



Greater Dublin Drainage Project Addendum

Addendum Planning Report

Uisce Éireann

October 2023

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Greater Dublin Drainage Project Addendum

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Addendum Planning Report

1. Preamble

The Greater Dublin Drainage Project (the Proposed Project) was granted permission by An Bord Pleanála (ABP) on 12 November 2019 (case ref. PL06F.301908). This approval was subsequently challenged by judicial review in the High Court. Following the decision of the High Court, the application was remitted to ABP, back to the point in the statutory application process, immediately after the ABP Inspector's Report.

As a result, ABP has written to Irish Water (now Uisce Éireann) and provided Uisce Éireann with the opportunity, subsequent to Section 37(f)(1)(a) of the Planning and Development Act, 2000 (as amended), to update the application, including the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), and the Planning Report (this Addendum Planning Report), to update the present position, in the context of the passage of time.

This Addendum Planning Report is a direct response to the request made by ABP and sets out updates to the original Planning Report in the 2018 planning application, as considered applicable, to the details and context relevant to the Proposed Project.

1.1 Introduction

There are no changes to the information presented in this Section of the Planning Report submitted with the 2018 planning application. The Proposed Project continues to be required to meet the need for additional wastewater treatment within the Greater Dublin Area (GDA). This need was identified in the 2018 Strategic Infrastructure Development (SID) application documentation and Planning Report, as was the fact that the implementation of the Proposed Project will serve the wastewater needs of existing and future drainage catchments in the north, west and north-west of the Dublin agglomeration. The identified need continues to remain valid in the context of, and evidenced by, the continued growth of the GDA that the Proposed Project will service. Since the last census, Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the EIAR Addendum highlights, for example, an inward population migration to the GDA of +46,559 persons between 2016 and 2022.

Notwithstanding, during the course of the Oral Hearing for the Proposed Project, two changes to the overall Proposed Project were proposed and agreed: one by Uisce Éireann, and the second by ABP (also subsequently imposed as Condition 13(c) of the permission granted, since quashed but understood to be a requirement of ABP and included on that basis).

This Addendum Planning Report thus updates the original Planning Report which accompanied the 2018 planning application, in light of the updates to the project description arising from the above-mentioned changes, and by reference to the updated context, including revised development plans and new or updated policy.

This Addendum Planning Report has been structured to replicate the structure of the original Planning Report, with each section being updated to reflect the contextual changes, including policy and planning history, that have occurred since the submission of the 2018 planning application.

1.2 Outline Description of the Proposed Project

Table 1.1 includes a summary of the elements which were incorporated into the planning design for the Proposed Project, following direction at the Oral Hearing in 2019 and the subsequent planning conditions applied to the 2018 planning application submission (Application Ref. ABP-301908-18). A full description is included in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum.

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Table 1.1: Updated Proposed Project Elements

Updated Element	Outline Description of Updated Element
Ultraviolet (UV) Treatment	<ul style="list-style-type: none">• UV Treatment is to be included in the treatment process at the proposed wastewater treatment plant (WwTP) in the northern section of the WwTP site.• The UV treatment system will be designed for the expected flows at the plant and will be installed on the final effluent line. UV treatment will be in operation 24 hours a day, 365 days a year.• The UV system will consist of a minimum of three and a maximum of four treatment units located below or partially below ground level with an above-ground Motor Control Centre (MCC) (in a kiosk) along with minor maintenance and control equipment (e.g., shut-off button, frame for supporting, retracting and cleaning of UV lamps etc.).
River Mayne Culvert Extension	<ul style="list-style-type: none">• Extension of the River Mayne Culvert on the proposed access road to the WwTP by 4m (from 21m to 25m) to cater for the full width of the future north south link road.

In respect of the above outlined updated project elements, it is noted that the UV treatment will occur within a proposed new relatively small structure to be located within the overall curtilage of the proposed WwTP site (as shown on Addendum Planning Drawing Number 32102902-2120 in the north-eastern section of the proposed WwTP). The footprint of the proposed UV unit will be a maximum of 18m in length and 10m in width, and the above ground Motor Control Centre (MCC) (in a kiosk) will be 1.5m in height. In addition, the River Mayne Culvert proposed in the 2018 planning application will be extended by 4m, as a result of discussion and engagement during the Oral Hearing process and as considered required by ABP (as shown in Addendum Planning Drawing Numbers 32102902-2148 and 32102902-2149). In respect of both of these elements, they are considered to comprise minor changes which are not material changes to the overall scope of the Proposed Project, or respective individual elements themselves, as initially applied for.

For the purpose of this Addendum Planning Report, the Regional Biosolid Storage Facility (RBSF) is referred to as the 'proposed' RBSF. It should however be noted that this has been granted planning by ABP (Case Reference Number PA29S.301798), as part of the Ringsend Wastewater Treatment Plant Upgrade Project in April 2019. The Ministerial Consent request for the proposed RBSF was submitted to the Department of Housing, Local Government and Heritage in June 2023 and construction will commence in early 2024 (Quarter 1) (subject to receipt of Ministerial consent, which is expected in Quarter 4 of 2023)). The description of the proposed RBSF remains as presented in the original 2018 planning application, and its context is updated in this Addendum Planning Report, in light of changes to planning and policy, where appropriate and given the passage of time.

The remaining elements of the Proposed Project included in the 2018 planning application remain unchanged. The Proposed Project, as discussed below, is the original project together with the additional elements described above in Table 1.1.

1.3 Legislative Context for the Proposed Project

The submission of this Addendum Planning Report and other associated planning documentation and information relating to the Proposed Project, is made in direct response to ABP's letter dated 26 August 2022. In that letter, it was stated that '*the Board has decided that given the passage of time since the submission of the application and the intervening proceedings*', it was providing Uisce Éireann with '*an opportunity to update*' any information provided as part of its original application.

As also requested by ABP, the response documentation submitted also provides Uisce Éireann's '*views on whether the discharge of waste-water from the proposed development, in conjunction with existing discharge into the receiving waters, would cause or exacerbate breaches*' of aspects of wastewater regulations.

Uisce Éireann is pleased to avail of this opportunity to both update its application and provide its views as stated.

There are no other changes to the information presented in this Section of the 2018 planning application.

1.3.1 CPO

The compulsory purchase order (CPO) process in relation to the Proposed Project (ABP Ref. 302039) has been completed and the CPO confirmed. No changes to the CPO completed in 2018 are proposed.

Notwithstanding, it is noted that the extension to the River Mayne Culvert required by ABP in accordance with Condition 13(c) of the quashed ABP permission (case ref. PL06F.301908), now forming part of the Proposed Project, will result in the Proposed Project extending outside the original proposed CPO boundary at this point, albeit that the proposed extended River Mayne Culvert would still be within the planning redline boundary of the Proposed Project (see also Section 2.1). In the above regard, it is therefore highlighted to ABP, that since November 2022¹, Uisce Éireann has altered powers under CPO and is not required to purchase / CPO land, nor to seek the landowners consent in advance of seeking permission / approval.

1.3.2 Wastewater Discharge Licence

There are no changes to the information presented in this Section of the Planning Report in the 2018 planning application, as the Proposed Project is still subject to the requirement to obtain a wastewater discharge licence, granted by the Environmental Protection Agency (EPA), under S.I. No. 684/2007 - Waste Water Discharge (Authorisation) Regulations 2007 (as amended).

The EIAR for the Proposed Project (including the current EIAR Addendum) and the environmental assessments completed within have taken full account of all relevant statutory and non-statutory requirements, including the Waste Water Discharge (Authorisation) Regulations 2007 (as amended), the Urban Waste Water Treatment Regulations 2001 (as amended), the Water Framework Directive, European Union Environmental Quality Objectives (Surface Waters) Regulations 2009 (as amended) and the Bathing Water Quality Regulations 2008. These assessments considered the impact of the Proposed Project in combination with the existing baseline on established environmental objectives, as described in all relevant legislation, including discharges and emissions to waters.

Compliance with the 'combined approach' is demonstrated as follows:

- a) Urban Waste Water Treatment Directive: As the proposed discharge is not to a designated sensitive area under Article 6 of the Urban Wastewater Treatment Regulations 2001 (as amended), the only concentration limits that apply to the treated effluent discharge are as set out in Schedule 1 of these Regulations. The proposed discharge complies with these limits. This is as set out in Section 4.4.4 of Chapter 4 (Description of the Proposed Project) in Volume 2 Part A, and further described in the Key Wastewater Treatment Standards Report which is appended as Appendix A4.1 in Volume 3 Part B of the EIAR in the 2018 planning application; and
- b) Environmental Quality Objectives: The water quality modelling carried out demonstrates that the limits proposed for the discharge, having regard to the proposed discharge volumes and background concentrations, are sufficient to ensure that the receiving water will meet the requirements of the European Union Environmental Quality Objectives (Surface Waters) Regulations 2009 (as amended), as documented in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the EIAR in the 2018 planning application, and as stated in Section 8.6 which specifically states that 'The extensive modelling undertaken as part of this EIAR demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for coastal water nutrients levels.' Chapter 8 (Marine Water Quality) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the EIAR Addendum also considers the environmental objectives for relevant areas associated with the Bathing Water Regulations and the Shellfish Waters Regulations.

¹ The Planning and Development (Amendment)(No.2) Regulations 2022 S.1. No. 565 of 2022), effective from 9 November 2022, amend Article 22(2)(g) of the Planning and Development Regulations 2001.

As a result, under expected operating conditions any discharge will not cause a non-compliance with the 'combined approach' to emission control as set out in the Waste Water Discharge (Authorisation) Regulations 2007.

1.3.3 Foreshore Licence

There are no changes to the information presented in this Section of the 2018 planning application, as the Proposed Project still requires that a foreshore licence be granted for that portion of the Proposed Project which is proposed to be located within the foreshore.

A foreshore licence application was previously lodged with the Marine Environment and Foreshore Section of the Department of Housing, Planning and Local Government, on 7 May 2020.

Uisce Éireann will ensure that it obtains and complies with all necessary authorisations as are required, relative to construction on the foreshore. It is currently not certain if this will involve securing a foreshore licence under the Foreshore Acts or, as provided for under Number 50 of 2021 - Maritime Area Planning Act 2021, a MAC.

1.4 Need for an Environmental Impact Assessment

The EIAR has been updated in an Addendum format to ensure that any new or altered impacts arising as a result of the changes to the Proposed Project (as outlined in Section 1.2 above and detailed in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum)) have been considered, together with any changes in the baseline environment, applicable law, guidance or standards since the 2018 planning application, with updated survey data collected and utilised to ensure it is up to date.

There are no other changes to the information presented in this Section of the Planning Report in the 2018 planning application.

1.5 Need for a Natura Impact Statement

There are no changes to the information presented in this Section of the Planning Report in the 2018 planning application.

The NIS has been updated in an Addendum format to ensure that any new or altered impacts arising as a result of the changes to the Proposed Project (as outlined in Section 1.2 and detailed in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum) have been considered, together with any changes in the baseline environment, applicable law, guidance, standards or designations since the 2018 planning application, with updated survey data collected and utilised to ensure it is up-to-date.

1.6 Project Context & Strategic Planning Overview

The origins of the Proposed Project within the Greater Dublin Strategic Drainage Study (GDSDS) have not changed, and as such, the Proposed Project Context and Strategic Planning Overview outlined in this Section of the Planning Report in the 2018 planning application, remains unchanged.

1.7 Rationale for the Proposed Project

The specific 'Planning Need' or 'Rationale' for additional and alternative wastewater treatment within the GDA has not changed, and as identified in Section 1.1 above, and in Section 3.3 and 3.5.3 of Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the EIAR Addendum, the identified need continues to remain valid in the context of, and evidenced by, the continued growth of the GDA that the Proposed Project will service. As such, the Proposed Project planning need, or 'rationale' outlined in this Section of the Planning Report in the 2018 planning application, remains unchanged.

1.8 List of Documents Accompanying the Application

The full suite of Addendum documents are outlined in Table 1.2.

Table 1.2: Outline Overview of Addendum Documentation

	Document Type	Document Title
Planning Documentation	Planning Reports	Planning Report Addendum
	Technical Reports	GDD Engineering Design Report Addendum
		Outline Construction Environmental Management Plan Addendum
		GDD Flood Risk Assessment Addendum
		RBSF Engineering Design Report Addendum
		RBSF Flood Risk Assessment Addendum
	Water Framework Directive Assessment	
Drawings	Addendum Drawing Schedule and Drawings	
Environmental Documentation	NIS	Appropriate Assessment Screening and NIS Addendum
	EIAR Addendum Volume 1A: Non-Technical Summary	Non-Technical Summary
	EIAR Addendum Volume 2A Part A: Introduction	Chapter 1A Introduction
		Chapter 2A The Environmental Impact Assessment Process
		Chapter 3A The Need for the Proposed Project
		Chapter 4A Description of the Proposed Project
		Chapter 5A Consideration of Alternatives
	EIAR Addendum Volume 2A Part B: Appendices	Appendices relevant to Volume 2A Part A of the EIAR Addendum
	EIAR Addendum Volume 3A Part A: Main EIAR	Chapter 6A Population and Human Health: Population
		Chapter 7A Population and Human Health: Human Health
		Chapter 8A Marine Water Quality
		Chapter 9A Biodiversity (Marine)
		Chapter 10A Biodiversity (Marine Ornithology)
		Chapter 11A Biodiversity (Terrestrial and Freshwater Aquatic)
		Chapter 12A Landscape and Visual
		Chapter 13A Traffic and Transport
		Chapter 14A Air Quality, Odour and Climate
		Chapter 15A Noise and Vibration
		Chapter 16A Archaeological, Architectural and Cultural Heritage
		Chapter 17A Hydrology and Hydrogeology
		Chapter 18A Soils and Geology
		Chapter 19A Agronomy
		Chapter 20A Waste
		Chapter 21A Material Assets
	Chapter 22A Risk of Major Accidents and / or Disasters	
	Chapter 23A Cumulative Impacts and Environmental Interactions	
	Chapter 24A Summary of Mitigation Measures	
Chapter 25A Summary of Residual Impacts		
EIAR Addendum Volume 3A Part B: Appendices	Appendices relevant to Volume 3A Part A of the EIAR Addendum	
EIAR Addendum Volume 4A Part A: Main Report for the RBSF	Section 1A Existing Environment	
	Section 2A Planning and Policy Context	
	Section 3A Population and Human Health	
	Section 4A Water	
	Section 5A Biodiversity - Marine	

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	Document Type	Document Title
		Section 6A Biodiversity - Terrestrial
		Section 7A Land and Soils
		Section 8A Air and Climate
		Section 9A Noise and Vibration
		Section 10A Odour
		Section 11A Cultural Heritage
		Section 12A Material Assets
		Section 13A Traffic
		Section 14A Landscape
		Section 15A Risk Management
		Section 16A Environmental Interactions
		Section 17A Summary of Mitigation
		Section 18A Summary of Residual Impacts
		Section 19A Cumulative Impacts
	EIAR Addendum Volume 4A Part B: Appendices for the RBSF	Appendices relevant to Volume 4A Part A of the EIAR Addendum
	EIAR Addendum Volume 5A: Proposed Project Figures	Figures relevant to Volume 2A and Volume 3A of the EIAR Addendum
	EIAR Addendum Volume 6A: Proposed Project Photomontages	Updated Photomontages relevant to the Proposed Project

1.9 A Note on Drawing Scales

The Addendum to the Planning Drawings that accompany this Addendum Planning Report have been prepared to ensure that they are legible, having regard to the scale of the Proposed Project itself and have been updated in accordance with the provisions of the Planning and Development Regulations, 2001 (as amended).

2. The Proposed Project

There are no changes proposed to previously described elements of the Proposed Project in this Section of the Planning Report in the 2018 planning application. As outlined in Section 1.2 above, the proposed RBSF was granted planning permission by ABP (Case Reference Number PA29S.301798).

Notwithstanding the above, as also noted in Section 1.2, the Proposed Project is subject to two updates, both of which have minor physical and spatial dimensions. This Section of the Addendum Planning Report thus further outlines the context specific to these new elements.

2.1 Site Locations and Development Descriptions

On the basis of the above, this Section is limited to providing detail in relation to the two new components, as outlined in Section 1.2 of this Addendum Planning Report, namely:

- a) The inclusion of Ultraviolet (UV) light disinfectant treatment; and
- b) The extension of the proposed Mayne River Culvert, from 21m to 25m.

The inclusion of UV disinfectant treatment as an additional tertiary wastewater treatment to the final effluent discharges, prior to discharge of same, will be provided at the proposed WwTP via banks of UV emitting bulbs and further detail on UV treatment is provided in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum. The proposed UV treatment system will be designed for the expected incoming flows to the proposed WwTP and will be installed on the final effluent line in the north-eastern corner of the proposed WwTP site prior to discharge to the outfall, as shown in Planning Drawing Number 32102902-2120, which accompanies this Addendum submission. The banks of UV emitting bulbs will be provided in modules within a minimum of three and a maximum of four UV units comprising concrete treatment channels and will be in operation 24 hours a day, 365 days a year. The channels will be located below or partially below ground level, with an above-ground Motor Control Centre (MCC) kiosk, along with minor maintenance and control equipment (e.g. shut-off button, frame for supporting, retracting and cleaning of UV lamps). The channels will be covered (to protect plant operations personnel from UV light exposure when working nearby). The channels are designed to provide residence time for the effluent to be irradiated by UV light of the particular wavelength specified, and to achieve a design reduction in bacteria numbers.

There will also be an extension to the River Mayne Culvert proposed under the access road to the proposed WwTP off the R139 Road, to cater for the full width of the future north-south link road.

As a result of discussion and engagement during the Oral Hearing process, a change was proposed to the River Mayne Culvert and this was confirmed in the initial grant of permission issued for the Proposed Project in 2019. While the permission was subsequently quashed, this element is considered required by ABP and is therefore included in the Proposed Project now.

Condition 13(c) of ABP's initial grant of permission issued in November 2019 stated that:

'the developer shall increase the width of the culvert at the crossing of the River Mayne as part of the Clonsaugh site entrance, to cater for the full width of the future north south link road'.

The River Mayne Culvert will be extended by 4m, from the original 21m presented in the 2018 planning application, to 25m, in order to meet the requirements of Condition 13(c). This extension will result in the Proposed Project extending outside the original proposed CPO boundary at this point. Notwithstanding, the River Mayne Culvert extension will remain within the planning redline boundary of the Proposed Project and has therefore been considered to comprise an update to the Proposed Project. This River Mayne Culvert extension is presented in Planning Drawing Number 32102902-2148 and 32102902-2149.

Incorporation of the River Mayne Culvert extension as an update to the Proposed Project, and implementation of same, as required by ABP, ensures transparency and compliance with the process and intent of the Oral Hearing undertaken and direction provided in respect of the Proposed Project. It also provides a wider planning

benefit within the immediate local area in relation to the future realisation of objectives related to roads and accessibility provision.

The remaining elements of the Proposed Project outlined in this Section of the Planning Report in the 2018 planning application remain unchanged.

2.2 Site Planning History

This Section of the Addendum Planning Report provides a brief description of the planning application files most relevant to the Proposed Project which have been lodged / granted subsequent to the Proposed Project planning application lodgement in June 2018. As regards these applications, the monitoring and search exercise focused on planning applications issued subsequent to the 2018 Proposed Project planning application lodgement and the 2019 Oral Hearing with ABP.

2.2.1 Wastewater Treatment Plant and Sludge Hub Centre

A review of the planning history for the lands / site, comprising that of the proposed WwTP and sludge hub centre site, confirms that there have been no development applications lodged or permitted on this site.

A planning application was lodged earlier this year (8 February 2023) by EirGrid plc, for the provision of new electricity transmission infrastructure, including the installation of an additional 220 kilovolt (kV) Gas Insulated Switchgear (GIS) 16 Bay Building, three 220 / 110 kV transformers and a MVAR220 kV STATCOM transformer and seven lightning protection masts, on a site located to the immediate south of the proposed WwTP site's south-eastern boundary. Further information was received by Fingal County Council (FCC) on 1 September 2023. There is thus no decision, as of yet, in respect of this application. Notwithstanding, Uisce Éireann has reviewed the proposed revised plans and particulars submitted with the application and can confirm that the proposed transmission infrastructure development results in no change to the Proposed Project itself.

2.2.2 Abbotstown Pumping Station

A review of the planning history for the lands / site, comprising that of the proposed Abbotstown pumping station site, confirms that there have been no development applications lodged or permitted on this site.

2.2.3 Regional Biosolids Storage Facility

As outlined in Section 1.2, the proposed RBSF has been approved as part of the Ringsend Wastewater Treatment Plant Upgrade Project (by ABP Case Reference Number PA29S.301798). Notwithstanding, this Addendum Planning report provides an update to the planning context, where applicable, relative to the proposed RBSF.

As noted within Section 2 (Planning and Policy Context) the Volume 4A Part A of the EIAR Addendum, a number of planning permissions of note have been submitted to FCC since the submission of the EIAR in the 2018 planning application. These are set out in Table 2.1 and

Table 2.2, and locations are shown in Image 2.1.

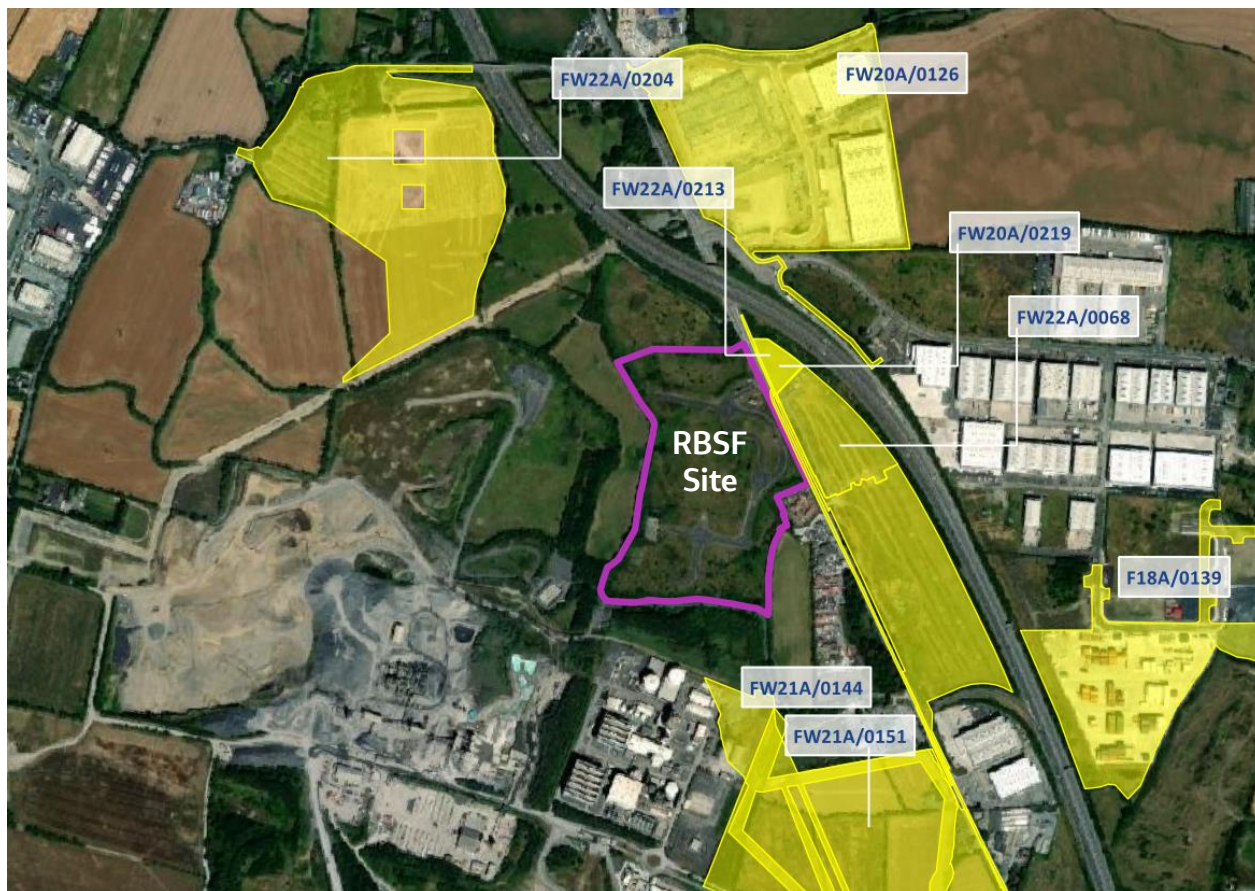


Image 2.1: New Planning Permissions Adjoining the Site of the Proposed RBSF Since 2018

Table 2.1: Planning History on the Proposed RBSF Site

Reference	Description	Date Granted
ABP: 301798	10-year permission for development of the Ringsend wastewater treatment plant upgrade project including a regional biosolids storage facility	24 April 2019
S.I. No. 521 of 2019	Planning and Development Act 2000 Section 181(2)(a) (NO.5) Order 2019: For the use of the existing Uisce Éireann site at Newtown, Kilshane Cross, Dublin 11 as a temporary truck park in the period following the withdrawal of the United Kingdom from the European Union, for additional customs, agriculture and health inspection checks; temporary toilet and welfare facilities, electric generators, lighting, closed circuit television (CCTV) and security to be provided.	24 October 2019

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Table 2.2: Planning History within the Surrounding Area

Reference	Description	Date Granted
FW14A/0162	Planning permission is sought by the Peter Mc Verry Trust for the development of a combined site consisting of Ravenswood and two semi detached residences to the south at Kilshane, Newtown, North Road, Finglas, County Dublin	02 June 2015
F16A/0128	Four single storey units for industrial and / or warehouse use with ancillary two storey office with a gross floor area of 15,692 square metres. The development will also include two Electricity Supply Board (ESB) sub-stations, ancillary site development works for underground duct work, drainage and utility services, service yards, car parking, signage to the proposed units, the extension of Birch Drive to the east and to the west linking back to Elm Road and a new separate access road off Elm Road, on a site of 3.52 hectares.	28 Jun 2016
FW17A/0012	The development will comprise an increase in the permitted intake rate of construction and demolition (C&D) waste at the facility from a maximum of 24,950 tonnes per annum at present to 95,000 tonnes per annum in future years.	08 May 2017
FCC: FW13A/0089/E1	Planning permission for the construction of a Renewable Bioenergy Plant to generate up to 3.8MW (megawatts) of electricity from 90,000 tonnes of non-hazardous biodegradable waste per annum utilising Anaerobic Digestion technology on a 2.38 hectare site within Roadstone Wood's Huntstown Quarry, Huntstown, North Road, Finglas, Dublin 11.	19 Jan 2018
FCC: F18A/0139 ABP: 302361	The construction of an extension to an internal access road from Maple Avenue with associated works including public lighting and the development of 2 no. plots generally for industrial, warehouse, storage and logistic use and associated site works.	24 July 2018 First Party Appeal to remove conditions regarding contribution – granted 16 January 2019
FCC: FW20A/0126 ABP: 309855	The development will comprise the provision of 4 No. warehouses with marshalling offices, ancillary office space, staff facilities and associated development.	24 July 2018 First Party Appeal to remove conditions regarding contribution – denied 11 October 2023
F18A/0146	A storage and distribution centre for new imported vehicles with a total capacity for 5,951 no. vehicles and comprises vehicle storage, internal circulation roadways, vehicle loading and unloading area and transporter parking spaces.	09 April 2019
FCC: FW20A/0219	Amendment to FW19A/0090. Amendments proposed to the gas peaking will consist of the installation of 6 no. battery storage units with an export electricity capacity of 10-15 MV (medium voltage) and 4 no. containerised gas fired generating units with an export electricity capacity of 10 MV, in replacement for the 10 no. containerised gas fired generating units, granted under planning reference FW19A/0090. Three no. inverter transformers will also be added to the site, being the battery storage units. Other elements of the development will remain the same as FW19A/0090 and include an underground cabling route c. 1.45km (kilometres) along the R135 Road. One no. single storey electrical substation building, one no. customer switch entrance, security gates gear, electrical inverter/transformer station modules, concrete support structures, heating, ventilation and air conditioning units, underground gas pipework and connection points, access tracks and new site entrance, security gates, perimeter security fencing, CCTV security monitoring system, landscaping works, and all associated ancillary infrastructure.	7 April 2021
FCC: FW20A/0211	The development will consist of 3 no. buildings for industrial / warehouse/logistics use (Units 3,4 and 5) with gross floor area of 24,356 square metres. The proposed development includes 39 heavy goods vehicle (HGV) parking spaces, 224 car parking spaces, 134 cycle parking spaces, 29 dock levellers and 7 grade loading bays. All associated site works including diversion of existing foul rising main, boundary treatments, landscaping, service yards, internal road and footpaths, swales, lighting, 3 no. free standing signs, signage at entrance, refuse storage, substation, foul pumping station,	19 May 2021

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Reference	Description	Date Granted
	extension of foul infrastructure from Phase 1, modified vehicular entrance off the R135 Road (including new entrance gate and pillars) and dedicated new footpath and cycleway along the east side of the R135 Road.	
FCC: FW21A/0144	The development will consist of the installation of electrical infrastructure between Finglas substation and Huntstown Power Station to facilitate the retirement of existing ESB overhead powerlines and facilitate site clearance for the future development of a data centre and substation (subject to separate planning applications). This will include (i) the installation of approximately three underground cable circuits of 1.2km length (110kV (kilovolts)) and one circuit 1.2km length (38kV) and associated underground ducting, joint bays and infrastructure between the existing ESB Finglas substation and an agreed location within Huntstown Power Station (ii) installation of one c.28m double circuit 110kV cable end tower and one c.17 single circuit 110kV angle mast (iii) removal of 10 no. existing 110kV timber polesets, 9 Nr. existing 38kV timber polesets, 3 no. 38kV lattice steel tower and associated overhead line electrical infrastructure; all associated and ancillary site development, landscaping and construction works, all within the townlands of Johnstown, Huntstown, Coldwinters and Baleskin at Blanchardstown and Finglas, County Dublin.	11 November 2021
FCC: FW22A/0068	The development will consist of 1 no. building for warehouse / logistics use, to be known as Unit 6, with a gross floor area of 9,821 square metres. The building will measure 18.1m high (at parapet level) and have 2 storey ancillary offices. The proposed development includes 6 no. HGV parking spaces, 82 no. car parking spaces, 58 no. cycle parking spaces, 8 no. dock levellers and 2 no. grade loading bays. All associated siteworks including diversion of existing foul rising main, boundary treatments, landscaping, service yards, internal road and footpaths, dry detention basins / swales, lighting, 1 no. free standing sign, security and access control room, signage at entrance, refuse storage, heat pumps and all associated siteworks including drainage infrastructure.	13 July 2022
S.I. No. 694 of 2022 (following ABP Refs.314777 and 314778)	Planning and Development Act 2000 (Section 181(2)(a)) (No. 2) Order 2022: Temporary emergency electricity generating plant to be provided within the existing Huntstown Power Station	16 December 2022
FCC: FW22A/0213	The development is within a total site area of up to c. 1 ha. to include 1 no. DSO (Distribution System Operator) electrical substation building, 1 no. customer switchgear, electrical inverter / transformer station modules, 40 no. containerised battery storage units on concrete support structures, heating, ventilation and air conditioning units (Heating, Ventilation, and Air Conditioning (HVAC) units), access tracks and upgraded site entrance, underground cabling route c. 1.45 km to existing ESB 220kV Finglas Electricity Substation, associated electrical cabling and ducting, security gates, palisade perimeter security fencing, CCTV security monitoring system and landscaping works and all associated ancillary site infrastructure.	28 February 2023
FCC: FW22A/0204 ABP: 317480	Demolition of buildings, road improvement works and construction of gas turbine power generation station with all associated site works. An EIAR has been prepared and an EPA licence is required.	Case is due to be decided by 02 November 2023
ABP: 311528	Construction of a two storey 220kV gas insulated switchgear (GIS) substation known as 'Mooretown', 4 underground transmission cables and all associated and ancillary site development and construction works.	Decision yet to be made
FCC: FW21A/0151 ABP: 313583	Demolition of 2 no. existing residential dwellings and construction of 2 no. data hall buildings. An EIAR was submitted with application	Due to be decided
FCC: FW23A/0111	The development will consist of the construction of a Materials Recovery Facility along with a Food Container Cleaning Plant.	Additional Information has been requested – no response lodged.

2.2.4 Orbital Sewer and Outfall Pipeline Corridor

Table 2.3 identifies those planning applications that are of relevance in respect of the pipeline / corridor route of the proposed orbital sewer route and outfall pipeline route (land-based section), in respect of their location relative to the Proposed Project. Similarly to the planning history searches conducted for the SID planning application lodged with ABP in 2018, the area of focus of these was within an approximate 100m corridor of the proposed pipeline / corridor routes.

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Table 2.3: Planning Applications

Planning Ref.	Planning Authority	Applicant	Approx. Distance from Proposed Project	Status	Comment
FW23A/0016	Fingal County Council (FCC)	Frylite Frylite (Dublin) Limited Construction of an industrial development facility for the processing and distribution of fresh and used cooking oils (UCO) including ancillary offices and staff amenities	64m	Granted 31/05/2023	The proposed development site is adjacent (to the south) of the Proposed Project pipeline corridor. Uisce Éireann has reviewed the proposed revised plans and particulars submitted with the application and can confirm that the applicant has demonstrated that they have taken due consideration of the Proposed Project. The proposed transmission infrastructure development results in no change to the Proposed Project itself.
FW23A/0111	FCC	Rathdrinagh Land Unlimited Company Construction of a Materials Recovery Facility along with a Food Container Cleaning Plant; an ESB substation is also proposed	0m	Further Information requested 12/06/2023 – no determination as of yet	The proposed development site overlaps the northern and southern GDD pipeline route in the vicinity of Huntstown. Notwithstanding, Uisce Éireann has reviewed the plans and particulars submitted with the application and can confirm it has no objections to the proposed development. The applicant has demonstrated that they have taken due consideration of the Proposed Project.
314724	ABP	Transport Infrastructure Ireland. Metrolink (Railway Order) from Swords (Estuary) to Charlemont via Dublin City Centre	Various, but intersects the proposed orbital sewer route in the vicinity of the M50 Motorway	Lodged 30/09/2022 – no determination as of yet	Both the Proposed Project and the proposed MetroLink Project will affect the southern portion of landholding folio DN212005F during their Construction Phases. The Proposed Project will impact a small area to the south of the landholding, as the pipeline is to be constructed parallel to the M50 Motorway. The MetroLink Dardistown to Northwood track alignment will cross the proposed orbital sewer route horizontally at Dardistown Depot. The MetroLink EIAR states that potential impacts on utilities in this area (Mitigation No.IU13) ' <i>will be mitigated by way of utility diversions</i> ', The MetroLink Project will result in no change to the Proposed Project itself.
F21A/0147 – amended by F23A/0006	FCC	Genvest ULC. 2 no single storey light industrial buildings (total floor area of 3,333 sq.m) accommodating 3 units including ancillary office space at site west of Stockhole Lane/ Clonshaugh Road, Clonshaugh, Co. Dublin	84m	Granted 11/11/2021	An Uisce Éireann submission for this other development planning application noted that the development would be in proximity to Proposed Project and that the eastern boundary will encroach slightly on the 300m buffer area for the proposed WwTP site in Clonshaugh (Clonshaugh), although the applicant was not proposing any development within this area. As a result, Uisce Éireann did not object to the development. The development will result in no change to the Proposed Project itself.
FW21A/0144	FCC	TLI Group Ltd Diversion and Undergrounding of electrical transmission infrastructure	0m (at nearest redline location)	Granted 05/10/2021	There have been multiple meetings between ESB and the Proposed Project Team in relation to this proposed development. Design details have been agreed with the

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Planning Ref.	Planning Authority	Applicant	Approx. Distance from Proposed Project	Status	Comment
					ESB to deepen their proposed ducting and remove any potential for impact on the Proposed Project pipeline.
FW21A/0149	FCC	Shannonside Enterprises Ltd. Construction of 3 warehouses and associated works at premier Business Park, Ballycoolin Road, Cappoge, Dublin 11	31m	Granted 14/04/2022	Submission of Further Information for this planning application confirms that this other proposed development will not impact on the potential future construction of the Proposed Project.
FW21A/0180	FCC	HPREF Dublin Office Dev Co. Limited. 1 no. light industrial/ warehouse (including wholesale use) / logistics building at St. Margaret's, Swords, Co. Dublin.	101m	Granted 30/03/2022	This development proposal has already been substantially implemented. The development will result in no change to the Proposed Project itself.
311315	ABP	FCC own development – Sect. 177(AE) AA Application Park development project at the Racecourse Park comprising 4.5km of new walking and cycling routes including a bridge over the River Mayne and repair to the railway underpass on lands located between Baldoyle and Portmarnock, Co. Dublin	0m. Intersects with the proposed outfall pipeline route between proposed construction compound no.9 and no. 10	Granted 20/09/2022	The development will result in no change to the Proposed Project itself.
3041/22	DCC	Mayne Stability Limited. Development of access to the Synchronous Compensator Development (Grid Stabilisation Facility) on the site of a c 0.94 ha, at lands south of Belcamp, Dublin 17.	170m	Granted 11/10/2022	The Uisce Éireann submission for this planning application noted that it would be in close proximity to the Proposed Project and that cumulative impacts may arise. The application planning report for this other development noted that there would be no negative impact to the Proposed Project. This other development will result in no change to the Proposed Project itself.
313182	ABP	National Transport Authority. BusConnects – Clongriffin to City Centre Core Bus Corridor Scheme	Various, but immediately south of the proposed outfall pipeline route (land-based section)	Lodged 01/04/2022 – no determination as of yet	Chapter 19 (Material Assets) in Volume 2 of the BusConnects Scheme EIAR outlines that no major interfaces are identified between the BusConnects Scheme and the 'existing' foul sewer network which will require any diversion works. This planning application development proposal has been considered in the context of potential cumulative effects and has been taken account of in the 'updated' Proposed Project EIAR Addendum. This BusConnects Scheme will result in no change to the Proposed Project itself.

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Planning Ref.	Planning Authority	Applicant	Approx. Distance from Proposed Project	Status	Comment
313892	ABP	National Transport Authority. BusConnects - Blanchardstown to City Centre Core Bus Corridor Scheme	Various, but approx. 300m south of the proposed orbital sewer route at nearest point	Lodged 24/06/2022 – no determination as of yet	<p>Chapter 19 (Material Assets) in Volume 2 of the BusConnects Scheme EIAR states that <i>'The Proposed Scheme has been designed to minimise the impact on major infrastructure. This includes the avoidance of interactions with major utility infrastructure as far as practicable...'</i></p> <p><i>Consultation has been undertaken with the major utility companies regarding the design, potential interfaces and measures required to protect or divert the infrastructure which is interfacing with the Proposed Scheme design. All utility companies for which diversions are proposed will continue to be consulted with NTA oversight when designing any diversions to ensure that proposed diversions conform to the utility provider's requirements, where practicable and acceptable to the NTA, and to ensure that service interruptions are kept to a minimum.'</i></p> <p>Effects are limited to those which may be experienced during implementation (i.e. should the construction phases coincide) and have been considered in the context of potential cumulative effects and taken into account in the Proposed Project EIAR Addendum.</p> <p>This BusConnects Scheme will result in no change to the Proposed Project itself.</p>
317121	ABP	National Transport Authority. BusConnects - Swords to City Centre Core Bus Corridor Scheme	Various, but intersects the R132 Road, south of Dublin Airport	Lodged 12/05/2023 – no determination as of yet	This BusConnects Scheme will result in no change to the Proposed Project itself.
F20A/0700	FCC	Quintain Developments Ireland Limited 1,105m Construction haul route	0m (Intersects proposed orbital sewer)	Granted 06/04/2021	<p>This application is for a temporary development. Effects are therefore likely to be limited to those experienced during implementation (i.e. should construction phases coincide). Construction has commenced and is substantially progressed.</p> <p>This development will result in no change to the Proposed Project itself.</p>
312112 (see also related application F20A/0700 above)	ABP	Quintain Developments Ireland Limited. SHD - 172 no. residential units (150 no. houses, 22 no. apartments) and associated site works. Station Road, Portmarnock, Townlands of Drumnigh, Maynetown and Portmarnock, Co. Dublin.	0m (at nearest redline location)	Granted: 09/05/2022 – under Judicial Review	This development will result in no change to the Proposed Project itself.

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Planning Ref.	Planning Authority	Applicant	Approx. Distance from Proposed Project	Status	Comment
N/A	N/A	Uisce Éireann Kinsealy. Local Network Reinforcement Project	Immediately north of the proposed WwTP	In progress	Works already underway and this other project is likely to be completed before implementation of Proposed Project. This other project will result in no change to the Proposed Project itself.
FW17A/00 83	FCC	Uisce Éireann Blanchardstown Regional Drainage Scheme (BRDS)	0m (Proposed Project commences at a tie-in to the BRDS)	Granted 11/05/2017	The connection of the BRDS into the Proposed Project has been designed into the BRDS development which has been completed. The Proposed Project will tie into the BRDS at Waterville, Blanchardstown. The BRDS results in no change to the Proposed Project itself.

2.2.5 Conclusion

As can be noted from the table above, with regard to ABP Ref. 314724 (MetroLink), both the Proposed Project and the proposed MetroLink Project, will affect the southern portion of landholding folio DN212005F during their Construction Phases.

The Proposed Project will impact a small area to the south of the landholding, as the proposed orbital sewer pipeline is to be constructed parallel to the M50 Motorway. The MetroLink Dardistown to Northwood track alignment will cross the proposed orbital sewer pipeline of the Proposed Project horizontally at Dardistown Depot. The MetroLink EIAR states that potential impacts on utilities in this area (Mitigation No.IU13) '*will be mitigated by way of utility diversions*'.

To date, Uisce Éireann has not received Detailed Designs from Transport Infrastructure Ireland (TII) for each of the specific interaction(s) between MetroLink and Uisce Éireann's assets. Notwithstanding, and based on outline designs and layouts currently available and pre-application consultation between Uisce Éireann and TII, it should be noted that TII will need to agree, at the Detailed Design stage of the MetroLink Project, and prior to any construction works taking place, the manner in which the proposed MetroLink Project works will interact with existing and planned future Uisce Éireann infrastructure, including but not limited to, wayleaves and / or rights of way and the provision of necessary culverts for future crossing points. No change to the Proposed Project is necessitated by the proposed MetroLink Project.

Following the planning history and associated planning applications review, it is evident that the subject Proposed Project sites, and those lands within the vicinity of the Proposed Project, are not subject to any planning applications which would preclude the granting of permission for the Proposed Project, nor which would result in any change to the Proposed Project as originally submitted in the 2018 planning application.

3. Planning and Development Policy

3.1 Introduction

The general policy landscape has been changing over the past number of years since the lodgement of the SID planning application with ABP in June 2018. This Section therefore provides an update to the planning and development policy context pertinent to the Proposed Project and includes new and emerging policy provisions considered to be of relevance to it.

3.2 European Union and National Policy Context

3.2.1 European Green Deal

The European Green Deal (approved in 2020) is a package of policy initiatives, which aims to set the European Union (EU) on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050. As such, it aims to curb greenhouse gas emissions and encourage greater production and use of 'green' (renewable) energy.

The European Green Deal and the 2019 evaluation of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (as amended) (hereafter referred to as the Urban Wastewater Treatment Directive (UWWTD)) identified climate change (mitigation and adaptation) as the challenge for the future, as well as requiring the water services sector to have future-proof carbon-neutral energy use. Additionally, the European Green Deal demands a zero-pollution ambition for a toxic free environment, a circular economy, biodiversity, a fair food system, protection of aquatic ecosystems, and the protection of water resources.

Project Response

The Proposed Project, will be designed, built and operated in line with current International best practice and guidelines, and through the use of new techniques and innovation, aims to be resource efficient. This will be assisted through the provision of an advanced sludge digestion process which will seek to maximise energy recovery on the site, through a thermal hydrolysis process and anaerobic sludge digesters. These represent the main elements of the advanced sludge treatment processes to maximise energy recovery. In addition, there is considerable scope for the site to accommodate additional renewable energy technologies such as solar energy. Where additional/ new technologies become available and/ or are considered for implementation on the site, there is sufficient land availability for these to also be incorporated, subject to the necessary/ required consents being obtained. These provisions will assist in creating a circular economy through energy recovery, while also ensuring the future wastewater needs of the GDA are met.

3.2.2 Proposed Urban Waste Water Treatment Directive (EC: 27 October 2022) (recast)

On 27 October 2022, following consultation with stakeholders and the general public, the European Commission published its Proposal for a Directive of the European Parliament and of the Council concerning urban wastewater treatment (recast) (the **Recast Directive**). The Recast Directive proposes to bring in changes to increase the standard of wastewater treatment required across the EU, and support the transition towards a circular economy and energy neutrality by 2040. The Recast Directive proposes, amongst other matters, to add the objective of nutrient recovery, and tighten phosphorus removal requirements for sewage works.

Project Response

The Recast Directive is still in draft form and likely to be subject to further debate and revision before it is adopted and comes into force on a phased basis. Precisely what will be required and by when, is therefore unknown at this point in time. Uisce Éireann has, as part of its site selection process, sought to ensure that the site selected for the proposed WwTP (at Clonshagh) is sized to allow for such expansion or adaptation, as may be required in the future. The Proposed Project site will likely be sufficient to accommodate any additional treatment infrastructure required to meet the requirements of the Recast Directive. Once those requirements are known and in force, a separate planning application, supported by an EIAR and NIS as needed, will be made for any consequential works required to the Proposed Project including to the proposed WwTP.

3.2.3 Uisce Éireann Capital Investment Plan 2020-2024

The Capital Investment Plan 2020-2024 is Uisce Éireann's five-year investment plan for water and wastewater assets and infrastructure to 2024.

Uisce Éireann is regulated from an economic perspective by the Commission for Regulation of Utilities (CRU) and from an environmental perspective by the EPA. The Department of Housing, Local Government and Heritage (DHLGH) is responsible for water policy and legislation, and following on from Number 29 of 2017 - Water Services Act 2017, the DHLGH is responsible for oversight of the State funding to Uisce Éireann. As required under the regulatory framework, Uisce Éireann submitted a business plan to the CRU for both operating and capital costs for the period 2020 to 2024. This is referred to as Revenue Control 3 or RC3. The business plan is subject to interim reviews.

In July 2021, Uisce Éireann also published an associated separate explanatory overview of the main issues and details of Uisce Éireann's capital investment. This document reflected the position as at July 2021 and reiterated Uisce Éireann's Strategic Priorities, '*based on legislative, policy and Shareholder direction in line with the Water Services Policy Statement and Water Services Strategic Plan*', which includes funding for the '*progression of significant projects to address capacity constraints in the Eastern and Midlands Region (Water Supply Project Eastern and Midlands Region and Greater Dublin Drainage Project)*'. Table 2 (Allocation of Funding across Portfolio by Priority) of the Capital Investment Plan 2020-2024 also identifies the Proposed Project as a '*Strategic – Significant Project*' for which funding is mandated to address the risk of growth constraints in the GDA and Eastern-Midlands region.

On 23 November 2022, the CRU published a decision (CRU/2022977) concerning an interim review of Uisce Éireann's RC3 which reflects the following approach:

- '*Irish Water will be granted access to €556m (2017 monies) of previously ring-fenced funds for diversion to its broader capex budget*'; and
- '*Irish Water to be allocated an additional 2023 OPEX allowance of €137m (2017 monies) to address deficit caused by inflation and energy increases*'.

The CRU decision paper also notes that:

'the CRU has decided to remove the ringfencing restrictions within RC3 which currently apply to an original amount of €704m (2017 monies) designated for major projects. The intended projects within this ringfencing restriction i.e., the progression of the Water Supply Project and the Greater Dublin Drainage projects are subject to a parallel process under the National Water Resources Plan, and which now sit outside of the delivery timeframe expected under RC3.'

Project Response

The Proposed Project will provide wastewater services to the GDA and is outlined as a significant strategic project within the Uisce Éireann Capital Investment Plan 2020-2024. The Proposed Project will assist in addressing the capacity constraints within the region and is required to facilitate the future sustainable development of the GDA. In this regard, the Proposed Project is directly outlined as the type of investment priority the CRU is prioritising through the allocation of its funding and is considered to be aligned with the provisions and objectives of the Capital Investment Plan 2020-2024. The Proposed Project will be capable of being upgraded in the future, as may be required to comply with the anticipated UWWTD Recast Directive.

3.2.4 Water Services Policy Statement 2018-2025

National policy for the delivery and development of water and wastewater services is set out in the Water Services Policy Statement 2018-2025, published by the DHLGH. The Water Services Policy Statement 2018-2025 identifies high level objectives (which must be pursued when Uisce Éireann produces plans for infrastructural investment or day-to-day expenditure on water and wastewater services) and priorities for the delivery of water and wastewater services between 2018 to 2025, against the strategic objective themes of Quality, Conservation and Future Proofing.

Within the context of Future Proofing, policy objectives identified as 'Priorities for strategic investment planning', include '*ensuring the growth of our five cities of Dublin ... is supported by the provision of water services investment*'. and that '*plan-led development decisions are underpinned by coordinated investment plans and programmes for new and additional water and wastewater services capacity*'. Future Proofing objectives also include '*Supporting population and economic growth*' by '*Ensuring that water and wastewater services can support anticipated population growth and sustainable economic development in addition to current demands*', with this giving rise to the need on the part of Uisce Éireann to:

'Deliver the strategic capital investment programme set out under the NDP over the period 2018-2027 to improve resilience in areas most vulnerable to shortfall in water supply, such as the Greater Dublin Area, and wastewater services...'

Project Response

The Proposed Project will provide additional wastewater treatment infrastructure to the GDA, which will ensure there is capacity to facilitate the further population and economic growth of the GDA. The Proposed Project has been outlined as an investment priority within capital investment plans, and its implementation will ensure that wastewater services' infrastructure is resilient to the future growth of the region.

3.2.5 Climate Action Plan 2023 – Changing Ireland for the Better

The Climate Action Plan 2023 (hereafter referred to as CAP23) is the second annual update to Ireland's Climate Action Plan 2019. CAP23 is the first climate action plan to be prepared under Number 32 of 2021 - Climate Action and Low Carbon Development (Amendment) Act 2021. It builds on the previous climate action plans and is the framework through which the Government intends to meet the legally-binding, economy-wide carbon budgets and sectoral ceilings agreed in July 2022, as well as the emissions reductions targets set out in the Climate Action and Low Carbon Development Acts. As such, it sets out a roadmap towards halving greenhouse gas emissions by 2030 and reaching net zero no later than 2050, as committed to in the Programme for Government: Our Shared Future.

The Climate Action and Low Carbon Development (Amendment) Act 2021, provides a legal underpinning to climate action by the public sector. In this regard, Section 17 amends the principle act such that Section 15(1) requires:

'(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with— (a) the most recent approved climate action plan, (b) the most recent approved national long term climate action strategy, (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,

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(d) the furtherance of the national climate objective, and (e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State’.

A relevant body means a prescribed body or a public body. As such, it is incumbent on all public bodies to perform their functions, in so far as practicable, in a manner consistent with national climate ambitions, plans and strategies.

The supplementary Annex of Actions was published in March 2023. This outlines the detailed steps and actions required to achieve the targets set out in CAP23, which the country is taking to respond to the climate crisis. The Annex of Actions includes information on outputs, lead departments, timelines and stakeholders.

Project Response

The Proposed Project will provide improved wastewater services for the GDA and will ensure a wastewater discharge that will be compliant with licence requirements. The advanced sludge digestion process included as part of the Proposed Project, seeks to maximise energy recovery on-site, and will thus assist in contributing to the overarching climate change targets outlined in CAP23. The Proposed Project proposal also includes provision for a thermal hydrolysis process and anaerobic sludge digesters, and these represent the main elements of the advanced sludge treatment processes to maximise energy recovery.

In addition to the above and by virtue of the economies of scale inherent with the Proposed Project, there is considerable scope for a range of renewable energy technologies to be accommodated and implemented on site. As such, these can and will be considered, where feasible, in ensuring all provisions and requirements of Uisce Éireann’s policy provisions, are met. (Refer also to Chapter 14A (Air Quality, Odour and Climate) and associated appendices in Volume 3A Part A and Volume 3A Part B of the EIAR Addendum, respectively).

3.2.6 National Development Plan 2021-2030

Project Ireland 2040 – The National Development Plan 2021-2030 (hereafter referred to as the NDP) accompanies Project Ireland 2040 - National Planning Framework (hereafter referred to as the NPF), in setting out investment priorities that underpin the implementation of the NPF and which aims to balance significant demand for public investment across all sectors and regions of Ireland.

The NDP notes that:

‘In the period from 2021-2025 almost €6bn investment will be undertaken by Irish Water...and that...This investment includes the projects and programmes committed to in Irish Water’s Capital Investment Plan 2020-2024 approved by the Commission for Regulation of Utilities under Revenue Control 3.5, including major projects such as the Water Supply Project – Eastern and Midlands Region (WSP-EMR) and the Greater Dublin Drainage Project (GDD)’.

The NDP sets out the sectoral strategies and strategic investment priorities across the 10 National Strategic Outcomes (NSOs) set out in the NPF. In relation to Strategic Investment Priorities – Water Quality, a number of programmes are identified to be progressed during the lifetime of the NDP, with these including:

- *‘Ending the discharge of untreated sewage at the locations identified under the Urban Waste Water Treatment Directive...’*
- *‘Delivering Significant Infrastructure Development projects to meet future economic, housing and population demands such as ... the Greater Dublin Drainage Project’.*

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The provisions relating to NSO 9 – ‘Sustainable Management of Water and Other Environmental Resources’, are outlined in Chapter 14 of the NDP, with additional specific detail being provided in respect of the Proposed Project (Box 14.2²: Greater Dublin Drainage Project). In this regard, it is highlighted that the:

‘GDD project is a key part of Irish Water’s investment in new waste water infrastructure for the Greater Dublin region, where the volume of waste water generated is projected to increase by more than 50 per cent by 2050. The GDD project includes the development of a new regional waste water treatment facility and associated infrastructure to serve Dublin and parts of the surrounding counties of Kildare and Meath. The project is vital for residential and commercial development across north Dublin and south Fingal as new homes and businesses can only be built when there is adequate waste water infrastructure in place to support them. The project will also alleviate pressure within the existing wider waste water network and help to ensure that the waste water generated is treated safely, in compliance with the EU and national waste water treatment regulations’.

Project Response

The considerable investment in public wastewater infrastructure represented in relation to the implementation of the Proposed Project will deliver critical outcomes for customers and communities across the strategic objective themes of Quality, Conservation and Future Proofing, as well as ensuring that the legislative and regulatory requirements such as the UWWTD are met. The NDP has been formulated to ensure that it will ‘support the Government’s climate ambitions, and climate and environmental assessment of the NDP measures (were) undertaken, along with an assessment of the alignment of the plan as a whole with the ideals of a green recovery plan’.

3.2.7 National Adaptation Framework - Planning for a Climate Resilient Ireland

The National Adaptation Framework – Planning for a Climate Resilient Ireland (hereafter referred to as the NAF), published on 19 January 2018, represents Ireland’s first statutory adaptation plan and provides for an all-of-Government approach towards adaptation and addressing the current and future risks posed by a changing climate.

The NAF requires the development of local and sectoral adaptation plans aimed at reducing the vulnerability of the State to the negative impacts of climate change, as well as to identify opportunities that may result from our transition to a climate-resilient economy and society, such as through green growth, innovation, jobs and ecosystem enhancement, as well as improvements in areas such as water and air quality. It also aims to improve the enabling environment for adaptation through ongoing engagement with civil society, the private sector, and the research community.

The NAF sets out the role of key sectors and local authorities in developing climate change adaptation plans to increase Ireland’s climate resilience. The NAF does not identify specific locations or propose adaptation measures or projects in relation to sectors. Respecting the principle of subsidiarity, detailed adaptation measures are intended to be developed across sectors and local government, under 12 sectoral adaptation plans. In this regard, the NAF sets the context for local adaptation strategies and also explores how local authorities might adopt a joint or regional approach to adaptation planning.

Sectoral adaptation plans are intended to reflect their key priorities within the annual budgetary and estimates processes and include actions that:

- Mainstream adaptation into key sectoral plans and policies;
- Identify and understand the key vulnerabilities, risks, and opportunities facing specific sectors, as well as major risks cross cutting different sectors;
- Ensure climate-proofing of strategic emergency planning;

² The details provided also include an estimated Completion date for the Proposed Project of 2029, with the proviso being stated that “this preliminary estimate assumes that Irish Water can commence construction in 2024/2025 and has been compiled in accordance with the guidelines set out in the Public Spending Code with allowances for known risks. This estimate will be reviewed and refreshed as the project progresses through the planning and procurement processes to account for any unforeseen planning/ legal challenges or delays”.

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- Identify and collect information on the costs and benefits of adaptation within specific sectors;
- Build capacity within sectors to cope with climate change;
- Identify and address key research gaps within their sectors;
- Improve co-ordination with the local government sector; and
- Develop appropriate monitoring and verification systems within sectors.

3.2.7.1 Water Quality and Water Services Infrastructure - Climate Change Sectoral Adaptation Plan

The Water Quality and Water Services Infrastructure Climate Change Sectoral Adaptation Plan (hereafter referred to as the WSAP), was prepared by the Department of Housing, Planning and Local Government (DHPLG) under the NAF. The Department has overall policy responsibility for water quality and water services infrastructure policy areas and sets out policy objectives and priorities, which are given effect by stakeholders such as Uisce Éireann, the National Federation of Group Water Schemes and local authorities.

The WSAP details the challenges faced by the water sectors and sets out a range of potential adaptive measures for consideration and to ensure that water resources continue to meet the legislated water quality thresholds. These measures should be considered by organisations and stakeholders within the sector, in future adaptation planning.

The WSAP provides strategic direction to inform the design, resourcing and review of policies and measures. The acute priority impacts from climate change are detailed within the WSAP and are reproduced in Table 3.1:.

Table 3.1: Water Sectors Acute Priority Impacts

Water Quality Acute Priority Impacts	Water Services Infrastructure Acute Priority Impacts
Increased surface and sewer flooding leading to mobilisation of pollutants	Hot-weather-related changes in demand
Low flows and water levels causing reduced dilution of contaminants	More frequent water /wastewater asset flooding, asset loss and potential for environmental pollution
Changes in species distribution and phenology	Increased drawdown in the autumn / winter for flood capacity, leading to resource issues in the following spring / summer
Drying of peatland	Reduced availability of water resources (surface water and groundwater sources)
Spread of /increased viability of pathogens	More frequent water / wastewater asset flooding, asset loss and potential for environmental pollution
	Business continuity impacts / interruptions

The consequences of the above climatic impacts are variable across the three categories of risk which were assessed (i.e. public health, environment and service provision).

Project Response

The Proposed Project will comprise a new WwTP which has been located and designed to ensure resilience and adaptation to climate change risks, whilst also ensuring that future wastewater provision for the area is climate-proofed and meets legislated water quality thresholds.

A risk assessment was completed to determine the risk of extreme weather events (including events resulting from climate change) to the Proposed Project and is presented in Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the EIAR Addendum. This assessment determined that this risk category did not present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects.

In addition, the design of the Proposed Project will comply with the appropriate building regulations and standards. All critical infrastructure will be appropriately housed and covered from the elements. The embedded design measures outlined in the EIAR in the 2018 planning application, in relation to total or partial

failure events, will protect the Proposed Project infrastructure against power outages resulting from storm events.

Additionally, the location of the Proposed Project was subject to a flood risk assessment (FRA), which has been revised as part of this Addendum and included as a standalone document in the Addendum pack. The original FRA and the Revised FRA, determined that the above-ground structures (proposed WwTP and Abbotstown pumping station) will be located in Flood Zone C (low risk zone), which is considered an appropriate zone for the siting of 'highly vulnerable development (including essential infrastructure)', as per the Department of the Environmental, Heritage and Local Government (DEHLG) and the Office of Public Works (OPW) Planning System and Flood Risk Management Guidelines for Planning Authorities (hereafter referred to as the FRM Guidelines). The below-ground structures (i.e. pipelines) are not considered to be vulnerable to flooding. However, the construction methodologies selected (i.e. trenchless methodologies at watercourse crossing locations which are more prone to flooding), mitigation outlined in the EIAR in the 2018 planning application, as supplemented by the EIAR Addendum, and the design of the proposed pipelines, will ensure that flood risk is not considered significant.

Further to the above, the proposed energy recovery (through advanced sludge digestion processes, thermal hydrolysis process and anaerobic sludge digesters) will assist in a move to a system of waste circularity, ensuring that the Proposed Project will be in a position to assist in combatting the effects of climate change through the utilisation of its by-products, which will in turn assist in reducing dependency on fossil fuels.

3.2.8 National Marine Planning Framework

The National Marine Planning Framework (hereafter referred to as the NMPF) was published on 30 June 2021 in line with the requirements of EU Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning. The NMPF enables the Government to:

'set a clear direction for managing our seas, to clarify objectives and priorities, and to direct decision makers, users and stakeholders towards more strategic and efficient use of marine resources. It will inform decisions about the current and future development of the marine area, aiming to integrate needs'.

The NMPF is intended to be the marine equivalent of the NPF (Government of Ireland 2018a). As such, it contains a vision, objectives, and planning policies for all marine-based human activities. As stated within the NMPF:

'all applications for activity or development in Ireland's maritime area, including those made within the new development management system being provided for under the Maritime Area Planning Bill 2021, will be considered in terms of their consistency with the objectives of the plan'.

The NMPF lists a total of 14 sectors / activities, and correspondingly, sectoral marine planning policies (SMPPs) are provided for these specific marine activities. Those that are regarded as being of direct relevance to the Proposed Project, are 'Wastewater Treatment and Disposal', which are further outlined below.

Wastewater Treatment and Disposal Policy 1

'Proposals by Irish Water related to the treatment and disposal of wastewater that:

- i. Service the social and economic development of the country under the NPF;*
- ii. Resolve environmental issues at priority areas identified by the EPA; and*
- iii. Contribute to the realisation of the objectives of:*
 - Ireland's River Basin Management Plan 2018 – 2021;*
 - The Water Services Policy Statement 2018 – 2025; and*
 - Marine Strategy Framework Directive 2012 – 2020*

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should be supported, provided they fully meet the environmental safeguards contained within relevant authorisation processes’.

Wastewater Treatment and Disposal Policy 2

‘Proposals that have the potential to significantly adversely affect existing and planned wastewater management and treatment infrastructure where a consent or authorisation or lease has been granted or formally applied for by Irish Water should not be authorised unless:

- *compatibility with the existing, authorised, proposed or otherwise identified in consultations with Irish Water activity, can be satisfactorily demonstrated;*
- *the proposal is clearly of strategic or national importance. Where possible, proposals that may affect Irish Water activities or plans should engage with Irish Water at the earliest available opportunity. Compatibility should be achieved, in order of preference, through:*
 - a) avoiding adverse impacts on those activities; and / or*
 - b) minimising impacts where they cannot be avoided; and / or*
 - c) mitigating impacts where they cannot be minimised’.*

Project Response

The NMPF outlines its support for proposals that will service economic and social development and have regard to environmental issues. The Proposed Project is aligned with this statement, as it will provide much needed wastewater services infrastructure that will ensure the region is adequately served as it continues to develop in line with growth projections, and particularly in respect of the growth of the GDA as a strategic centre, and will limit the environmental risk posed by the lack of existing capacity within existing WwTPs and associated infrastructure. This will ensure capacity deficits are met, and constraints to future development are removed. In addition, the proposal contains the provision for energy recovery from sludge waste, which will assist in the transition away from dependency on fossil fuels to a low carbon economy.

The Proposed Project has also been shown to be aligned with the provisions contained within relevant other plans and associated policies / objectives, as identified in the NMPF ‘Wastewater Treatment and Disposal’ Policy quoted above. The development of the Proposed Project will complement the upgrade of the Ringsend WwTP and a number of other WwTPs within the GDA, as the expansion of these existing plants beyond their ultimate capacity is also limited by site constraints and receiving water constraints. This would therefore assist in ensuring that Ireland is increasingly more compliant with Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (hereafter referred to as the Water Framework Directive (WFD)) through the high standard of treatment proposed and subsequent discharge of wastewater in compliance with licencing requirements.

3.2.9 National Maritime Area Planning Act

Number 50 of 2021 - Maritime Area Planning Act (hereafter referred to as the MAP Act), which is the new legislative framework for forward planning, development management and enforcement in Ireland’s offshore area was signed into law on 23 December 2021 (and revised in 2022 (updated to 1 October 2022 [Number 50 of 2021])) and is gradually being commenced. This legislation underpins the NMPF and puts in place a comprehensive and coherent planning system for the entire Maritime Area including:

- A forward planning regime for the maritime area;
- A new streamlined development management system for the maritime area incorporating consenting for the occupation of the maritime area (MACs and licencing) and a new planning consenting regime (to be implemented by coastal local authorities and ABP); and
- The establishment of a new agency, MARA, to manage the occupation of the maritime area and to enforce the provisions of the new regime.

It is intended that MARA will:

- Grant MACs;

- Grant licence specified maritime usages;
- Ensure compliance and enforcement of MACs, licences and offshore development consents;
- Assume responsibility for the management and enforcement of the existing foreshore portfolio of leases and licences currently administered by the Minister for Housing, Local Government and Heritage; and
- Provide a platform for inter-agency cooperation and collaboration.

Project Response

Whilst the MAP Act has been signed into law, the Proposed Project was lodged as a SID planning application with ABP before this legislation was enacted and will therefore continue to progress to be determined in accordance with that legislative application process.

Notwithstanding, in the event that ABP grants permission for the Proposed Project, Uisce Éireann will ensure that it obtains and complies with all necessary authorisations as are required relative to construction on the foreshore. It is currently not certain if this will involve securing a foreshore licence under the Foreshore Acts or, as provided for under Number 50 of 2021 - Maritime Area Planning Act 2021, a MAC.

3.2.10 A Waste Action Plan for a Circular Economy – Ireland’s National Waste Policy 2020-2025

A Waste Action Plan for a Circular Economy – Ireland’s National Waste Policy 2020-2025 (hereafter referred to as the WAPCE) has been published in fulfilment of the Government’s commitment in the Programme for Government: Our Shared Future and seeks to inform and give direction to waste management and planning and is supported by the Whole of Government Circular Economy Strategy 2022-2023 ‘Living More, Using Less’ (which it is envisaged, will be updated in full every 18 to 24 months), to comply with the WFD obligations.

The WAPCE shifts focus away from waste disposal and looks instead to how resources can be preserved by creating a circular economy (i.e., a macro perspective of holistic zero-waste resource management), and as with the European Green Deal, encompasses a range of actions supporting circularity and sustainability. In terms of seeking to embed a strong circularity ethos across society and the economy, the WAPCE identifies a need for both public and private sectors to integrate process innovations into business models which design-out harmful waste, extend product lifetimes and possibly even prevent waste from arising in the first place. As such, the WAPCE:

‘also recognises the importance of eco- and smart design in waste prevention through the delivery of products that are more amenable to recycling or reuse of constituent components and commits to incentivising innovation in this important area’.

In this regard, the WAPCE highlights a number of research and innovation projects which are being / have been advanced, including a ‘Sustainable Bio-Renewable Energy from Wastewater (S-BREW)’ project, which is looking to:

‘develop a wastewater to clean water, plus energy solution using a unique, patented low temperature anaerobic digestion technology for on-site deployment at global food & drinks facilities. This Biowave treatment system can break down organic by-products from the agri-food industry for the creation of renewable energy in the form of biogas, while minimising waste. The project offers a double benefit: displacing current energy-intensive wastewater treatment systems while simultaneously providing a sustainable source of high-grade biogas, contributing to the supply of sustainable energy.’

Project Response

The Proposed Project will provide sustainable treatment with the bio-gas produced during the treatment process of the wastewater sludge and domestic septage being utilised as an energy source, on-site. The process will also produce a 'biosolid' end product which will be landspread in accordance with all applicable legal requirements.

In addition, the Proposed Project will utilise the biogas produced during the treatment process as an energy source, on-site, as is highlighted in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum. In this regard, the Proposed Project proposes the inclusion of thermal hydrolysis and anaerobic digestion in the treatment of the sludge, and using the biogas produced from this process to fuel on-site Combined Heat and Power (CHP) generators to produce electrical and thermal energy. This is a sustainable treatment of biogas produced through the treatment process of the wastewater sludge and domestic septage, which is thus being utilised as an energy source, on-site.

3.2.11 Draft Water Services Guidelines for Planning Authorities

The Draft Water Services Guidelines for Planning Authorities (DHPLG, 2018) emphasise the importance of Planning Authorities ascertaining the current position with regard to water services when preparing a plan. The Draft Water Services Guidelines (at page 9) indicate that:

'the quantum, location and distribution of new development must have regard to the capacity of public water services and make efficient use of, and maximise the capacity of, existing and planned water services infrastructure.'

The Draft Water Services Guidelines further indicate that where:

'the provision or upgrade of water services infrastructure is a critical determinant for development in a plan area, the planning authority should seek to establish, in consultation with Irish Water, the key delivery requirements and whether the capacity constraints are likely to be addressed within the lifetime of the plan. ...It is recommended that, in preparing plans, Planning Authorities clearly identify the phasing of development to the provision of appropriate water services infrastructure.'

Project Response

The Proposed Project will provide additional wastewater services capacity to the GDA, ensuring that capacity deficits are addressed. In turn, this will allow for the social and economic development of the GDA to continue as planned, as it will not be constrained by inadequate wastewater services infrastructure.

3.2.12 Draft River Basin Management Plan for Ireland 2022-2027

The Draft River Basin Management Plan 2022-2027 (hereafter referred to as the DRBMP) is a national plan that aims to protect and restore good water quality in our rivers, lakes, estuaries, groundwater and coastal waters and is produced in the implementation of the WFD. The DRBMP is the third cycle of River Basin Management Plans (RBMPs) and highlights the actions that different sectors, organisations, communities and State bodies can and will take to protect Ireland's 4,842 water bodies at local, regional and national level. The DRBMP explicitly seeks to:

'ensure consistent policy integration between the RBMP process and other national and local plans, linking the third cycle objectives with the "Climate Adaptation Plans, Marine Spatial Planning, Flood Risk Management Plans, Biodiversity Action Plans objectives (and including links to), agricultural policy, spatial planning policy, etc.'

The DRBMP highlights the fact that estimates of the scale of mitigation measures required to significantly improve water quality and where those measures should be deployed, are available for the first time since the river basin management process began, based on detailed technical evidence and up-to-date scientific

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information (i.e., 'right measure in the right place'). In this regard, one of the key mitigation measures identified includes:

'A sustained high level of investment by Irish Water in waste water infrastructure to address deficits and future growth needs.'

Assessments carried out, including catchment characterisation, focused on identifying water bodies at risk of not meeting the WFD environmental objectives of achieving at least good status, including identification of significant pressures. In this regard, the DRBMP provides cross reference to www.catchments.ie, where the water-related condition of areas can be viewed. Image 3.1 provides a screenshot of the context relevant to the transitional and coastal waters which may be associated with the Proposed Project. It can be noted that the projected risk identification of the coastal waters associated with the Proposed Project are 'not at risk'. Notwithstanding, it is noted that:

'in addition to the assessment of other pressures on impacting on shellfish waters, Urban waste water discharges in the vicinity of shellfish waters are being assessed to determine if they are contributing to failures and whether more stringent waste water treatment standards are required.'

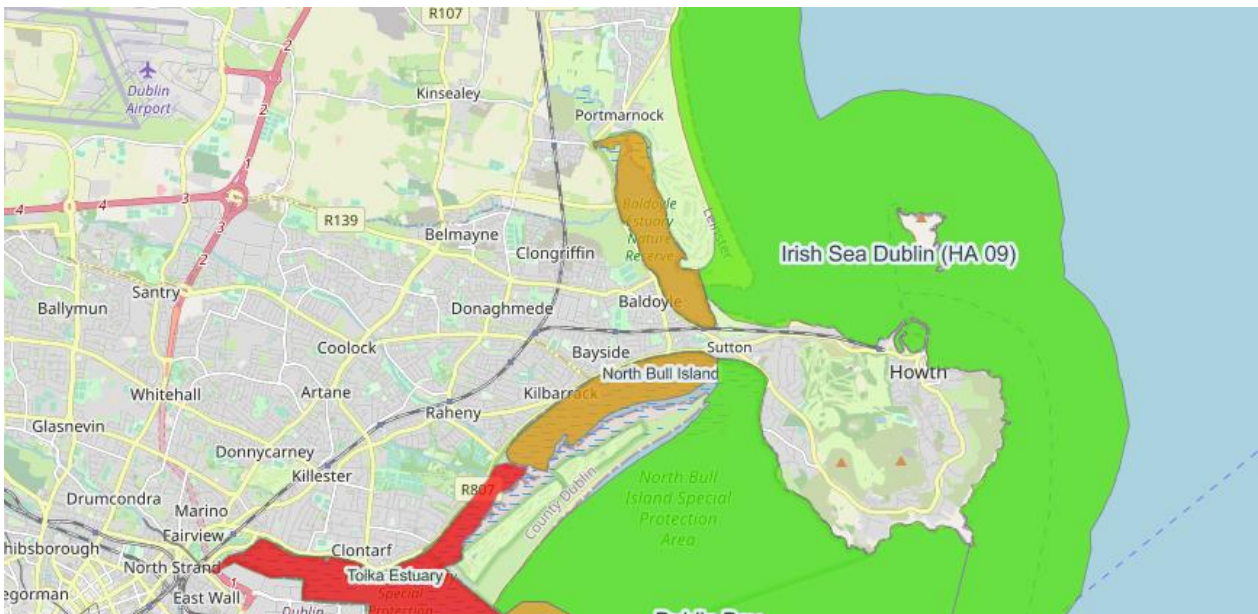


Image 3.1: Transitional and Coastal Water Bodies 'At Risk' Status (EPA 2023); Source: <https://gis.epa.ie/EPAMaps/Water> (Note: Green indicates 'Not at Risk', Orange indicates 'Review' and Red indicates 'At Risk')

In relation to wastewater, the DRBMP notes that there are, 'most of all', three main measures needed to protect and restore water quality in Ireland, with one of these comprising the need to 'continue to improve waste water treatment'. Associated with these main measures, inadequately treated wastewater is identified as one of the four principal causes of the decline in Ireland's water quality. Notwithstanding, the DRBMP highlights that:

'the number of waterbodies impacted by urban waste water has decreased by 83 waterbodies since the second cycle and this represents the greatest decrease in any significant pressure type.'

Appendix 2 of the DRBMP contains 111 different measures to be progressed under a number of key themes, with 'Urban Wastewater' comprising one of these themes. Those considered of relevance to the Proposed Project, are identified hereunder:

- 'Continue investment in waste water infrastructure with Irish Water investing in 83 wastewater treatment plants and 10 collection networks at an estimated cost of €1.022bn, over the period 2020-2024';
- 'River Basin Management Plan – Enhanced Ambition Programme to advance priority wastewater treatment plant projects whose discharges have been identified as being significant pressures on water bodies and impacting on WFD objectives'; and

- *'Complete negotiations and transposition into Irish law of the recast Urban Waste Water Treatment Directive'*.

Project Response

The Proposed Project will directly assist in realising provisions of the DRBMP, as it will provide additional wastewater services infrastructure and capacity to a rapidly growing region that is currently constrained by inadequate infrastructure.

In addition, the provision of these improved wastewater services will ensure a wastewater discharge that will be compliant with licence requirements to coastal waters. ensure a high quality of water treatment, ensuring the water quality of the surrounding waters will not be negatively impacted by inadequately treated wastewater discharges. This will be facilitated and supplemented by the inclusion of UV disinfectant treatment, which will be designed and operated to achieve 20,000 *E. coli* /100ml (millilitres) or less, with an average concentration in the order of 5,000 to 6,000 *E. coli* /100ml in the final effluent. This concentration will ensure that there is no negative impact on the receiving waters.

The Operational Phase of the Proposed Project will reduce the extent of overflows from existing sewer networks to local water networks and courses, through the provision of additional wastewater treatment capacity and diversion of a proportion of the wastewater loadings from a number of existing WwTPs into the new proposed WwTP, therefore improving water quality. Assessments and modelling undertaken as part of the Proposed Project design, demonstrate that the discharge will still allow receiving waters to achieve their environmental objectives due to the level of treatment being applied to the wastewater.

3.2.13 Biodiversity Action Plan

Uisce Éireann's Biodiversity Action Plan (hereafter referred to as the Uisce Éireann BAP) was published in June 2021 (Document No. IW-AMT-POL-013). The Uisce Éireann BAP is *'aligned to both the National Biodiversity Action Plan and the EU Biodiversity Strategy'*. The overall aim of the Uisce Éireann BAP is *'in association with the provision of water and wastewater services, biodiversity and the natural environment are conserved, protected and where practical enhanced, through our responsible stewardship, sustainable water services and strong partnerships.'*

The Uisce Éireann BAP, thus sets out a national programme of measures to help conserve, enhance and work with the natural environment and Ireland's biodiversity, as well as the strategic aims and actions which will be undertaken to achieve them. The Uisce Éireann BAP includes a number of overarching objectives to guide its biodiversity objectives and actions, including Objective 3 to:

'Ensure no net loss of biodiversity as a result of Irish Water activities, projects or plans. Follow the mitigation hierarchy by avoiding impacts in the first instance before seeking to reduce, improve or compensate. Actively seek opportunities for biodiversity net gain by identifying opportunities for biodiversity enhancement at both existing and proposed Irish Water sites.'

Objective 3 is more ambitious than national policy and it outlines the responsibility set by Uisce Éireann that its projects must ensure no net biodiversity loss (NNL) and look for opportunities for 'net gain' (NG), setting a higher bar than the national context.

A number of additional key objectives of the Uisce Éireann BAP include:

- Implementation of measures at all Uisce Éireann sites that will enhance and protect flora and fauna;
- Raising awareness and provide educational supports in relation to biodiversity;
- Implementing actions from the All-Ireland Pollinator Plan at all Uisce Éireann sites to support and increase pollinator population; and
- Promoting the use of nature-based solutions for water protection and wastewater treatment.

As regards Actions associated with the Uisce Éireann BAP and the Proposed Project, these include:

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- *'All Irish Water plans, projects and activities will comply with the Habitats and Birds Directives, and their implementing regulations, and be subject to appropriate screening.*
- *All Irish Water plans, projects and activities will comply with the Wildlife Act.*
- *New Infrastructure will be sited, designed and constructed in line with Irish Water's Civil Specification and Guidance (IW-TEC-300-01 and IW-TEC-300-02) and Landscape Treatment Guidelines (IW-AMT-GL-009).*
- *Irish Water will work with key stakeholders such as NPWS, Inland Fisheries Ireland (IFI), Environmental Protection Agency (EPA) and local communities in undertaking plans, projects and activities that have the potential to impact the environment.*
- *Irish Water will work with the EPA towards achieving the objectives of the Water Framework Directive...*
- *Irish Water will, in the development of new sites and the management of existing sites, incorporate the use of native and/or pollinator-friendly planting.'*

Project Response

The Proposed Project will ensure that existing environmental and associated biodiversity risk posed by the lack of existing capacity within existing WwTPs and associated infrastructure, will be reduced and improved.

In addition, the Proposed Project includes provision for sustainable drainage systems (SUDS) at both the proposed Abbotstown pumping station site and the proposed WwTP site. SUDS provision will incorporate a mix of rainwater harvesting, swales, infiltration trenches and permeable pavement, all of which will assist in providing benefits to biodiversity levels.

The proposed solution for the Proposed Project has been developed in accordance with all current relevant legislation. The expected land take required to achieve the necessary treatment standards for a complete nature-based solution in an urban developed catchment, in line with the preferred solution, would be significant and would be unlikely to represent a balanced approach, when considering the wider infrastructure requirements of an urban catchment

The Proposed Project has been subject to environmental scrutiny and testing to ensure it will operate within environmental limits, as directed by appropriate EU Directives and National policy. A detailed Landscape Plan(s)/ Masterplan(s) for the Proposed Project (Figure 12.1 and Figure 12.2 in Volume 5A of the EIAR Addendum), as required by the Fingal Development Plan 2023-2029, details a network of green spaces and extensive planting proposed to conserve and enhance the ecosystems on sites.

In addition, as noted in the Planning Report in the 2018 planning application, the alignment of the compound adjacent to the Coast Road has been adjusted, in consultation with Fingal County Council, to better facilitate a proposed Fingal County Council cycleway objective. Chapter 12 (Landscape and Visual) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 12A (Landscape and Visual) in Volume 3A Part A of the EIAR Addendum, and the Biodiversity Assessment report included as Appendix 2 to this Addendum Planning Report, outline the measures in place for enhancement and protection of biodiversity within the Proposed Project 'site'. The Proposed Project seeks to improve on the current levels of biodiversity and contribute to the enhancement of the green infrastructure network through the provision of planting species / hedgerows which would encourage and facilitate improved biodiversity. Existing treelines and hedgerows have been identified on the site and protection and enhancement measures provided where relevant. Where tree or hedgerow removal may be required in areas not previously identified, liaison with an ecologist will be required.

The proposed construction methodology includes provision for crossing rivers by means of trenchless crossings (microtunnelling) for proposed pipeline routes. This will ensure that any impact to existing rivers is avoided. The proposed microtunnelling process to be employed during construction for watercourse crossings, and the reinstatement of all lands above ground to their original state, as part of the development works, will ensure that there will be minimal impact on land use above ground level. Reinstatement works and planting

will also ensure that previous levels of biodiversity can become re-established as soon as possible, and adherence to the proposed Construction and Environment Management Plan (CEMP) and the Surface Water Management Plan (SWMP) which were included as standalone documents in the 2018 planning application, as supplemented by the Addendum to the CEMP and the Addendum to the SWMP, included as standalone documents in this Addendum, will ensure that the environmental and ecological quality and integrity of designated sites, watercourses and coastal waters, is maintained.

The Operational Phase of the Proposed Project will reduce the extent of overflows from existing sewer networks to local water networks and courses, through the provision of additional wastewater treatment capacity and diversion of a proportion of the wastewater loadings from a number of existing WwTPs into the new proposed WwTP, therefore improving water quality. Assessments and modelling undertaken as part of the Proposed Project design, demonstrate that the discharge will still allow receiving waters to achieve their environmental objectives due to the level of treatment being applied to the wastewater.

In accordance with Uisce Éireann's BAP (Uisce Éireann 2021), Uisce Éireann are striving to achieve a net gain, where the biodiversity value of enhancements exceeds the value of the biodiversity losses. This Addendum Planning Report includes a Biodiversity Assessment Report (Appendix 2). This Biodiversity Assessment responds to the Uisce Éireann BAP, as well as being cognisant of Policy GINHP10 of the Fingal Development Plan 2023-2029. The assessment includes both a quantitative and qualitative assessment of the Proposed Project with respect to the green infrastructure and biodiversity that the Proposed Project will deliver, and concludes that, subject to the measures identified being secured through the consenting process, the Proposed Project will deliver a positive biodiversity outcome with respect to both area and linear habitats. On this basis, it is considered that the Proposed Project will protect and enhance existing assets in addition to delivering biodiversity net gain, both quantitatively and qualitatively, with respect to green infrastructure and biodiversity.

3.3 Regional Policy Context

3.3.1 Eastern and Midland Regional Assembly Regional Spatial and Economic Strategy 2019-2031

The Eastern and Midland Regional Assembly (EMRA) Regional Spatial and Economic Strategy 2019-2031 (hereafter referred to as the RSES) came into effect on 28 June 2019. Whilst the RSES was thus obviously not detailed as part of the background policy context for the SID planning application, which was submitted for the Proposed Project in June 2018, it is noted that it was detailed and considered by the ABP Inspector in their assessment report of the Proposed Project (ABP Ref. 301908/ 302039-18).

Notwithstanding, the following provisions included in the RSES, which are not reflected in the Inspector's Report, are highlighted:

The RSES specifically notes that a number of wastewater projects are ongoing to deliver capacity at a large scale to the metropolitan area and that it is critical that the timelines for delivery of these projects are aligned with the phased delivery of strategic development areas in the Dublin Metropolitan Area Spatial Plan (hereafter referred to as the MASP). In this regard, the RSES explicitly identifies the 'Greater Dublin Drainage Project' (the Proposed Project) and the 'Ringsend Wastewater Treatment Plant Project', as the two main wastewater treatment projects for the region, with the Proposed Project aiming '*to provide drainage infrastructure to support the continued development of the Greater Dublin Area*' and to '*provide long term sustainable wastewater drainage and treatment*'.

Within the MASP, Regional Policy Objective (RPO) 11 states:

'RPO 10.11: EMRA supports the delivery of the waste water infrastructure set out in Table 10.2 (The Greater Dublin Drainage Project is one of 4 No. projects listed in this table), subject to appropriate environmental assessment and the planning process.'

3.3.1.1 Dublin Metropolitan Area Strategic Plan

The MASP (EMRA 2019b), which forms part of the RSES (EMRA 2019a), seeks to unlock the development capacity of strategic development areas within the metropolitan area by addressing key challenges related to housing supply, affordability, transport, sustainability to ensure that its vision statement, to enable Dublin to become a '*smart, climate resilient and global city region*', is achieved. The MASP lists several guiding principles to achieve the MASP vision statement for the sustainable development of the Dublin Metropolitan Area, this includes the:

'Alignment of growth with enabling infrastructure' which seeks to promote "quality infrastructure provision and capacity improvement, in tandem with new development and aligned with national projects and improvements in water and wastewater, sustainable energy, waste management and resource efficiency'.

The MASP notes that the Dublin Metropolitan Area is experiencing capacity issues in relation to wastewater infrastructure which would otherwise result in failure to meet its vision statement. The key aim of the MASP is to identify the sequencing of enabling infrastructure while directing required sectoral investment to deliver development. The Proposed Project is named as one of two wastewater projects (the other named project is Ringsend WwTP), in which the timely project delivery is critical to the delivery of strategic development areas which are listed in Table 5.1 (Strategic Development Areas and Corridors), Capacity Infrastructure and Phasing (page 104 and 105) of the MASP.

Within the MASP, a RPO specific to enabling infrastructure, is listed and reproduced below:

Enabling Infrastructure

'RPO 5.1: Support continued collaboration between infrastructure providers, state agencies and local authorities in the metropolitan area to inform cross sectoral investment plans and capital spending plans to accelerate the development of strategic development areas and secure the best use of public lands in the Dublin Metropolitan Area.'

Project Response

The Proposed Project is directly outlined as a particular wastewater project that is supported by the RSES, and it will provide necessary infrastructure to support the future development of the region as pressure on services increases. The Proposed Project has also been subject to environmental assessments and will operate within environmental limits.

The Proposed Project is also in support of the objectives outlined within the MASP as it will ensure that current infrastructural constraints will be eliminated, and future development of the region is facilitated in line with the overarching vision of the MASP. In support of RPO 5.1, the Proposed Project has been outlined within capital investment plans to ensure investment is aligned with future anticipated growth.

3.4 Local Policy Context

As noted in the 2018 SID application Planning Report, the Proposed Project will partly facilitate the wastewater needs of Kildare, Meath and Dublin City, although the development itself is proposed to be located almost entirely within Fingal. Each of these counties has recently (or will be in the immediate future), adopted new / reviewed County Development Plans. The main relevant provisions of these are therefore outlined further below.

3.4.1 Fingal County Development Plan 2017-2023

There are no changes to the information presented in this Section of the 2018 planning application.

3.4.2 Fingal Development Plan 2023-2029

The new Fingal Development Plan 2023-2029 (hereafter referred to as the FDP) was produced on 22 February 2023 and came into effect on 5 April 2023. Whilst the provisions of the FDP appear to be largely similar and aligned with those of the previous Fingal Development Plan 2017-2023 (hereafter referred to as the previous FDP), those main specific provisions that are considered relevant to the Proposed Project are nonetheless again identified in order to ensure that a complete and robust review has been undertaken.

The main provisions relating to wastewater infrastructure and services in Fingal, are covered in Chapter 11 (Infrastructure and Utilities) of the FDP. The introductory section to this chapter notes that:

'the location and delivery of both regional and local infrastructure is necessary to ensure that Fingal's Settlement Structure is successful and that its economy can thrive as part of a wider city region'.

and that:

'the availability of infrastructure such as water, wastewater ... will play a key role in securing economic investment'.

In addition, and from a strategic perspective, Policy IUP5 – Greater Dublin Drainage Study³, reiterates the previous FDP's support for the Greater Dublin Strategic Drainage Study (*'including any updates to the original report'*), which recommended the need for the Proposed Project.

Similarly, to the previous FDP, the FDP also notes that:

'the provision of an adequate supply of water and wastewater facilities is crucial to facilitate and sustain the growth of Fingal and the greater Dublin area and we will continue to work with UÉ and the Regional Assembly to ensure that UÉ's Investment Plan fully aligns with Fingal's Settlement Strategy'.

The FDP also notes that:

'The phased upgrade of the Ringsend WWTP Project and Greater Dublin Drainage Project are key wastewater infrastructure investment priorities in the short-to-medium term'

and the FDP also states that:

'the amount of wastewater generated in greater Dublin is projected to increase by over 50% in the period to 2050 and this needs to be addressed in the context of the upgrade of the Ringsend Wastewater Treatment Plant and the need for additional national infrastructure such as the Greater Dublin Drainage Project'.

Associated with the above, Section 11.3 (Opportunities) of the FDP, identifies the fact that:

'the GDDP (Greater Dublin Drainage Project) is acknowledged as being another critical piece of national infrastructure and will secure the long-term sustainable growth of Fingal and the Greater Dublin Area. The GDDP will assist Fingal County Council in delivering on its ambitious plans for the future development of the County, not just in terms of local spatial planning policy, but in also supporting the consolidation of the metropolitan area, sustainable population growth, economic prosperity and continued confidence for investors in the long term'.

Key strategic aims associated with infrastructure and utilities include the following:

³ "Promote and support the implementation of the Greater Dublin Strategic Drainage Study, Dublin Region Local Authorities (2005) GSDSDS."

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- ‘Fingal will continue to support Uisce Éireann’s strategic water service projects and infrastructure improvements and engage with them to facilitate the timely delivery of the water services infrastructure necessary to support Fingal’s settlement hierarchy, sustainable growth and mitigation and adaptation to climate change, in line with national and regional policy’; and
- ‘Fingal will continue to support the implementation of the UÉ Water Services Strategic Plan, 2015 (and any subsequent plan), and key projects in order to maintain and improve existing services and service further growth’.

In relation to water services policies and objectives, the FDP notes that:

‘Water services are key considerations when Fingal is determining the Core Strategy, population growth and settlement hierarchy. It also has a key role in the economic development of the County as both inward investment and employment opportunities are attracted to high quality water service systems, which increases Fingal’s attractiveness as a place to do business. Investment in water and wastewater infrastructure must be coordinated as part of the overall planning process to ensure the efficient provision of services and to support future development.’

Both the phased upgrade of the Ringsend WwTP, and the Proposed Project, are thus again identified as key wastewater infrastructure investment priorities in the short-to-medium term, with the Proposed Project aiming to ‘support the continued development of the Greater Dublin Area. The project aims to provide long term sustainable wastewater drainage and treatment’. The above provisions, as reflected by Uisce Éireann’s Statement of Capacity, which contains the broad strategic wastewater capacities at present, and relevant infrastructural investments programmed by Uisce Éireann in its Investment Plan (Capital Investment Plan 2020-2024), are also reflected in Table 11.1 of the FDP, as illustrated in the extract copy below in Image 3.2.

Statement of Feasibility for Fingal to Inform the FDP			
Area	Wastewater Treatment	Wastewater Network	Water Supply and Network
Metropolitan Area	Long Term will need the Greater Dublin Drainage Project and Ringsend WWTW Upgrades	Drainage Area Plans (DAP) are underway for most settlements in the area. North Fringe Sewer (NFS) area Swords and Malahide.	The Greater Dublin Area is constrained. Will need the Water Supply Project (WSP) in the medium term.

Image 3.2: Extract Copy of Table 11.1: Uisce Éireann’s Statement of Capacity (Uisce Éireann February 2023)

Policies and objectives within Chapter 11 of the FDP, noted as being of direct relevance to the Proposed Project, include:

Policy IUP3 - Regional Wastewater Treatment Plant

‘Facilitate the provision of appropriately sized and located wastewater treatment plants and networks including a new Regional Wastewater Treatment Plant and the implementation of other recommendations of the Greater Dublin Strategic Drainage Study, in conjunction with relevant stakeholders and services providers, to facilitate development in the County and Region and to protect the water quality of Fingal’s coastal and inland waters through the provision of adequate treatment of wastewater.’

This objective is the same as Objective WT03 of the 2017-2023 FDP.

Policy IUP4 – Irish Water – Water Service Projects

‘Support Uisce Éireann in delivering key water service projects in the County, as per Table 11.1 above.’

Policy IUP8 – Strategic Water Services Infrastructure

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'Identify and support the provision of key enabling infrastructure at strategic development sites in Fingal, as outlined in the MASP, to facilitate their release for development during the lifetime of the Development Plan and consult with all relevant public service providers to ensure that zoned lands are serviced in a timely fashion to facilitate opportunities for employment, enterprise creation and residential development.'

Policy IUP5 – Greater Dublin Drainage Study

'Promote and support the implementation of the Greater Dublin Strategic Drainage Study, Dublin Region Local Authorities (2005) GSDSDS, including any updates to the original report'

Objective IUO6 – Buffer Zones around Wastewater Treatment Plants

'Establish a buffer zone around all wastewater treatment plants suitable to the size and operation of each plant. The buffer zone should not be less than 100m from the odour producing units...'

This objective is the same as Objective WT11 of the 2017-2023 FDP.

Objective IUO7 – Buffer Zones around Pumping Stations

'Establish an appropriate buffer zone around all pumping stations suitable to the size and operation of each station. The buffer zone should be a minimum 35 metres – 50 metres from the noise/odour producing part of the pumping station to avoid nuisance from odour and noise'

This objective is the same as Objective WT12 of the 2017-2023 FDP.

Policy IUP9 – Sludge Management Plan

'Have regard to the policies and objectives contained in Uisce Éireann's National Wastewater Sludge Management Plan 2016 and subsequent plans, and to support appropriate options for the extraction of energy and other resources from sewerage sludge and continue to work with Uisce Éireann and other relevant stakeholders to ensure the provision of facilities for the safe and sustainable management of sludges (sewage, waterworks, agricultural, industrial and septic tank) that are generated within the County.'

Project Response

The FDP acknowledges that the availability of wastewater infrastructure, like the Proposed Project, will be crucial to furthering the economic potential of the area. The Proposed Project will ensure that there is sufficient capacity to ensure projected likely demands are met. The Proposed Project is in direct support of Policies IUP3, IUP4 and IUP8 and is identified as a critical piece of infrastructure that will need to be progressed to assist FCC to achieve its overall strategy.

Policies identified and noted in relation to the previous FDP, which are replicated in the FDP, have been previously responded to in the Planning Report included in the 2018 planning application (ABP ref. PL06F.301908), and are therefore not further responded to here.

3.4.3 Fingal Local Economic Community Plan

There are no changes to the information presented in this Section of the 2018 planning application as there has been no subsequent new, or superseding plan, adopted or published.

3.4.4 Fingal Sludge Management Plan 2013

There are no changes to the information presented in this Section of the 2018 planning application as there has been no subsequent new, or superseding, plan adopted or published.

3.4.5 Dublin City Development Plan 2022-2028

As in Dublin City Council's (DCC) previous Dublin City Development Plan 2016-2022 (hereafter referred to as the previous DCDP), the new Dublin City Development Plan 2022-2028 (hereafter referred to as the new DCDP) highlights the infrastructural challenges facing the Dublin region. Amongst the core challenges identified, is the need *"to address existing pressure on the city's water supply and wastewater treatment infrastructure and the need to align the provision of critical water services with city growth targets, whilst also providing for environmental protection and climatic resilience"*. In this regard, the new DCDP thus also identifies the following as a main strategic issue informing its strategic approach:

"Aligning the settlement and economic elements of the core strategy with the efficient use and timely delivery of critical water supply and waste water infrastructure through ongoing consultation with Irish Water (IW). Supporting implementation of the IW Water Services Strategic Plan (2015) and key projects in order to maintain and improve existing services and service further growth".

In the above regard, Section 9.5 (Policies and Objectives) of the new DCDP outlines the provisions in relation to wastewater, noting that:

'the water supply and wastewater needs of Dublin are to be met by a series of planned Strategic Water Services Projects designed to enhance the city's water supply and increase wastewater treatment capacity in compliance with the Urban Waste Water Treatment and Drinking Water Directives. The phased upgrade of the Ringsend WWTP Project and Greater Dublin Drainage Project remain critical waste water infrastructure investment priorities in the short-to-medium term'.

Policies and objectives considered of direct relevance to the Proposed Project, include:

SI1 Support for Irish Water

It is the policy of DCC to:

'support and facilitate Irish Water in the provision of high-quality drinking water, water conservation and drainage infrastructure and to promote the ongoing upgrade and expansion of water supply and wastewater services to meet the future needs of the city and the Region.'

SI5 Safeguarding of Public Water Services Infrastructure

It is the policy of DCC to *'work in conjunction with Irish Water to safeguard existing water and drainage infrastructure by protecting existing wayleaves and buffer zones around public water service infrastructure.'*

SI01 Commitment to Working in Partnership with Irish Water

It is an Objective of DCC to:

'support Irish Water in the implementation of the Water Services Strategic Plan (2015) and National Water Resources Plan (2021) for Ireland's public water supplies and to work closely with Irish Water to facilitate the timely delivery of the public water services required to realise the core strategy growth targets of this plan in accordance with the Draft Water Services Guidelines for Planning Authorities (2018).'

SI02 Wastewater Waste Treatment

It is an Objective of DCC to:

'have regard to the policies and objectives contained in Irish Water's National Wastewater Sludge Management Plan (2016) and subsequent plans, and to support appropriate options for the extraction of energy and other resources from sewerage sludge.'

3.4.5.1 DCDP (Volume 2: Appendices)

Appendix 10 (Infrastructure Capacity Assessment) of the new DCDP (DCC 2022), notes that whilst Ringsend WwTP is currently undergoing significant upgrades which will “allow the plant to treat increasing volumes of wastewater”, the GDA will be dependent on the Proposed Project in the longer term, to free up capacity at the Ringsend WwTP, in accordance with the infrastructure capacity assessment (extract) outlined in Image 3.3 below.⁴

<p>Greater Dublin Drainage Project (GDDP) The GDDP aims to provide long-term sustainable wastewater drainage and treatment to facilitate the continued social and economic development of the Region. The project involves the provision of new wastewater treatment works, a marine outfall and a new drainage network in the northern part of the GDA. Together, with the upgrade of the Ringsend Wastewater Treatment Plant, these projects are intended to provide adequate wastewater treatment to serve the GDA to 2050. It is anticipated that the GDDP will provide the additional treatment capacity required from the mid-2020s.</p>	<p>Identified in the NDP within the category ‘Strategic Investment Priorities Water Quality Planning application is under determination. Construction scheduled for 2022-2026. Estimated cost of c. €500m - €1bn (source: NDP).</p>	<p>Tier 1 - All sites subject to connection agreement with Irish Water (in line with existing standard practice).</p>
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Image 3.3: Strategic Wastewater Infrastructure (Extract from Material Amendments, Volume 2 – Section 4.1.2, Table 2 of the DCDP) (DCC 2022)

3.4.5.2 DCDP – Strategic Environmental Assessment (SEA) Report

Section 5.9.3 (Wastewater Services) of the SEA Report sets out the current context for wastewater services within the Dublin City administrative area, noting that the EPA’s Water Quality in Ireland 2013-2018 Report ‘highlights that one of the key causes of water pollution is from point sources including discharges from wastewater treatment plants’.

This Section of the SEA Report also states, in regard to the Proposed Project, that:

‘the Greater Dublin Drainage (GDD) Project involves the development of a new regional wastewater treatment facility and associated infrastructure including pipelines to serve the Greater Dublin Area (GDA) and parts of the surrounding counties of Kildare and Meath. The GDD project is acknowledged as a critical piece of national infrastructure and has been identified in the National Planning Framework (NPF) as a National Strategic Outcome of the National Development Plan. The project will have the capacity to provide wastewater treatment for the equivalent of half a million people to support the needs of a growing population and economy in Dublin and the surrounding counties, whilst also contributing to system resilience and flexibility.

The GDD project will assist the Dublin local authorities in delivering on their plans for future development; not just in terms of local spatial planning policy but also in supporting consolidation of the metropolitan area, sustainable population growth, economic prosperity and continued confidence for investors in the long-term. An Bord Pleanála granted a Strategic Infrastructure Development permission for GDD in 2019, but that decision was quashed (in November 2020) following legal challenge. Nevertheless, the GDD remains a key part of Irish Water’s investment in new wastewater infrastructure in the greater Dublin area.

The GDD and Ringsend WwTP Projects are critically important infrastructure given their objective to provide long-term sustainable wastewater drainage and treatment to support the continued development of the Greater Dublin Area’.

⁴ Ref. Volume 2, Appendix 10 – Infrastructure Capacity Assessment, Section 4.1.2 Wastewater Infrastructure Table 2 (page 335)

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In relation to 'Material Assets Issues', the SEA identifies the fact that, in respect of 'Water Supply and Wastewater Services' *'new developments, (including housing, offices and retail development), will generate pressure on existing water and wastewater sources to meet demands'*, whilst as regards wastewater services in particular, *'new developments, should only be permitted where there is adequate capacity in the wastewater infrastructure in accordance with urban wastewater treatment disposal requirements and standards. Currently, municipal wastewater discharges are creating significant pressure on the receiving waterbodies'*.

Project Response

The need to address the pressure on Dublin's wastewater treatment infrastructure is among the core challenges outlined within the new DCDP. The Proposed Project addresses this need directly, by providing additional wastewater service infrastructure that will ensure future demand is met. Furthermore, the Proposed Project is mentioned within Section 9.5 as being a critical infrastructure investment priority, and again in Appendix 10 as an enabling project to free up capacity within the Ringsend WwTP, and to seek to ensure that between both projects, wastewater capacity need (to 2050) is addressed in the GDA.

In support of Policies SI1, SI5 and SI01, the Proposed Project will provide high quality wastewater treatment infrastructure that will meet the current and future needs of the region, safeguarding the water services as demand grows. In support of Policy SI02, the Proposed Project includes provision for an advanced sludge digestion process to maximise energy recovery from the by-products of the development and maximise energy recovery on-site, in accordance with Uisce Éireann's National Wastewater Sludge Management Plan (Uisce Éireann 2016).

The Proposed Project is further acknowledged within the SEA Report as a critical piece of national infrastructure that is vital to provide sustainable wastewater services.

3.4.6 Meath County Development Plan 2021-2027

As with the previous Meath County Council (MCC) Meath County Development Plan 2013-2019 (hereafter referred to as the previous MCDP), the current Meath County Development Plan 2021-2027 (hereafter referred to as the MCDP) acknowledges the strategic role of the Greater Dublin Strategic Drainage Study and its role in the future sustainable development of the County and the region, with the MCDP noting that the Proposed Project *'will serve the Meath towns of Dunboyne, Ashbourne and Ratoath and the villages of Clonee and Kilbride'*. In this regard, the following objective and policy are of relevance to the Proposed Project:

INF OBJ 1

'It is an objective of the Council To liaise and work in conjunction with Irish Water to promote the sustainable development of water supply and drainage infrastructure in the county and the region, in accordance with the objectives and recommendations set out in the Greater Dublin Drainage Study and Irish Water's Water Services Strategic Plan.'

INF POL 11

'It is the policy of the Council to liaise and work in conjunction with Irish Water during the lifetime of the Plan in the provision, upgrading or extension of wastewater collection and treatment systems in the County to serve existing and planned future populations and enterprise in accordance with the requirements of the Core and Settlement Strategies.'

Project Response

The MCDP acknowledges that the Proposed Project is required to serve the towns and villages within the County and commits, through Objective INF OBJ 1 and Policy INF POL 11, to support and facilitate Uisce Éireann in the development and improvement of wastewater systems.

3.4.7 Kildare County Development Plan 2023-2029

The Kildare County Council (KCC) Kildare County Development Plan 2023-2029 (hereafter referred to as the KCDP) came into effect on 28 January 2023.

In line with the previous Kildare County Development Plan 2017-2023 (hereafter referred to as the previous KCDP), the new reviewed KCDP, acknowledges that:

'the availability of high-quality water, drainage infrastructure and environmental services are necessary to facilitate the sustainable development of the county and to protect the environment.'

The KCDP further reiterates its support of Irish Water (Uisce Éireann) and their role in the delivery "water supply and wastewater treatment...". In this regard, the following objective and policy are of relevance to the Proposed Project:

RE O10

'It is an objective of the Council to Work with Irish Water, to support the provision of water, wastewater treatment and waste management facilities to accommodate the future economic growth of the county and to seek to reserve capacity in water services infrastructure for employment generating uses.'

IN P3

'It is a policy of the Council to Support Irish Water to ensure adequate and appropriate wastewater treatment infrastructure is available over the Plan period to service the projected growth of towns and villages throughout Kildare in accordance with the Core Strategy and Settlement Hierarchy.'

Project Response

The availability of high-quality wastewater service infrastructure is vital to facilitating the sustainable development of Kildare. The Proposed Project is in line with REO10 and INP3 as implementation of the Proposed Project will assist in providing additional capacity within a number of existing WwTPs within the GDA, including some within Dublin, Meath and Kildare, as it will divert a proportion of the wastewater loadings from these systems to the new WwTP. This will assist in the sustainable growth and development of these areas, which are currently being hampered by capacity issues.

3.4.8 Portmarnock South Local Area Plan 2013 (LAP 9A) (as extended)

The Portmarnock South Local Area Plan 2013 (as extended), expired in July 2023.

Notwithstanding the above, and solely to provide and confirm context with regard to the Proposed Project, the opportunity is taken under this heading, to note that one of the Material Amendments (PA SH 9.1) to the FDP, related to the boundary line between the RA (Residential Area) and OS (Open Space) at the zoning objectives at the Portmarnock South lands. This amendment, and the subsequent amended adopted plan in the FDP (at Sheet 9 Malahide-Portmarnock 2023-2029), is illustrated in the map extract in Image 3.4 below. The Proposed Project has been mapped and included on this map extract.

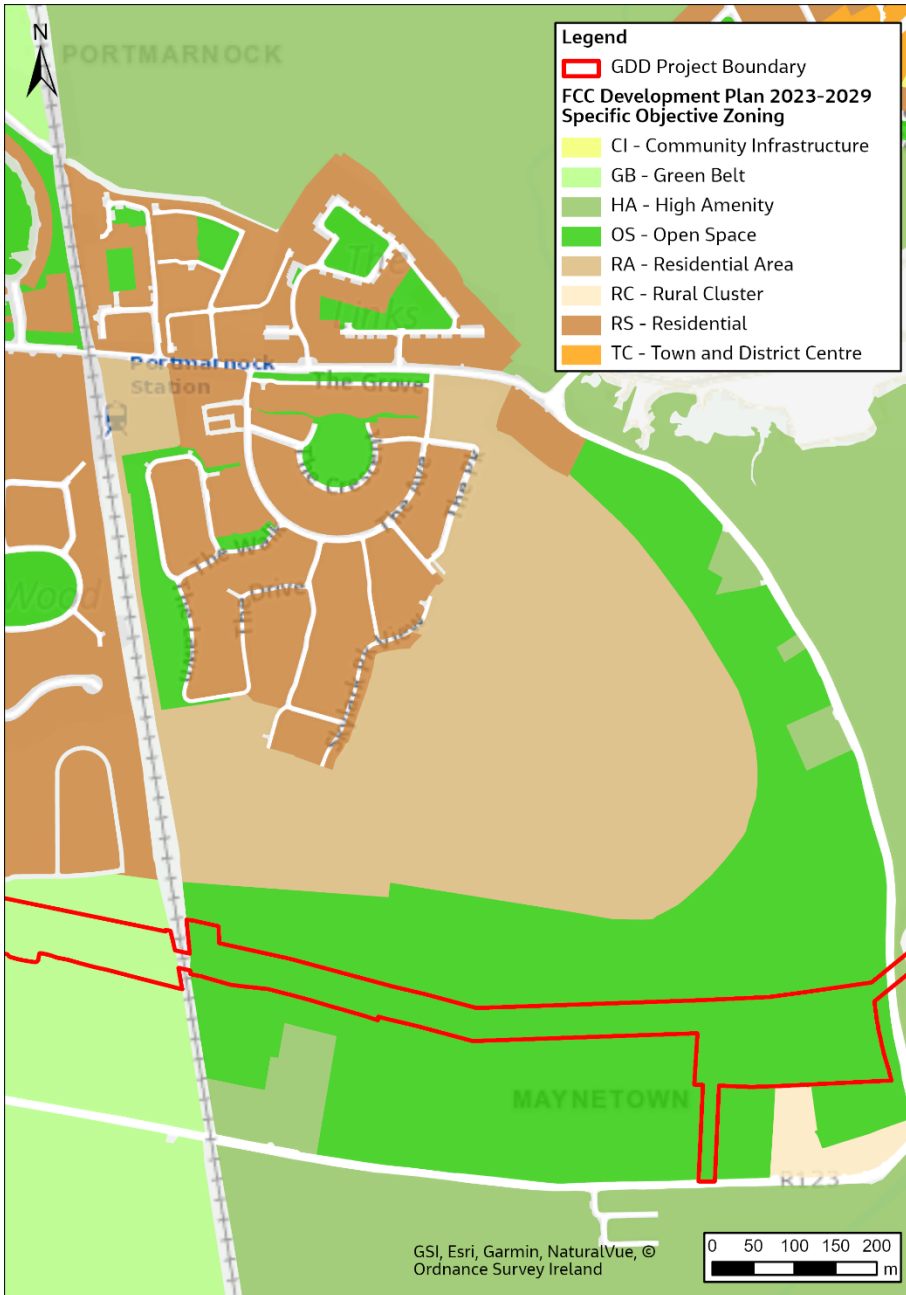


Image 3.4: Proposed Material Amendment PA SH 9.1 (Adopted FDP)

3.4.9 The Dardistown Local Area Plan

The Dardistown Local Area Plan (LAP) expired on 12 November 2022 and no longer has any formal status.

The FDP continues with the zoning pattern for General Employment (purple) and High Technology (pink) uses within the area, within the context of the route alignment for the Proposed Project.

A key difference within the new FDP, is that the requirement for a LAP on the Dardistown lands no longer applies.

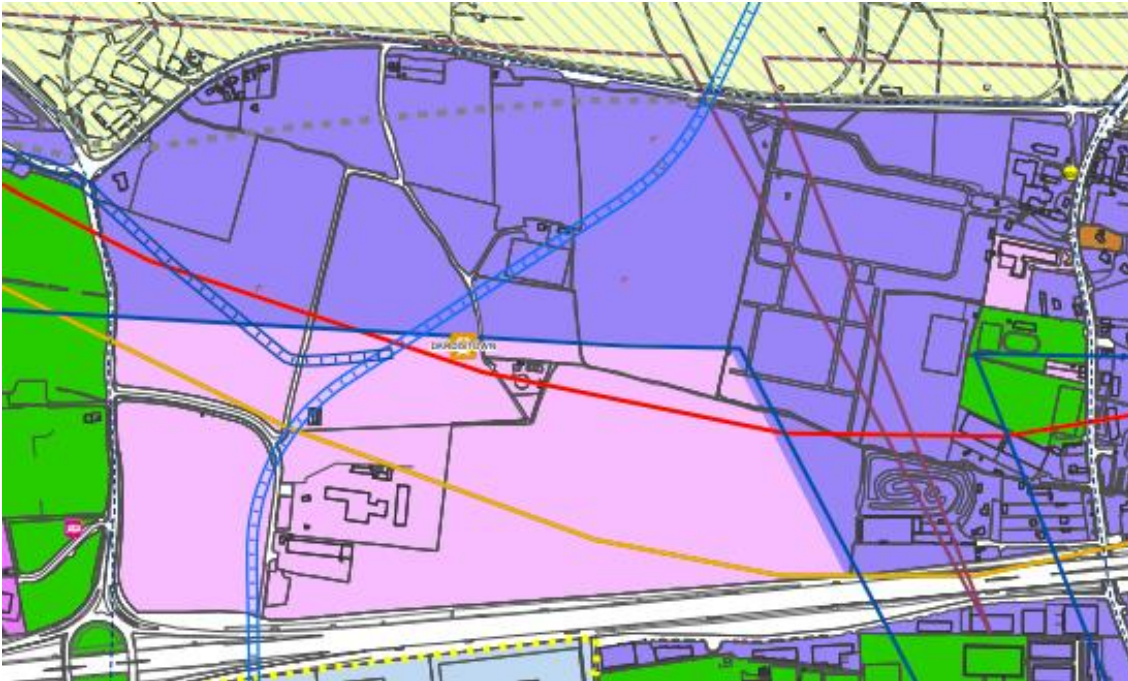


Image 3.5: Dardistown LAP Area (Extract of Figure 2-4: FDP Zoning Map 11 Fingal South) (adapted from FCC 2023)

3.4.10 Dublin Airport Local Area Plan 2020

The Dublin Airport Local Area Plan 2020 was adopted by FCC in 2020. The Dublin Airport Local Area Plan takes account of the substantial changes in environmental and aviation policy, as well as the existing and surrounding land use context to Dublin Airport, since adoption of the 2006 Dublin Airport Local Area Plan.

As regards the Proposed Project, Section 9.4.1 (Foul Drainage), highlights that:

'Multiple projects are currently being progressed by Irish Water to deliver the infrastructure and capacity necessary for predicted population growth within the Dublin Region...The growth of Dublin Airport will be subject to the progress of the various improvement works and subject to the agreement of Irish Water. Planning consent will be dependent on capacity within waste water treatment infrastructure. In particular, the following key projects are applicable to Dublin Airport...Greater Dublin Drainage Project.'

3.4.11 Fingal County Council Climate Change Action Plan 2019-2024

The FCC Climate Change Action Plan 2019–2024 concentrates on two approaches required to tackle climate change. These comprise mitigation, consisting of actions to reduce current and future greenhouse gas emissions (e.g. reductions in energy use and switching to renewable energy sources) and adaptation, comprising actions to reduce impacts that are already occurring as a result of climate change, and those that are projected to happen in the future (e.g. flood protection, reduced impact of rising sea levels, increased resilience of infrastructure and emergency response planning).

The FDP adopts a similar approach through the implementation of its policies and objectives to help address mitigation and adaptation requirements moving towards a low-carbon, resilient County.

Project Response

The Proposed Project will be a new WwTP which has been located and designed to ensure resilience and adaptation to climate change risks, whilst also ensuring that future wastewater provision for the area is climate-proofed and meets legislated water quality thresholds.

Also, as noted in the Project Response under Section 3.2.7.1 of this Addendum Planning Report, the Proposed Project will comprise a new WwTP which has been located and designed to ensure resilience and adaptation to climate change risks, whilst also ensuring that future wastewater provision for the area is climate-proofed and meets legislated water quality thresholds. The design of the Proposed Project complies with the appropriate building regulations and standards. All critical infrastructure will be appropriately housed and covered from the elements. The embedded design measures outlined in the EIAR in the 2018 planning application, in relation to total or partial failure events, will protect the Proposed Project infrastructure against power outages resulting from storm events.

Additionally, the location of the Proposed Project was subject to a flood risk assessment (FRA), which has been revised as part of this Addendum and included as a standalone document in the Addendum pack. The original FRA and the Revised FRA, determined that the above-ground structures (proposed WwTP and Abbotstown pumping station) will be located in Flood Zone C (low risk zone), which is considered an appropriate zone for the siting of 'highly vulnerable development (including essential infrastructure)', as per the Department of the Environmental, Heritage and Local Government (DEHLG) and the Office of Public Works (OPW) Planning System and Flood Risk Management Guidelines for Planning Authorities. The below-ground structures (i.e. pipelines) are not considered to be vulnerable to flooding. However, the construction methodologies selected (i.e. trenchless methodologies at watercourse crossing locations which are more prone to flooding), mitigation outlined in the EIAR in the 2018 planning application, as supplemented by the EIAR Addendum, and the design of the proposed pipelines, will ensure that flood risk is not considered significant.

In addition, the proposed energy recovery (through advanced sludge digestion processes, thermal hydrolysis process and anaerobic sludge digesters) will assist in a move to a system of waste circularity, ensuring that the Proposed Project will be in a position to assist in combatting the effects of climate change through the utilisation of its by-products, which will in turn assist in reducing dependency on fossil fuels.

3.4.12 Ireland's Eye Management Plan 2018-2022

The Ireland's Eye Management Plan 2018-2022 (Nairn R. 2017) is a non-statutory management plan prepared by a number of interest groups / stakeholders, on behalf of FCC. The stated purpose of the Ireland's Eye Management Plan 2018-2022 is '*to guide the future management of the island by FCC (Fingal County Council) and others*'.

The aims and objectives set out for the Ireland's Eye Management Plan 2018-2022 include:

- *'Understand the significance of Ireland's Eye*
- *Identify issues which threaten that significance,*
- *Agree appropriate policies to guide the management of the heritage of the island,*
- *Agree a series of actions to achieve the objectives of the plan and its agreed policies'*.

Within the above context, the Ireland's Eye Management Plan 2018-2022 identifies the fact that the island is a designated Special Area of Conservation (SAC) and Special Protection Area (SPA) under Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive) and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directives) and that it is an important site for breeding seabirds.

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In relation to the Proposed Project, the Ireland's Eye Management Plan 2018-2022 states that in respect of 'Seabird foraging areas':

'over the period 2014-2017 a major survey of seabird activity in the area north of Ireland's Eye was undertaken in connection with the proposed wastewater sea outfall for the Greater Dublin Drainage Project (Iredale & Veale 2017)'.

The Ireland's Eye Management Plan 2018-2022 qualifies this further by providing an outline of the survey results.

Project Response

The Proposed Project will ensure that existing environmental risk posed by the lack of existing capacity within existing WwTPs and associated infrastructure, will be reduced and improved. As is noted within the EIAR and the NIS included in the 2018 planning application, as supplemented by the EIAR and NIS Addendums, the Proposed Project will not negatively impact any designated European site and will therefore similarly not negatively impact the marine sector within Fingal.

All studies and modelling undertaken for the Proposed Project and the associated outfall pipeline route construction and implementation phase, including discharges, which will be located approximately 1km from Ireland's Eye, demonstrate that the Proposed Project will have no negative impact on this important site (refer also to Chapter 8 (Marine Water Quality) in Volume 3 Part A of the EIAR in the 2018 planning application as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the EIAR Addendum).

3.5 Overall Compliance with the Planning Policy

In effect, there is no change to the information presented and overall compliance of the Proposed Project, notwithstanding any changes to the policy context of the development proposal. In line with the Planning Report in the 2018 planning application, this Addendum Planning Report confirms that the Proposed Project is fully compliant with updated policy at European, National, Regional and Local level, and fully accords with the development principles as outlined in such policy documents.

To summarise, the Proposed Project:

- Is fully in compliance with EU Directives and is continued to be supported through the NDP investment frameworks, which acknowledge the need for considerable investment in wastewater infrastructure (such as is represented by the Proposed Project), which is explicitly mentioned as being a project vital to the continued development of the region;
- It is fully aligned with updated policy at National and Regional level, including in respect of the National CAP23 (Government of Ireland 2023), NAF, WAPCE and the RSES, as it will provide climate resilient, sustainable wastewater treatment infrastructure which will provide for improved environmental and infrastructural benefits for a significant proportion of the existing and future GDA communities and population. This is in line with sustainable development and the need to consolidate built up areas;
- Supports Uisce Éireann's Capital Investment Plan 2020-2024 and Water Services Policy Statements, as it is not only acknowledged as a Significant Project, but will also address existing constraints and ensure there is sufficient capacity to facilitate future growth. Additionally, the Proposed Project is aligned with Uisce Éireann Policy Documents, including the Uisce Éireann Biodiversity Action Plan (BAP), as it will provide new wastewater treatment infrastructure that is designed to ensure a high level of energy efficiency, whilst striving to achieve a net gain, where the biodiversity value of enhancements exceeds the value of the biodiversity losses; and
- Is also compliant with the updated relevant Development Plans and associated Local Area Plans. As outlined in Section 3.4, the Proposed Project is directly supported through various references within the above-mentioned Development Plans and LAPs.

4. Sectoral Policies and Objectives

As provided for within the Planning Report accompanying the 2018 planning application, this Section of the Addendum Planning Report demonstrates how the Proposed Project accords with all relevant FDP sectoral policies and objectives. It should be noted that while a complete assessment of all sectoral policies and objectives in the relevant FDP was carried out, the following sections address those policies and objectives which are of greatest relevance to the Proposed Project.

4.1 Fingal County Development Plan 2023-2029

The FDP (see also Section 3.4.2 of this Addendum Planning Report), has also been considered in the review of relevant FDP sectoral policies and objectives. For the purposes of the review, only those chapters and associated policies / objectives that are considered most relevant, are set out hereunder, namely:

- Chapter 1 Introduction;
- Chapter 2 Planning for Growth;
- Chapter 3 Sustainable Placemaking and Quality Homes;
- Chapter 4 Community Infrastructure and Open Space;
- Chapter 5 Climate Action;
- Chapter 7 Employment and Economy;
- Chapter 8 Dublin Airport;
- Chapter 9 Green Infrastructure and Natural Heritage;
- Chapter 10 Heritage, Culture and Arts;
- Chapter 11 Infrastructure and Utilities;
- Chapter 13 Land Use Zoning; and
- Chapter 14 Development Management Standards.

4.1.1 Chapter 1 - Introduction

The FDP identifies a number of interlinked strategic objectives towards ensuring an enhanced quality of life for all citizens in the County. These objectives include to *'Protect, enhance and ensure the sustainable use of Fingal's key infrastructure, including water supplies and wastewater treatment facilities...'*

The strategic vision of the FDP seeks, inter alia, to ensure that a *'sustainable future for the County will be based on the interdependence of the themes of economic growth, social progress and environmental quality with the aim of increasing the County's self-reliance and resilience'* and that:

'this Plan will ensure the continued growth of the County in a sustainable way and ensure the County continues to develop as a series of well-serviced, well-connected towns, villages and communities and a low carbon economy. In working to deliver all of this, we are committed to engaging with stakeholders, including local communities and residents to develop better solutions to the complex challenges we face and provide an improved quality of life for all.'

The vision is underpinned by four cross-cutting themes and a number of interlinked strategic objectives, including at Section 1.4 (Strategic Objectives) of the FDP:

'10. Protect, enhance and ensure the sustainable use of Fingal's key infrastructure, including water supplies and wastewater treatment facilities, energy supply including renewables, broadband and transportation'.

Project Response

The Proposed Project will provide additional wastewater treatment infrastructure to the GDA, which will ensure that there is sufficient capacity to facilitate the further population and economic growth of the GDA. The Proposed Project has been outlined as an investment priority within capital investment plans, and its implementation will ensure the wastewater services infrastructure is resilient to the future growth of the region in a sustainable manner.

4.1.2 Chapter 2 - Planning for Growth – Core Strategy and Settlement Strategy

Policies / Objectives:

Policy CSP5 – Key Enabling Infrastructure

'Identify and support the provision of key enabling infrastructure at strategic development sites in Fingal County, as outlined in the MASP, to facilitate their release for development during the lifetime of the Development Plan.'

Policy CSP13 – Addressing Infrastructural Deficits

'Accelerate the availability of lands ready for residential development by aiming to address current infrastructural deficits where these are known to be delaying residential development.'

Policy CSP14 – Consolidation and Re-Intensification of Infill/Brownfield Sites

'Support the consolidation and re-intensification of infill/brownfield sites to provide high density and people intensive uses within the existing built-up area of Dublin City and suburbs and ensure that the development of future development areas is co-ordinated with the delivery of key water infrastructure and public transport projects.'

Project Response

The Proposed Project will provide much needed wastewater services infrastructure that will ensure the region is adequately served as it continues to develop in line with growth projections (refer also to Section 1.1 in this regard), and particularly in respect of the growth of the GDA as a strategic centre, and will limit the environmental risk posed by the lack of existing capacity within existing WwTPs and associated infrastructure. This will ensure capacity deficits are met, and constraints to future development are removed.

The Proposed Project represents an integrated wastewater management approach, which has undergone rigorous assessment and stakeholder engagement, and which will augment Ringsend WwTP. As such, it implements the recommendations of the Greater Dublin Strategic Drainage Study Final Strategy and the SEA of the Greater Dublin Strategic Drainage Study. Its implementation will ensure the protection, enhancement and maintenance of water quality and the natural environment and will provide for improved environmental and infrastructural benefits for a significant proportion of the existing and future GDA communities and population. This is in line with sustainable development and the need to consolidate built up areas.

4.1.3 Chapter 3 - Sustainable Placemaking and Quality Homes

Policies / Objectives:

Policy SPQHP10 – Support Compact Growth

'Support the implementation of and promote development consistent with the National Strategic Outcome of Compact Growth as outlined in the NPF and the Regional Strategic Outcome of Compact Growth and Regeneration as set out in RSES.'

Objective SPQHO15

'Implement existing Local Area Plans, Masterplans and Framework Plans for areas designated on Development Plan maps in co-operation with relevant stakeholders, and actively seek the achievement of the specific objectives within.'

Project Response

The Proposed Project will support the County's strategic plan-led spatial and economic growth and development strategy and is in compliance with the relevant policies and objectives as outlined within the FDP. Its component parts have been designed to integrate and maximise, as far as possible, on existing infrastructure, whilst providing additional capacity in a strategic and economically beneficial manner for all.

The Proposed Project will be strategically located in order to ensure a maximum benefit to existing zoned lands as set out in relevant Local Area Plans, Masterplans, Framework Plans and / or the FDP zoning maps. It will assist in servicing these lands and areas, and it will provide the required enabling wastewater infrastructure and servicing for these.

Realisation of the Proposed Project will ensure that the required enabling pipeline capacity and wastewater treatment infrastructure and facilities are in place, in an appropriate and timely manner in order to service zoned areas. The Proposed Project will also provide for much needed headroom in wastewater infrastructure. This will assist in ensuring sustainable and proper growth and development (environmentally and economically) within the specific areas and lands.

4.1.4 Chapter 4 - Community Infrastructure and Open Space

Objective CIOSO16 – National Sports Campus Zoning (NSC)

'Facilitate the provision of sporting facilities and associated infrastructure in accordance with the National Sports Campus zoning (NSC), incorporating appropriate office, administration, training, accommodation and other associated and ancillary development.'

Project Response

The Proposed Project assists in providing vital associated wastewater services infrastructure for the wider GDA as well as the NSC. Without the implementation of the Proposed Project, little growth and development could be supported or would be possible. The Proposed Project is thus compliant with objective CIOSO16.

4.1.5 Chapter 5 - Climate Action

Policy CAP5 – Climate Mitigation and Adaptation in the Built Environment

'Ensure the built environment is equipped for the impacts of climate change by supporting climate change mitigation and adaptation measures as part of new and existing developments.'

Policy CAP10 – Climate Mitigation Actions in the Built Environment

'Promote low carbon development within the County which will seek to reduce carbon dioxide emissions and which will meet the highest feasible environmental standards during construction and occupation. New development should generally demonstrate/provide for:

- a. Building layout and design which maximises daylight, natural ventilation, active transport and public transport use;*
- b. Sustainable building/services/site design to maximise energy efficiency;*
- c. Sensitive energy efficiency improvements to existing buildings;*
- d. Energy efficiency, energy conservation, and the increased use of renewable energy in existing and new developments;*
- e. On-site renewable energy infrastructure and renewable energy;*

- f. Minimising the generation of site and construction waste and maximising reuse or recycling; and*
- g. The use of construction materials that have low to zero embodied energy and CO2 emissions.'*

Policy CAP11 – Climate Adaptation Actions in the Built Environment

'Development proposals should demonstrate sustainable design principles for new buildings/ services/site. The Council will promote and support development which is resilient to climate change. This would include:

- a. Measures such as green roofs and green walls to reduce internal overheating and the urban heat island effect;*
- b. Ensuring the efficient use of natural resources (including water) and making the most of natural systems both within and around buildings;*
- c. Minimising pollution by reducing surface water runoff through increasing permeable surfaces and use of Sustainable Drainage Systems (SuDS);*
- d. Reducing flood risk, damage to property from extreme events– residential, public and commercial;*
- e. Reducing risks from temperature extremes and extreme weather events to critical infrastructure such as roads, communication networks, the water/drainage network, and energy supply;*
- f. Promoting and protecting biodiversity and green infrastructure.'*

Policy CAP12 – Climate Action Energy Statements

'All new developments involving 15 residential units and/or more than 1,000 sq. m. of commercial floor space, or as otherwise required by the Planning Authority, will be required to submit a Climate Action Energy Statement as part of the overall Design Statement to demonstrate how low carbon energy and heating solutions, have been considered as part of the overall design and planning of the proposed development.'

This policy is largely similar to Objective EN09 of the previous (2017) FDP.

Policy CAP30 – Natural Flood Risk Mitigation

'Encourage the use natural flood risk mitigation or nature-based solutions including integrated wetlands, green infrastructure, and Sustainable Drainage Systems (SuDS) as part of wider adaptation and mitigation responses to achieve flood resilience.'

Project Response

The Proposed Project will include a new WwTP which has been located and designed to ensure resilience and adaptation to climate change risks, whilst also ensuring that future wastewater provision for the area is climate-proofed and meets legislated water quality thresholds.

In addition, the Proposed Project includes provision for SUDS at both the proposed Abbotstown pumping station site and the proposed WwTP site. SUDS provision will incorporate a mix of rainwater harvesting, swales, infiltration trenches and permeable pavement, all of which will assist in providing benefits to biodiversity levels.

Chapter 4 (Description of the Proposed Project) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 3A Part A of the EIAR Addendum, also notes that Uisce Éireann is committed to designing, building and operating assets to ensure energy efficiency. The plant, equipment, buildings and systems associated with the Proposed Project will be designed, equipped, operated and maintained in such a manner as to ensure a high level of energy performance and that energy is used efficiently. The implementation of elements of the proposed Project will be designed following the requirements set out in IS 399 Energy Efficient Design and Management. This

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standard requires that any design features or methods that may reduce energy consumption are considered and the process of their consideration is clearly documented.

Proposed amendments to the Energy Performance of Buildings Directive by way of Revised Directive 2023/1791 came into effect on 10 October 2023 which are aimed at ensuring buildings are categorised as zero-emission buildings by 2030 for new builds and 2050 for existing buildings. As before, this update will be considered at the next phase of the design of the Proposed Project.

As outlined in the Planning Report in the 2018 planning application, the Proposed Project design evolution has considered a number of renewable technologies in order to reduce the carbon footprint of the site. Installation of wind turbines on the proposed WwTP site were considered for the Proposed Project but were not deemed practical following concerns raised by daa that the turbines might cause interference with electronic components, including radar and landing controls. In addition, consideration was also given to the installation of a turbine in the outfall pipeline route. However, due to the distance between the proposed WwTP and the proposed outfall location, the electrical losses across this distance would produce negligible energy.

Notwithstanding, the Proposed Project proposes to maximise energy recovery from the proposed WwTP and sludge treatment processes. This will be achieved using thermal hydrolysis and anaerobic digestion in the treatment of the sludge and using the biogas produced from this process to fuel on-site Combined Heat and Power generators to produce electrical and thermal energy. This is highlighted within Section 4.9.2 of Chapter 4 (Description of the Proposed Project) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 3A Part A of the EIAR Addendum. Primary and secondary sludge produced by the proposed WwTP can be mixed with the sludge imported to the Sludge Hub Centre prior to undergoing the treatment process. Use of thermal hydrolysis with anaerobic digestion will reduce the dry matter and increase production of biogas. A well-designed Combined Heat and Power system will produce power at a cost below that of retail electricity, will reduce the overall energy consumption of the plant and reduce emissions of greenhouse gases. Typical Combined Heat and Power systems can have total efficiencies of up to 80%. In the above context, the Proposed Project has therefore considered the impacts of climate change through the proposed use of energy saving and efficiency measures.

In addition, the proposed energy recovery (through advanced sludge digestion processes, thermal hydrolysis process and anaerobic sludge digesters) which will seek to maximise energy recovery on the site, through a thermal hydrolysis process and anaerobic sludge digesters. These represent the main elements of the advanced sludge treatment processes to maximise energy recovery and will assist in a move to a system of waste circularity, ensuring that the Proposed Project will be in a position to assist in combatting the effects of climate change through the utilisation of its by-products, which will in turn assist in reducing dependency on fossil fuels. Further energy efficiency measures will be promoted through the specification of energy efficient pumps, motors, etc. at tender stage of the Proposed Project. Additionally, there is considerable scope for the site to accommodate additional renewable energy technologies such as solar energy. Where additional / new technologies become available and / or are considered for implementation on the site, there is sufficient scope for these to also be incorporated, subject to the necessary / required consent processes. These provisions will assist in creating a circular economy through energy recovery, while also ensuring that the future wastewater needs of the GDA are met.

In respect of sludge, the Proposed Project incorporates sustainable treatment for wastewater sludge and domestic septage, generated within the administrative area of Fingal. This will produce a 'biosolid' end product which will be landspread in accordance with all applicable legal requirements. In addition, the Proposed Project will utilise the biogas produced during the treatment process as an energy source, on-site.

Climate change has also been considered in the design of the proposed outfall pipeline route through the consideration of higher sea levels. As future development land will not be discharging surface water to the Proposed Project, climate change will have no impact here.

The implementation of the Proposed Project would thus be in accordance with the above-outlined policies.

4.1.6 Chapter 7 - Employment and Economy

Policy EEP5 – Land Extensive Uses

'Support the development of land extensive uses where appropriate, having regard to infrastructural, transport and environmental considerations and the need for orderly growth.'

Objective EEO4

'Ensure that space extensive uses are located within appropriate locations which do not compromise labour intensive opportunities on zoned lands, adjacent to public transport nodes or within existing built-up compact growth areas.'

Policy EEP12 – Stakeholder Engagement

'Liaise and engage with all relevant public service providers to ensure that zoned lands are serviced in a timely fashion and future-proofed to facilitate opportunities for employment and enterprise creation.'

Project Response

The Proposed Project will support the County's economic vision and be in compliance with the relevant economic objectives as included in the FDP. Its component parts have been designed to integrate and maximise, as far as possible, on existing infrastructure, whilst providing additional capacity, in a strategic and economically beneficial manner for all.

The Proposed Project will be strategically located in order to ensure a maximum benefit to existing zoned lands and its design is future-proofed to ensure resilience and to accommodate projected population growth. The Proposed Project will assist in servicing these lands and areas, and it will provide the required enabling wastewater infrastructure and servicing for these in a sustainable manner.

In addition, the Proposed Project has evolved and developed, in consultation with a number and variety of stakeholders, including FCC, in accordance with Policy EEP12. The non-statutory public consultation process is also outlined within the Public Stakeholder Participation Report included in the 2018 planning application. Realisation of the Proposed Project will ensure that the required enabling pipeline capacity and wastewater treatment infrastructure and facilities are in place, in an appropriate and timely manner, in order to service zoned areas. The Proposed Project will also provide for much needed headroom in wastewater infrastructure. This will assist in ensuring sustainable and proper growth and development (environmentally and economically) within the specific areas and lands.

4.1.7 Chapter 8 - Dublin Airport

Policy DAP2 – Infrastructure Provision

'Ensure that the required infrastructure and facilities are provided at Dublin Airport, in accordance with Dublin Airport LAP 2020, or any subsequent LAP or extension of same, so that the airport can develop further and operate to its maximum sustainable potential, whilst taking into account the impact on local communities, the environment and climate change.'

Project Response

The construction of the proposed orbital sewer route, bounding the Dublin Airport Local Area Plans lands, will assist in providing essential and critical enabling infrastructure for the future growth and development of Dublin Airport and the Local Area Plan lands.

4.1.8 Chapter 9 - Green Infrastructure and Natural Heritage

Policy GINHP3 – Greening of Developments

‘Encourage measures for the “greening” of new developments including the use of green roofs, brown roofs, green walls and water harvesting.’

Objective GINHO2 – Fragmentation

‘Reduce fragmentation and enhance the resilience of Fingal’s GI network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider Green Infrastructure network.’

Objective GINHO4 – Green Infrastructure and Development

‘Resist development that would fragment or prejudice the County’s strategic Green Infrastructure network.’

Objective GINHO15 – SuDs

‘Limit surface water run-off from new developments through the use of appropriate Sustainable Urban Drainage Systems (SuDS) using nature-based solutions and ensure that SuDS is integrated into all new development in the County.’

Policy GINHP10 – Green Infrastructure and Development

‘Seek a net gain in Green Infrastructure through the protection and enhancement of existing assets, through the provision of new Green Infrastructure as an integral part of the planning process, and by taking forward priority projects including those indicated on the Development Plan Green Infrastructure maps during the lifetime of the Development Plan.’

Policy GINHP11 – Biodiversity Action Plan

‘Support the adoption and implementation of the Fingal Biodiversity Action Plan, implementation of the National Biodiversity Action Plan (2017– 2021) and the All-Ireland Pollinator Plan (2021–2025) and any superseding plans.’

Policy GINHP15 – Biodiversity in Buildings Guidance

‘Promote the inclusion of swift, swallow, house martin, house sparrow, starling, bat and insect boxes and structure in and on building facades and develop a guidance document on how to incorporate these structures into buildings.’

Policy GINHP16 – Rewilding and Pollinator Initiatives

‘Promote and support rewilding and pollinator initiatives in Fingal.’

Objective GINHO30 – Infrastructure and Net Biodiversity Gain

‘All greenway and infrastructure projects are to have a net biodiversity gain and this principle shall be incorporated from the start of the project.’

Policy GINHP18 – Species Protection

‘The Council will seek to protect rare and threatened species, including species protected by law and their habitats by requiring planning applicants to demonstrate that proposals will not have a significant adverse impact on such species and their habitats.’

Policy GINHP20 – Mammal Ledges

‘Protect the ecological corridor function along rivers by including mammal ledges or tunnels in new bridges over any of the main rivers: Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin. New bridge structures will also cater for Dipper boxes and Bats where possible. Where new road infrastructure crosses significant urban ecological corridors, tunnels shall be installed underneath the road to facilitate movement of small mammals and amphibians.’

Objective GINHO73 – National Marine Planning Framework

‘Comply with the policies and objectives of the National Marine Planning Framework as it relates to the area between the mean high-water mark and the near shore with respect to the planning and resource management of the marine area.’

Policy GINHP33 – Protection of the Islands

‘Protect and enhance the special landscape character and exceptional landscape value of the islands, including their biodiversity, archaeological and architectural heritage.’

Whilst the FDP also contains provisions relating to views and prospects, historic landscape characterisation (HLC), Special and High Amenity Areas, as the Proposed Project will not affect any designated views or prospects, nor occur within any of the County’s HLCs, nor a Special or High Amenity Area (Special Amenity Areas relate to the Special Amenity Orders for Howth and the Liffey Valley whilst High Amenity Areas refers to areas zoned as such which are of high landscape value), these are not considered any further within this Addendum Planning Report.

Project Response

The Proposed Project represents an integrated wastewater management approach, which has undergone rigorous assessment and stakeholder engagement, and which will augment the Ringsend WwTP. As such, it implements the recommendations of the Greater Dublin Strategic Drainage Study Final Strategy and the SEA of the GSDS. Its implementation will ensure the protection, enhancement and maintenance of water quality and the natural environment and will provide for improved environmental and infrastructural benefits for a significant proportion of the existing and future GDA communities and population. This is in line with sustainable development and the need to consolidate built up areas.

As the bulk of the Proposed Project will be underground and it is proposed to reinstate ground to its prior condition, any landscape impacts will be limited to the above-ground elements of the Proposed Project (i.e., the proposed WwTP and Sludge Hub Centre, the proposed Abbotstown pumping station, odour control unit, and the RBSF.

Uisce Éireann will ensure that it obtains and complies with all necessary authorisations as are required, relative to construction on the foreshore. In relation to Objective GINH073, the Proposed Project is subject to a number of consent processes, including (*inter alia*) a Foreshore licence and a benthic foreshore licence. At present, Foreshore licence applications have been appropriately made to the Foreshore Unit of the DHPLG. These applications will be assessed in relation to their compliance with the policies and objectives of the NMPF (Government of Ireland 2021), as it relates to the area between the mean high-water mark and the near shore.

Whilst the Proposed Project does not include design provision for green roofs or walls, it does include provision for SUDS at both the proposed Abbotstown pumping station site and the proposed WwTP site. SUDS provision will be designed in accordance with the SUDS Manual (CIRIA 2015) and other relevant documentation,

including in accordance with the provisions of Appendix 11 of the Fingal County Development Plan, and will incorporate a mix of rainwater harvesting, swales, infiltration trenches and permeable pavement, all of which will assist in providing benefits to biodiversity levels.

A detailed Landscape Plan(s) / Masterplan(s) for the Proposed Project (Figure 12.1 and Figure 12.2 in Volume 5A of the EIAR Addendum), details a network of green spaces and extensive planting proposed to conserve and enhance the ecosystems on sites. Chapter 12 (Landscape and Visual) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 12A (Landscape and Visual) in Volume 3A Part A of the EIAR Addendum, and the Green Infrastructure Plan accompanying the Planning Report in the 2018 planning application, as supplemented by the Biodiversity Assessment appended to this Addendum Planning Report (Appendix 2), outline the measures in place for enhancement and protection of biodiversity within the Proposed Project 'site', including the use of native species and hedgerows which would assist in improving and protecting biodiversity habitat. Chapter 11 (Terrestrial and Freshwater Aquatic) in Volume 3 Part A of the EIAR in the 2018 planning application, as supplemented by Chapter 11A (Terrestrial and Freshwater Aquatic) in Volume 3A Part A of the EIAR Addendum, outline the context in relation to badgers and smooth newts, which are protected species. As was outlined in the EIAR in the 2018 planning application, the affected badger territories are enclosed on the south-east by the M50 Motorway. As the Proposed Project will skirt the M50 Motorway, only a fraction of their territory will be affected by construction of the Proposed Project. In relation to smooth newts, the core breeding water bodies at the Coldwinters site (including the largest water body [No.1] seen to retain water year-round) will be avoided. No significant impact is predicted upon the local population of this protected species as a result of the Proposed Project.

In relation to Policy GINHP20, a new access road is required to the proposed WwTP which will involve crossing the River Mayne. This crossing will involve replacing an existing culvert with a new culvert. The ecological importance of this river is low and no field signs of otter or other small mammals were recorded in the update surveys at this location. Notwithstanding, the movement of any small mammals or amphibians, should they occur, will be protected given that an existing culvert is currently present and a similar arrangement is to be provided in its place.

The Proposed Project seeks to improve on the current levels of biodiversity and contribute to the enhancement of the green infrastructure network through the provision of planting species / hedgerows which would encourage and facilitate improved biodiversity. Existing treelines and hedgerows have been identified on the site and protection and enhancement measures provided where relevant. Where tree or hedgerow removal may be required in areas not previously identified, liaison with an ecologist will be required.

In addition, in accordance with Uisce Éireann's BAP (Uisce Éireann2021), Uisce Éireann are striving to achieve a net gain, where the biodiversity value of enhancements exceeds the value of the biodiversity losses. This Addendum Planning Report includes a Biodiversity Assessment as Appendix 2. Appendix 2 responds to Uisce Éireann's BAP, as well as being cognisant of the policies identified above, including Policy GINHP10. The assessment includes both a quantitative and qualitative assessment of the Proposed Project with respect to green infrastructure and biodiversity that the Proposed Project will deliver, and concludes that, subject to the measures identified being secured through the consenting process, the Proposed Project will deliver a positive biodiversity outcome with respect to both area and linear habitats.

On the basis as outlined above, it is considered that the Proposed Project will protect and enhance existing assets in addition to delivering net gain both quantitatively and qualitatively with respect to green infrastructure and biodiversity.

4.1.9 Chapter 10 - Heritage, Culture and Arts

There are no changes to relevant policies and objectives of the FDP in relation to the information presented in this Section of the Planning Report in the 2018 planning application.

4.1.10 Chapter 11 - Infrastructure and Utilities

Whilst Section 3.4.2 of this Addendum Planning Report highlights those policies and objectives of specific and direct relevance to the Proposed Project from this Chapter of the FDP, this Section highlights those provisions relevant to the proposed WwTP and associated services in general:

Policy IUP1 – Uisce Éireann-Water Services Infrastructure

‘Support Uisce Éireann’s strategic water service projects and infrastructure improvements and engage with them to facilitate projects that deliver the water services infrastructure necessary to support Fingal’s settlement hierarchy, sustainable growth and mitigation and adaptation to climate change in line with national and regional policy.’

Objective IUO9 – Surface Water Drainage Systems

‘Maintain and enhance existing surface water drainage systems in the County and to require SuDS in new developments where appropriate, as set out in the Greater Dublin Strategic Drainage Study (Vol 2: New Development) / Greater Dublin Regional Code of Practice for Drainage Works).’

Objective IUO12 – Green Roofs

‘Require the use of Green Roofs particularly on apartment, commercial, leisure and educational buildings as part of the overall surface water management strategy for each development, where appropriate.’

Objective IUO13 – Surface Water Run-Off

‘Require that all surface water run-off from new/ extended domestic driveways, repaired/ replacement driveways and vehicular entrances (where such development is not exempted from the requirement to obtain planning permission), is managed using SuDS, ensuring no increase in surface water discharges to the public drainage network.’

Project Response

The Proposed Project is compliant with the provisions and objectives of the FDP. As has been identified within both the Planning Report included in the 2018 planning application, and this subsequent Addendum Planning Report, support and provision for the Proposed Project is expressed in a number of instances and by various references across the hierarchy of policy plans and the FDP. Key provisions of the FDP are outlined within Section 3.4.2 of this Addendum Planning Report, wherein specific reference is made to the Proposed Project. The Proposed Project also complies with a significant number of the Plan’s objectives for foul drainage and wastewater treatment.

During implementation of the Proposed Project, adherence to the proposed CEMP and the SWMP, which were included as standalone documents in the 2018 planning application, as supplemented by the Addendum to the CEMP and the Addendum to the SWMP, included as standalone documents in this Addendum, will ensure that the environmental and ecological quality and integrity of designated sites, watercourses and coastal waters, is maintained.

In respect of the requirement for SUDS provision, the Proposed Project includes such future provision at both the proposed Abbotstown pumping station site and the proposed WwTP site. SUDS provision will be designed in accordance with the SuDS Manual C753 (hereafter referred to as the SUDS Manual) (CIRIA 2015) and will incorporate a mix of rainwater harvesting, swales, infiltration trenches, permeable pavement, underground storm attenuation tanks (StormTec or equivalent) and oil interceptors such that runoff is controlled to greenfield rates. Final surface water discharge from the proposed WwTP site will be to the Cuckoo Stream. Final surface water discharge from the access road to the proposed WwTP will be to the River Mayne. Final surface water

discharge from the proposed Abbotstown pumping station site will be to a tributary of the River Tolka. All discharges shall be in compliance with EPA standards and licensing requirements and conditions.

As is stated in Section 1.3.2 of the Planning Report in the 2018 planning application, the proposed WwTP will require a wastewater discharge licence to be granted by the EPA under S.I. No. 684/ 2007 - Waste Water Discharge (Authorisation) Regulations, 2007 (as amended) prior to commissioning of the proposed WwTP. The authorisation process provides for the EPA to place conditions on the operation of such discharges to ensure that potential effects on the receiving water bodies are limited and controlled with the aim of achieving good surface water status and good groundwater status.

4.1.11 Chapter 13 - Land Use Zoning

The lands and associated land use zoning objectives within which the Proposed Project will be situated have not changed under the new FDP, aside from the lands at which the proposed Abbotstown pumping station will be located.

Lands within this area have been rezoned from Open Space (OS) to National Sports Campus (NSC), with a zoning objective to 'Provide for and facilitate the development of a National Sports Campus'. This context is illustrated in Image 4.1 below.

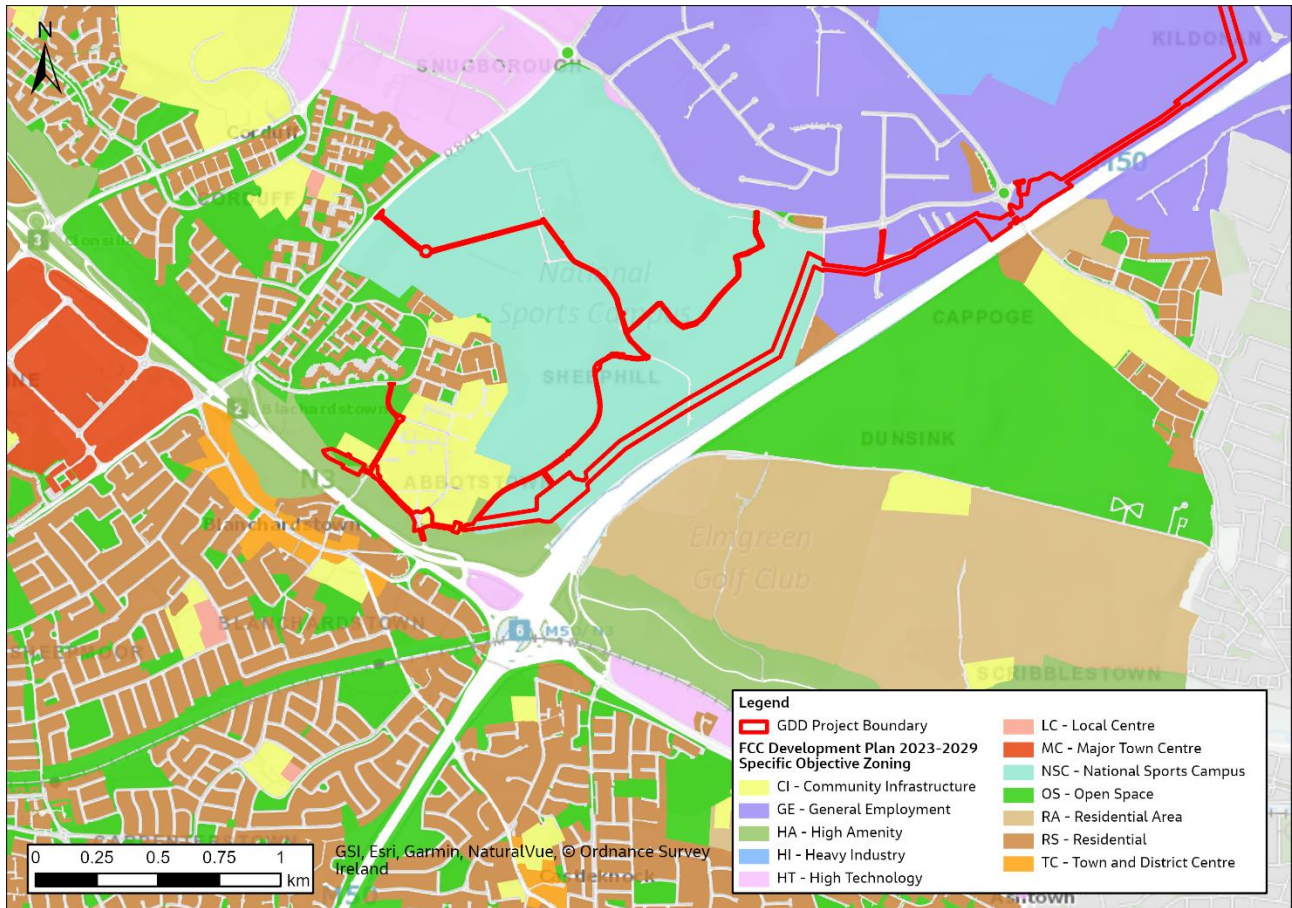


Image 4.1: Updated Zoning Context for Proposed Abbotstown Pumping Station

As with the previous (2017) FDP, the Open Space (OS) zoning objective which was applicable at this location, 'Utilities' / 'Utility Installation' is not listed as a use which is either 'Permitted in Principle' nor 'Not Permitted' in the new FDP. The proposed Abbotstown pumping station at Abbotstown is therefore 'Open to Consideration'.

Project Response

The proposed Abbotstown pumping station is considered to comprise a relatively small, single storey pumping station that has been specifically designed to reflect the architectural character of the adjacent St. Francis' Hospice. Its scale and design is such that it will have no significant impact on the sports campus lands at this location, nor the adjoining High Amenity (HA) zoned lands of the Tolka Valley.

The Proposed Project will assist in providing vital associated wastewater services infrastructure for the wider GDA as well as the NSC. Without the implementation of the Proposed Project, little growth and development could be supported or would be possible. The Proposed Project is considered to be in compliance with the strategic policies and objectives of the FDP which specifically support the implementation of the Proposed Project.

4.1.12 Chapter 14 - Development Management Standards

Objective DMSO1 – Screening for Appropriate Assessment

'Ensure that all plans and projects in the County which could, either individually or in combination with other plans and projects, have a significant effect on a European site or sites are subject to Screening for Appropriate Assessment.'

Objective DMSO203 – SuDS

'SuDS shall incorporate nature-based solutions and have regard to the objectives set out in Fingal's Guidance Document – "Green/ Blue Infrastructure for Development", as amended. (Appendix 11).'

Project Response

The Proposed Project is in compliance with Objective DMSO1, as it has been subject to screening for Appropriate Assessment. Accordingly, a NIS has been prepared for the Proposed Project and was submitted to ABP, as the competent authority, as a standalone document in the 2018 planning application. An updated version of that NIS is being submitted as a standalone document in this Addendum to ensure ABP has all of the scientific data it requires to carry out a robust Appropriate Assessment.

Notwithstanding, the Proposed Project does include provision for SUDS at both the proposed Abbotstown pumping station site and the proposed WwTP site. SUDS provision will be designed in accordance with the SUDS Manual) (CIRIA 2015) and other relevant documentation, including in accordance with the provisions of Appendix 11 of the Fingal County Development Plan, and will incorporate a mix of rainwater harvesting, swales, infiltration trenches, permeable pavement, underground storm attenuation tanks (StormTec or equivalent) and oil interceptors, such that run-off is controlled to greenfield rates.

4.2 Overall Compliance with Development Policies

There are no changes to the information presented in this Section of the Planning Report submitted with the 2018 planning application.

The Proposed Project continues to be required to meet the need for additional wastewater treatment within the GDA and the identified need continues to remain valid in the context of, and evidenced by, the continued growth of the GDA that the Proposed Project will service.

The updated policy review provided, highlights the fact that, notwithstanding a changed policy context, the Proposed Project continues to represent essential strategic infrastructure which is required, and supported at all levels of the policy hierarchy, for the continued growth and sustainable development of communities and businesses within the GDA.

4.3 Development Contributions and Community Gain

4.3.1 Development Contributions

A condition to this effect was imposed by ABP in the 2018 permission and Uisce Éireann will comply with any such conditions imposed by ABP.

4.3.2 Community Gain

A condition to this effect was imposed by ABP in the 2018 permission and Uisce Éireann will comply with any such conditions imposed by ABP.

5. Environmental Impacts

The Addendum submission to ABP is accompanied by an EIAR Addendum which provides an update to the EIAR submitted in the 2018 planning application. The EIAR Addendum has been completed in accordance with Directive 2014/52/EU of the Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (hereafter referred to as the Environmental Impact Assessment (EIA) Directive) and Schedule 6 of the Planning and Developments Regulations 2001 (as amended), in line with the original EIAR included in the 2018 planning application.

The EIAR Addendum enclosed with this remittal describes any updates to the environmental impacts predicted for the Proposed Project, since the submission of the EIAR in the 2018 planning application.

The EIAR in the 2018 planning application, in addition to the EIAR Addendum, that have been referred to in the project responses of this Addendum Planning Report, demonstrate that the Proposed Project is in full compliance with the various sectoral policies and objectives of the new FDP.

5.1 Natura Impact Assessment Report

The Addendum submission to ABP is accompanied by an Addendum to the NIS submitted in the 2018 planning application and is included as a standalone document.

The conclusion of the Addendum to the NIS for the Proposed Project remains unchanged from the conclusion of the NIS included in the 2018 planning application, with both reports concluding '*beyond reasonable scientific doubt, that the Proposed Project with the implementation of the prescribed mitigation measures will not give rise to significant impacts, either individually or in combination with other plans and projects, in a manner which adversely affects the integrity of any designated site within the Natura 2000 network*'.

6. Other Reports / Assessments

A number of other reports have been reviewed and updated, as appropriate, for this Addendum, including:

6.1 Flood Risk Assessment

The Flood Risk Assessment (FRA) Report submitted as a standalone document in the 2018 planning application was reviewed for any updates to legislation and guidance, source information and to assess whether the updates to the Proposed Project elements would require any changes to the FRA. The updated FRA is included as a standalone document in this Addendum. However, following review, there are no changes to the outcome of the FRA submitted as part of the 2018 planning application. The conclusion included in this Section of the Planning Report in the 2018 planning application, therefore remains unchanged.

6.2 Traffic and Transport Assessment

An update to the traffic assessment completed for the 2018 planning application has been completed and incorporated into Chapter 13A (Traffic and Transport) and associated appendices in Volume 3A Part A and Volume 3A Part B of this EIA Addendum, respectively.

Chapter 13A (Traffic and Transport) considered all updates to elements of the Proposed Project, and updates to the baseline environment, guidance and reference material since the 2018 planning application submission. Following consideration, there are no significant changes to the conclusion of the traffic and transport assessment that was completed for the 2018 planning application.

The conclusion included in this Section of the Planning Report in the 2018 planning application, therefore remains unchanged.

6.3 Landscape Masterplan and Statement

An update to the landscape and visual assessment completed for the 2018 planning application has been completed and incorporated into Chapter 12A (Landscape and Visual) in Volume 3A Part A of this EIA Addendum. This updated assessment continues to be in line with the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute and Institute of Environmental Management and Assessment 2013), and considers the latest FDP landscape policy context and Landscape Character Assessment for Fingal.

Chapter 12A (Landscape and Visual) considered all updates to elements of the Proposed Project, updates to the baseline environment and whether there have been any updates to guidance and reference material since the 2018 planning application submission. Following consideration, there are no significant changes to the conclusion of the landscape and visual assessment that was completed for the 2018 planning application.

The conclusion included in this Section of the Planning Report in the 2018 planning application, therefore remains unchanged.

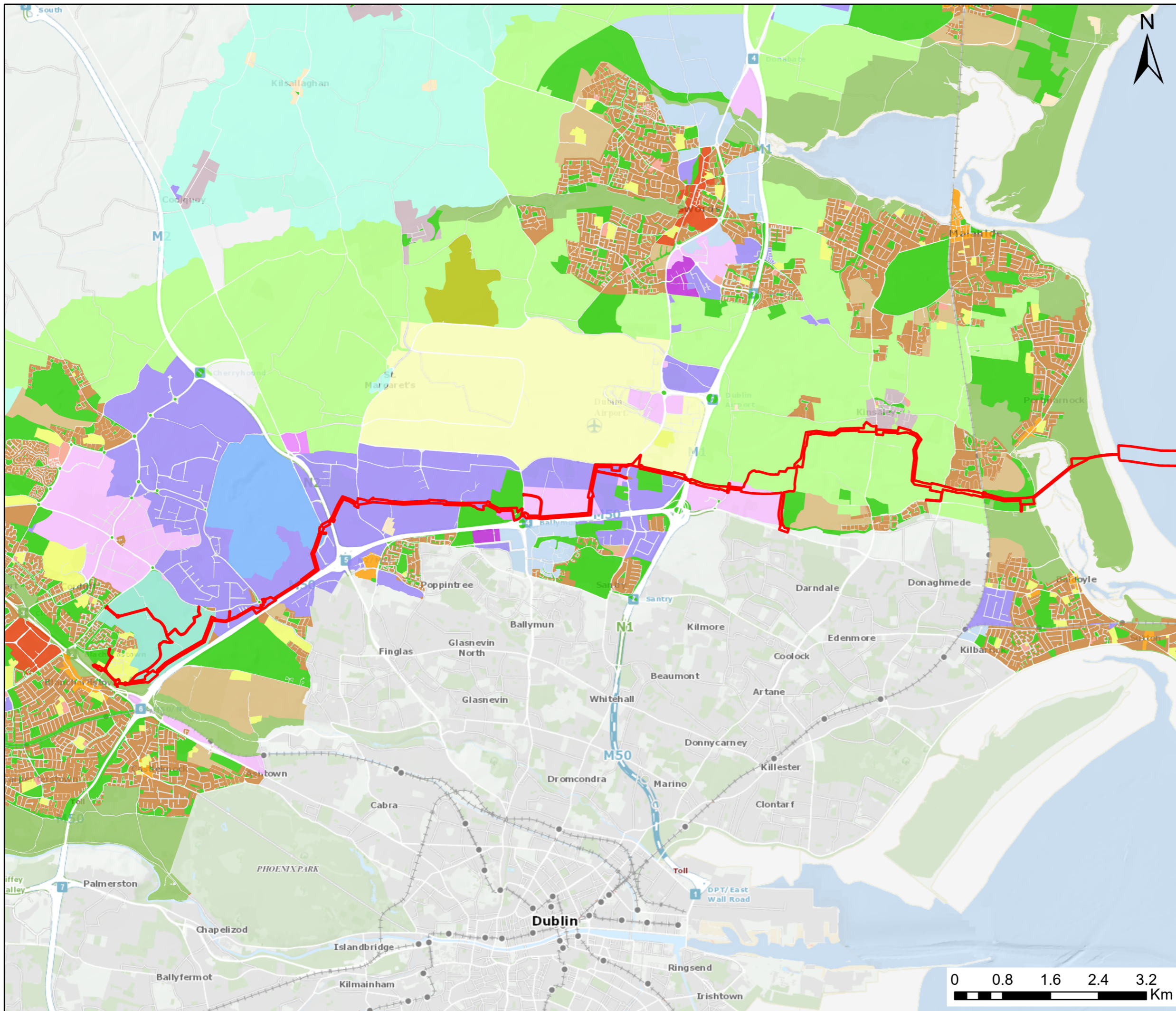
7. Planning Assessment and Overall Conclusion

There are no changes to the information presented in this Section of the Planning Report submitted with the 2018 planning application. The Proposed Project continues to be required to meet the need for additional wastewater treatment within the GDA. As noted in Section 1.1 of this Addendum Planning Report, this need was identified in the 2018 planning application documentation and Planning Report, as was the fact that implementation of the Proposed Project will serve the wastewater needs of existing and future drainage catchments in the north, west and north-west of the Dublin agglomeration. The identified need continues to remain valid in the context of, and evidenced by, the continued growth of the GDA that the Proposed Project will service.

This Addendum Planning Report has updated the original Planning Report which accompanied the 2018 SID planning application, in light of the changes to the project description arising from the above-mentioned changes, and by reference to the updated context, including revised development plans and new or updated policy.

The updated review provided, highlights the fact that, notwithstanding a changed policy context, the Proposed Project continues to represent essential strategic infrastructure which is required, and supported at all levels of the policy hierarchy, for the continued growth and sustainable development of communities and businesses within the GDA.

Appendix 1 Proposed Project Zoning Context



Legend

GDD Project Boundary	MRE - Metro and Rail Economic Corridor
FCC Development Plan 2023-2029 Specific Objective Zoning	NSC - National Sports Campus
CI - Community Infrastructure	OS - Open Space
DA - Dublin Airport	RA - Residential Area
FP - Food Park	RC - Rural Cluster
GB - Green Belt	RS - Residential
GE - General Employment	RU - Rural
HA - High Amenity	RV - Rural Village
HI - Heavy Industry	RW - Retail Warehousing
HT - High Technology	TC - Town and District Centre
LC - Local Centre	WD - Warehousing and Distribution
MC - Major Town Centre	UNZ - Unzoned

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 Service Layer- basemap_premium: © Ordnance Survey Ireland
 World Ocean Base: GSI, OceanWise, Esri, Garmin, NaturalVue



0	25/10/2023	Final	LB	SMG	LG	JB
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd



Client: Uisce Éireann Irish Water

Project: Greater Dublin Drainage Project

Drawing Title: Fingal County Council Development Plan 2023-2029 - Specific Objective Zoning

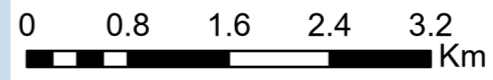
Drawing Status: **Final**

Scale @A3: **DO NOT SCALE**

Jacobs No. 321120AP

Filepath: \\gmsd\w1105P\821198CC_000\w00008_FCC_Drainage\005_FCC_Drainage_01.aprx

Drawing No. 321120AP-PlanningAddendum-1



This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

Appendix 2 Biodiversity Assessment

GREATER DUBLIN DRAINAGE PROJECT

Biodiversity Assessment



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1 INTRODUCTION

This Report sets out a Biodiversity Assessment of the Greater Dublin Drainage Project (hereafter referred to as 'the Proposed Project').

The Proposed Project was granted permission by An Bord Pleanála (ABP), on 12 November 2019 (case ref. PL06F.301908). This approval was subsequently challenged by judicial review in the High Court. Following the decision of the High Court to quash that permission, the application was remitted to ABP, back to the point in the statutory application process, immediately after the ABP Inspector's Report.

As a result, ABP has written to Uisce Éireann and provided Uisce Éireann with the opportunity, pursuant to Section 37(f)(1)(a) of the Planning and Development Act, 2000 (as amended), to update the application, including the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), and the Planning Report (to which this Biodiversity Assessment is appended), to update the present position, in the context of the passage of time.

This Biodiversity Assessment forms an Addendum to the Planning Report and has been prepared cognisant of the recent adoption of Policy GINHP10 of the Fingal County Council (FCC) Fingal Development Plan 2023-2029 (hereafter referred to as 'the FDP') (FCC 2023) which seeks:

"...a net gain in green infrastructure through the protection and enhancement of existing assets, through the provision of new green infrastructure as an integral part of the planning process..."

Policy GINHP14 of the FDP also seeks to "*promote biodiversity net gain in new developments and develop a planning guidance document on Biodiversity Net Gain*". The planning guidance referred to in this Policy has not yet been prepared or published. In the absence of this planning guidance, but mindful of the objectives of the Uisce Éireann Biodiversity Action Plan (BAP) (Uisce Éireann 2021a) and Policy GINHP10, a biodiversity assessment of the Proposed Project has been completed with reference to:

- Uisce Éireann's published BAP; and
- Uisce Éireann's published Biodiversity Guidance for Irish Water Developments (IW-AMT-GL-021), which includes a Biodiversity Net Gain (BNG) metric (Uisce Éireann 2021b).

The assessment includes both a quantitative and qualitative assessment of the Proposed Project with respect to the green infrastructure and biodiversity that the Proposed Project will deliver and identifies, as necessary, the mechanism to secure this through the planning process for the Proposed Project. Uisce Éireann's BAP includes a key objective of ensuring "no net loss (NNL)" of biodiversity when delivering projects. In effect, this means that any loss of biodiversity value of a site, through habitat lost, is offset by providing enhancements to habitats elsewhere to balance the losses. In the case of the Proposed Project, Uisce Éireann are striving to achieve "net gain", where the biodiversity value of enhancements exceeds the value of the biodiversity losses.

The Proposed Project comprises the following key elements which were considered by the assessment:

1. Proposed Regional Wastewater Treatment Plant (WwTP) to be located on a 29.8 hectare (ha) site in the townland of Clonshagh (Clonshaugh) in Fingal;
2. Sludge Hub Centre (SHC) to be co-located on the same site as the proposed WwTP;
3. Proposed Abbotstown pumping station to be located in the grounds of the National Sports Campus (NSC);
4. Proposed orbital sewer route from Blanchardstown to the proposed WwTP at Clonshagh, including the proposed odour control unit (OCU) at the interface between the rising main and gravity sewer elements of the proposed orbital sewer route;
5. Proposed North Fringe Sewer (NFS) diversion sewer to the proposed WwTP;
6. Proposed outfall pipeline route from the proposed WwTP to proposed temporary construction compound no. 10 at Portmarnock; and
7. Regional Biosolids Storage Facility (RBSF) to be located on an 11.4ha site at Newtown, Dublin 11

Biodiversity Assessment

Items 4, 5 and 6 (with the exception of proposed temporary construction compound no. 10) are referred to as 'the proposed pipeline route' within this assessment. The proposed WwTP, Abbotstown pumping station and RBSF will remain in Uisce Éireann's ownership and management during the Operational Phase of the Proposed Project, while all other lands will be returned following construction, to existing ownerships and management. The assessment does not consider the approximate 5.9km length of the proposed outfall pipeline route (marine section) from proposed temporary construction compound no. 10, as the biodiversity assessment is limited to the terrestrial habitats. Uisce Éireann would accept a condition to be imposed by An Bord Pleanála requiring it to support the Fingal County Council Biodiversity Action Plan – Action 57 by co-funding a feasibility study for the Marine Protected Area between Howth and Rush.

2 QUANTITATIVE ASSESSMENT

2.1 Introduction

A quantitative assessment of biodiversity was completed with reference to the assessment methodology set out in Uisce Éireann’s Biodiversity Guidance for Irish Water Developments (IW-AMT-GL-021) (Uisce Éireann 2021b). In basic terms, a ‘pre-developed’ value is calculated and this is compared to a calculated ‘post-developed’ value to indicate whether the Proposed Project will deliver a net gain. This guidance document includes a biodiversity metric in order to aid the calculation of pre and post-development biodiversity value.

The assessment methodology and metric has only been prepared for terrestrial habitats and therefore this document will only focus on the terrestrial components of the Proposed Project. No industry-wide or industry-specific standards for the assessment of biodiversity values have yet been established in Ireland.

2.2 Methodology

According to the Guidance (Uisce Éireann 2021b):

“the metric uses a high-level assessment of habitat ‘value’ combined with the area (non-linear habitats) or length (linear habitats) of the habitat. The ecologist calculates the metric for the pre-development site, considers what habitat enhancement or creation options can be implemented, and then calculates the post-development metric. This may be an iterative process to get to a point where the maximum biodiversity benefit is realised, or the merits of different options can be considered by an ecologist. It is assumed at this stage, that following the mitigation hierarchy, all possible habitat avoidance opportunities have already been identified and applied”.

The habitat value is assigned based on a scoring system illustrated in **Figure 2-1**, below.

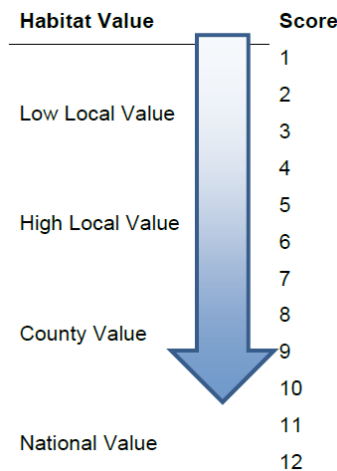


Figure 2-1 Habitat Value Score.

The following steps were taken to calculate the **pre-developed value** of the Proposed Project:

1. All the habitats present within the pre-developed redline boundary of the Proposed Project were identified and broken down by the component part of the Proposed Project (i.e. the proposed pipeline route, Abbotstown pumping station, WwTP, temporary construction compound no. 10 and the RBSF). The habitats for each component were identified based on updated habitat mapping completed between 18 October and 2 November 2022, with the exception of the RBSF, for which updated habitat mapping was completed on 18 April 2023. This habitat mapping updated earlier mapping completed in 2017. The updated habitat mapping is documented in **Appendix A11.1 of Volume 3A Part B** and **Appendix A6.2 of Volume 4A Part B** of the EIA Addendum, respectively. Only the habitats within the redline boundary were identified since any losses or gains in habitats would only occur within the redline boundary for the Proposed Project (e.g., no construction activities will be located outside of this boundary);

2. Once all the habitats were identified, the approximate area in metres squared (m²) or length in metres (m) of each habitat within the redline boundary was calculated;
3. A habitat value score was assigned to each habitat based on the scoring system illustrated in **Figure 2-1** (above) and with reference to the values assigned to each habitat within the EIAR Addendum (**Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A** and **Section 6A (Biodiversity – Terrestrial) in Volume 4A Part A** of the EIAR Addendum for the Proposed Project). The habitat value levels are consistent between the approach set out in the EIAR Addendum chapters and Uisce Éireann’s published guidance. Professional judgement was also applied in assigning the appropriate score for each habitat; and
4. The pre-developed metric was then calculated as follows, with a combined area and length value then calculated:
 - Habitat Value Score x Area (m²) of non-linear habitats; and
 - Habitat Value Score x Length (m) of linear habitats.

The following steps were taken to calculate the **post-developed value** of the Proposed Project:

5. All the habitats present within the post-developed redline boundary of the Proposed Project were identified and broken down by each component of the Proposed Project (i.e. proposed pipeline route, Abbotstown pumping station, WwTP, temporary construction compound no. 10 and the RBSF). This is the same method as undertaken in the pre-development assessment. The following assumptions and incorporated green infrastructure / biodiversity enhancement measures informed the identification of the post-developed habitats, which would be present together with the value that, where relevant, was anticipated to be achievable within five to 10 years of the habitat being created (refer to **Table 2.1**). The achievability of these values was based on the application of professional judgement;

Table 2.1: Assumptions and Green Infrastructure / Biodiversity Enhancements Applied in Identifying and Valuing Post-Developed Habitats

Area	Assumptions / Enhancement Measures
Proposed Pipeline Route (refer to Appendix A)	Limited scope for green infrastructure / biodiversity enhancement measures as the land will not be in the control of Uisce Éireann during the Operational Phase. Measures include: <ul style="list-style-type: none"> • Specific areas of the proposed pipeline route have been identified to be protected to limit clearance of existing habitats (refer to Appendix A); and • Proposed restoration of hedgerows which are capable within five to 10 years of planting of having greater biodiversity value compared to those lost. This will be secured through the implementation of mitigation measures included in the Construction Environmental Management Plan (CEMP) Addendum for the Proposed Project.
Pumping Station (refer to Appendix B)	Hedgerows, drainage ditches and other water features at the edge of the redline boundary will be protected during the Construction Phase through the implementation of mitigation measures included within the CEMP Addendum (included as a standalone document in this Addendum pack). The Proposed Abbotstown pumping station and access / egress roads will be landscaped as part of the Proposed Project. <ul style="list-style-type: none"> • The landscaping will include the creation of habitats identified within the post-developed calculation and in accordance with the Landscape Mitigation Plan (refer to Figure 12.2 in Volume 5A of the EIAR Addendum), which include: <ul style="list-style-type: none"> • The creation of immature woodland and dry meadows within the site; and • The creation of hedgerows along the access road boundaries.

Area	Assumptions / Enhancement Measures
	<ul style="list-style-type: none"> The created / restored habitats to be managed thereafter to maintain and enhance the created habitats to at least achieve and maintain the attributed post-development value within five to 10 years of the habitats being created.
<p>Proposed RBSF</p> <p>(refer to Appendix C)</p> <p>Note: Construction of the RBSF is due to commence shortly pursuant to planning permission separately granted. These measures are included in the contract awarded for the construction of the RBSF.</p>	<p>Hedgerows, drainage ditches and other water features at the edge of the redline boundary will be protected where identified during the Construction Phase through the implementation of mitigation measures included within the CEMP Addendum (included as a standalone document in this Addendum pack).</p> <p>The northern half of the proposed RBSF site will be landscaped as part of the Proposed Project (as outlined in the EIAR in the 2018 planning application).</p> <ul style="list-style-type: none"> The landscaping will include the restoration and creation of habitats identified within the post-developed calculation and in accordance with the Landscape Layout presented in Figure Y17702-PL-011 in Volume 5 Part B of the EIAR in the 2018 planning application, which include mitigations as follows: <ul style="list-style-type: none"> Immature woodland, dry meadows and scrub within the site; and Protection / creation of hedgerows along the sites boundaries. The created / restored habitats to be managed thereafter to maintain and enhance the created / restored habitats to at least achieve and maintain the attributed post-development value within five to 10 years of the habitats being created / restored. <p>The southern half of the proposed RBSF site will not be impacted by the Proposed Project.</p>
<p>Proposed WwTP</p> <p>(refer to Appendix D)</p>	<p>Hedgerows, drainage ditches and other water features at the edge of the redline boundary will be protected during the Construction Phase through the implementation of mitigation measures included within the CEMP Addendum (included as a standalone document in this Addendum pack).</p> <p>The proposed WwTP and access / egress roads will be landscaped as part of the Proposed Project.</p> <ul style="list-style-type: none"> The landscaping will include the restoration and creation of habitats identified within the post-developed calculation and in accordance with the Landscape Mitigation Plan (refer to Figure 12.1 in Volume 5A of the EIAR Addendum), which include: <ul style="list-style-type: none"> The creation of immature woodland, dry meadows and scrub within the site; The creation of a drainage ditch along the southern boundary of the site; and The creation / protection of hedgerows along the access and egress roads. The created / restored habitats to be managed thereafter to maintain and enhance the created / restored habitats to at least achieve and maintain the attributed post-development value within five to 10 years of the habitats being created / restored.
<p>Proposed Temporary Construction Compound No. 10</p> <p>(refer to Appendix E)</p>	<p>Hedgerows, drainage ditches and other water features at the edge of the redline boundary will be protected during the Construction Phase through the implementation of mitigation measures included within the CEMP Addendum (included as a standalone document in this Addendum pack).</p> <p>This land will be in the control of FCC during the Operational Phase and an agreed post construction landscape maintenance schedule shall be implemented by FCC to ensure establishment of the desired habitat.</p> <p>The amenity grassland at proposed temporary construction compound no. 10 will be removed during the Construction Phase, and rather than restoring amenity grassland, which is of little biodiversity value, measures will be put in place to reinstate the site of proposed temporary construction compound no. 10 so that it can be managed positively by FCC for dune habitat in the long term.</p>

Area	Assumptions / Enhancement Measures
	<p>The appointed contractor will be required to implement and maintain the dune habitat during construction and testing phases in line with the Construction Phase Biodiversity and Implementation and Monitoring Plan that will be prepared by the appointed contractor and the Ecological Clerk of Works (EcCoW), in consultation with Uisce Éireann, prior to the commencement of construction, and will hand the site back to FCC to maintain following the completion of the Construction Phase.</p> <p>As the entity with responsibility for future management of the site, it will be a matter for FCC to identify its long-term objective(s) for the site, how it will function and what role it will perform in light of the policies and objectives contained in the Draft Fingal Biodiversity Action Plan (once adopted) (FCC 2022) and the FDP (FCC 2023) for the Fingal administrative area and any relevant Local Area Plan relating to it.</p> <p>These mitigation measures for the creation of fixed dunes within temporary construction compound no. 10 are outlined in the CEMP Addendum (included as a standalone document in this Addendum pack).</p>

6. Once all the habitats were identified, the approximate area (m²) or length (m) of each habitat within the redline boundary was calculated;
7. A habitat value score was assigned to each habitat based on the scoring system illustrated in **Figure 2-1** (above) and with reference to bullet point 1, above, and **Table 2.1**; and
8. The post-developed metric was then calculated as follows, with a combined area and length value then calculated:
 - Habitat Value Score x Area (m²) of non-linear habitats; and
 - Habitat Value Score x Length (m) of linear habitats.

2.3 Quantitative Assessment Outcomes

The pre-development and post-development habitat area / length measurements and assigned habitat values were populated into Uisce Éireann’s Biodiversity Metrics Spreadsheet and completed with respect to demonstrating whether a NNL in area and length of habitat could be achieved by the Proposed Project. The completed spreadsheet is included in full at **Appendix F** and the outcome of that calculation is summarised in **Table 2.2**.

Table 2.2: Summary of Quantitative Assessment Outcomes

Area	Change in Biodiversity Units (Area Habitat)	Change in Biodiversity Units (Linear Habitat)
Proposed Pipeline Route	-26,827	-296
Proposed Abbotstown Pumping Station	-10,443	3,088
Proposed RBSF Site	-120,159	1,359
Proposed WwTP Site	380,306	2,075
Proposed Temporary Construction Compound No. 10	106,520	0
Total	329,398	6,225

The outcome of the calculation indicates that, quantitatively, the Proposed Project not only demonstrates that it is achieving NNL but that it is capable of delivering a positive green infrastructure and biodiversity outcome, with respect to both area and length of habitat compared to the pre-developed scenario. Table 2.2 indicates a post-development Biodiversity Net Gain of 329,398 biodiversity units of habitat area, and 6,225 biodiversity units of linear habitats.

2.4 Delivery Measures to Secure Quantitative Assessment Outcomes

In order to ensure that the positive green infrastructure and biodiversity outcomes identified by the quantitative assessment are achieved, it is vital that the post-development habitats are achieved both in terms of the area measurements calculated and the habitat value attributed to each habitat, with the latter to be achieved within

five to 10 years of the habitats being established. Therefore, the following measures are included within the CEMP Addendum (which is included as a standalone document in this Addendum) and will require to be implemented in full by the appointed contractor and Uisce Éireann, as applicable, to secure the outcome of the quantitative assessments. Specifically:

1. All habitats that are within the redline boundary and are to be retained during the Construction Phase will be protected in advance of, and during construction, to avoid any incursion into them by personnel, construction plant or materials and to avoid and minimise any changes to the quality of those habitats (e.g., through changes in water quality such as with respect to silts, hydrocarbons or other pollutants). A specification for these measures will be prepared, implemented and maintained during the Construction Phase by the appointed contractor and the appointed Ecological Clerk of Works (EcCoW);
2. A Biodiversity Implementation and Monitoring Plan will be prepared by the appointed contractor and the EcCoW, in consultation with Uisce Éireann, prior to the commencement of construction and implemented thereafter. The Biodiversity Implementation and Monitoring Plan will be required to include the following:
 - Measures to secure the delivery of the area and linear measurements of habitats identified to be delivered post-development;
 - Measures, within areas retained in Uisce Éireann's control, to ensure the post-development habitat values attributed to each habitat are at least achieved within five to 10 years post habitat creation / restoration following completion of the Construction Phase. This will include the use of nutrient poor soil (subsoils) in the creation of dry meadow grasslands. Reference should be made to Uisce Éireann's Biodiversity Guidance for Irish Water Developments (IW-AMT-GL-021) (Uisce Éireann 2021b);
 - Operational Phase habitat management measures within areas retained in Uisce Éireann's control following completion of the Construction Phase. This will include a schedule of requirements for the management of woodland, hedgerow and grasslands consistent with Uisce Éireann's BAP; and
 - Operational Phase habitat monitoring measures within areas retained in Uisce Éireann's control to ensure that the Operational Phase management is delivering, as a minimum, the post-development five to 10 year habitat values assigned in this assessment. This will involve habitat surveys of all created, reinstated and enhanced habitats within Uisce Éireann's control in Year 1, 3, 5, 8 and 10 of the Operational Phase, with mechanisms included in a construction stage landscape management plan to replace or re-establish habitats, which will ensure that appropriate habitat values are achieved.

These measures will include specifications for the creation and restoration of all habitats identified, cross-referencing, as appropriate, to the relevant Construction Phase Landscape Management Plan which will be prepared and implemented by the appointed contractor, and will align with the Landscape Mitigation Plans included in the EIAR Addendum (refer to Figure 12.1 and Figure 12.2 in Volume 5A of the EIAR Addendum for the proposed WwTP and proposed Abbotstown pumping station plans, respectively).

3 QUALITATIVE ASSESSMENT

3.1 Additional Qualitative Measures

In addition to the mitigation measures identified within the original EIAR in the 2018 planning application, the EIAR Addendum and Section 2.4 above, the Proposed Project will deliver the following qualitative measures to ensure that positive green infrastructure and biodiversity gains are delivered alongside the measures set out in Section 2 of this Biodiversity Assessment Report.

3.1.1 Bat Roosting

Artificial bat roosting structures will be erected at the end of the Construction Phase and in suitable locations to be determined by the appointed EcCoW. Suitable locations will be determined based on locations available to erect the structures safely, and in the long-term, proximity to artificial lighting (no or little artificial light spillage areas to be favoured) and connectivity to optimal bat foraging and commuting habitats. Suitable locations could include existing mature trees or built-in to the fabric of new built structures. In the absence of suitable locations, the bat roosting structures will be pole-mounted.

A minimum of eight bat boxes will be erected in each of the following locations: proposed WwTP, Abbotstown pumping station and the RBSF sites. The bat boxes will be Schwegler-type (woodcrete) boxes (or similar) and a range of different type boxes (e.g. 2F, 1FF, 3FF, 1FW, 1FE and 1FTH) will be provided. Using a range of boxes will provide additional roosting opportunities for a range of bat species.

These measures will be secured through the CEMP Addendum.

3.1.2 Bird Boxes

Artificial bird nesting structures will be erected at the end of the Construction Phase in suitable locations, as determined by the appointed EcCoW. Suitable locations will be determined based on locations available to erect the structures safely, and in the long-term, proximity to artificial lighting (no or little artificial light spillage areas to be favoured) and connectivity to optimal nesting and foraging habitats. Suitable locations could include existing mature trees or built-in to the fabric of new built structures. In the absence of suitable locations, the bird nesting structures will be pole-mounted.

A minimum of eight bird boxes will be erected in each of the following locations: proposed WwTP, Abbotstown pumping station and the RBSF sites. The bird boxes will be Schwegler-type (woodcrete) type boxes (or similar) and a range of different type boxes (e.g. 1B, 2H, 17C) will be provided. Using a range of boxes will provide additional nesting opportunities for a range of bird species.

These measures will be secured through the CEMP Addendum.

3.1.3 Hedgerow Restoration / Planting

Many of the existing hedgerows that will be temporarily removed or affected during the Construction Phase of the Proposed Project are species poor (low numbers of woody species) and of poor structure (gappy and thin or overgrown), limiting their biodiversity value. Prior to construction / removal of hedgerows, the appointed EcCoW will be required to identify hedgerows of greater value that are suitable for transplanting or use in restoration, and / or any salvageable biodiversity materials which could improve the quality of any restored hedgerows (in accordance with relevant methodology to be identified and defined by the EcCoW).

A specification for the restoration / re-planting of all hedgerows to be temporarily removed or affected will be prepared by the appointed EcCoW to ensure that any restoration or new planting of hedgerows seeks to increase species diversity of shrubby / woody species and also increase structural width and height. The new planting will, as a minimum, seek to use staggered double-row planting using at least five woody species of native origin and provenance. At least one standard tree (rather than whips) of native origin and provenance

will be planted for every 250m of hedgerows restored / planted. Reference should be made to Uisce Éireann's Biodiversity Guidance for Irish Water Developments (IW-AMT-GL-021) (Uisce Éireann 2021b).

3.2 Delivery Measures to Secure Qualitative Assessment Outcomes

In order to ensure that the positive green infrastructure and biodiversity outcomes identified by the qualitative assessment are achieved, the measures identified above (Section 3.1.1, 3.1.2 and 3.1.3, inclusive) are included within the CEMP Addendum (included as a standalone document in this Addendum). These are in addition to any mitigation measures of a similar nature identified within the EIAR in the 2018 planning application and in the EIAR Addendum.

4 CONCLUSION

Uisce Éireann's BAP (Uisce Éireann 2021a) includes a key objective to ensure 'NNL' in biodiversity when delivering its projects and, in the case of this Proposed Project, Uisce Éireann is striving to deliver biodiversity net gain. In addition, the FDP (FCC 2023) seeks:

"...a net gain in green infrastructure through the projection and enhancement of existing assets, through the provision of new green infrastructure as an integral part of the planning process..."

Policy GINHP14 of the FDP also seeks to "*promote biodiversity net gain in new developments and develop a planning guidance document on Biodiversity Net Gain*". The planning guidance referred to in this Policy has not yet been prepared or published. In the absence of this planning guidance, but mindful of Uisce Éireann's BAP objective and Policy GINHP10 of the FDP, a biodiversity assessment of the Proposed Project has been completed with reference to published Uisce Éireann guidance.

The assessment has included both a quantitative and qualitative analysis. Quantitatively, and subject to the mitigation measures identified being secured through the consenting process, the Proposed Project will deliver a positive biodiversity outcome with respect to both area and linear habitats. Qualitatively, and again subject to the mitigation measures identified being secured through the consenting process, the Proposed Project will deliver a positive outcome.

In light of this, it is considered that the Proposed Project will protect and enhance existing assets, in addition to delivering biodiversity net gain, both quantitative and qualitatively, with respect to green infrastructure and biodiversity.

Implementation of the measures to preserve and enhance habitats along the route of the Proposed Project in the CEMP Addendum, the original EIAR in the 2018 planning application and EIAR Addendum will result in a post-development Biodiversity Net Gain of 329,398 biodiversity units of habitat area, and 6,225 biodiversity units of linear habitats. While the additional qualitative measures will not increase these values for this particular metric, they will result in real world increases in biodiversity, as applied.

5 REFERENCES

FCC (2022). Draft Fingal Biodiversity Action Plan

FCC (2023). Fingal Development Plan 2023 - 2029

Uisce Éireann (2021a). Biodiversity Action Plan

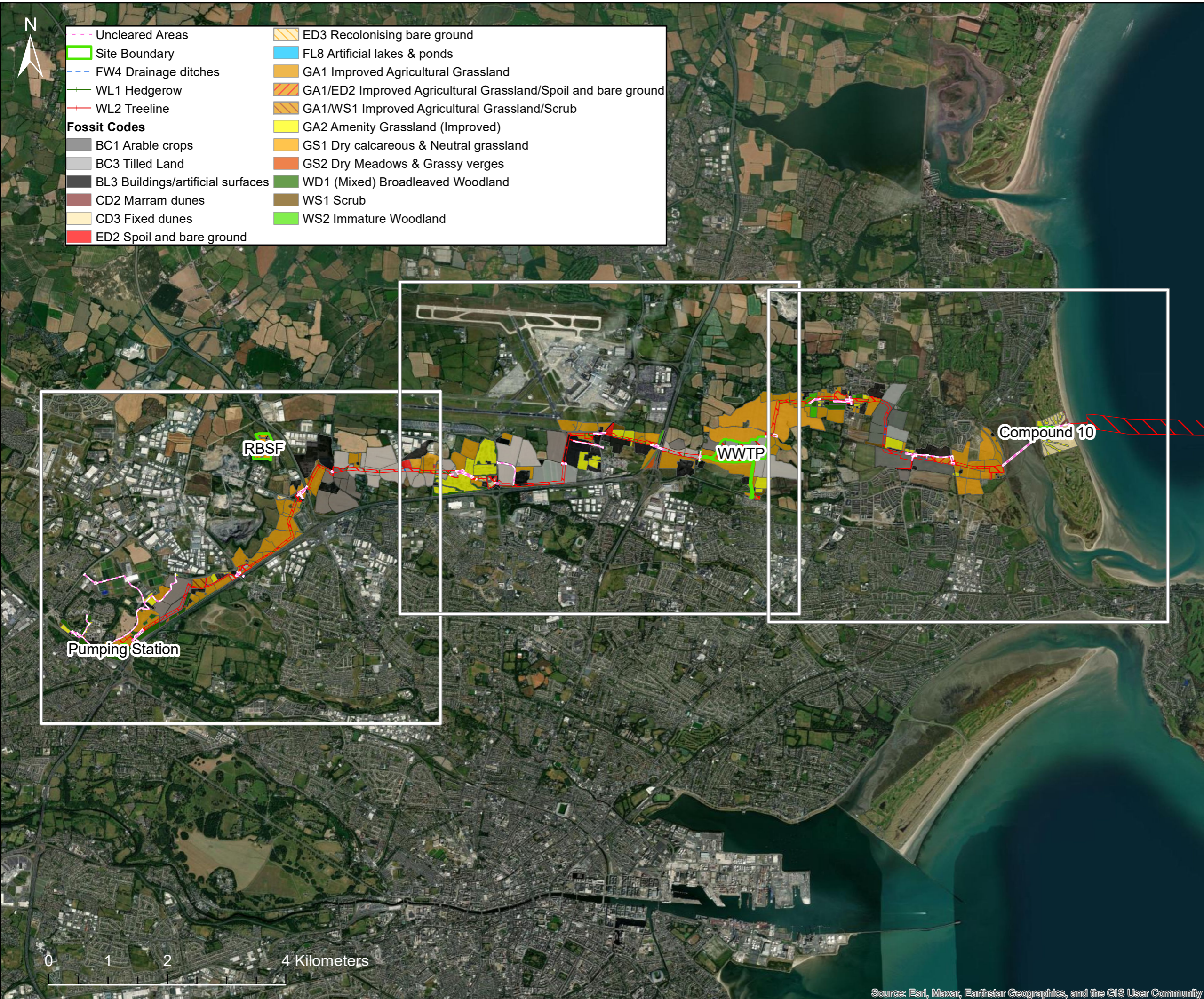
Uisce Éireann (2021b). Biodiversity Guidance for Irish Water Developments (IW-AMT-GL-021)

Directives and Legislation

Planning and Development Act 2000 (as amended)

Appendix A

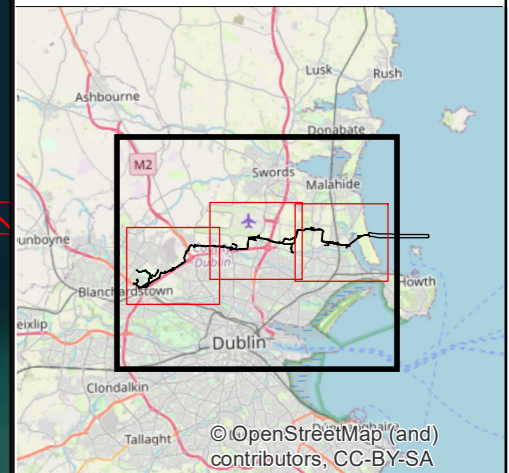
Habitats Impacted Along Proposed Pipeline Route



- Uncleared Areas
- Site Boundary
- FW4 Drainage ditches
- WL1 Hedgerow
- WL2 Treeline
- Fossit Codes**
- BC1 Arable crops
- BC3 Tilled Land
- BL3 Buildings/artificial surfaces
- CD2 Marram dunes
- CD3 Fixed dunes
- ED2 Spoil and bare ground
- ED3 Recolonising bare ground
- FL8 Artificial lakes & ponds
- GA1 Improved Agricultural Grassland
- GA1/ED2 Improved Agricultural Grassland/Spoil and bare ground
- GA1/WS1 Improved Agricultural Grassland/Scrub
- GA2 Amenity Grassland (Improved)
- GS1 Dry calcareous & Neutral grassland
- GS2 Dry Meadows & Grassy verges
- WD1 (Mixed) Broadleaved Woodland
- WS1 Scrub
- WS2 Immature Woodland

Legend

- Map Sheets
- Boundary



Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
Habitats Impacted Along GGD Pipeline Route Overview

RPS West Pier
A TETRA TECH COMPANY Business Campus, Dun Laoghaire, Co Dublin, Ireland. T +353 (0) 1 4882900 E ireland@rpsgroup.com W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0008

Status: A1	Rev: C01	Model File Identifier:
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Drawn: NR	Date: 04/10/2023
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Checked: WL	Scale: 1:110,000 @A3
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Approved: RR	Projection: ITM
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NOTE:

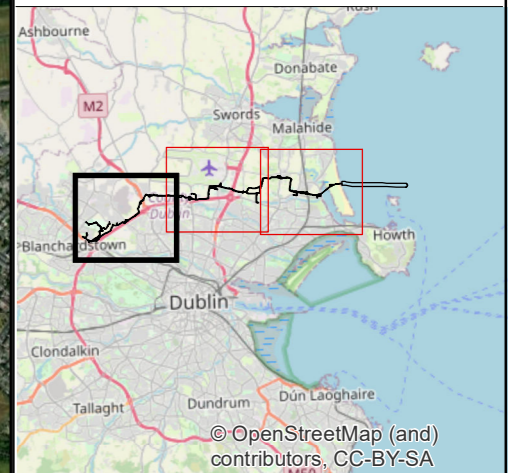
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- Uncleared Areas
- - - FW4 Drainage ditches
- WL1 Hedgerow
- WL2 Treeline
- Fossit Codes**
- BC1 Arable crops
- BC3 Tilled Land
- BL3 Buildings/artificial surfaces
- ED2 Spoil and bare ground
- ED3 Recolonising bare ground
- GA1 Improved Agricultural Grassland
- GA1/WS1 Improved Agricultural Grassland/Scrub
- GA2 Amenity Grassland (Improved)
- GS1 Dry calcareous & Neutral grassland
- GS2 Dry Meadows & Grassy verges
- WD1 (Mixed) Broadleaved Woodland
- WS1 Scrub
- WS2 Immature Woodland

Legend

- Boundary



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Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
Habitats Impacted Along GGD Pipeline Route
Map 1 of 3

RPS West Pier
Business Campus, Dun Laoghaire, T +353 (0) 1 4882900
A TETRA TECH COMPANY Co Dublin, Ireland. E ireland@rpsgroup.com
W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0008

Status: A1	Rev: C01	Model File Identifier:
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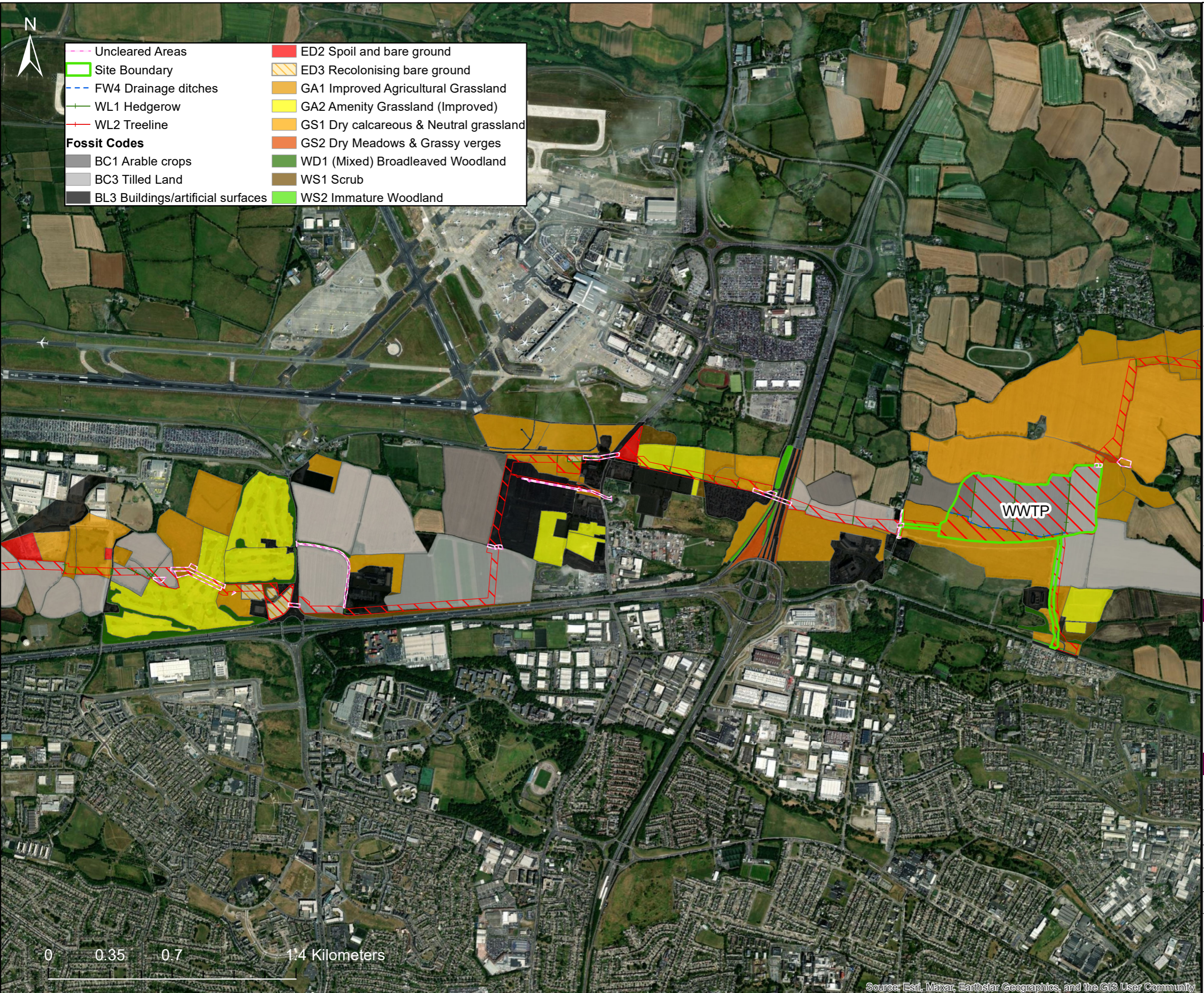
Drawn: NR	Date: 04/10/2023
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Checked: WL	Scale: 1:20,000 @A3
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Approved: RR	Projection: ITM
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NOTE:

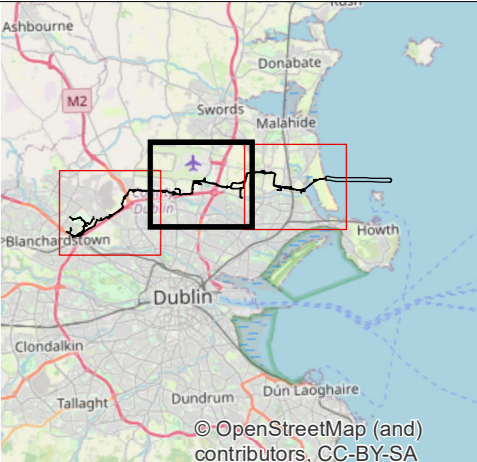
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- Uncleared Areas
- Site Boundary
- FW4 Drainage ditches
- WL1 Hedgerow
- WL2 Treeline
- Fossit Codes**
- BC1 Arable crops
- BC3 Tilled Land
- BL3 Buildings/artificial surfaces
- ED2 Spoil and bare ground
- ED3 Recolonising bare ground
- GA1 Improved Agricultural Grassland
- GA2 Amenity Grassland (Improved)
- GS1 Dry calcareous & Neutral grassland
- GS2 Dry Meadows & Grassy verges
- WD1 (Mixed) Broadleaved Woodland
- WS1 Scrub
- WS2 Immature Woodland

Legend

- Boundary



Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
**Habitats Impacted Along GGD Pipeline Route
Map 2 of 3**

RPS West Pier
Business Campus, T +353 (0) 1 4882900
Dun Laoghaire, E ireland@rpsgroup.com
Co Dublin, Ireland. W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0008

Status:	Rev:	Model File Identifier:
A1	C01	

Drawn:	NR	Date:	04/10/2023
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Checked:	WL	Scale:	1:20,000 @A3
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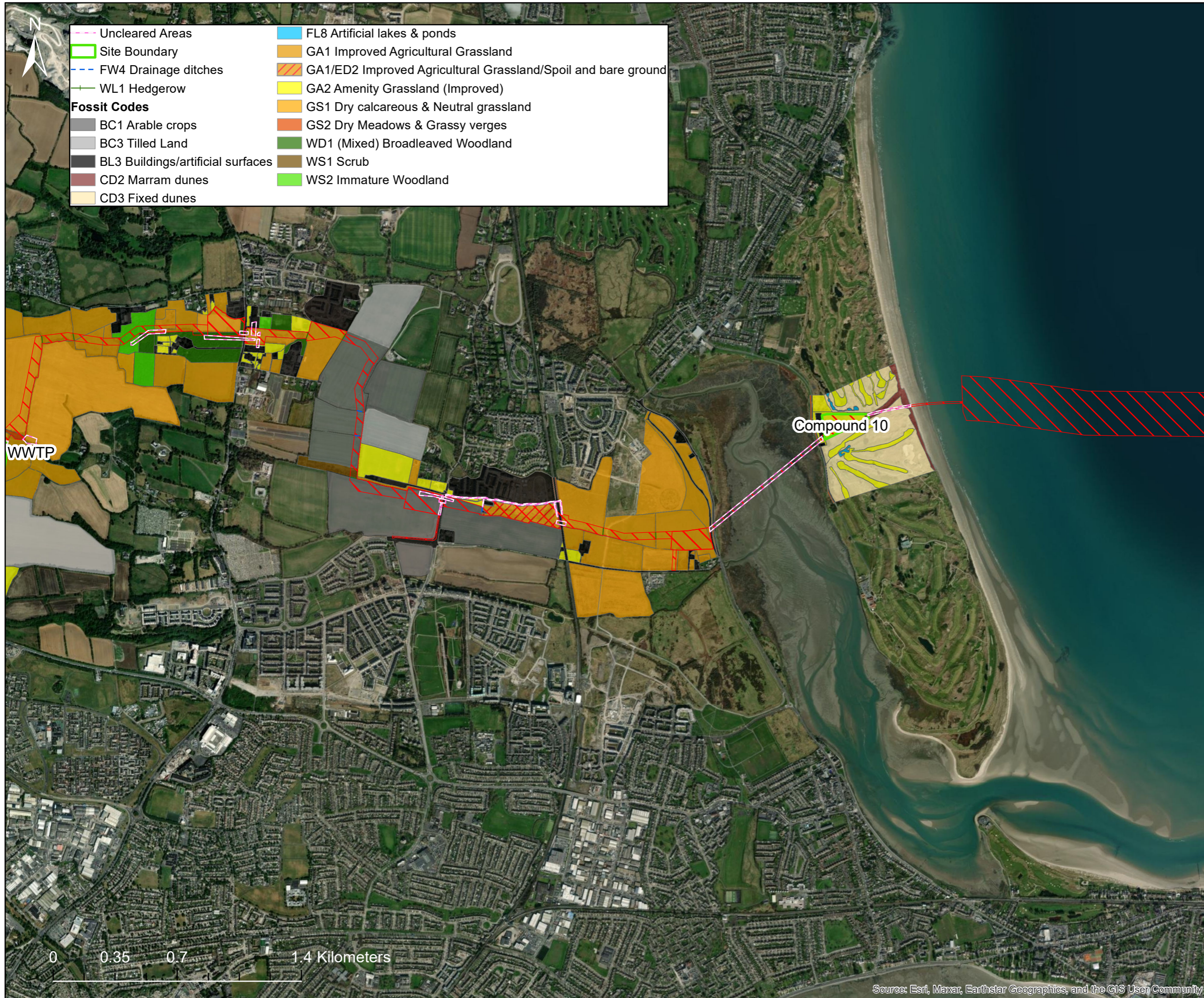
Approved:	RR	Projection:	ITM
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0 0.35 0.7 1.4 Kilometers

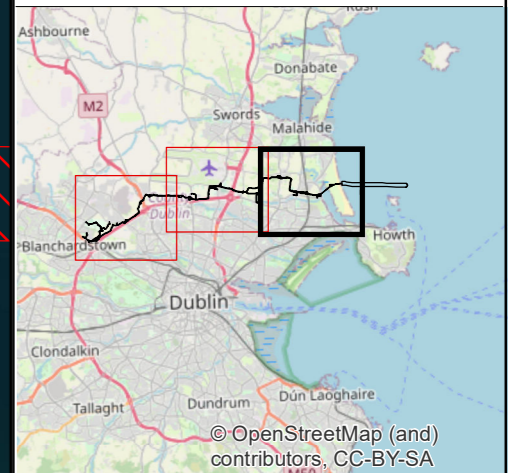
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



- Uncleared Areas
- Site Boundary
- FW4 Drainage ditches
- WL1 Hedgerow
- Fossit Codes**
- BC1 Arable crops
- BC3 Tilled Land
- BL3 Buildings/artificial surfaces
- CD2 Marram dunes
- CD3 Fixed dunes
- FL8 Artificial lakes & ponds
- GA1 Improved Agricultural Grassland
- GA1/ED2 Improved Agricultural Grassland/Spoil and bare ground
- GA2 Amenity Grassland (Improved)
- GS1 Dry calcareous & Neutral grassland
- GS2 Dry Meadows & Grassy verges
- WD1 (Mixed) Broadleaved Woodland
- WS1 Scrub
- WS2 Immature Woodland

Legend

Boundary



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Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
Habitats Impacted Along GGD Pipeline Route
Map 3 of 3

RPS West Pier
Business Campus, Dun Laoghaire, Co Dublin, Ireland. T +353 (0) 1 4882900 E ireland@rpsgroup.com W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0008

Status: A1	Rev: C01	Model File Identifier:
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Drawn: NR	Date: 04/10/2023
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Checked: WL	Scale: 1:20,000 @A3
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Approved: RR	Projection: ITM
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Appendix B
Proposed Abbotstown Pumping Station Pre-Development Habitats & Post-Development Landscaping





Aerial Image

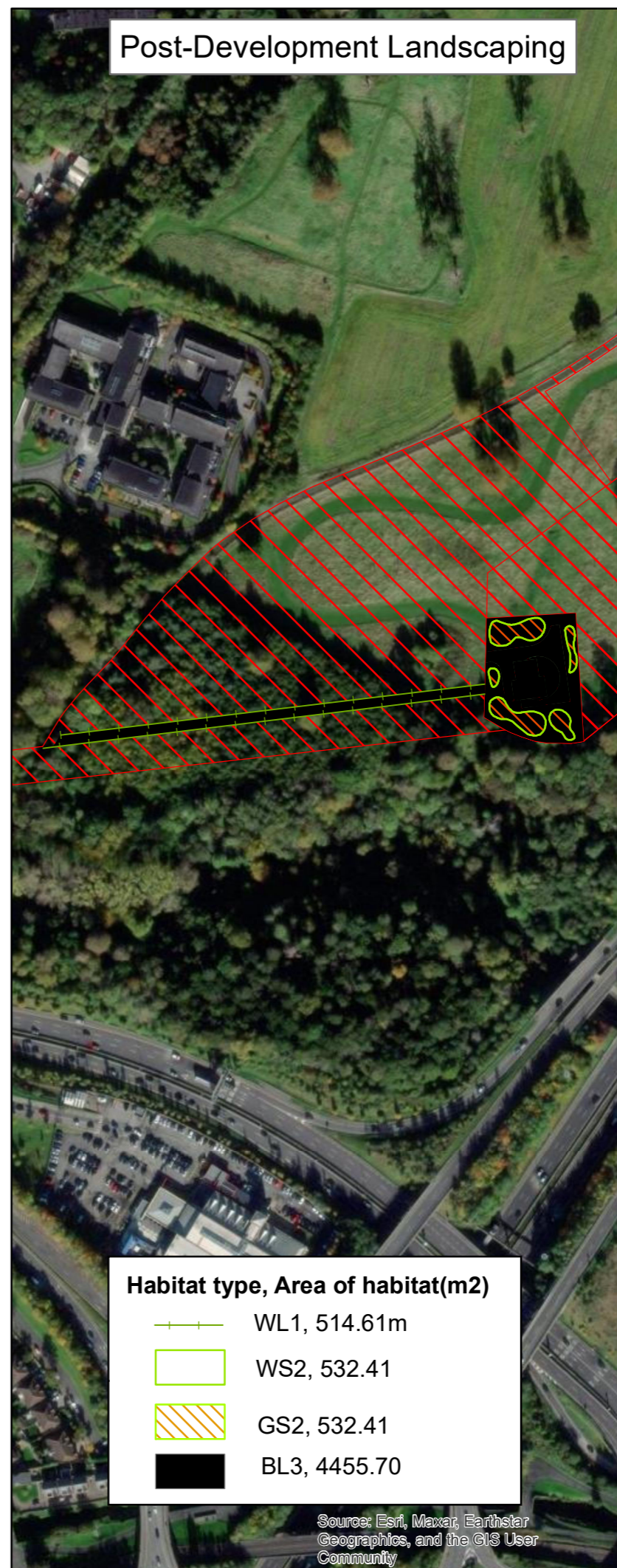
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community







Pre-Development Habitats

Habitat type, Area of habitat(m2)	
	GA1, 4215.07
	WS1, 1311.52

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community











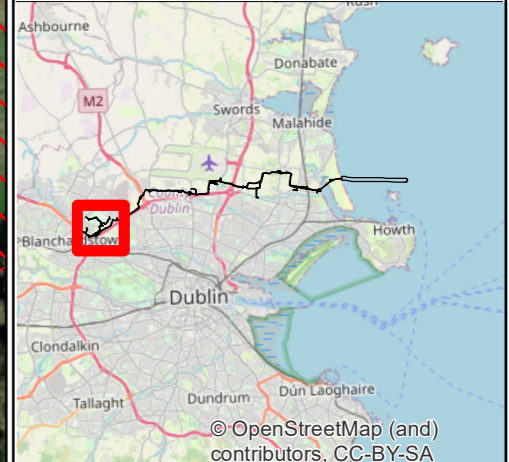
Post-Development Landscaping

Habitat type, Area of habitat(m2)	
	WL1, 514.61m
	WS2, 532.41
	GS2, 532.41
	BL3, 4455.70

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

-  Boundary
-  BL3 Buildings & artificial surfaces
-  GA1 Improved agricultural
-  GS1 Dry calcareous & Natural grassland
-  WD1 Mixed broadleaved woodland
-  WS1 Scrub
-  GS2/WS2 Dry meadows & grassy verges/ immature woodland
-  WL1 Hedgerows



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Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
Pumping Station Pre-Development Habitats & Post-Development Landscaping

RPS West Pier
Business Campus, T +353 (0) 1 4882900
Dun Laoghaire, E ireland@rpsgroup.com
Co Dublin, Ireland. W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0007

Status: A1	Rev: C01	Model File Identifier:
Drawn: NR	Date: 04/10/2023	
Checked: WL	Scale: 1:5,500 @A3	
Approved: RR	Projection: ITM	

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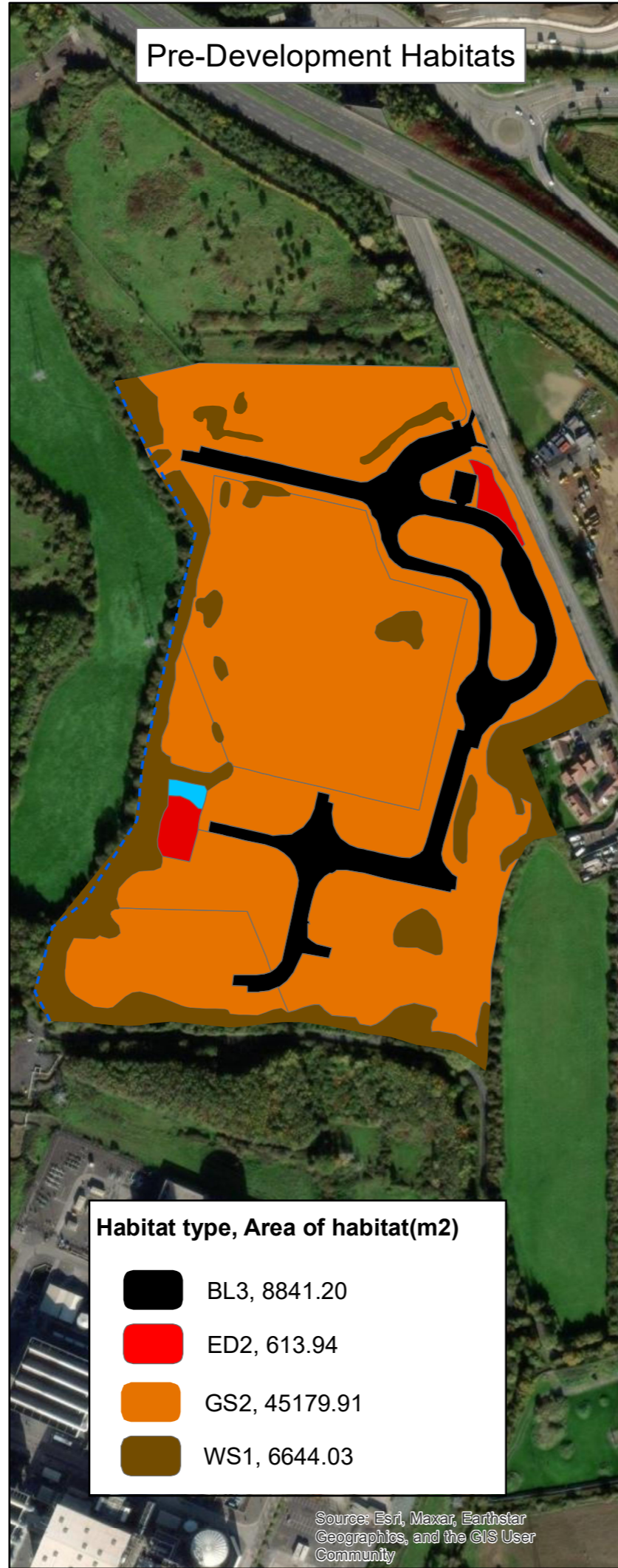
Proposed RBSF Site Pre-Development Habitats & Post-Development Landscaping

Aerial Image



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Pre-Development Habitats

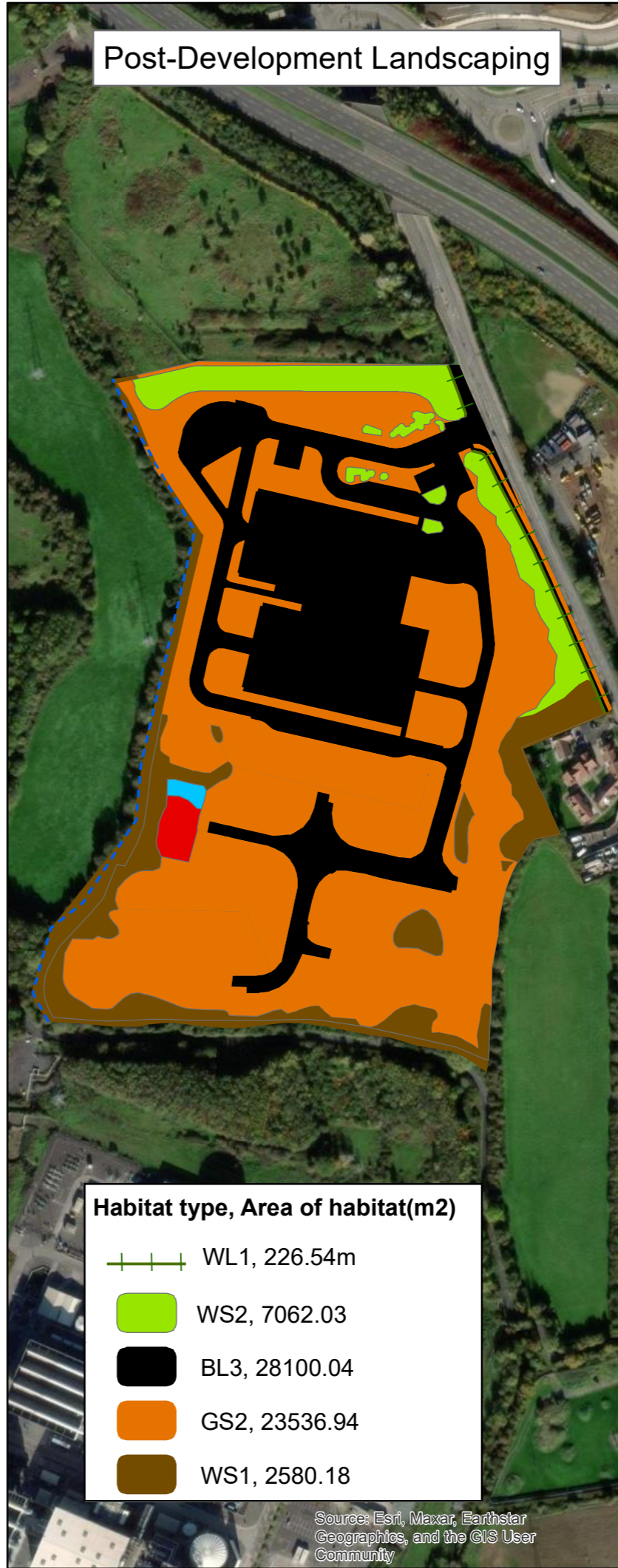


Habitat type, Area of habitat(m2)

	BL3, 8841.20
	ED2, 613.94
	GS2, 45179.91
	WS1, 6644.03

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Post-Development Landscaping



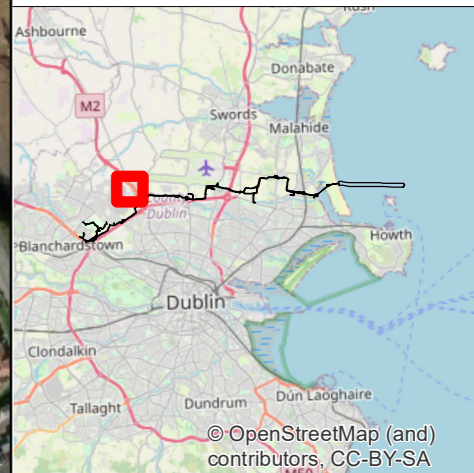
Habitat type, Area of habitat(m2)

	WL1, 226.54m
	WS2, 7062.03
	BL3, 28100.04
	GS2, 23536.94
	WS1, 2580.18

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Boundary
- WL1 Hedgerows
- FW4 Drainage ditches
- BL3 Buildings & artificial surfaces
- ED2 Spoil & bare ground
- FL8 Other artificial lakes & ponds
- FL8 Other artificial lakes & ponds
- WS1 Scrub
- WS2 Immature woodland



Client
Uisce Éireann

Greater Dublin Drainage Addendum

Title
RBSF Site Pre-Development Habitats & Post-Development Landscaping

RPS West Pier
 Business Campus, T +353 (0) 1 4882900
 Dun Laoghaire, E ireland@rpsgroup.com
 Co Dublin, Ireland. W rpsgroup.com/ireland

Issue Details

File Identifier: IE000258-RPS-AG-XX-D-Z-0004		
Status: A1	Rev: C01	Model File Identifier:
Drawn: NR	Date: 04/10/2023	
Checked: WL	Scale: 1:6,000 @A3	
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Appendix D

Proposed Waste Water Treatment Plant Pre-Development Habitats & Post-Development Landscaping

Aerial Image



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Pre-Development Habitats

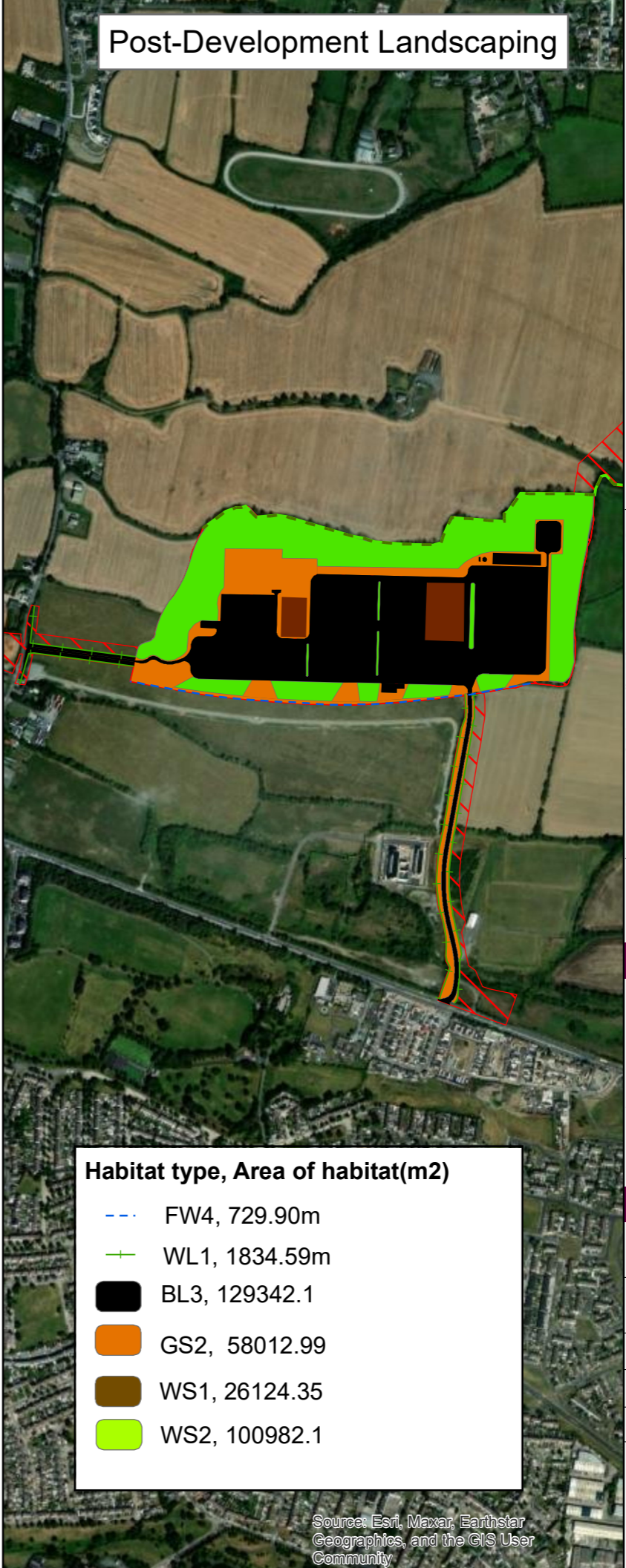


Habitat type, Area of habitat(m2)

---	FW4, 705.77m
+	WL1, 1500.87m
■	BC1, 21429.55
■	BC3, 229315.70
■	BL3, 257.46
■	GA1, 63194.75
■	WS1, 67.33
■	WS2, 190.80

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Post-Development Landscaping



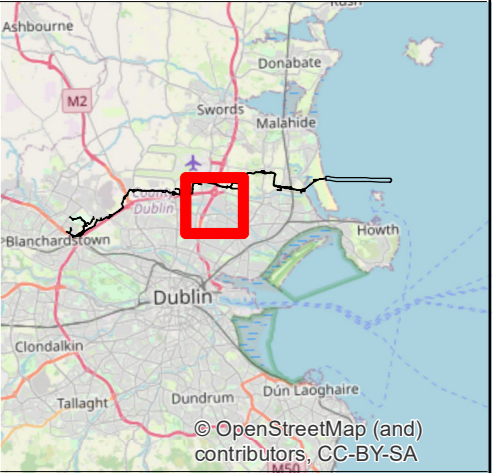
Habitat type, Area of habitat(m2)

---	FW4, 729.90m
+	WL1, 1834.59m
■	BL3, 129342.1
■	GS2, 58012.99
■	WS1, 26124.35
■	WS2, 100982.1

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- FW2 Depositing lowland river
- FW4 Drainage ditches
- WL1 Hedgerow
- Boundary
- BC1 Arable Crops
- BC3 Tilled land
- BL3 Buildings & agricultural surfaces
- GA1 Improved agricultural grassland
- GA2 Amenity grassland (Improved)
- GS2 Dry meadows & grassy verges
- WD1 Mixed broadleaved woodland
- WS1 Scrub
- WS2 Immature Woodland



Client

Uisce Éireann

Greater Dublin Drainage Addendum

Title
**Waste Water Treatment Plant
Pre-Development Habitats &
Post-Development Landscaping**

RPS West Pier
Business Campus, Dun Laoghaire, Co Dublin, Ireland. T +353 (0) 1 4882900 E ireland@rpsgroup.com W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0006

Status: A1	Rev: C01	Model File Identifier:
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Drawn: NR	Date: 05/10/2023
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Checked: WL	Scale: 1:19,104.03@A3
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Approved: RR	Projection: ITM
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Appendix E

Construction Compound 10 Pre-Development Habitats & Post-Development Landscaping

Aerial Image



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Pre-Development Habitats

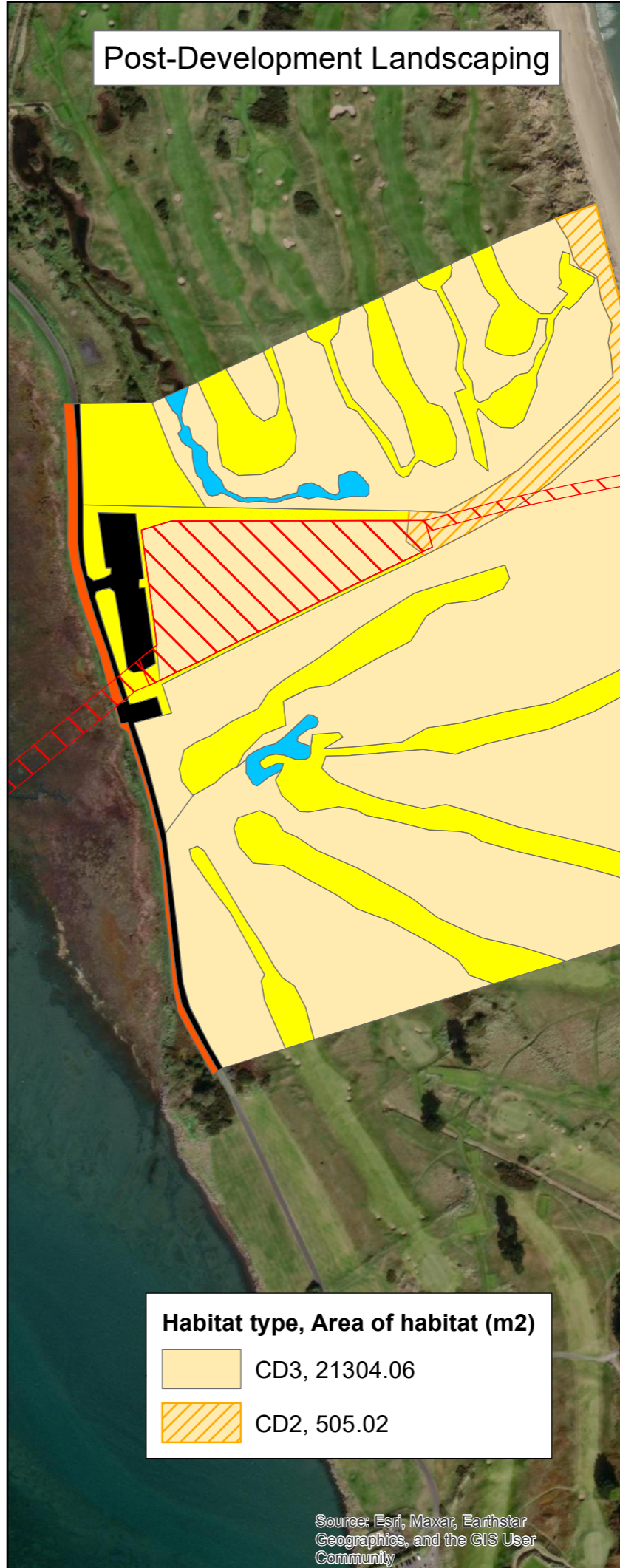


Habitat type, Area of habitat (m2)

- GA2, 21304.06
- CD2, 505.02

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Post-Development Landscaping



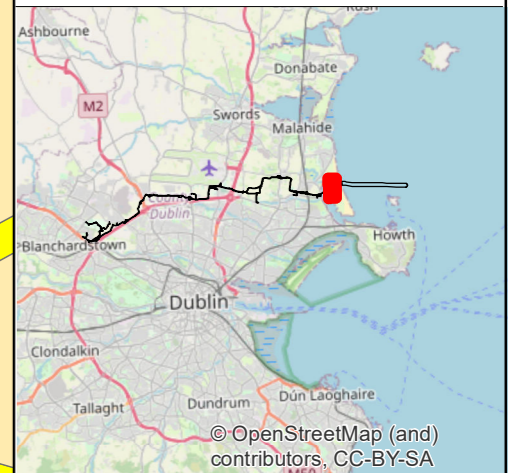
Habitat type, Area of habitat (m2)

- CD3, 21304.06
- CD2, 505.02

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Boundary
- BL3 Buildings & artificial surfaces
- CD2 Maram dunes
- CD3 Fixed dunes
- FL8 Other artificial lakes and ponds
- GA2 Amenity grassland
- GS2 Dry meadows & grassy verges



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Client

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Greater Dublin Drainage Addendum

Title

Compound 10 Pre-Development Habitats & Post-Development Landscaping

RPS West Pier
 Business Campus, T +353 (0) 1 4882900
 Dun Laoghaire, E ireland@rpsgroup.com
 Co Dublin, Ireland. W rpsgroup.com/ireland

Issue Details

File Identifier:
IE000258-RPS-AG-XX-D-Z-0005

Status: A1	Rev: C01	Model File Identifier:
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Drawn: NR	Date: 05/10/2023
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Pre-Development & Post-Development Biodiversity Units Areas & Lengths for Habitats

Appendix F

Biodiversity Assessment

Table F-1 Pre-Development & Post-Development Biodiversity Units Areas & Lengths for Habitats

Habitat type	Pre-Development – Baseline Habitats and Extent Refer to IW Biodiversity Guidance Document No. IW-AMT-GL-021 including Appendix B for further explanation					Post-Development – Baseline Habitats and Extent					Biodiversity No Net Loss / Net Gain Total					
	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Change in Biodiversity Units Area	Change in Biodiversity Units Length	No Net Loss Achieved – Area?	No Net Loss Achieved – Length?		
Use dropdown below	Use dropdown below	<i>Do not leave blanks</i>		<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>	Use dropdown below	<i>Do not leave blanks</i>		<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>						
		Pipeline before						Pipeline after								
BC1 Arable crops	2	139162.93		278325.87	0.00	2	139162.93		278325.87	0.00						
BC3 Tilled land	2	167780.77		335561.54	0.00	2	167780.77		335561.54	0.00						
BL3 Buildings and artificial surfaces	0	53491.83		0.00	0.00	0	53491.83		0.00	0.00						
ED2 Spoil and bare ground	2	12780.83		25561.65	0.00	2	12780.83		25561.65	0.00						
ED3 Recolonising bare ground	2	32918.51		65837.01	0.00	2	32918.51		65837.01	0.00						
FW4 Drainage ditches	3		236.49	0.00	709.47	3		236.49	0.00	709.47						
GA1 Improved agricultural grassland	2	389623.87		779247.73	0.00	2	389623.87		779247.73	0.00						
GA2 Amenity grassland (improved)	2	13817.04		27634.07	0.00	2	13817.04		27634.07	0.00						
GS1 Dry calcareous and neutral grassland	6	16348.79		101632.72	0.00	6	16348.79		101632.72	0.00						
GS2 Dry meadows and grassy verges	6	2745.32		16471.90	0.00	6	2745.32		16471.90	0.00						
GS4 Wet grassland	6	1153.42		6920.52	0.00	6	1153.42		6920.52	0.00						
WD1 (Mixed) broadleaved woodland	6	10582.79		63496.71	0.00	4	10582.79		42331.14	0.00						
WL1 Hedgerows	6		1792.53	0.00	10755.19	6		1792.53	0.00	10755.19						
WL2 Treelines	6		148.18	0.00	889.10	4		148.18	0.00	592.73						
WS1 Scrub	6	28485.01		170910.04	0.00	6	28485.01		170910.04	0.00						
WS2 Immature woodland	6	5661.40		33968.41	0.00	5	5661.40		28307.01	0.00						

Self Populating Cells Below Do Not Edit *Self Populating Cells Below Do Not Edit* *Enter Result Below if a minus figure in column v, Net Gain not achieved* *Enter Result Below if a minus figure in column v, Net Gain not achieved*

Table F-1 Pre-Development & Post-Development Biodiversity Units Areas & Lengths for Habitats

Habitat type	Pre-Development - Baseline Habitats and Extent Refer to IW Biodiversity Guidance Document No. IW-AMT-GL-021 including Appendix B for further explanation					Post-Development - Baseline Habitats and Extent					Biodiversity No Net Loss / Net Gain Total			
	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Change in Biodiversity Units Area	Change in Biodiversity Units Length	No Net Loss Achieved - Area?	No Net Loss Achieved - Length?
Use dropdown below	Use dropdown below	<i>Do not leave blanks</i>		<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>	Use dropdown below	<i>Do not leave blanks</i>		<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>				
Pumping station before					Pumping station after									
BL3 Buildings and artificial surfaces				0	0	0	4455.71		0.00	0.00				
GA1 Improved agricultural grassland	2	4215.068		8430.136	0				0.00	0.00				
GS2 Dry meadows and grassy verges				0	0	6	532.41		3194.46	0.00				
WL1 Hedgerows						6		514.61	0.00	3087.67				
WS1 Scrub	6	1311.52		7869.12	0				0.00	0.00				
WS2 Immature woodland				0	0	5	532.41		2662.05	0.00				
Waste water treatment plant before					Waste water treatment plant after									
BC1 Arable crops	2	21429.55		42859.10	0.00				0.00	0.00				
BC3 Tilled land	2	229315.70		458631.40	0.00				0.00	0.00				
BL3 Buildings and artificial surfaces	0	257.47		0.00	0.00	0	129342.10		0.00	0.00				
FW4 Drainage ditches	3		705.77	0.00	2117.30	3		729.90	0.00	2189.69				
GA1 Improved agricultural grassland	2	63194.75		126389.50	0.00				0.00	0.00				
GS2 Dry meadows and grassy verges				0.00	0.00	6	58013.00		348077.98	0.00				
WL1 Hedgerows	6		1500.87	0.00	9005.21	6		1834.59	0.00	11007.54				
WS1 Scrub	6	67.33		404.00	0.00	6	26124.36		156746.15	0.00				
WS2 Immature woodland	6	190.80		1144.81	0.00	5	100982.10		504910.50	0.00				
Compound 10 before					Compound 10 after									
GA2 Amenity grassland (improved)	3	21304.06		63912.19	0.00				0.00	0.00				
CD2 Marram dunes	9	505.02		4545.17	0.00	9	505.02		4545.17	0.00				
CD3 Fixed dunes	9			0.00	0.00	8	21304.06		170432.51	0.00				

Self Populating Cells Below Do Not Edit *Self Populating Cells Below Do Not Edit* *Enter Result Below If a minus figure in column Y, Net Gain not achieved* *Enter Result Below If a minus figure in column Y, Net Gain not achieved*

Biodiversity Assessment

Table F-1 Pre-Development & Post-Development Biodiversity Units Areas & Lengths for Habitats

Habitat type	Pre-Development – Baseline Habitats and Extent Refer to IW Biodiversity Guidance Document No. IW-AMT-GL-021 including Appendix B for further explanation					Post-Development – Baseline Habitats and Extent					Biodiversity No Net Loss / Net Gain Total				
	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Change in Biodiversity Units Area	Change in Biodiversity Units Length	No Net Loss Achieved – Area?	No Net Loss Achieved – Length?	
Use dropdown below	Use dropdown below	<i>Do not leave blanks</i>			<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>	Use dropdown below	<i>Do not leave blanks</i>		<i>Self Calculating Cells Do Not Edit</i>	<i>Self Calculating Cells Do Not Edit</i>	<i>Self Populating Cells Below Do Not Edit</i>	<i>Self Populating Cells Below Do Not Edit</i>	<i>Enter Result Below if a minus figure in column Y, Net Gain not achieved</i>	<i>Enter Result Below if a minus figure in column Y, Net Gain not achieved</i>
RBSF Site before					RBSF Site after										
BL3 Buildings and artificial surfaces	0	8841.20		0.00	0.00	0	28100.04		0.00	0.00					
GS2 Dry meadows and grassy verges	6	45179.91		271079.45	0.00	6	23536.94		141221.64	0.00					
WS1 Scrub	6	6644.03		39864.20	0.00	6	2580.18		15481.06	0.00					
WS2 Immature woodland				0.00		5	7062.04		35310.19						
ED2 Spoil and bare ground	2	613.94		1227.86											
WL1 Hedgerows				0.00		6	226.55		0.00	1359.28					
		Pre - Total Area	Pre - Total Length	Total Units Area	Total Units Length			Post - Total Area	Post - Total Length	Total Units Area	Total Units Length				
		1278222.85	4383.84	2931985.16	23476.27			1278222.86	5482.85	3261382.92	29701.57	329397.76	6225.30		