks to DLR associated with losses in biodiversity within the County, and to set out a strategic objectives and actions to prevent/combat biodiversity loss. The BAP supports several Policy Objectives set out in the draft DLR 2022-2028 County Development Plan, for example, Policy Objective GIB1: Green Infrastructure Strategy, Policy Objective GIB2: Landscape Character Area, Policy Objective GIB3: Seascape, Policy Objective GIB4: High Amenity Zones, Policy Objective GIB7: National Marine Planning Framework, Policy Objective GIB12: Access to Natural Heritage, Policy Objective GIB18: Protection of Natural Heritage and the Environment, Policy Objective GIB19: Habitats Directive, Policy Objective GIB20: Biodiversity Plan, Policy Objective GIB21: Designated Sites, Policy Objective GIB22: Non-Designated Areas of Biodiversity Importance, Policy Objective GIB24: Rivers and Waterways, Policy Objective GIB25: Hedgerows.</p> <p>The BAP forms part of Ireland's national strategy for biodiversity as set out in the National Biodiversity Plan 2017 - 2021, the requirements of the Dun Laoghaire Rathdown County Development Plan 2022-2028, the Dun Laoghaire Rathdown Climate Action Plan, the Dun Laoghaire Rathdown Heritage Plan and their Local Age.</p> <p>The BAP, when adopted, will not set a framework for consented projects for future development, i.e. projects listed in both Annex I and Annex II of the Environmental Impact Directive.</p>
<i>The degree to which the Plan, or modifications to the Plan, influences other plans, including those in a hierarchy</i>
The BAP will inform other future plans and policies to ensure that Dun Laoghaire Rathdown plans, policies, actions and measures are cognisant of the necessity to protect biodiversity within the County. The BAP will allow the council will make informed decisions when developing future County Development Plans.
<i>The relevance of the Plan in the integration of environmental considerations in particular with a view to promoting sustainable development</i>
The BAP's main output is to ensure that policies and plans for DLR must be informed of the ways to protect biodiversity in the County. In this way biodiversity protection and the objectives and targets of the BAP will be incorporated into future plans and programmes within the County.
<i>Environmental problems relevant to the Plan or Programme, or modifications to the plan or programme</i>
It is envisaged that the objectives of the Biodiversity Plan will be implemented via future plans or programmes to ensure that future development will consider the need to protect biodiversity. The BAP looks to integrate biodiversity adaptation into DLR as a management function and/or important criterion to be considered in developing DLR's plans and actions.
<i>The relevance of the Plan in the implementation of European Union legislation on the environment (e.g. plans linked to waste-management or water protection).</i>

<p>The implementation of the Biodiversity Plan will positively support the EU Biodiversity Strategy 2030, the UN Convention on Biological Diversity post-2021 Global Biodiversity Framework and the National Biodiversity Action Plan 2017-2021 and the requirements of the Water Framework Directive.</p>
<p><b>Criteria 2: Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:</b></p>
<p><i>The probability, duration, frequency and reversibility of the effects</i></p>
<p>The probability that the Biodiversity Action Plan will result in a positive environmental effect is very high. The duration of the effect will be long-term and will benefit the environment and communities. The frequency of the effects will depend on the speed at which the Actions contained within the Plan are implemented. It is likely that some of the Actions will move forward to the next Biodiversity Action Plan for the County.</p>
<p><i>The cumulative nature of the effects</i></p>
<p>The BAP covers the period 2021-2025 and will function beyond 2025 because some of the Actions initiated under this Plan will have long-term positive implications for biodiversity in the County. The benefits of this Plan and the previous and future Biodiversity Plans in the County will have a positive cumulative impact on biodiversity. These effects will be widespread throughout the County.</p>
<p><i>The transboundary nature of the effects</i></p>
<p>The Plan relates to Dun Laoghaire County Council. However, the nature of biodiversity projects and habitat creation and protection sometimes extend beyond the County boundary. Action 5.7 - Working with other local authorities, demonstrates that there will be some transboundary positive effects by implementing this Plan and the Actions therein.</p>
<p><i>The risks to human health or the environment (e.g. due to accidents)</i></p>
<p>The BAP will positively influence the overall quality of life and wellbeing for people living and working within the County. Theme 4 - Connecting People and Nature and Inspire a Positive Future and the Actions contained therein, will promote the positive aspects of nature and biodiversity to local communities and people's quality of life and wellbeing.</p>
<p><i>The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)</i></p>
<p>The area of Dun Laoghaire Rathdown County Council is 125 km<sup>2</sup> and population is approximately 218,000 (CSO, 2016). By 2025 it is expected that this population will increase to 249,000 (Daft DLC County Development Plan) by 2026. The spatial effects of the BAP will extend beyond the boundaries of Dun Laoghaire Rathdown County Council and the positive effects of the plan will affect the growing populations in the County.</p>
<p><i>The value and vulnerability of the area likely to be affected due to:</i></p>
<p><i>(a) special natural characteristics or cultural heritage</i></p> <p>The BAP will not cause any impacts to special natural characteristics or cultural heritage. Theme 3 of the BAP has several Actions that requires DLR to liaise with other statutory bodies and Government Departments like the NPWS, EPA and LAWPRO. Action 2.3 of the Plan states that an audit of current council polices, and plans are reviewed to improve mainstreaming of biodiversity.</p>
<p><i>(b) exceeded environmental quality standards or limit values</i></p>

The BAP will not cause exceedances in environmental quality standards or limit values. Mitigation measures, if required, will be put in place during the construction of the projects. The requirement for mitigation measures will be assessed in advance of a biodiversity project commencing.

*(c) intensive land-use*

The BAP will not cause an impact on intensive land-use. Biodiversity projects, rewilding etc. will be spread throughout the County.

*The effects on areas or landscapes which have a recognised national, European Union or international protection status*

The draft County Development Plan 2022-2028 sets out in Objective OSR8: Greenways and Blueways Network - that careful planning of greenways will ensure that Natura 2000 sites, local and nation biodiversity, hedgerows, trees will be protected. This objective is supported by several Actions in the BAP including Action 1.5 - Map and protect hedgerows, Action 2.2 - Input into the Landscape Character Assessments, Action 2.9 - Developing guidelines for Biodiversity and Greenway Developments.

## 4 Consultations

### 4.1 Introduction

Article 9(5) and 9(6) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended details the requirement of the competent authority to consult with several statutory bodies. These bodies are detailed in Section 4.2.

A Biodiversity Steering Group had input into the Biodiversity Action Plan. Representatives from NGOs such as BirdWatch Ireland, National Parks and Wildlife Services and others participated in the Steering Group. Public consultations have been taken with other NGOs and interested groups such as Coastwatch, An Taisce, the Herpetological Society of Ireland, Public Partnership Network, Councillors and the public.

### 4.2 Consultees

The following statutory bodies were contacted regarding the Biodiversity Action Plan 2021-2025.

- Environmental Protection Agency
- Department of Housing, Local Government and Heritage
- Department of Agriculture, Food and the Marine
- Department of the Environment, Climate and Communications.

Submission received from the Statutory Consultees (Appendix 2) were addressed and details of their submissions are included in the final SEA Screening Report (see Table 4-2).

### 4.3 Consultation and formulation of the BAP

Table 4-1, outlines the stages and consultations undertaken by the council when preparing the BAP.

**Table 4-1.** Consultations undertaken by DLC for the preparation of the BAP

Timeframe	Preparation of Biodiversity Action Plan 2021-2025
2018	Review of previous Biodiversity Action Plan 2009-2013.
2018	Review of biodiversity datasets such as habitat and species surveys to understand what information DLRCC holds on DLRCC biodiversity resource.
2019 - 2021	Surveys completed to understand the current state of our biodiversity resource, to examine what actions we might carry forward and what new legislation, plans and policies should be considered as part of this new plan.
2019 - 2021	Meetings with the Biodiversity Steering Group to steer the plan-making process.
2019 - 2021	Discussion and collaboration with other LAs and the Dublin Bay Biosphere to examine common objectives of all our biodiversity plans.
28/04/2021	Internal presentation to DLR Staff Seniors to inform our staff of the plan and receive their input.
05/05/2021	Online workshop to invite feedback from interested groups such as An Taisce, BWI, HSI, Coastwatch and the Seal Sanctuary.
07/05/2021	Online presentation and Q&A with the Public Participation Network to consult and inform in the development of the plan.
01/06/21	Drafting of the Themes, Objectives and Actions of the plan.

10/06/2021	Internal presentation to the Councillors.
17/06/ 2021	Internal presentation to the Environment and Climate Action SPC.
21/06/2021	Presentation to the biodiversity champions of DLR Estate Management.
19/07/2021 – 20/08/21	Open invitation to the public to inform them of the plan and to receive feedback through the DLR Have Your Say webpage.

#### 4.4 Public Consultation

DLR conducted a four-week consultation period from 19th July 2021 to 20th August 2021, where the public were invited to provide feedback through DLR, HAVE YOUR SAY webpage.

#### 4.5 Consultation with the Statutory Consultees

A copy of the draft SEA Screening Report and the draft Biodiversity Plan was sent to the Statutory Consultees in March 2022. The consultees were given the recommended 4-week period to issue a response to the consultations. DLRCC received submissions from the Environmental Protection Agency (EPA), Inland Fisheries Ireland (IFI) and the Department of the Environment, Climate and Communications.

Table 4-2 below illustrates the comments received from the Statutory Consultees and where these are addressed in the Biodiversity Action Plan 2021-2025. A copy of the correspondence received from the Statutory Consultees is included in Appendix 2.

**Table 4-2:** Consultation with Statutory Bodies.

Statutory Consultee	Comments	Where addressed in the BAP
<b>EPA</b>	The Plan should reference specific commitments in higher level plans and programmes to protect designated habitats.	<p>The DLR Biodiversity Action Plan (BAP) builds on the EU and National Vision for Biodiversity and demonstrates DLR commitment protect and enhance biodiversity. The preparation of the DLR Biodiversity Action Plan 2021-2025 is informed by:</p> <ul style="list-style-type: none"> <li>• Existing knowledge and a review of the information contained in the previous DLR Biodiversity Plan 2009-2013 – Treasuring Our Wildlife.</li> <li>• Consultation with our Biodiversity Steering Group, the public.</li> <li>• Public Participation Network (PPN) and interested groups such as BirdWatch Ireland (BWI),</li> <li>• An Taisce, Coastwatch and others who influence biodiversity conservation in DLR</li> <li>• Legislation, policy and strategies at local, national, European and international level.</li> <li>• National and international best practices and experiences.</li> <li>• DLR Climate Change Action Plan 2019-2024.</li> <li>• DLR County Development Plan 2022-2028 in draft.</li> <li>• DLR Invasive Alien Species Action Plan 2020.</li> <li>• In particular, this Plan is informed by the seven strategic objectives and associated targets of the third National Biodiversity Action Plan 2017-2021, Ireland’s Vision for Biodiversity and the EU Biodiversity Strategy 2030.</li> </ul>
	Use of Environmental Sensitivity Mapping WebTool, EPA WFD, EPA AA Geo Tool	These databases are used by DLR when reviewing planning applications.
	Consult with the relevant Statutory Bodies	DLR as part of the SEA screening process contacted all the Statutory Consultees.
	SEA Determination	DLR will make a copy of the decision on the SEA for the BAP available for public inspection in their offices and a copy of the decision will be posted on their website.



<p><b>Inland Fisheries Ireland (IFI)</b></p>	<p>The BAP should address issues of water quality, fisheries habitat and angling tourism and should address aquatic habitat protection.</p>	<p>The following Actions in the Biodiversity Action Plan addresses these:</p> <p>Action 2.10: Incorporate the Inland Fisheries Ireland guidance: Planning for watercourses in the Urban Environment, into projects, plans and policies.</p> <p>Action 2.8 Develop guidance related to Biodiversity, Ecosystem Services and Planning, to help those involved in Planning to ensure that development within the County protects and enhances our valuable biodiversity.</p> <p>Action 3.6 includes all our rivers and streams along with their riparian buffer areas as part of the County Ecological Network which states.</p> <p>Action 3.6 To protect, restore and expand our County Ecological Network and DLR'S Green Infrastructure. Deliver Nature Recovery and Restoration as part of our Ecological Network and promote the use of Nature-based Solutions where these solutions allow the delivery and expansion of our Ecological Network.</p> <p>Action 3.7 Carry out ecological surveys and assessment of our habitats, including hedgerows, rivers and streams, to provide information regarding areas that require restoration in order to deliver Nature Recovery and Restoration and expansion of our Ecological Network.</p> <p>Other Actions to protect and develop our rivers, streams and associated habitats include:</p> <p>Action 5.9 Work with LAWPRO to develop ways to protect and enhance our river wildlife corridors and waterway ecosystems.</p>
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<p><b>Department of the Environment, Climate and Communications</b></p>	<p>GSI encourages use of their datasets.</p> <p>Protection of Geological Heritage of DLR.</p> <p>Protection of Groundwater.</p> <p>Climate Change and Marine Environment.</p>	<p>The BAP gathered information on geology and hydrogeology from the GSI websites.</p> <p>The BAP included 12 DLR County Geological Sites including:</p> <ul style="list-style-type: none"> <li>• Ballybetagh Bog</li> <li>• Ballycorus</li> <li>• Blackrock Breccia</li> <li>• Carrickgollogan</li> <li>• Dalkey Hill</li> <li>• Dalkey Island</li> <li>• Killiney Bay</li> <li>• Killiney Hill</li> <li>• Murphystone Quarry</li> <li>• The Scalp</li> <li>• Three Rock Mountain</li> <li>• White Rock, Killiney.</li> </ul> <p>There are several Actions within the BAP to ensure protection of groundwater. These include:</p> <ul style="list-style-type: none"> <li>• Action 3.6 includes all our rivers and streams along with their riparian buffer areas as part of the County Ecological Network which states.</li> <li>• Action 5.9 Work with LAWPRO to develop ways to protect and enhance our river wildlife corridors and waterway ecosystems.</li> </ul> <p>There are several Actions within the BAP to ensure protection of groundwater. These include:</p> <ul style="list-style-type: none"> <li>• Action 1.7 Identify important biodiversity areas most vulnerable to climate change, including terrestrial, watercourses, coastal and marine areas, and establish measures and projects that assist protection of vulnerable areas</li> <li>• Action 3.4 Identify opportunities where ecosystems can be restored and enhanced, including terrestrial, river, coastal and marine ecosystems.</li> <li>• Action 5.10 Work with our Climate Action Regional Offices (CARO) Partners, NPWS and others to ensure the protection of biodiversity in the face of Climate Change.</li> </ul>
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## 5 Conclusions

The SEA Screening Report was carried out to determine if the Biodiversity Action Plan 2021-2025, requires a Strategic Environmental Assessment. It has been concluded that based on the pre-screening check and a review of the criteria set out in Schedule 1 of the 2014 SEA Regulations as amended, a Strategic Environmental Assessment is not required. The Biodiversity Action Plan will inform DLR policies and procedures and future plans on the need to incorporate biodiversity creation and protection. The Biodiversity Action Plan does not set out plans or projects or specific measures.

The adaptation of the Biodiversity Action Plan will help the local authority meet its commitments to the National Biodiversity Plan, to the EU Directives to protect habitats and species and will also provide a positive impact to humans and their wellbeing.

# Appendix 1

Themes, Objectives and Actions for the Biodiversity Action Plan 2021-2025.

## Theme 1 Reaching a deeper understanding of our county's biodiversity

**Objective 1:** Strengthen the knowledge base for conservation, management, and sustainable use of biodiversity.

BIODIVERSITY ACTIONS	AGENCIES & PARTNERS	INDICATORS	TARGET	CLIMATE CHANGE IMPACTS	CLIMATE PROOFING
<p>Action 1.1 Gather information and map our biodiversity within DLR  (2021-2025)</p>	<p>National Parks &amp; Wildlife Service (NPWS), Biosphere Partners, Third level, Universities, National Biodiversity Data Centre (NBDC), Public - Citizen Science</p>	<p>Number of habitats and species for which good data exists</p> <p>Number of surveys of habitats and species completed annually</p> <p>GIS Maps produced and updated</p>	<p>Collation of information regarding our biodiversity resource for its appropriate management, protection and enhancement</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>Information on our biodiversity resource is vital to help manage our natural resources in order to provide ecosystem services and resilience to climate change</p>
<p>Action 1.2 Map all Locally Important Biodiversity Sites (LIBS) within DLR and identify opportunities to increase the number of sites  (2021-2025)</p>	<p>NPWS, BirdWatch Ireland (BWI), An Taisce, Herpetological Society of Ireland (HSI), Bat Conservation Ireland (BCI), Botanical Society of Britain and Ireland (BSBI)</p>	<p>Extent (Ha/Km) of Locally Important Biodiversity Sites (LIBS) for which good data exists</p> <p>Extent of LIBS (Ha/Km) identified and mapped</p> <p>Number of LIBS across the county</p> <p>GIS Maps produced and updated</p>	<p>Identification and collation of information regarding biodiversity areas of local and county importance, in order to protect and enhance these areas – and their ecosystem services</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>Information on our biodiversity resource is vital to help manage our natural resources in order to provide ecosystem services and resilience to climate change</p>
<p>Action 1.3 Identify and map all important species within DLR  (2023)</p>	<p>NPWS, BWI, An Taisce, HSI, BCI, BSBI</p>	<p>Number of Important species identified</p> <p>Number of species surveys completed</p> <p>Number of Species Action Plans across the four Dublin local authorities</p> <p>GIS Maps produced and updated</p>	<p>Collate information, identify and map all important species within DLR, in order to protect and enhance these areas – and their ecosystem services</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>Information on our biodiversity resource is vital to help manage our natural resources in order to provide ecosystem services and resilience to climate change</p>
<p>Action 1.4 Develop DLR Habitat and Species Action Plans of our terrestrial, coastal and marine areas  (2024)</p>	<p>NPWS, Fingal County Council (FCC), Dublin City Council (DCC), South Dublin County Council (SDCC)</p>	<p>Extent (Ha) of EU Annexed habitats and number of EU Annexed species for which good data exists.</p> <p>Extent (Ha) of EU Annexed habitats and populations of species surveyed</p>	<p>Collation of information on EU Annexed habitats and species, in order to protect and enhance these areas – and their ecosystem services</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>The aim is to conserve protected areas and their important species. These areas have characteristics that will continue to favour high levels of</p>

		and mapped  Number of Habitat Action Plans across the four Dublin local authorities  GIS Maps produced and updated			biodiversity. These areas provide ecosystem services and resilience to climate change
Action 1.5 Map and protect our important hedgerows and promote native hedgerow enhancement and planting  (2023)	DLR Planning, DLR Parks, NPWS, BWI, Landowners	Completion of a new county hedgerow survey  Implementation of recommendations  Inclusion of the survey in our County Ecological Network Map	Collation of information on important hedgerows in order to protect and enhance these areas – and their ecosystem services	Potential negative impacts on our biodiversity resource due to climate change	Hedgerows are important wildlife corridors and have characteristics that will continue to favour high levels of biodiversity. They provide ecosystem services and resilience to climate change.
Action 1.6 Update our County Ecological Network Map to protect and enhance DLR'S Green Infrastructure  (2021-2025)	DLR Planning, DLR Parks, NPWS, BWI, An Taisce, HSI, BCI, Local Authority Waters Programme (LAWPRO)	Completion of our current County Ecological Network Map  Inclusion in the DLR County Development Plan  Inclusion of pollinator areas on the network	Provide easily accessible and user-friendly information and data on our County Ecological Network to inform decision-makers and others	Without joined-up thinking on climate change and biodiversity loss, the impacts of both will result in losses in ecosystem services	Provide more integrated decision making to climate change and biodiversity
Action 1.7 Identify important biodiversity areas most vulnerable to climate change, including terrestrial, watercourses, coastal and marine areas, and establish measures and projects that assist protection of vulnerable areas  (2025)	NPWS, Department of Marine	Completion of report on the relevant important areas vulnerable to climate change  Extent (Ha) mapped  Protection measures identified and implemented	To identify important areas that may require strict protection in the future  To identify the protection measures required	Climate change pressures can cause habitat fragmentation, habitat loss and loss of associated species	Increase resilience to climate change by protecting important areas for biodiversity against the impacts of climate change
Action 1.8 Provide a central place for all biodiversity data for decision makers in DLR  (2023)	DLR GIS Technical, DLR Forward Planning	Completion of GIS Browser for Biodiversity Maps by 2023  Completion of Wildlife Corridor Plan Mapping for Planners and Decision Makers in 2021  Completion of our current Ecological Network Map	Provide easily accessible and user-friendly information and data to inform decision makers and others	Without joined-up thinking on climate change and biodiversity, the impacts of both will result in biodiversity loss and ecosystem services loss	Provide a more integrated information source for decision makers in relation to climate change and biodiversity

<p>Action 1.9 Provide a map browser at appropriate scale to provide biodiversity information for the public  (2024)</p>	<p>NPWS, NDBC, DLR Drawing Office and GIS</p>	<p>Public Map Browser available on DLR Website</p>	<p>Provide easily accessible and user-friendly information to the public and raise awareness of the value and importance of biodiversity</p>	<p>The drivers of biodiversity loss today are human impacts, land use pressures, climate change and invasive species.</p>	<p>Provide information on biodiversity, to raise awareness and help reduce biodiversity loss, in order that biodiversity can provide ecosystem services and resilience to climate change</p>
<p>Action 1.10 Support and encourage the volunteer network and local communities to carry out biological recording and citizen science projects that contribute to our biodiversity information and protection of biodiversity  (2021-2025)</p>	<p>NBDC, BWI, NPWS, Local groups, DLR Volunteers</p>	<p>Number of records submitted to NBDC  Number of participants in volunteer organisations. Number of projects where data is gathered by citizen scientists</p>	<p>Provide support to community groups and DLR Volunteers etc.</p>	<p>The drivers of biodiversity loss today are human impacts, land use pressures, climate change and invasive species.</p>	<p>Support local volunteers and communities to help reduce biodiversity loss, in order that biodiversity can provide ecosystem services and resilience to climate change</p>
<p>Action 1.11 Assess the overall state of our biodiversity resource in the county  (2024)</p>	<p>NBDC, BWI, NPWS, Universities, Ecologists</p>	<p>Assessment and analysis report completed.  Implementation of measures to address any issues highlighted.</p>	<p>Collation of information regarding our biodiversity resource for its appropriate management, protection and enhancement</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>Information on our biodiversity resource is vital to help manage our natural resources in order to provide ecosystem services and resilience to climate change</p>

## Theme 2 Making good decisions for biodiversity

**Objective 2:** Mainstream biodiversity into decision-making and improve the management of this valuable resource.

<p>Action 2.1 Develop best management guidelines for important habitats and species within DLR, and communicate these to the public, decision makers, landowners, managers and other land users</p> <p>(2023)</p>	<p>DLR Planning Section, Developers, Landowners, four Dublin local authorities, NPWS</p>	<p>Number of guidelines produced including: Guidance for management of watercourses for Otter Ecological Guidance for Design of Greenways Habitat and Species Action Plans across the Four Dublin Local Authorities Instream Management for Biodiversity - Guidance and Toolbox talks – Water and Drainage works (Biodiversity Training) Best Practice Invasive Species Guidance for Developers and LAs</p>	<p>Provide advice and guidance on important habitats and species</p>	<p>The drivers of biodiversity loss today are human impacts, land use pressures, climate change and invasive species.</p>	<p>Provide guidance, to reduce biodiversity loss, in order that biodiversity can provide ecosystem services and resilience to climate change</p>
<p>Action 2.2 Input into the County Development Plan, Local Area Plans, County Tree Strategy, Special Amenity Area Orders and Historic Landscape Character Assessments, all of which offer potential in terms of addressing biodiversity at local level</p> <p>(2021-2025)</p>	<p>DLR Forward Planning DLR Planning Development</p>	<p>Objectives and Actions identified from the County Biodiversity Action Plan that have been integrated into each DLR Plan</p> <p>Number of Policies and Plans demonstrating the integration of Biodiversity</p> <p>Use of the Ecological Network Maps to inform policies and plans</p>	<p>To integrate Biodiversity Objectives from the County Biodiversity Action Plan into each DLR Policy and Planning</p>	<p>Without joined-up thinking on climate change and biodiversity, the impacts of both will result in biodiversity loss and ecosystem services loss</p>	<p>Provide a more integrated approach to decision making in relation to climate change and biodiversity</p>
<p>Action 2.3 Undertake an audit of current council policies and plans to improve the mainstreaming of biodiversity</p> <p>(2024)</p>	<p>All DLR sections</p>	<p>Policies, guidelines and administrative mechanisms identified through a Biodiversity Audit.</p> <p>Policies, Plans and Projects demonstrating the integration of Biodiversity.</p> <p>Number of actions completed from the DLR Climate Change Action Plan 2019-2024 relating to biodiversity.</p> <p>Number of actions completed from the DLR IAS Action Plan relating to biodiversity.</p> <p>Projects demonstrating restoration and conservation of</p>	<p>To identify gaps and ensure that biodiversity is incorporated into each DLR policy and plan</p>	<p>Without joined-up thinking on climate change and biodiversity, the impacts of both will result in biodiversity loss and ecosystem services loss</p>	<p>Provide a more integrated approach to decision making in relation to climate change and biodiversity</p>



		ecosystems. Guidance completed for Implementing Nature Based Flood Protection Principles and Workshop Use of the County Ecological Network Map to inform policies and plans.			
<p>Action 2.4 Produce an Invasive Alien Species (IAS) Action Plan and ensure the implementation and monitoring of actions</p> <p>(2021 Plan produced, 2022-2025 Monitoring)</p>	All DLR sections, NBDC, NPWS, Local Communities	<p>Completion of the DLR IAS Action Plan.</p> <p>Grey Squirrel Project – ongoing in consultation with NPWS.</p> <p>Completion of DLR IAS Map.</p> <p>Establishment of the DLR Section Leads for IAS actions.</p> <p>Number of actions completed by 2025 by various Section Leads.</p>	Invasive species are identified, priority species controlled or eradicated, and pathways managed to prevent new invasive species from impacting on biodiversity.	The drivers of biodiversity loss today are human impacts, land use pressures, climate change and invasive species.	Provide a more integrated approach to decision making in relation to climate change and biodiversity

<p>Action 2.5 Develop biodiversity management plans for open spaces within DLR ownership and update existing plans</p> <p>(2024)</p>	DLR Parks, DLR Water and Drainage	Parks ecology surveys and management plans.	To manage biodiversity in our Parks	Without joined-up thinking on climate change and biodiversity, the impacts of both will result in biodiversity loss and ecosystem services loss	Provide a more integrated approach to decision making in relation to climate change and biodiversity
<p>Action 2.6 Develop our Ecological Network Maps to inform planning and decision making</p> <p>(2021-2025)</p>	DLR Sections, NPWS, NBDC	Input to the new Green Infrastructure (GI) Strategy in line with the EU GI Strategy and the fundamental role of biodiversity, including its protection and enhancement	<p>Protection of our Ecological Network</p> <p>Increase our resilience to climate change</p>	Climate change can cause fragmentation and damage to our Ecological Network.	Protecting our Ecological Network (which is the backbone of our Green Infrastructure) will help our resilience to climate change, including threats such as flooding.
<p>Action 2.7 Produce guidance on net gain for biodiversity, including guidance for strategies, planning, mitigation measures, and investment in green infrastructure</p> <p>(2023)</p>	NPWS, DLR Planning, Consultant Ecologists, Developers	Guidance on Biodiversity Net Gain completed.	Biodiversity net gain is an approach which aims to leave the natural environment in a measurably better state than beforehand.	Climate change impacts, along with other pressures such as development, can result in biodiversity loss.	Provide guidance on biodiversity net gain and increase our resilience to climate change.

<p>Action 2.8 Develop guidance related to Biodiversity, Ecosystem Services and Planning, to help those involved in Planning to ensure that development within the County protects and enhances its valuable biodiversity</p> <p>(2021-2025)</p>	<p>NPWS, DLR Planning, Consultant Ecologists and Environment specialists, Developers</p>	<p>Guidance on Biodiversity, Ecosystem Services and Planning GIS Mapping integrated into the Planning GIS tools</p>	<p>Provide guidance to Planners to assist with decision making related to biodiversity.</p>	<p>Climate change impacts, along with other pressures such as development, can result in biodiversity loss.</p>	<p>Provide guidance and tools to Planners in order to improve our resilience to climate change.</p>
<p>Action 2.9 Develop best practice guidance for Biodiversity and Greenway Developments to reduce the impacts of greenways on existing biodiversity, and enhancement of biodiversity and for biodiversity gains.</p> <p>(2022)</p>	<p>NPWS, NTA, Infrastructure &amp; Climate Change Department, DLR Transport, DLR Roads, DLR Parks, Consultant Ecologists and Environment specialists, Consultant Engineers, Developers</p>	<p>Guidance on Greenways and Biodiversity</p>	<p>Provide guidance to Transport and Roads to assist with decision making related to biodiversity.</p>	<p>Climate change impacts, along with other pressures such as development, can result in biodiversity loss.</p>	<p>Provide guidance for better decision making in order to improve our resilience to climate change.</p>
<p>Action 2.10 Incorporate the Inland Fisheries Ireland guidance: Planning for watercourses in the Urban Environment into our plans and policies</p> <p>(2021-2025)</p>	<p>DLR Planning, LAWPRO, IFI</p>	<p>Implementation of best practice into our plans and policies</p>	<p>Provide guidance to assist with decision making related to biodiversity.</p>	<p>Climate change impacts, along with other pressures, such as development can result in biodiversity loss.</p>	<p>Provide guidance for better decision making in order to improve our resilience to climate change, in particular, flooding and water quality impacts.</p>
<p>Action 2.11 Develop guidelines to outline the process to be followed where there is the potential for artificial lighting to affect wildlife and apply these to planning development, new projects, lighting upgrades (retrofitting) and where there is evidence of wildlife being affected by existing artificial light.</p> <p>(2022)</p>	<p>NPWS, NTA, Infrastructure &amp; Climate Change Department, DLR Transport, DLR Roads, DLR Parks, Consultant Ecologists, Consultant Engineers, Developers</p>	<p>Guidance provided to ensure that artificial light will be managed so wildlife is not disrupted within, nor displaced from, important habitat; and is able to undertake critical behaviours such as foraging, reproduction and dispersal.</p>	<p>Provide guidance to assist with decision making related to artificial lighting.</p>	<p>Climate change impacts along with other pressures such as artificial lighting can result in biodiversity loss.</p>	<p>Provide guidance for better decision making in order to reduce impacts on biodiversity in face of climate change</p>
<p>Action 2.12 Develop training and guidance for land managers and local authority staff in relation to hedgerow management</p> <p>(2022-2023)</p>	<p>NPWS, NTA, Infrastructure &amp; Climate Change Department, DLR Transport, DLR Roads, DLR Parks, Consultant Ecologists, Consultant Engineers, Developers, Land managers and land owners</p>	<p>Guidance provided to ensure that our hedgerows are managed in an appropriate way and so wildlife is not disrupted within, nor displaced from, hedgerows; and is able to</p>	<p>Provide training and guidance to assist landowners, managers and local authority staff in their role of managing hedgerows.</p>	<p>Climate change impacts along with other pressures such as poor management of our hedgerows can result in biodiversity loss.</p>	<p>Provide training and guidance for better management of our hedgerows in order to reduce impacts on biodiversity in face of climate change</p>

		undertake critical behaviours such as foraging, reproduction and dispersal.			
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### Theme 3 Powerful actions to protect biodiversity and us

**Objective 3:** Conserve and restore biodiversity and ecosystems, and support ecosystem services in DLR, including coastal and marine.

<p>Action 3.1 Identify and map habitats, species and supporting features that provide ecosystem services</p> <p>(2022)</p>	DLR, NPWS, EPA, INCASE Project, Biosphere Partners and others	<p>Completion of an ecosystem services map for biodiversity in DLR</p> <p>Number of habitats and species that have been assessed for extent and condition.</p> <p>Completion of DLR Natural Capital Accounting, using baseline information on extent and condition</p>	To establish baseline information on ecosystem services scoring and natural capital accounting	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human wellbeing.	Knowledge of the value of ecosystem services is important to enhancing biodiversity to improve resilience to climate change
<p>Action 3.2 Work in collaboration with NPWS and others to score ecosystem services for habitats at a local level in DLR</p> <p>(2021-2022)</p>	NPWS	<p>Map produced of ecosystem services for biodiversity in DLR</p> <p>Habitats with an ecosystem service score</p>	To establish baseline information on ecosystem services scoring and natural capital accounting	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human wellbeing.	Knowledge of the value of ecosystem services is important to enhancing biodiversity to improve resilience to climate change
<p>Action 3.3 Strengthen our understanding of natural capital and ecosystem services and incorporate into policy and decision-making in DLR</p> <p>(2021-2023)</p>	DLR All Sections, NPWS	<p>Number of presentations to DLR decision makers, including the promotion and use of DLR Ecosystem Services – Benefits of Biodiversity Animation</p> <p>Number of objectives relating to ecosystem services and natural capital in DLR County Development Plan 2020-2025 (incl. Green Infrastructure)</p> <p>Continue to develop</p>	Integrating ecosystem services into policy, planning and practice	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human wellbeing.	Highlighting the interrelationship between biodiversity, ecosystem services and climate change in decision making

		Ecosystem Services Scoring and Natural Capital Accounting, which provide tools for decision makers			
Action 3.4 Identify opportunities where ecosystems can be restored and enhanced, including terrestrial, river, coastal and marine ecosystems  (2022-2024)	DLR All Sections, NPWS, Inland Fisheries, LAWPRO, EPA, Dept of Marine, landowners, local communities	Restoration and enhancement projects of ecosystems undertaken across all DLR departments  Number of Nature Based Solutions Flood Projects demonstrating restoration and conservation of ecosystems	Investment in ecosystem restoration and enhancement projects to mitigate habitat loss, conserve biodiversity, and boost ecosystem services	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human wellbeing	Enhancing biodiversity and ecosystem services to improve resilience to climate change
Action 3.5 Develop and implement appropriate rewilding projects in DLR and extend our local biodiversity areas within DLR  (2022-2025)	NPWS, Inland Fisheries, EPA, LAWPRO, DLR Parks, DLR Water and Drainage, Infrastructure & Climate Change Department, local communities	Number of appropriate rewilding projects completed	Investment in ecosystem restoration and enhancement projects to mitigate habitat loss, conserve biodiversity, and boost ecosystem services	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human wellbeing	Enhancing biodiversity and ecosystem services to improve resilience to climate change
Action 3.6 To protect, restore and expand our County Ecological Network and DLR'S Green Infrastructure. Deliver Nature Recovery and Restoration as part of our Ecological Network and promote the use of nature-based solutions where these solutions allow the delivery and expansion of our Ecological Network.  (2021-2025)	NPWS, Inland Fisheries, EPA, LAWPRO, DLR Parks, DLR Water and Drainage, Infrastructure & Climate Change Department, other Local Authorities	Area (HA) or length (KM) recovered	Investment in ecosystem restoration, NBS and ecological network projects to mitigate habitat loss, increase connectivity, conserve biodiversity, and boost ecosystem services	Climate change threatens biodiversity and causes significant alterations to the supply of ecosystem services that are vital for human well-being	Enhancing biodiversity, connectivity and ecosystem services to improve resilience to climate change
Action 3.7 Carry out ecological surveys and assessment of our habitats, including hedgerows, rivers and streams, to provide information regarding areas that require restoration in order to deliver	NPWS, Universities, Ecologists	Number of surveys completed and areas identified for restoration	To establish baseline information areas in need of investment and recovery of our Ecological Network	Climate change can cause fragmentation and damage to our Ecological Network.	Restoring and protecting our Ecological Network (which is the backbone of our Green Infrastructure) will help our resilience to climate change including threats such as

the recovery of our Ecological Network  (2022-2025)					flooding.
Action 3.8 Continue to implement the biodiversity actions of the Dalkey Island Heritage Plan  (2021-2025)	DLR Parks, DLR Heritage, BWI, NPWS, Biosphere Partners	Tern species population returning annually Tern species young successfully fledged annually Goat population maintained on island Area of habitat unchanged or improving (Ha) Presence of rare plants	Management of Dalkey Island, in order to protect and enhance the island for tern species, habitats and flora, including rare plant species – and their ecosystem services	The drivers of biodiversity loss today are human impacts, including visitor pressures to natural areas, climate change and invasive species.	Protecting and enhancing biodiversity and ecosystem services to improve resilience to climate change
Action 3.9 Complete the actions for councils outlined in the All-Ireland Pollinator Plans 2015-2020 and 2021- 2025, and create areas for wildlife and pollinators  (2021-2025)	DLR Sections, Local Communities, e.g. Tidy Towns, Residents' Associations; NBDC	Pollinator Areas created and increasing Enhancements of Biodiversity including Wildlife Corridors and Green Infrastructure Council pollinator-friendly actions completed Ecosystem Services Scoring of Biodiversity and Wildlife Corridors and the level of increased scoring achieved through habitat restoration, enhancements and rewilding projects.	Increase pollinator-friendly areas across the county	Climate change pressures can cause the loss of wildlife corridors and refuges and loss of pollinators, resulting in loss of ecosystem services.	Enhancing biodiversity and ecosystem services to improve resilience to climate change
Action 3.10 Protect existing swift nesting sites where possible; establish new sites in existing public and private properties; and request artificial swift nest boxes as part of new suitable development in DLR  (2021-2025)	DLR Sections, Schools, Swift Conservation Group, BWI	Number of successful swift nesting boxes and monitoring of these  Map completed of the locations of existing and newly created swift nests	To assist swift populations to survive the threats of climate change and to address threats to swifts from renovation of old buildings and development	Increased storms and wet weather are affecting swift migration and threatening their populations as a result of climate change, along with the renovation of old buildings which causes a loss of nesting sites.	Enhancing biodiversity to improve resilience to climate change
Action 3.11 Continue the Red Squirrel Project and extend project to Fernhill  (2021-2025)	NPWS Research, UCD, DLR Parks	Red squirrel juveniles annually in Killiney Hill and viable population  Red squirrel in Fernhill	To assist the Red Squirrel population to survive in Killiney Hill Park and to monitor their use of Fernhill	Habitat fragmentation and habitat loss as a result of climate change impacts on	Protecting biodiversity to improve resilience to climate change

			Park	the red squirrel populations and their survival	
Action 3.12 Continue to protect the Calcareous Wetland and Flora at Kingston, Kiltiernan  (2021-2025)	NPWS, DLR Water and Drainage	Monitoring surveys completed every 3 years	To protect the important EU Annex habitats at Kingston and prevent their loss	The drivers of biodiversity loss today are land use pressures, climate change and invasive species.	Protecting biodiversity to improve resilience to climate change
Action 3.13 Protect and enhance Booterstown Marsh, an important, unique coastal area within DLR and an EU Natura 2000 site  (2021-2025)	NPWS, An Taisce, DLR Parks, DLR Water and Drainage	Monitoring programme developed and implemented annually	To protect the important EU Annex habitats and species at Booterstown Marsh and to prevent their deterioration and loss	The drivers of biodiversity loss today are land use pressures, climate change and invasive species.	Protecting biodiversity to improve resilience to climate change
Action 3.14 Protect the sand martin colonies along our coastline which occur in the coastal cliffs  (2021-2025)	NPWS, BWI, DLR Infrastructure and Climate Change Department, and Water and Drainage Department	Awareness campaign of the occurrence of these species to DLR staff and to the public, in particular in relation to coastal protection projects	To protect the sand martin colonies	Climate change related projects may impact on biodiversity	Protecting biodiversity to improve resilience to climate change
Action 3.15 Develop a Habitat Management Plan for Shanganagh coast and cliffs  (2023)	NPWS, BWI, DLR Infrastructure and Climate Change Department, and Water and Drainage Department	Habitat Management Plan completed	To provide an understanding of the biodiversity role of the coastal habitats along the Shanganagh coastline and for their appropriate management	Climate change related projects and coastal erosion may impact on biodiversity	Protecting biodiversity to improve resilience to climate change
Action 3.16 Promote the creation of nature-based solutions (NBS), such as biodiversity roofs (brown roofs), pollinator areas, native hedgerow planting, wetlands and other NBS to promote biodiversity, as part of NBS for new development and other projects  (2021-2025)	DLR Water and Drainage, developers, Infrastructure and Climate Change Department, decision makers	Number of biodiversity roofs incorporated into new development	To provide additional biodiversity measures in an urban environment	Climate change impacts, along with other pressures such as development, can result in biodiversity loss.	Providing additional biodiversity measures to improve resilience to climate change



<p>Action 3.17 Promote local seed collection by qualified professionals, including for new developments, in order to keep our seed sources local, and encourage communities to collect and share local seed</p> <p>(2021-2025)</p>	<p>NPWS, Botanic Gardens, DLR Parks, other LAs; local communities</p>	<p>Pilot seed collection project from DLR public lands to preserve seeds for future use in community and capital projects.</p>	<p>To keep local seed sources for re-use in the county. To share rare plant species' seed source where appropriate</p>	<p>Climate change impacts, including soil loss, along with other pressures such as development, can result in loss of our local seed sources.</p>	<p>Providing additional biodiversity measures to improve resilience to climate change</p>
<p>Action 3.18 Continue to support conservation grazing at Fernhill Park and Gardens and to develop other public lands for conservation grazing</p> <p>(2021-2025)</p>	<p>Irish Droimeann Society, DLR Parks, Universities</p>	<p>Fernhill meadows managed through grazing</p>	<p>To maintain the diversity of the old meadows through traditional, low-impact grazing</p>	<p>Climate change will compound the existing pressures on our pollinators and biodiversity</p>	<p>Providing opportunities for more diverse habitats for pollinators to improve resilience to climate change</p>
<p>Action 3.19 Develop habitats for reptiles and amphibians which also provide habitat for other species</p> <p>(2023)</p>	<p>Herpetological Society of Ireland (HSI), DLR Parks, DLR Infrastructure and Climate Change Department, and Water and Drainage Department</p>	<p>Habitats created for reptiles and amphibians</p>	<p>To increase habitats for reptiles and amphibians</p>	<p>Climate change impacts, along with other pressures such as development, can result in biodiversity loss.</p>	<p>Providing opportunities for more diverse habitats for reptiles and amphibians to improve resilience to climate change</p>

## Theme 4 Connecting People and Nature and Inspire a Positive Future

**Objective 4:** Increase awareness, training and appreciation of biodiversity, ecosystems and ecosystem services

<p>Action 4.1 Provide education and raise awareness of biodiversity and ecosystem services among the public, decision makers and educators</p> <p>(2021-2025)</p>	<p>Schools, Third level, DLR sections, Dept of Marine, NPWS, EPA , BWI WFD officers, LAWPRO, Inland Fisheries</p>	<p>Number of schools taking part in the Ecosystem Services programme Public biodiversity events annually Promotion and use of DLR animation Ecosystem Services – Benefits of Biodiversity by others in education and training</p>	<p>To inform and raise awareness of ecosystem services</p>	<p>Lack of awareness of the impacts of climate change on ecosystem services can lead to poor decisions and unintended loss of biodiversity</p>	<p>Increasing awareness of the interrelationship between biodiversity, ecosystem services and climate change</p>
<p>Action 4.2 Provide Information on biodiversity and ecosystem services through the DLR website and publications</p> <p>(2021-2025)</p>	<p>DLR - all sections, DLR Communications, Schools, Third level, Biosphere Partners</p>	<p>Biodiversity Section of DLR website updates Biodiversity News updates on social media Completion of the Biodiversity Tour of DLR publication Completion of Biodiversity Action Plan Publication Completion of DLR Biodiversity Map Browser for Habitats</p>	<p>Increase awareness of biodiversity</p>	<p>Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity</p>	<p>Increasing awareness of the interrelationship between biodiversity, ecosystem services and climate change</p>

		and Species Completion of biodiversity signs in parks and green spaces			
Action 4.3 Organise activities and events to promote biodiversity, ecosystems and ecosystem services  (2021-2025)	Parks, Schools, Educational Groups, Local Communities, BWI, NPWS, Heritage Council	Promotion and use of the DLR animation Ecosystem Services – Benefits of Biodiversity Monthly biodiversity events Staff biodiversity training events Local Communities engagement events and projects	Increase awareness of biodiversity	Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity	Increasing awareness of the interrelationship between biodiversity, ecosystem services and climate change
Action 4.4 Establish training and education programmes to promote appreciation of biodiversity, ecosystems and ecosystem services  (2021-2022)	Educational organisations, Green Schools, Third level, Local communities, BWI, NPWS	Number of schools taking part in the Ecosystem Services programme Number of BWI Schools Bird Workshops Number of public training workshops and staff biodiversity training workshops Dog training courses in parks and public spaces, including beaches, to raise awareness of the impacts of dogs on biodiversity	Increase training and awareness of biodiversity	Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity	Increasing awareness of the interrelationship between biodiversity, ecosystem services and climate change
Action 4.5 Establish and promote positive examples of cooperative local community biodiversity projects or demonstration models  (2021-2025)	Local community groups, Tidy Towns, residents' groups, DLR Volunteers	Number of local community projects	Encouraging and supporting local communities to become involved in biodiversity.	Impacts of climate change on local communities are increasing. The involvement and empowerment of local communities to protect and enhance biodiversity is important.	Partnership with communities and encouraging community involvement to foster active participation in biodiversity conservation also increases climate change resilience.

Action 4.6 Provide education and raise awareness of the impacts of climate change on biodiversity  (2021-2023)	Schools, Third level, DLR sections, Dept of Marine, NPWS, EPA , BWI, WFD officers, LAWPRO, Inland Fisheries	Number of schools taking part in the Ecosystem Services programme  Public biodiversity and climate change events  Promotion and use of DLR Biodiversity and Climate Change Poster	To inform and raise awareness of ecosystem services	Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity	Increasing awareness of the interrelationship between biodiversity, ecosystem services and climate change
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<p>Action 4.7 Raise awareness of the physical and mental health benefits of biodiversity  (2021-2023)</p>	<p>Local community groups, Tidy Towns, residents' groups, DLR Volunteers</p>	<p>Number of events</p>	<p>To inform and raise awareness of the benefits of biodiversity</p>	<p>Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity</p>	<p>Increasing awareness of the interrelationship between biodiversity, physical and mental health benefits (part of ecosystem services) and climate change</p>
<p>Action 4.8 Provide training to the public in relation to reptile and amphibian surveys with the Herpetological Society of Ireland (HSI)  (2023)</p>	<p>Local community groups, Tidy Towns, residents' groups, DLR Volunteers</p>	<p>Number of training events</p>	<p>To provide training for local communities to survey reptiles and amphibians and take part in citizen science</p>	<p>Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity</p>	<p>Partnership with communities and encouraging community involvement to foster active participation in biodiversity conservation also increases climate change resilience.</p>

## Theme 5 Strength in Working Together

**Objective 5:** Strengthen the effectiveness of collaboration between all stakeholders for the conservation of biodiversity, including with Local Communities, Local Authority Biodiversity Officers, LAWPRO, the National Biodiversity Data Centre, BirdWatch Ireland, NPWS and other State Bodies.

<p>Action 5.1 Engage with local communities and business communities to develop local biodiversity projects  (2021-2025)</p>	<p>Schools, Tidy Towns, Residential Groups, Faith Communities</p>	<p>Number of community biodiversity projects</p>	<p>Building partnerships with communities for biodiversity conservation and engaging people in biodiversity</p>	<p>Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity</p>	<p>Partnerships with communities and encouraging community involvement to foster active participation in biodiversity conservation also increases climate change resilience.</p>
<p>Action 5.2 Work with our Dublin Bay Biosphere Partners to promote sustainable use of the DLR Biodiversity Resource in the Biosphere  (2021-2025)</p>	<p>Biosphere Partners</p>	<p>Biosphere events annually  Biosphere projects completed  Biosphere Conservation Actions completed for DLR</p>	<p>Provide support for the Biosphere and promote the Biosphere</p>	<p>The impacts of climate change would be compounded by unsustainable use of the Biosphere</p>	<p>By encouraging sustainable use of the Biosphere with our partners, we can protect and enhance biodiversity and ecosystems to improve resilience to climate change</p>
<p>Action 5.3 Support implementation of Dublin Bay Biosphere Nature Conservation Strategy, Education &amp; Awareness</p>	<p>Biosphere Partners</p>	<p>Completion of the Dublin Bay Biosphere Nature Conservation Strategy, Education &amp; Awareness strategy</p>	<p>Dublin Bay Biosphere Nature Conservation Strategy, Education and Awareness strategy</p>	<p>Lack of awareness of the impacts of climate change on biodiversity can lead to poor decisions and unintended loss of biodiversity</p>	<p>Increasing awareness and appreciation of the Biosphere and sustainable use of the Biosphere will help to improve resilience to climate change</p>

strategy (2022)		Implementation of priority actions in DLR			
Action 5.4 Carry out a study of marine ecosystems and develop marine ecosystem restoration projects with our Biosphere Partners (2023)	Biosphere Partners	Number of marine ecosystem restoration projects implemented with our Biosphere Partners	Part of the Biosphere Conservation Actions common to all partners	Without joined-up thinking on our shared marine environment, the impacts of climate change may result in biodiversity loss and ecosystem services loss	Working with our Biosphere Partners, we aim to strengthen and share our biodiversity information and to provide a collaborative approach at the wider Dublin bay level in relation to marine ecosystems. This in turn will help to improve our resilience to climate change.
Action 5.5 Work with government departments and the public in relation to the designation of Marine Protected Areas (MPAs) (2021-2025)	DAFM, NPWS, EPA, Coastwatch, Universities, local communities	Progression of the designation of MPAs	To protect our marine areas and encourage sustainable use of these areas	Climate change is a serious threat to the marine environment and its resources. Degraded marine ecosystems are less likely to be resilient to the effects of climate change than healthy, fully-functional ecosystems	MPAs have the potential to play an important role in maintaining and restoring ecosystem resilience, protecting biodiversity and creating refugia from climate change impacts.
Action 5.6 Work with other local authorities to strengthen our knowledge of important habitats and species (2021-2025)	FCC, DCC, SDCC and others	Number of projects completed in collaboration with other local authorities	To protect biodiversity that extends beyond geographical boundaries of local authorities	Without joined-up thinking on climate change and biodiversity, the impacts of climate change may result in biodiversity loss and ecosystem services loss	Working with other local authorities, we aim to strengthen and share our biodiversity information and to provide a collaborative approach at a wider landscape level. This in turn will help to improve our resilience to climate change.
Action 5.7 Work with other local authorities to fund satellite-tracking studies of winter birds listed as qualifying features in European sites and other important species (2021-2025)	FCC, DCC, SDCC and others	Projects completed in collaboration with other local authorities	To protect biodiversity that extends beyond geographical boundaries of local authorities	Without joined-up thinking on climate change and biodiversity, the impacts of climate change may result in biodiversity loss and ecosystem services loss	Working with other local authorities, we aim to strengthen and share our biodiversity information and to provide a collaborative approach at a wider landscape level. This in turn will help to improve our resilience to climate change.

<p>Action 5.8 Provide supports to BirdWatch Ireland for the Dalkey Island Tern Project, Swift conservation, and other important bird projects</p> <p>(2021-2025)</p>	<p>NPWS, DLR Parks, BWI, other LAs</p>	<p>Projects related to the protection of DLR's important bird species completed</p>	<p>To protect our important bird species</p>	<p>The impacts of climate change can be seen in the changes in the breeding and distribution patterns of bird species and this is compounded by other pressures.</p>	<p>Working with BWI on bird-related projects will help to understand and address, where possible, climate change pressures on bird species.</p>
<p>Action 5.9 Work with LAWPRO to develop ways to protect and enhance our river wildlife corridors and waterways</p> <p>(2022)</p>	<p>DLR Water and Drainage, DLR Parks, DLR Planning, LAWPRO, IFI</p>	<p>Projects related to our wildlife corridors completed</p>	<p>To protect our important river wildlife corridors</p>	<p>Climate change impacts, such as increased peak river flows, bank erosion, flood protection measures in response to climate change may all impact on biodiversity.</p>	<p>Working with LAWPRO and other partners, to protect and enhance our river wildlife corridors and waterways will also help to build our climate change resilience.</p>
<p>Action 5.10 Work with our CARO Partners, NPWS and others to ensure the protection of biodiversity in the face of Climate Change</p> <p>(2021-2025)</p>	<p>CARO, DLR Climate Action Officer, Infrastructure and Climate Change Department DLR Sections, NPWS</p>	<p>Biodiversity - Climate Change Collaboration projects completed.</p> <p>Raise awareness and training on the impacts of climate change on biodiversity</p>	<p>To protect biodiversity in the face of climate change and its associated impacts.</p>	<p>Climate change impacts, such as habitat fragmentation, biodiversity loss, shifts in species distribution, species unable to adapt, phenological mismatches, invasive alien species, etc.</p>	<p>Working with CARO and other partners, to raise awareness of the impact of climate change on biodiversity and to collaborate on projects that support and assist biodiversity to build climate change resilience.</p>
<p>Action 5.11 Dún Laoghaire-Rathdown County Council is a partner in the Dublin Mountains Partnership. The Biodiversity Officer will liaise with this forum to promote the protection and enhancement of biodiversity</p> <p>(2021-2025)</p>	<p>Dublin Mountains Partnership (DMP), Coillte</p>	<p>Collaborations with DMP</p>	<p>To protect the biodiversity of our upland areas</p>	<p>Without joined-up thinking on our shared upland environment, the impacts of climate change may result in biodiversity loss and ecosystem services loss</p>	<p>Working with Dublin Mountain Partnership, we aim to strengthen and share our biodiversity information and to provide a collaborative approach to the uplands. This in turn will help to improve our resilience to climate change.</p>
<p>Action 5.12 Work with Coillte Nature for the protection and enhancement of biodiversity, including Red Squirrel.</p> <p>(2021-2025)</p>	<p>Coillte, NPWS</p>	<p>Collaborations with Coillte</p>	<p>To protect biodiversity of our forested areas</p>	<p>Climate change impacts, such as increased wildfires, pests and diseases, along with increased visitor pressures, may result in biodiversity loss and ecosystem services loss</p>	<p>Working with Coillte, we aim to strengthen and share our biodiversity information and to provide a collaborative approach to managing biodiversity on Coillte lands. This in turn will help to improve our resilience to climate change.</p>

<p>Action 5.13 Work with our colleagues across our own organisation in DLRCC and collaborate on biodiversity projects, including nature-based solution projects.</p> <p>(2021-2025)</p>	<p>DLR Sections</p>	<p>DLRCC NBS projects</p>	<p>To increase collaborations for biodiversity across DLRCC</p>	<p>Without joined up thinking on climate change and biodiversity, the impacts of climate change may result in biodiversity loss and ecosystem services loss</p>	<p>Working within DLRCC, we aim to strengthen a collaborative approach for the management and protection of biodiversity in relation to DLRCC projects. This in turn will help to improve our resilience to climate change.</p>
<p>Action 5.14 Work with NPWS and community groups to develop woodland management plans and the protection of Loughlinstown Woods pNHA and Fitzsimons Woods pNHA.</p> <p>(2022-2024)</p>	<p>NPWS, community groups</p>	<p>Completion of the Loughlinstown Wood pNHA Woodland Management Plan and the Fitzsimons Woods pNHA Woodland Management Plan</p>	<p>To protect our native woodlands</p>	<p>Climate change impacts, such as increased wildfires, tree pests and diseases, along with increased invasive species, may result in biodiversity loss and ecosystem services loss</p>	<p>Working with communities to ensure that the only two native woodlands in DLR have comprehensive management plans to conserve these important areas so they can continue to take up carbon.</p>
<p>Action 5.15 Engage with third level institutions to support and to develop biodiversity research in DLR</p> <p>(2021-2025)</p>	<p>Third level institutions, Universities</p>	<p>Student research projects</p>	<p>To develop scientific biodiversity data that can assist local authorities</p>	<p>Potential negative impacts on our biodiversity resource due to climate change</p>	<p>Scientific data in relation to our biodiversity resource is vital to help manage our natural resources in order to provide ecosystem services and resilience to climate change</p>

## Appendix 2

Consultation Responses from Statutory Consultees



**Iascach Intíre Éireann  
Inland Fisheries Ireland**

**30/03/2022**

## **DLRCC County Biodiversity Action Plan 2021- 2025**

Inland Fisheries Ireland (IFI) is a Statutory Body whose principal function is the protection, management and conservation of the inland fisheries resource. Protection of the aquatic environment and habitat is a vitally important element of IFI's work. In the context of Dun Laoghaire- Rathdown **Biodiversity Action Plan 2021- 2025** , the issues of water quality, fisheries habitat and angling tourism should be given due priority.

The EU Water Framework Directive (2000/60/EC) entered into force in December 2000 requires the protection of the ecological status of river catchments – this encompasses water quality and requires the conservation of habitats for ecological communities. One of the primary objectives of the Directive is to establish a framework which prevents further deterioration and protects and enhances the status of aquatic ecosystems. Protection of aquatic ecosystems requires that river systems be protected on a catchment basis. The BAP must recognise that protection of the aquatic environment/habitat not only requires the protection of water quality but also necessitates the protection and maintenance of physical habitat and hydrological processes/regimes.

Dun Laoghaire Rathdown is traversed by regionally important salmonid systems. Many main river channels and their tributaries are exceptional in the area in supporting Atlantic salmon (*Salmo salar*, listed under Annex II and V of the EU Habitats Directive) and Sea trout (*Salmo trutta*) in addition to resident Brown trout (*Salmo trutta*) populations. Data also indicates the presence of spawning populations of European Eel (*Anguilla anguilla*) Sea River and Brook lamprey (*Lampetra* species - ANNEX II of the EU's Habitats Directive) in the County. It is essential that development in the area will not have a deleterious effect on aquatic ecology in these systems.

### **Aquatic Habitat Protection (including protection of Riparian Habitat):**

Developments such as road and bypass development, urbanisation, flood relief, afforestation, river drainage have caused and are causing major disturbances to the physical habitat. "Development" can require that extensive sections of



**Iascach Intíre Éireann  
Inland Fisheries Ireland**

watercourses be drained, altered, and diverted, flood plains may be modified to accommodate housing and industrial development, impermeable surface areas in urban areas and on motorways have increased giving rise to increased runoff, and smaller streams and rivers have been culverted to accommodate development.

It is essential that IFI be contacted in relation to all works that may have an impact on surface waters (as per PLANNING AND DEVELOPMENT REGULATIONS, 2001, Section 28).

This requirement is to ensure that impacts from development/change in land use practices (including flood plain development) do not interfere with the aquatic environment it is essential that those areas adjacent to waterways (**riparian buffer zones**) are managed in a manner which will lessen impacts to these habitats. A riparian/buffer zone is a vegetated area near a stream, which helps shade and partially protect a stream from the impact of adjacent land uses. It is a discrete ecological and geographical entity. With the decline of many aquatic ecosystems due to development, riparian buffers have become a common conservation measure aimed at improving water quality and lessening pollution impacts. The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development areas and river banks should be maximised. Riparian vegetation should be retained in as natural a state as possible at all times.

IFI have recently published the following guidelines which could also be referred to in the BAP. They can be accessed on our website [www.fisheriesireland.ie](http://www.fisheriesireland.ie) :

Revised “**Planning for watercourses in the urban environment**” which can provide guidance on site specific measures to enhance, protect, rehabilitate or establish riparian and aquatic habitats.

“**River Restoration Works - Science based Guidance centred on Hydromorphological Principles in an Era of Climate Change – 2020**” has also been published by IFI and describes a framework to plan, design, implement and monitor river restoration projects. A list of best practice riparian and instream measures are presented alongside measures to address channel connectivity and invasive species that are compliant with the EU Water Framework Directive (WFD), other EU Directives and State regulations.





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Currently the EPA has classified the Shanganagh and Carrickmines system as moderate status (3-4). Excessive siltation and compaction of the instream substrate was observed. Extensive construction is being carried out within this catchment and IFI welcomes plans stated in the DLRCC's county development Plan such as creating buffer strips along the Carrickmines River which will help protect the system. IFI recommends that the Draft Biodiversity Plan proposes these same measures and reinforces them even further.

IFI's policy is to maintain watercourses in their open natural state to prevent habitat loss preserve and enhance biological diversity and aid in pollution detection. Biodiversity is not just contained within specifically Designated Areas and IFI would recommend that the Draft BAP endorse this policy and propose to reject proposals that would interfere with natural floodplains.

The CDP states that the "*River Dodder to the Mountains*" planned Greenway offers a potential prospect to open long culverts on The Little Dargle under the Grange Golf Course and at Loreto Park. IFI would be greatly in favor of this initiative and would assist in any way possible to help open up culverted waterways in the county.

### **River Crossing Structures:**

The impacts of poorly designed river/stream crossing structures can be serious in terms of habitat loss. Prevention of the free upstream migration of fish species such as Salmon, Trout and Lamprey effectively results in the loss of spawning habitat upstream of the barrier to migration. This could have serious implications for the populations of fish species concerned and contravenes the legal obligation under the WFD to protect the ecological status of river catchments and channels.

It is an offence under the Fisheries Acts to prevent the free passage of fish. When structures are being designed for crossing fisheries waters, consideration must be given to the following biological criteria: species of fish required to safely pass; size of fish required to pass (life stage); time of year in which fish passage is required; and, high and low design passage flows etc. Bridges and bottomless culverts have the least impact on fish passage. IFI recommends that the Plan should include a clear policy on the use of clear span structures on fisheries waters and that IFI should be consulted on any such proposed developments.





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Inland Fisheries Ireland**

### **Transport Infrastructure:**

Road Drainage, particularly on National Routes should ensure adequate attenuation measures are in place and silt and petrol interceptors, constructed wetlands and swales should be employed where appropriate to reduce pollutants from the road entering watercourses. IFI is anxious that all roads and pipelines are constructed in such a manner so as not to pose a threat to waters either through pollution, loss of fisheries habitat or through interference with the passage of migratory fish species and/or spawning beds. Consultation with IFI on road and pipeline infrastructural projects should commence as early as possible and continue throughout the planning and construction stage of the project. IFI requests that the provision of parking areas for anglers be considered in future road schemes where the opportunity arises near key angling locations.

### **Forestry:**

IFI has major concerns regarding the impact of forestry on sensitive fishery catchments, especially where planting has been carried out on deep peat soils. IFI suggest that new forestry developments, except for broadleaf, would be discouraged in proposed/candidate and adopted NHAs, SACs and SPAs, in water quality and fisheries sensitive areas". This would apply to forestry's in the plan area such as Ticknock forest, Three and Two Rock Mountains and Glencullen.

### **Water Abstraction:**

An on-going challenge for IFI which is particular to summer months when river and stream flows are often low is wide scale unregulated water abstraction. This practice may have significant ecological implications if large volumes of water are abstracted over a short period of time from small nursery or spawning streams. Such abstractions during dry weather or drought periods could have severe repercussions for aquatic habitats, fish stocks and accordingly the ecological status of watercourses in terms of the Water Framework Directive. It is imperative that Dun Laoghaire County Council maintain an abstraction register.



**Iascach Intíre Éireann**  
**Inland Fisheries Ireland**

I hope that IFI's observations are helpful and consideration will be given to them when finalising your Biodiversity Plan.

Kind Regards,

Matthew Carroll  
Fisheries Environmental Officer  
Inland Fisheries Ireland - Dublin  
**Iascach Intíre Éireann**  
**Inland Fisheries Ireland**

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**Address:** 3044 Lake Drive, City West, Dublin 24, IRELAND.



**Iascach Iníre Éireann**  
**Inland Fisheries Ireland**



Ms Anne Murray  
Biodiversity Officer  
Dun Laoghaire-Rathdown County Council  
County Hall  
Marine Road  
Dun Laoghaire

8<sup>th</sup> April 2022

Our Ref: 220303.1

**Re. Strategic Environmental Assessment Screening Report for the Dun Laoghaire-Rathdown Biodiversity Action Plan 2021-2025**

Dear Ms Murray

We acknowledge your notice, dated 16<sup>th</sup> March 2022, in relation to the Screening Report for the Dun Laoghaire-Rathdown Biodiversity Action Plan 2021-2025 (the 'Plan') and associated Strategic Environmental Assessment (SEA) screening.

The EPA is one of the statutory environmental authorities under the SEA Regulations. In our role as a SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

**Proposed SEA Determination**

We note your determination that SEA is not required for the Plan. Where we provide specific comments on plans and programmes, our comments will focus on the EPA's remit and areas of expertise (in particular water, air, climate change, waste, resource efficiency, noise, radon and the inter-relationships between these and other relevant topics e.g. biodiversity), as appropriate and relevant to the particular Plan.

### ***Biodiversity***

The Plan should reference relevant specific commitments in higher level plans and programmes that protect designated habitats and protected species (and associated ecological corridors/linkages) within and adjacent to the Plan area. You should consult with the National Parks and Wildlife Service (NPWS) regarding any existing or proposed new conservation management plans and where relevant, these should be integrated into the Biodiversity Plan and its implementation. The following environmental resources may be worth considering in the context of finalising the Plan.

The EPA published guidance on [\*Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes. Good Practice Guidance\*](#) (EPA, 2013) may be useful to consider in preparing the Plan.

### ***Environmental Sensitivity Mapping (ESM) WebTool***

This new tool was launched recently by the EPA. It is a new decision support tool to assist SEA and planning processes in Ireland. It is available at [www.enviromap.ie](http://www.enviromap.ie). The tool brings together over 100 datasets and allows users to create plan-specific environmental sensitivity maps. These maps can help planners examine environmental considerations, anticipate potential land-use conflicts, and help identify suitable development locations while also protecting the environment.

### ***EPA SEA WebGIS Tool***

Our SEA WebGIS Tool has been updated recently and is now publicly available at <https://gis.epa.ie/EPAMaps/SEA>. It allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area. It is intended to assist public authorities in SEA screening and scoping exercises.

### ***EPA WFD Application***

Our WFD Application provides access to water quality and catchment data from the national WFD monitoring programme and is available through EPA Maps. It is also publicly available data can be accessed via the [www.catchments.ie](http://www.catchments.ie) website.

### ***EPA AA GeoTool***

Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to select a location, specify a search area and gather available information for each European Site within the area. It is available at: <https://gis.epa.ie/EPAMaps/AAGeoTool>

### **Environmental Authorities**

Under the SEA Regulations (SI 435 of 2004, as amended), prior to making your SEA determination you should consult with:

- Environmental Protection Agency;
- Minister for Housing, Local Government and Heritage
- Minister for Environment, Climate and Communications; and

- Minister for Agriculture, Food and the Marine.

### **SEA Determination**

As soon as practicable after making your determination as to whether SEA is required or not, you should make a copy of your decision, including, as appropriate, the reasons for not requiring an environmental assessment, available for public inspection in your offices and on your website. You should also send a copy of your determination to the relevant environmental authorities consulted.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: [sea@epa.ie](mailto:sea@epa.ie).

Yours sincerely,

A handwritten signature in black ink that reads 'David Galvin'.

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David Galvin  
*SEA Section*  
*Office of Evidence and Assessment*



Ane Murray  
Biodiversity Officer  
Dún Laoghaire-Rathdown County Council  
County Hall  
Dún Laoghaire  
Co. Dublin

21 April 2022

**Re: SEA Screening Report for the Dún Laoghaire Rathdown County Biodiversity Action Plan 2021-2025**  
**Your Ref: L16117**  
**Our Ref: 22/93**

Dear Anne,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to your email received on the 22 March 2022, concerning the SEA Screening Report for the Dún Laoghaire Rathdown County Biodiversity Action Plan 2021-2025, Geological Survey Ireland would encourage use of and reference to our datasets. Geodiversity is defined as the variety of the non-living elements of nature – including its minerals, rocks, fossils, soils, sediments, landforms, topography, geological and morphogenetic processes, and hydrological features such as groundwater, rivers and lakes. **Geodiversity underpins biodiversity** and is the basis of habitats and ecosystems, but has its own value independent of biodiversity. This geological diversity is reflected in our many data sets as listed in the attached spread sheet with some more detail on the most relevant data sets below.

#### **Geoheritage**

The [Geological Heritage of Dún Laoghaire-Rathdown audit](#) was completed in 2014. The resulting report was an action of the Dún Laoghaire-Rathdown Heritage Plan 2013-2019. We would welcome inclusion of the 12 DLRCC County Geological Sites within the Biodiversity SEA Report.

- Ballybetagh Bog
- Ballycorus
- Blackrock Breccia
- Carrickgollogan
- Dalkey Hill
- Dalkey Island
- Killiney Bay
- Killiney Hill
- Murphystone Quarry
- The Scalp
- Three Rock Mountain
- White Rock, Killiney

The Geological Heritage Programme views the Local Authorities as critical partners in protecting, through the planning system, those CGS which fall within their county limits. In many cases these are often sites of high amenity or educational value, already zoned or listed in the plan. Listing in the CDP provides protection of the sites against potentially damaging developments that normally require planning permission, such as building, quarrying, landfilling or forestry. It is also important that the democratic process of public consultation and approval by councillors of the CDP means that stakeholders in the sites and all the local community can buy into the process.



CGSs have been adopted in the National Heritage Plan, and will form a major strand of geological nature conservation to complement the various ecological and cultural conservation measures. It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites, and in some cases development may facilitate enhanced geological understanding of a site by exposing more rock sections - for example, in a quarry extension. Consultation at the earliest stages can identify any issues relevant to an individual site or proposed development.

County Geological Sites are the optimal way of addressing the responsibility of each authority under the Planning and Development Act 2000 and its amendments, to protect sites of geological interest.

As always we are available if you require any further information, please feel free to contact Clare Glanville ([Clare.Glanville@gsi.ie](mailto:Clare.Glanville@gsi.ie)).

### **Groundwater**

Geological Survey Ireland's [Groundwater and Geothermal Unit](#), provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our [Map viewer](#) which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels ([gwlevel.ie](http://gwlevel.ie))). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.

[GWClimate](#) is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the [Map viewer](#).

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. **The Groundwater Protection Response overview and link to the main reports is here:** <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx>.

### **Geological Mapping**

Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found [here](#), in your future assessments.

Our 3D models can help stakeholders visualize, understand and characterise geology, for deposit and resource mapping, for flooding and for urban geology applications including basement impact assessment, Sustainable Drainage Systems (SuDS), and subsurface management. Our 3D models offer a key element of geotechnical risk management by identifying areas requiring further site investigation.

Further information on the bedrock and Quaternary 3D models of Dublin is available [here](#).





### **Geohazards**

Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.

Landslides are common in areas of peat, rock near surface and in fine to coarse range materials (such as glacial tills), areas which are found within the Dún Laoghaire Rathdown area. Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated [Map Viewer](#). Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.

Geological Survey Ireland also engaged in a national project on Groundwater Flooding. The data from this project may be useful in relation to Flood Risk Assessment (FRA) and management plans, and is described in more detail under 'Groundwater' above.

Coastal Vulnerability while seen as a potential geohazard, is discussed in more detail under our marine and coastal unit information below.

### **Natural Resources (Minerals/Aggregates)**

Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our [Minerals section](#) of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our [Map Viewer](#).

We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in any proposed developments are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.

### **Geochemistry of soils, surface waters and sediments**

Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at <https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx>. This page also hosts urban geochemistry mapping (Dublin SURGE project), Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and litho-geochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture ([Terra Soil](#)), waste soil characterisation ([Geochemically Appropriate Levels for Soil Recovery Facilities](#)) and mineral exploration ([Mineral Prospectivity Mapping](#)).

### **Historic Mines**

The EPA, Geological Survey Ireland and the former Exploration & Mining Division undertook a joint project entitled "Historic Mine Site - Inventory and Risk Characterisation (HMS - IRC)". This project carried out detailed site investigations and characterisation on priority historic mine sites in the country.

A risk ranking methodology was developed which categorised the sites according to the risks posed to human and animal health and the environment. The project commenced in January 2006 and was completed in December 2008. A final report and a GIS geodatabase was produced on completion of the project. Reports and maps available [here](#). The project provides an understanding of the impacts of historic mining sites in Ireland and their status at the time of the study.



### **Marine and Coastal Unit**

Our marine environment is hugely important to our bio-economy, transport, tourism and recreational sectors. It is also an important indicator of the health of our planet. Geological Survey Ireland's Marine and Coastal Unit in partnership with the Marine Institute, jointly manages [INFOMAR](#), Ireland's national marine mapping programme; providing key baseline data for Ireland's marine sector. The programme delivers a wide range of benefits to multi-sectoral end-users across the national blue economy with an emphasis on enabling our stakeholders. Demonstrated applications for the use of INFOMAR's suite of mapping products include Shipping & Navigation, Fisheries Management, Aquaculture, Off-shore Renewable Energies, Marine Leisure & Tourism and Coastal Behaviour.

Of particular interest to tourism is the extensive database of shipwrecks mapped by the INFOMAR programme, many lost close to the coast and with engaging human interest stories associated with them <https://www.infomar.ie/maps/story-maps/shipwrecks>.

INFOMAR also produces a wide variety of seabed mapping products that enable public and stakeholders to visualize Ireland's seafloor environment <https://www.infomar.ie/maps/downloadable-maps/maps>. [Story maps](#) have also been developed providing a different perspective of some of the bays and harbors of the Irish coastline. We would therefore recommend use of our Marine and Coastal Unit datasets available on our [website](#) and [Map Viewer](#).

The Marine and Coastal Unit also participate in coastal change projects such as [CHERISH](#) (Climate, Heritage and Environments of Reefs, Islands, and Headlands) and are undertaking mapping in areas such as coastal vulnerability and coastal erosion. Further information on these projects can be found at [here](#).

### **Coastal Vulnerability Index**

Geological Survey Ireland is undertaking a new coastal vulnerability mapping initiative. Maps produced by this project will provide an insight into the relative susceptibility of the Irish coast to adverse impacts of sea-level rise through the use of a Coastal Vulnerability Index (CVI). Currently the project is being carried out on the east coast and will be rolled out nationally, detailed information and maps are available [here](#). These index-based maps will offer a simple, easy visual representation of sensitive areas based on robust methods and conceptualised metrics from latest research, adapted to the Irish context. This will enable coastal managers to prioritize or concentrate efforts on adaptation.

### **Physiographic Units**

Physiographic Units are cartographic representations of the broad-scale physical landscape of a region. They delineate physical regions showing internal uniformity with respect to one or more environmental attributes that can be clearly differentiated from neighbouring regions. They are valuable for regional land-use planning, and in studies of the influence of physical landscape on the ecological environment. This map is produced in support of the actions to be implemented in National Landscape Strategy for Ireland 2015 – 2025. Physiographic Units map data can be viewed online under the Physiographic Units tab on the online [Map Viewer](#).

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at [GSIPlanning@gsi.ie](mailto:GSIPlanning@gsi.ie).

Yours sincerely,

Clare Glanville  
**Senior Geologist**  
**Geological Survey Ireland**

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

**Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes**  
following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018  
(S.I. No. 296 of 2018)

Geological Survey Ireland Programme	Dataset	Relevant EIA Topic	Coverage	Description / Notes / Limitations	Link to Geological Survey Ireland map viewer
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c</a>
Geohazards	Groundwater Flooding (Historic)	Water	Regional	Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Groundwater Flooding (Predictive)	Water	Regional	Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Radon Map	Land & Soils/Air	National		<a href="http://www.epa.ie/radiation/radonmap/">http://www.epa.ie/radiation/radonmap/</a>
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Plans	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228</a>
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physical landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b</a>
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	Includes 3D models	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093beb2212a850ce6&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093beb2212a850ce6&amp;scale=0</a>
Geological Mapping	Geotechnical database	Land & Soils	National	Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c</a>
Goldmine	Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	Land & Soils/Water	National	available online	<a href="https://secure.dcaa.gov.ie/goldmine/index.html">https://secure.dcaa.gov.ie/goldmine/index.html</a>
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater recharge.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National	Data is limited to scale of 1:40,000. Data does not include all of the source protection areas	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Catchment and WFD management units.	Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	karst specific data layers	water	National	For areas underlain by limestone, includes karst features, tracer test database; turf/rough water levels (gwlevel.ie)	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater body Descriptions	Water	National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx</a>
Groundwater & Geothermal	Geothermal Suitability maps	Land & Soils/Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9e46be08de41278b90a991160c0b9e">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9e46be08de41278b90a991160c0b9e</a>
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		<a href="https://secure.dcaa.gov.ie/GSI/INFOMAR_VIEWER/">https://secure.dcaa.gov.ie/GSI/INFOMAR_VIEWER/</a>
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headlands)	Water	Regional		<a href="http://www.cherishproject.eu/en/">http://www.cherishproject.eu/en/</a>
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water / Land & Soils	Regional	Currently the project is being carried out on the east coast and will be rolled out nationally	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx</a>
Minerals	Aggregate potential	Land & Soils/Material Assets	National	Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Active quarries	Land & Soils	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Historic mines	Land & Soils/Cultural Heritage	National	Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC).	<a href="https://gis.epa.ie/EPAMaps/default?zesting=7&amp;northing=7&amp;lid=EPA:LEMA_Facilities_Extractive_Facilities">https://gis.epa.ie/EPAMaps/default?zesting=7&amp;northing=7&amp;lid=EPA:LEMA_Facilities_Extractive_Facilities</a> <a href="https://www.epa.ie/enforcement/mines/">https://www.epa.ie/enforcement/mines/</a>
Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	urban geochemistry mapping (Dublin SURGE project).	Land & Soils	Regional		<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>

- Notes:  
**1. The maps and data listed above are available on the Geological Survey Ireland map viewer <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>**  
**2. Please read all disclaimers carefully when using Geological Survey Ireland data**  
**3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.**

The logo for JBA consulting, featuring the text "JBA" in a large, bold, white sans-serif font above the word "consulting" in a smaller, white sans-serif font. The text is set against a teal-colored rounded square background.

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