Greater Dublin Drainage Project

Response to Submissions

Uisce Éireann

17 October 2024

Contents

List of Acronyms

Acronym	Full Term
AA	Appropriate Assessment
ABP	An Bord Pleanála
AGS	Aerated Granular Sludge
ASA	Alternative Site Assessment
ASP	Activated Sludge Plant
BH	Borehole
BHD	Backhoe Dredger
BoCC	Birds of Conservation Concern
BOD	Biological Oxygen Demand
BRDS	Blanchardstown Regional Drainage Scheme
CAP	Climate Action Plan
CEMP	Construction Environmental Management Plan
cfu	Colony forming unit
CHP	Combined Heat and Power
CLO	Community Liaison Officer
CO	Carbon monoxide
CO_2	Carbon dioxide
CPO	Compulsory Purchase Order
CRU	Commission for Regulation of Utilities
CSO	Central Statistics Office
CSOs	Combined Sewer Overflows
CTMP	Construction Traffic Management Plan
DAU	Development Application Unit
dB(A)	A-weighted sound in decibels
DCC	Dublin City Council
DEHLG	Department of the Environmental, Heritage and Local Government
DHLGH	Department of Housing Local Government and Heritage
DIN	Dissolved Inorganic Nitrogen
DNA	Deoxyribonucleic acid
EC	European Commission
ECoW	Ecological Clerk of Works
eDNA	Environmental Deoxyribonucleic acid
e.g.	example
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ELV	Emissions Limit Value
EMS	Environmental Management System
EnPi	Energy performance indicator
EPA	Environmental Protection Agency
ERM	Environmental Resources Management
ESB	Electricity Supply Board
EU	European Union
FCC	Fingal County Council
FRA	Flood Risk Assessment
FWSD	Freshwater Skin Disease
GAA	Gaelic Athletic Association
GDA	Greater Dublin Area

Acronym	Full Term
GDDP	Greater Dublin Drainage Project
GDDS	Greater Dublin Drainage Scheme
GDSDS	Greater Dublin Strategic Drainage Study
GEP	Good Ecological Potential
GES	Good Ecological Status
GSI	Geological Survey of Ireland
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicles
HPSC	Health Protection Surveillance Centre
HSE	Health Service Executive
IAA	Irish Aviation Authority
Ibec	Irish Business and Employers Confederation
IE	Industrial Emissions
IS	Irish Standard
ISO	International Organization for Standardization
i.e.	that is
km	kilometre
km^2	kilometres squared
kV	kilovolt
LAeq,1hr	A-weighted sound pressure of a continuous sound for a 1 hour period
LAP	Local Area Plan
LSE	Likely Significant Effects
m	metre
MARA	Maritime Area Regulatory Authority
MCC	Meath County Council
mm/s PPV	Peak Particle Velocity in millimetres per second
mOD	metres above Ordnance Datum
MRP	Molybdate Reactive Phosphorus
M&V	Measurement and Verification
NAF	National Adaptation Framework
NCT	National Car Test
NDP	National Development Plan
NDA	Nature Development Area
NFS	North Fringe Sewer
ng/L	nanograms per litre
NIS	Natura Impact Statement
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxide
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
NSAI	National Standards Authority of Ireland
NSR	Noise Sensitive Receptor
NTA	National Transport Authority
NVRL	National Virus Reference Laboratory
NWSMP	National Wastewater Sludge Management Plan
NWSP	National Wastewater Surveillance Programme
OCU	Odour Control Unit
OPW	Office of Public Works
OUE/m^3	odour units per metre cubed

Acronym	Full Term
PDA	Number 30 of 2000 - Planning and Development Act, 2000 (as amended)
PE	population equivalent
PFAS	per- and poly-fluoroalkylated substances
PFOS	Per-fluorooctanesulfonic acid
PM	particulate matter
PSCS	Project Supervisor Construction Stage
PSDP	Project Supervisor Design Process
PSZ	Public Safety Zone
PV	photovoltaic
RBSF	Regional Biosolid Storage Facility
RMP	Record of Monuments and Places
RNA	Ribonucleic acid
SAC	Special Area of Conservation
SBR	Sequencing Batch Reactor
SCI	Special Conservation Interest
SDCC	South Dublin County Council
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority of Ireland
SFP	Strategic Funding Plan
SHC	Sludge Hub Centre
SHD	Strategic Housing Development
SIC	Significant Industrial Customer
SID	Strategic Infrastructure Development
SO_2	Sulphur dioxide
SPA	Special Protection Area
SUDS	Sustainable Drainage Systems
SWOs	Stormwater Overflows
TBM	Tunnel Bore Machine
TII	Transport Infrastructure Ireland
TSHD	Trailer Suction Hopper Dredger
UK	United Kingdom
UV	Ultraviolet
UWWTP	Urban Waste Water Treatment Plant
WFD	Water Framework Directive
WSP	Water Supply Project
WSSP	Water Services Strategic Plan
WwTP	Wastewater Treatment Plant
°C	Degrees Celsius

1. Introduction

Uisce Éireann (the Applicant) acknowledges receipt of the letters sent by An Bord Pleanála (ABP) on 27 September 2024 and 3 October 2024, in respect to the Strategic Infrastructure Development (SID) remittal application for approval for the proposed Greater Dublin Drainage Project (hereafter referred to as the Proposed Project) (ABP reference no. ABP-312131-21).

The letter from ABP dated 27 September 2024 states that:

> "*The Board hereby considers it appropriate to invite you to make a submission on the observations received. Please be advised that any response to the Board's invitation should not contain any additional reports or supplementary reports and should be confined to the issued* [sic] *raised in the observations received by the Board. Any submission in relation to the above must be received by the Board within 3 weeks from the date of this letter (i.e. not later than 17th October, 2024)*".

The letter from ABP dated 3 October 2024 states that:

> "*An Bord Pleanála is now providing you with the opportunity to submit any comments on the submissions furnished to your office on the 28th November, 2022, as part of your response to the Board's most recent invite to you, dated 27th September, 2024, inviting you to comment on the further submissions received. You are remined that the last day for a response to these submission is also to be received by the Board, no later than Thursday, 17th October, 2024.*"

This Report and its supporting appendices, comprise the response of the Applicant to the issues raised in the 2022 and 2024 submissions and observations received by ABP. The Applicant notes that ABP has advised that this response should not contain any additional or supplementary reports. The Applicant has prepared Outline Conservation Management Plans in respect of Badgers and Amphibians in response to the Development Applications Unit submission, which can be submitted to ABP if requested. Similarly, there is one issue raised in relation to potential per- and poly-fluoroalkylated substances (PFAS) contamination which is discussed further in the response document. The Applicant is planning to carry out further site investigations (subject to the necessary third-party consents being obtained) to gain greater clarity on the nature of the potential contamination, such that the draft CEMP as well as the relevant environmental assessments can be updated at the request of the Board if and as necessary. Additionally, the Applicant will be in a position to furnish ABP with updated cumulative impact and in-combination assessments, and any other updated assessments that may be requested by ABP.

The Applicant reserves the right to further expand on its reply in relation to these issues as may be appropriate at any Oral Hearing which may be convened by ABP in relation to this application.

The Applicant notes that some of the submissions raise issues that are directed towards ABP, and the Applicant is not in a position to respond to same.

1.1 Need for the Proposed Project

Wastewater treatment forms an essential part of the primary infrastructure network that is necessary for communities to form, grow and thrive. The need for the Proposed Project is even greater now than it was when the application for approval was submitted in 2018.

Since the submission of the Environmental Impact Assessment Report (EIAR) with the 2018 planning application, a new Census was undertaken in 2022. The latest Census figures show that over 2 million people, or just over 40% of the population of Ireland, now live in the Greater Dublin Area (GDA) which includes the counties of Dublin, Meath, Kildare, and Wicklow. By 2031, the population of the GDA is projected to reach 2.2 million. The GDA therefore experienced a 24.7% increase in population in the period from 2006 to 2022, with an increase of 8.7% from 2016 to 2022. The latest Census results demonstrate that the GDA also recorded the largest inward migration nationally, with +81,702 persons between 2016 to 2022. Fingal's population increased by 37% in the period from 2006 to 2022, with an increase of 11.2% from 2016 to 2022, significantly

above the regional growth rate for the same period, while all four administrative areas of Dublin were amongst the fastest growing nationally (Central Statistics Office (CSO) 2023).

The projected treatment capacity of 500,000 PE (population equivalent) was reassessed as part of Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, specifically in Section 3.5.2 where it states that:

> '*The 2022 population figures were found to be in-line with the projections of 'Growth Scenario 3 – Most Likely', as presented in the EIAR in the 2018 planning application. Therefore, the growth rates remain the same as presented in the EIAR in the 2018 planning application. However, the baseline year has changed from 2018 to 2022 which results in minor variations in loading at 2050. These variations are considered to be within allowable tolerance levels*.'

As our population and economy grow, so too does the volume of wastewater generated. The volume of wastewater generated in the GDA is projected to increase by more than 50% in the period to 2050. The Applicant is continually working to upgrade its existing wastewater treatment facilities and to invest in new infrastructure in order to meet this increased demand. The Proposed Project is vital to deliver the required wastewater treatment capacity and infrastructure to:

- Safeguard public health;
- Protect and improve the environment; and
- Facilitate the sustainable residential and commercial development of north Dublin and the wider region.

The Proposed Project will provide the additional treatment capacity required once the Ringsend WwTP reaches its maximum capacity and will support the sustainable growth of the GDA up to 2050. The proposed orbital sewer and regional WwTP are required to divert load away from the Ringsend WwTP, alleviate pressure on the wastewater network and support the long-term sustainable growth of the wider Dublin Region. The Proposed Project will provide additional wastewater capacity of 500,000 PE in the GDA (i.e., wastewater capacity up to 2050), in a manner compliant with European Union (EU) water standards. The Applicant is satisfied that the Proposed Project is the optimum solution, from a technical, environmental, social and economic perspective, to meeting Dublin's wastewater treatment requirements to 2050. It is needed to unlock essential residential, commercial and community development in the GDA, while maintaining and enhancing the inland and coastal amenities so valued by the community.

The 2023 remittal application to ABP demonstrates that the Proposed Project continues to be supported at all levels of the policy hierarchy, for essential strategic infrastructure, necessary for the continued growth and sustainable development of communities and businesses within the GDA. In light of this, the need for the Proposed Project, as demonstrated in the 2018 planning application and during the 2019 Oral Hearing, has not diminished, particularly in the context of increased population and the revised projections outlined in the review of the National Planning Framework, in addition to environmental compliance requirements. The need for the Proposed Project was accepted in the original 2019 Inspector's Report from ABP, specifically Section 8.3.1 of that report, and remains fully justified.

1.2 Overview of Consultation To-Date

As outlined in the following sections of this Report, the Project Team, from the outset, committed to providing proactive and wide ranging communications and public consultation that were a central element of the project development process.

1.2.1 Communications, Consultation and Stakeholder Engagement (2011 to June 2019)

The Applicant has undertaken an extensive communication, consultation and stakeholder engagement programme as part of its application for the Proposed Project.

Since 2011, the Project Team has operated a project information service (including a website, by phone and email) on a daily basis, has undertaken significant levels of engagement with a wide range of interested stakeholders, and has held public consultations at key stages of project development process. The following is a summary of the engagement that took place from 2011 to 2019:

- Seven periods of non-statutory public consultation and five periods of statutory consultation were held at key stages of the project development process;
- 36 information evets were held locally within the Proposed Project area, including at Northern Cross, Coolock, Swords, Balbriggan, Blanchardstown, Abbotstown, Baldoyle, Portmarnock and Howth;
- 246 stakeholder meetings / briefings were organised by the Project Team;
- 41 press advertisements were published in national and local newspapers;
- 31 press releases were issued and media interviews were conducted;
- 24 project updates were issued;
- Three study tours of operational WwTPs were organised for residents, landowners and public representatives;
- A public information campaign was held in 2017 to provide advance notice of the Proposed Project planning application, which included an information mailout to over 12,000 properties;
- Three poster campaigns were undertaken in local areas;
- A project website, email and phone information service has operated since 2011; and
- A project overview video was published on the project website and used at events.

The feedback provided, comprising 34,379 submissions (refer to Image 1 below) made to the Project Team from 2011 to June 2018 was categorised, analysed, reported and considered by the appropriate technical and environmental experts as part of the development of the Proposed Project.

Year/ Consultation Phase		Project updates / factsheets	Press releases	Press Ads	Media articles	Stakeholder meetings / briefings	Open days/ Events	No. of attendees	Submissions received
2011	1st Consultation	1	4	5	29	10	4	59	1,169
2011	2nd Consultation	2	4	13	67	27	4	768	10,688
2012	3rd Consultation	-	7	5	57	42	4	468	7,885
2013	4th Consultation	2	3	6	99	37	4	270	13,491
2014	Ongoing Engagement	1	3	3	13	22	7	58	226
2015	Ongoing Engagement	3	1	-	22	25	3	83	337
2016	Ongoing Engagement	2	1	-	19	8	-	35	36
2017	Ongoing Engagement	4	4	5	29	10	4	119	58
2017	Regional Biosolids Storage Facility Consultations	3	3	3	13	5	4	186	463
2018	Ongoing Engagement	1	1	1	3	10	-	-	26
Total		**19**	**31**	**41**	**351**	**196**	**34**	**2,046**[5]	**34,379**

[5] Note: Attendee numbers are based on the number of people that signed attendance sheets at the venues. As signing the attendance sheet was optional, the actual attendance figure is in excess of the listed figure.

Image 1: Summary of Consultation Engagement Activity (2011 to June 2018)

Consideration of consultation feedback resulted in key changes to the Proposed Project. For example, following consultation with stakeholders, the Project Team undertook to:

- Identify potential treatment facility site locations which would allow for a 300m (metre) buffer zone from sensitive receptors;
- Facilitate change to the route of the proposed orbital sewer and outfall pipeline, where feasible;
- Cover all tanks and treatment units at the WwTP facility;
- Undertake a range of additional terrestrial, marine ecology and water quality surveys;
- Incorporate alternative construction methodologies including trenchless technologies such as microtunnelling to minimise construction impacts;
- Appoint a full-time Community Liaison Officer (CLO) for the Construction Phase; and
- Implement a project-specific Community Benefit Scheme to deliver economic, educational and environmental benefits for local communities.

The Applicant further responded to issues raised during the statutory consultation (from 13 September 2017 to 18 October 2018) in writing in its Response to Submissions Report published in January 2019 (Uisce Éireann 2019), and subsequently at the Oral Hearing held from 20 March 2019 to 2 April 2019, as outlined in Section 1.2.1.1 and Section 1.2.1.2 below, respectively.

1.2.1.1 2018 Submissions

Following the submission of the application for planning approval for the Proposed Project to ABP on 20 June 2018, the application documentation was placed on display during the period 28 June 2018 to 17 August 2018

(a seven week period). Additionally, the application documentation was made available to view and download on a dedicated website (www.gddapplication.ie). Prescribed bodies, the general public, landowners and other interested parties were invited to make submissions on:

- The likely effects on the environment of the Proposed Project; and
- The implications of the Proposed Project for proper planning and sustainable development in the area concerned.

Following this consultation period, it came to the attention of the Applicant on 19 July 2018 that in relation to the documents which were lodged with the planning application, some documentation forming part of the EIAR were inadvertently omitted. By agreement with ABP, these documents were placed on display during the period 13 September 2018 to 18 October 2018 (a five-week period) and prescribed bodies, the general public, landowners and other interested parties were invited to make further submissions on the entirety of the planning application until 18 October 2018. A total of 174 submissions / observations were received; comprising 145 from the first consultation period and 29 from the second consultation period. All submissions were reviewed by the Applicant and the Project Team, and responses were provided in A Response to Submissions Report (Uisce Éireann 2019), which was published in January 2019. The consultation and response reports are available to download at https://www.water.ie/projects/local-projects/greater-dublin/publications/.

1.2.1.2 2019 Oral Hearing

In a letter dated 18 February 2019, ABP advised the Applicant that an Oral Hearing would be held for the Proposed Project.

In its Oral Hearing Agenda, ABP requested that the Applicant present a brief summary of the Proposed Project and address the issues in relation to consultation arising on the application for permission and, in particular, to respond to issues raised in the submissions and observations made to ABP in that regard.

Briefs of evidence were presented by the relevant project specialists in response to submissions received prior to the hearing, in addition to questions raised at the Oral Hearing by the Inspector, prescribed bodies and the public. Each brief of evidence was then made publicly available on the dedicated project website (www.gddapplication.ie).

The Applicant, in conjunction with its specialist team and feedback received from stakeholders, made a decision shortly before the Oral Hearing commenced, to introduce ultraviolet (UV) treatment at the proposed WwTP out of an abundance of caution and in response to submissions received raising this issue as being of concern. The responses provided by the Project Team, in addition to the inclusion of UV treatment, addressed at the Oral Hearing, were all factored into the Inspector's Report and ultimate decision made by ABP to grant permission by Order dated 11 November 2019 under reference number ABP-301908-18.

1.2.2 Communications and Stakeholder Engagement (2019 to 2023)

The Project Team continued to undertake communications and stakeholder engagement as part of the development of the Proposed Project. This Section summarises the communications and stakeholder engagement undertaken in the period following the submission of the planning application in June 2018, to-date.

The Project Team continued to operate the daily information service (website, phone and email). Table 1.1 summarises the communications undertaken during this period.

Table 1.1: Proposed Project Information Service Statistics (November 2019 to January 2023)

Activity	Number
Email queries	107
Telephone queries	44
Stakeholder meetings	21
News updates	5

1.2.2.1 2022 Submissions

Following the Oral Hearing, as referenced in Section 1.2.2 above, ABP made a decision to grant the planning application by Order dated 11 November 2019 under reference number ABP-301908-18 for the Proposed Project. That decision was challenged and was ultimately quashed by Order of the High Court and the case was remitted by that Court to ABP for a fresh determination in April 2021. Following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of Number 30 of 2000 – Planning and Development Act 2000 (as amended) (hereafter referred to as the PDA), the Applicant should have the opportunity to update, where appropriate, the EIAR and Natura Impact Statement (NIS) and any other information submitted. In response to the request from ABP, dated 26 August 2022, an Addendum Report was prepared and submitted to ABP on 26 October 2023.

As part of the remittal process, on 26 August 2022, ABP wrote to other parties that had made submissions as part of the original consultation process in 2018, and other parties that ABP considered had relevant information, advising that the case had been reactivated under a new reference number (ABP-312131-21). That letter noted that the original permission had been set aside and remitted to ABP and, pursuant to Section 37(F)(1)(c), requested that any further general submissions or observations on the Proposed Project be made by 30 September 2022. ABP invited those interested parties to make any further general submissions / observations on the planning application by 30 September 2022.

A total of 16 submissions were received and were furnished to the Applicant by ABP for consideration as part of the further information to be provided to ABP, pursuant to Section 37F(1)(c) of the PDA. These submissions were reviewed by the Project Team in 2022 and were considered in the updates to the planning application documentation as part of the 2023 remittal application. Where a 2022 submission did not require an update to the planning application documentation, but required further clarification based on the information provided either in the original 2018 planning application or the information in the 2023 EIAR Addendum, that clarification is provided in this Report. An overview of the 2022 submissions, together with the responses to each 2022 submission, are provided in Section 2.

It should be noted that a number of the 2022 submissions raised queries directed to ABP. The Applicant notes that any query directed to ABP is not addressed in this Report but will be addressed by ABP, as required.

1.2.3 Consultation Period for the Remittal Application (2024)

1.2.3.1 2024 Submissions

Following the submission of the remittal application on 26 October 2023, ABP wrote to the Applicant on 7 March 2024. In this letter, ABP advised that it considered that the additional information provided in 2023 contained '*significant additional data in relation to the effects on the environment of the proposed development*' and it therefore required the Applicant, '*in accordance with sub-section 2(b) of 37F of the Planning and Development Act 2000, as amended, to:*

(a) *Publish in one or more newspapers circulating in the area in which the proposed development would take place a notice stating that significant additional information to the said effects has been furnished to the Board, that the additional information will be available, for inspection or for purchase…. at a specified place and at specified times during a specified period, and that submissions or observations in relation to the additional information may be made in writing to the Board before a specified date, and update the stand-alone website stating that the additional information can be downloaded, and*

(b) Send notice of the furnishing to the Board of significant additional information and a copy of the additional information, to the planning authority and to the prescribed bodies stating that submissions or observations in relation to the additional information may be made in writing to the Board before a specified date.'

The letter also advised that the notices should be published in the same newspapers used for the 2018 planning application and that the consultation period should be no less than 30 days.

The Applicant published two newspaper notices, one in the Irish Independent, and a second in The Herald on 07 May 2024 (refer to Appendix A for a copy of the newspaper notices), and informed all prescribed bodies of the upcoming consultation period by letter prior to 07 May 2024. The additional information (hereafter referred to as the **Further Information**) was placed on public display, along with the original 2018 planning application documentation, during the period 07 May to 07 June 2024 at ABP's office, Dublin City Council's (DCC's) Wood Quay office, and Fingal County Council's (FCC's) Blanchardstown Civic Offices and County Hall in Swords (a 32 day period). Additionally, the application documentation was available to view and download on the dedicated project website (www.gddapplication.ie).

Prescribed bodies, interested parties and the general public were able to make submissions / observations on the Further Information. A total of 22 submissions were received during this consultation period. Each submission has been considered and the Applicant has responded to the issues raised in each submission in this Report. An overview of the 2024 submissions, together with the responses to each, are provided in Section 3.

It should be noted that a number of the 2024 submissions raised queries directed to ABP. The Applicant notes that any query directed to ABP is not addressed in this Report but will be addressed by ABP, as required.

1.2.4 Prescribed Bodies

The Applicant has actively engaged with the prescribed bodies for the Proposed Project, as set out by Article 213 (1), for the purposes of Section 37E(3)(c) of the PDA.

As outlined in Section 5 of the Public Stakeholder Participation Report included in the 2018 planning application, the Applicant arranged meetings with prescribed bodies throughout the pre-planning phase of the Proposed Project, which helped to inform the design of the Proposed Project and the EIAR.

These bodies were notified of the statutory consultation periods that took place in 2018 (post the submission of the 2018 planning application) and in 2024 (post the submission of the 2023 remittal application), as instructed by ABP, and were actively engaged with during the 2019 Oral Hearing process. It should be noted that the Applicant added the Maritime Area Regulatory Authority (MARA) to the list of prescribed bodies for the 2024 consultation period, following its establishment in 2023. The Applicant is committed to continuing to consult with the prescribed bodies throughout the next phases of the Proposed Project.

1.2.5 Ongoing Communications and Engagement.

The Applicant is fully committed to continuing its engagement with all stakeholders throughout the construction and operation of the Proposed Project. The Project Team continues to be available to meet with interested stakeholders and to provide information via the project information service, by telephone (1818 44 55 67), on the Applicant's website (water.ie) and via the Proposed Project email address (greaterdublindrainage@water.ie).

A CLO will be appointed for the Construction Phase and will act as a contact point for local stakeholders including residents, residents associations, sporting clubs, schools, businesses and other community organisations in the area. The CLO will work closely with the local community to ensure that information on the nature and duration of all works is provided and that every effort is made to avoid and address any issues and concerns in a timely fashion. The CLO will also be tasked with coordinating with all stakeholders to ensure the effective implementation of the Community Benefits Scheme, including the delivery of the wastewater education zone at the proposed WwTP facility at Clonshagh.

2. 2022 Submissions

2.1 Overview of 2022 Submissions Received

A total of 16 submissions were received by ABP in 2022 and are summarised in Table 2.1. The Applicant is cognisant and appreciative of the time spent by all third parties in preparing these submissions. Each submission has been considered and the Applicant has sought to ensure that the issues raised in each are appropriately addressed in this section of the report.

Table 2.1:2022 Submissions Received

No.	Name	Individual, Group or Organisation
1	Sabrina Joyce Kemper	Individual
2	Vivienne Burch	Individual
3	Chambers Ireland	Organisation
4	Development Applications Unit	Organisation
5	Terri Gray and Paul Burke	Individuals
6	Eamonn Hart	Individual
7	Sean Haughey TD	Individual (politician on behalf of constituents)
8	Sean Lyons	Individual
9	Garrett McGuinness (on behalf of Iarnród Éireann)	Organisation
10	Catherine McMahon and Others	Individuals
11	Denise Mitchell TD	Individual (politician on behalf of constituents)
12	Anne Murphy	Individual
13	Maria Murphy	Individual
14	Portmarnock Beach Committee	Group
15	Transport Infrastructure Ireland (TII)	Organisation
16	Bernadette Walsh	Individual

2.2 Response to 2022 Submissions

The issues raised in the submissions were considered and, where applicable, have been addressed in the remittal application (2023 Addendum Planning Report, 2023 EIAR Addendum, 2023 Revised NIS and other supporting documentation), as submitted to ABP on 26 October 2023, in addition to the original Planning Report, EIAR, NIS and supporting documentation in the 2018 Planning Application submitted to ABP on 20 June 2018. To avoid significant replication of text, the Applicant has addressed the substance of issues raised and provides references to the relevant sections of the 2023 remittal application and the original 2018 planning application documentation, as relevant.

While the Applicant has sought to respond to each submission individually, where the same observation has been raised in another submission, for which a response has already been provided in this Report, a reference to the relevant response is provided. As the submission of Sabrina Joyce-Kemper raised the most observations, some at least of which are also raised by others, that submission is dealt with first in this Section.

2.2.1 Sabrina Joyce-Kemper

2.2.1.1 Overview of the Submission

The submission from Sabrina Joyce-Kemper raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.1.2 of this Report:

- Site Selection and Alternatives Considered;
- Irish Water Name Change;
- Outdated Application;
- Funding for the Proposed Project;

- Dredging and Dumping at Sea Licences;
- New Foreshore Legislation;
- Impacts of Brexit;
- Dye and Drogue Surveys;
- Hydromorphological / Geomorphological Assessment;
- Indicative Design / Detailed Design;
- Material Contravention;
- Seveso Registration;
- Techworks Report;
- Section 50 Consent;
- Baldoyle Bay SPA Waterbirds;
- Sillogue Nature Development Site / Frog Species;
- Ireland's Eye SAC and the NIS;
- Seals and Seal Sanctuary;
- European Eel;
- Cumulative Impacts;
- Risk of Biogas Storage;
- Sutton Creek;
- Proposed Regional Biosolids Storage Facility (RBSF);
- Phasing of the Proposed WwTP;
- Blanchardstown Regional Drainage Scheme (BRDS);
- Bentonite Breakout;
- Harbour Porpoise and Bioaccumulation;
- UV Treatment and Neutralising Pathogens / Bacterial Disease;
- Microplastics;
- Bioaccumulation and Microplastics Impact on Nephrops;
- Light-Bellied Brent Geese and Construction Compound No. 9;
- Consultation on the Remittal Application;
- Significant Industrial Customer (SIC);
- Dublin Airport / New Runway;
- Compulsory Purchase Order (CPO);
- Solar Power / Rainwater Harvesting;
- Piling;
- Electricity Capacity and Consumption at the Proposed WwTP;
- Freshwater / Temperature Impacts of Discharges on Marine Ecology;
- Nitrogen Removal / Phosphorus Recovery;
- Avian Flu and Marine Mammals;
- International Union for Conservation of Nature (IUCN) Reports;
- Insect Survey at Construction Compound No. 10;
- New National Monument Recorded;
- Water Framework Directive (WFD) Assessment;
- Drinking Water Directive;
- 2022 Census;
- Overflows;
- Leachate;

- Aerated Granular Sludge (AGS) Treatment;
- Portmarnock South Bathing Waters;
- Marine Water Quality Modelling;
- Process Failure;
- Construction Methodology at Arklow WwTP; and
- The absence of any confirmation notice of acceptance of the supplemental planning application on the EIA portal.

2.2.1.2 Response to Submission

2.2.1.2.1 Site Selection and Alternatives Considered

This submission stated that the basic plan of a single WwTP, orbital sewer and pipeline put forward in 2005 following the Greater Dublin Strategic Drainage Study (GDSDS) (Dublin Drainage Consultancy 2005) has not changed much despite advancements in wastewater treatment technology and methodology.

The Proposed Project in its entirety has been the subject of a systematic, authoritative and comprehensive consideration of alternatives. A significant range of alternatives were considered during strategy development, strategic environmental appraisal and site selection. The consideration of these alternatives was informed, authoritative, rational and robust.

As outlined in the 2019 Response to Submission Report (Uisce Éireann 2019), a detailed Alternative Sites Assessment (ASA) / Route Selection was undertaken in four distinct phases between 2011 and 2013. The assessment considered a broad range of factors including environmental and technical aspects. The outcomes of each of these assessments were combined into an overall assessment matrix. The process concluded that the Clonshagh site option (proposed WwTP site, southern marine outfall and orbital sewers) was the most environmentally, technically and economically advantageous option. The Clonshagh site option was therefore recommended as the final preferred site option and was brought forward for further assessment under the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) processes.

A review of the ASA / Route Selection Report was undertaken by the Project Team in December 2017. The purpose of this review was to examine each element of the Proposed Project against the findings of each Phase of the ASA / Route Selection in light of the development of the Proposed Project since the final ASA / Route Selection Report was published in 2013 to assess whether the recommendations of the ASA / Route Selection Report remained valid. This review concluded that the methodology, findings and recommendations of the ASA / Route Selection process remained valid.

The ASA / Route Selection Report is publicly available and is summarised in Chapter 5 (Consideration of Alternatives) in Volume 2 Part A of the EIAR in the 2018 planning application.

The Applicant prepared the Greater Dublin Drainage Strategy – Overview and Future Strategic Needs (May 2018) which confirmed that they had reviewed the Greater Dublin Strategic Drainage Study (GDSDS) (Dublin Drainage Consultancy 2005) and its Strategic Environmental Assessment (SEA) (Fingal County Council 2008) in framing its Water Services Strategic Plan (WSSP) in 2015 (Uisce Éireann 2015). The WSSP is the Applicant's strategic national plan for the delivery of water and wastewater services over the next 25 years. It was determined in the WSSP that the conclusions of the GDSDS and its associated SEA were entirely valid, that the additional wastewater treatment capacity was required, and that this additional treatment capacity was best provided by a single regional WwTP.

The 2019 Response to Submission Report also outlined that, in response to submissions relating to the alternative of multiple smaller WwTPs, the feasibility of a network of smaller localised WwTPs was addressed in Section 5.5 (Strategic Drainage Scenarios) of Chapter 5 (Consideration of Alternatives) in Volume 2 Part A of the EIAR in the 2018 planning application. Section 5.5 summarised the consideration of 16 strategic drainage options which were a central element of the GDSDS and its SEA. Strategic options 5A, 5B, 6A, 6B, 7A and 7B covered a range of networks of smaller localised WwTPs, as summarised in Image 2 below.

Strategy Scenario	Summary Description of Additional Strategic Drainage Scenarios Considered by the Strategic Environmental Assessment of the Greater Dublin Strategic Drainage Study
5A	This scenario envisages seven sub-regional WwTPs which would provide treatment to foul flows from specific catchments on a foul-catchment-by-foul-catchment basis. The treated wastewater from these plants would be discharged to the nearest surface water or groundwater bodies. These WwTP sizes range from 40,000 population equivalent (PE) to 150,000 PE.
5B	This scenario has a similar range of WwTPs as Scenario 5A, but instead of having groundwater and/or surface water discharge, it proposes to have a regional treated wastewater pipeline with a coastal discharge to the Irish Sea.
6A	This scenario considers the development of a network of community WwTPs (e.g. 850 no. WwTPs with a treatment capacity of 1,000 PE (approx.), each discharging to the nearest surface water or groundwater bodies. This scenario also requires a series of sludge treatment centres.
6B	Similar to Scenario 6A, this scenario has a network of community WwTPs. However, instead of discharging locally to groundwater or surface water bodies, this scenario will differ in that each WwTP will discharge into a common treated wastewater pipeline which ultimately discharges to the Irish Sea.
7A	This scenario envisages 15 sub-regional WwTPs which would provide treatment to foul flows from specific catchments on a foul-catchment-by-foul-catchment basis. The treated wastewater from these plants would be discharged to the nearest surface water or groundwater bodies. These WwTP would range in size from 20,000 PE to 65,000 PE.
7B	This scenario has a similar range of WwTPs to Scenario 7A, but instead of relying on discharges to groundwater/surface waters, it proposes to have a regional treated wastewater pipeline with a coastal discharge to the Irish Sea.

Image 2: Summary of the Additional Strategic Drainage Scenarios Considered by the SEA of the GDSDS

The SEA concluded that options 5A, 6A and 7A were likely to have Major Negative effects on Biodiversity, Flora & Fauna and Water. Option 6A was also considered likely to have Major Negative effects on Population and Human Health due to the potential impacts on Dublin Bay, various recreational assets in the study area and public health or nuisance risks.

Option 5B which relies on the development of multiple WwTPs across the study area to serve individual growth areas discharging to a regional treated wastewater pipeline with a coastal discharge to the Irish Sea, was not favoured as a coherent integrated strategic approach. Furthermore, the majority of the flow arriving at the proposed WwTP is from developed catchments on northern and western areas of the Ringsend WwTP Catchment where, given the heavily urbanised nature of these catchments, it would be impossible to locate sufficient open space(s) on which to site multiple WwTPs without significant impact on the population and environment in these catchments. Option 6B relies on the construction of an extensive network of community based WwTPs (e.g. 850 no. WwTPs with a treatment capacity of 1,000 PE linking to a treated wastewater orbital pipeline. This scenario was assessed as having a number of distinct disadvantages which would render it impractical (e.g. excessive pumping and energy consumption requirements, protracted design and strategy delivery process, sludge management and transportation complexities, operational control and environmental risks). This scenario was considered as likely to have Major Negative impacts for Air Quality, Climatic Factors Material Assets, Cultural Heritage and Landscape due to the number of community-scale WwTPs required (850+). Option 7B was considered as likely to have significant negative environmental effects, particularly under Climatic Factors, due to the likely extensive pumping requirements associated with them, in addition to the complex engineering design considerations (e.g. reversal of flows through the Sutton submarine pipeline and unnecessary works on the Grand Canal Sewer). The SEA concluded that a single, regional WwTP was preferable to a series of sub-regional WwTPs, as a single plant offers the greatest planning, procurement, engineering, cost, flexibility and future operational benefits in comparison to a network comprising multiple WwTPs.

The SEA concluded that a single, regional WwTP was preferable to a series of sub-regional WwTPs, as a single plant offers the greatest planning, procurement, engineering, cost, flexibility and future operational benefits in comparison to a network comprising multiple WwTPs.

As part of the 2023 EIAR Addendum, it was determined that the origins of the Proposed Project within the GDSDS have not changed, and as such, the project history outlined in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR remain unchanged. The GDSDS, as updated by the findings of its SEA, including the determination that additional wastewater treatment capacity would be required, therefore, remain valid. Furthermore, the need for the Proposed Project remains a key priority for both the Applicant and Ireland as dealt with in Chapter 3A (The Need for the Proposed Project) of Volume 2A Part A of 6 of the 2023 EIAR Addendum. The Proposed Project is named in the updated draft National Planning Framework, the Water Services Policy Statement (2024 - 2030) and Uisce Éireann's current and revised WSSP. It should be noted that Section 8.2 of the 2019 Inspector's Report confirms the Proposed Project's compliance with planning policy, and there has been no material change in planning policy since then.

In addition, the site and route selection process was considered during the preparation of the 2023 EIAR Addendum, against the most recent Uisce Éireann Guidance, A Guide to Route and Site Selection (IW-AD-PD-GL-008) (Uisce Éireann 2021), and the ASA process completed for the Proposed Project follows the recommended site / route selection process in this Guidance. Therefore, the fundamental principles guiding the original assessment remain valid and comprehensive, and no changes were required to the EIAR in the 2018 planning application, as outlined in Chapter 1A (Introduction), Chapter 3A (The Need for the Proposed Project) and Chapter 5A (Consideration of Alternatives) in Volume 2A Part A of the 2023 EIAR Addendum.

2.2.1.2.2 Irish Water Name Change

This submission noted whether there is any legal implication of the name change of Irish Water to Uisce Éireann and the separation from Ervia. As is explained below, there are no legal implications for the Proposed Project and this application due to the legislative change.

The Applicant would like to clarify that the Water Services (Amendments) Act 2022 was signed into law in December 2022 and states, at section 5:

> "*5. (1) The company known in the Irish language as Uisce Éireann and in the English language as Irish Water shall, on and from the day immediately before the appointed day, be known only as its name in the Irish language, Uisce Éireann.*
>
> *(2) On and from the day specified in subsection (1)— (a) references in any enactment, legal proceedings or other document to Irish Water shall be construed as references to Uisce Éireann only*".

This Act provided that from 31 December 2022, Irish Water would only be known as Uisce Éireann. It also provided that, from that date, all references in any enactment, legal proceedings or other document to Irish Water shall be construed as references to Uisce Éireann only. Therefore, in the 2023 remittal application, the term Uisce Éireann was applied and all references in historic documents can be construed as references to Uisce Éireann.

It is clear from this legislation that the references to Irish Water in the application form ought now to be construed as references to Uisce Éireann. The application is therefore deemed now to be in the name of Uisce Éireann. The application was always being made on behalf of Uisce Eireann and not Ervia. Uisce Eireann's separation from Ervia has no bearing on this application.

2.2.1.2.3 Outdated Application

This submission stated that the 2018 planning application is now outdated, including surveys, cumulative impact assessment and legislation referenced, and was not submitted as per the requirements of the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (as published in August 2018) (Government of Ireland 2018). The submission also stated that a list of competent experts needs to be submitted as per the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. Additionally, the submission also noted that the new critical infrastructure bill, circular economy legislation (including reuse of water in wastewater), new Fingal

Development Plan 2023-2029 (FCC 2023) and Council Regulation 575/2010 need to be considered in relation to the Proposed Project.

As detailed below, all necessary updates have been provided as requested by ABP.

ABP made a decision to grant the planning application for the Proposed Project by Order dated 11 November 2019 under reference number ABP-301908-18. That decision was quashed by Order of the High Court and the case was remitted by that Court to ABP for a fresh determination. Following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the PDA, the Applicant should have the opportunity to update, where appropriate, the EIAR and NIS and any other information submitted.

The Applicant prepared a remittal application in response to that request from ABP to provide an update. The remittal application was submitted to ABP on 26 October 2023. In the preparation of the remittal application, the Applicant and its technical advisors considered the extent to which each of the technical chapters of the EIAR and the NIS were required to be updated, having particular regard to:

- Changes to the baseline environment;
- The requirement for updated surveys; and
- Changes to the applicable law, policy, industry standards and guidance in the intervening period.

Insofar as relevant to the remittal application, the Applicant has also had regard to the information presented at the Oral Hearing for application ABP-301908-18 and the High Court proceedings in respect of that application, including the addition of UV treatment and the extension to the River Mayne Culvert, such that the Proposed Project description has been updated.

The remittal application presents any changes or updates to the Planning Report, EIAR and NIS, where appropriate and has updated the assessment of the Proposed Project to ensure that it is as up-to-date as possible. The remittal includes details of all updated surveys, updates to policy, legislation and new guidance (including the latest circular economy policy), as well as updating both the cumulative impacts and in-combination assessments in the EIAR and NIS, respectively.

It should be noted that, at the time of the original planning application submission to ABP in June 2018, the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment had not been published. These Guidelines require that the details and expertise of the competent experts be included. The detail and expertise of the competent experts for the original 2018 EIAR were included in the Briefs of Evidence provided at the 2019 Oral Hearing and a list of the competent experts that inputted to the 2023 EIAR Addendum is included in Appendix A1.1 in Volume 2A Part B of the 2023 EIAR Addendum.

In relation to the observation on the ‘critical infrastructure bill’, it is not clear what bill the observation is referring to as there is no such bill that the Applicant is aware of. The Applicant is however aware of the Critical Infrastructure Resilience Directive which is due to be transposed in October 2024. The Applicant confirms that it will comply with such requirements as may be imposed on it pursuant to this Directive by Irish law once that becomes known.

Furthermore, while there is no national legislation transposing the Critical Infrastructure Resilience Directive enacted in Ireland as yet, the Applicant notes that both the 2018 EIAR and 2023 EIAR Addendum include a chapter on the Risk of Major Accidents and/or Disasters, and which provides a comprehensive assessment of the key risks presented to the Proposed Project infrastructure from natural disasters/accidents. The construction and operation of the Proposed Project will likewise be subject to an Environmental Incident Response Plan, which is a live document, and will be reviewed and updated throughout the Proposed Project's operational life in the context of any future obligations arising from the national Transposition of the Critical Infrastructure Resilience Directive.

In relation to the observation relating to Regulation 575/2010, the Applicant would like to clarify that there is no such regulation. Insofar as it was intended to refer to Regulation 757/2010 on persistent organic pollutants the Applicant confirms that the EIAR for the Proposed Project (including the 2023 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 WFD, European Union Environmental Quality Objectives (Surface Waters) Regulations 2009 (as amended) and the Bathing Water Quality Regulations 2008.

Furthermore, the proposed WwTP will require a wastewater discharge licence to be granted by the EPA under the European Union (Waste Water Discharge) Regulations 2007 to 2020, prior to commissioning. Wastewater discharges from the proposed WwTP must comply with this licence. The Applicant confirms that it is in the process of preparing the Waste Water Discharge Licence Application which will be submitted to the EPA in due course.

2.2.1.2.4 Funding for the Proposed Project

This submission noted that the Applicant applied to the Commission for Regulation of Utilities (CRU) to use the money ring-fenced for the Proposed Project on other areas of expenditure. The submission queried if the Applicant no longer has the CRU's clearance to invest capital expenditure in the Proposed Project.

The Proposed Project is of strategic importance to the GDA and has been recognised as such by the Government via its inclusion in the National Development Plan 2021-2030 (Government of Ireland 2021), the recent Draft First Revision to the National Planning Framework (Government of Ireland 2024a), the Water Services Policy Statement 2024-2030 (Government of Ireland 2024b), and the current and draft Water Services Strategic Plan 2050. The Proposed Project was also included as a key recommendation in the recent Housing Commission Report.

The Proposed Project will be financed via the Applicant's existing funding model, which consists of several stages:

1. Water Services Policy Statement – This is prepared by the Department of Housing Local Government and Heritage (DHLGH) and outlines policy goals related to the water services sector for a multi-year period (generally at least 5 years);
2. Strategic Funding Plan (SFP) – The Applicant prepares a forecasted expenditure profile to meet the objectives of the Water Services Policy Statement. Upon review and consideration, this is subsequently approved by the DHLGH;
3. CRU Revenue Control – The CRU assess the multi-year expenditure profile for efficiency of spend and approve a revenue profile for a 5 year Revenue Control period, currently RC3; and
4. Annual Budgetary process – The Applicant prepare a detailed expenditure profile for the forthcoming year. Taking account of the existing SFP and CRU envelopes and any updates to the expenditure profile, Uisce Éireann funding is annually approved as part of the overall Exchequer budget. All estimates of the Proposed Project spend are included within the overall Applicant forecasted expenditure amounts as described in points 2, 3 and 4 above.

Expenditure to-date has been fully funded by the RC3 allowance and expenditure forecasts for the Proposed Project for the 2025 to 2029 period are included within both the SFP Plan and the RC4 Capital Investment Plan.

2.2.1.2.5 Dredging and Dumping at Sea Licences

This submission outlined that a dredging licence and a dumping at sea licence consent will be required and there may be a dual assessment element.

While there is no specific dredging licence regime in Ireland, dredging and the disposal of dredging material is regulated by the Dumping at Sea Act 1996, and any dredging activity is regulated by a Dumping at Sea permit granted by the EPA. This Act requires that a Dumping at Sea permit is required for any disposal of material at sea, which includes: side-cast dredging, plough dredging, water injection dredging and other such dredging techniques. Section 9.4.3. of the 2018 EIAR sets out the Applicant's proposed approach to the dredging works associated with the construction of the proposed outfall pipeline route (marine section). The potential impacts

from the dispersal of dredged sediment arising from the dredging works were assessed by the 2018 EIAR, and there were no material changes to this assessment in the 2023 EIAR Addendum. The assessment concluded that the potential impacts on Annex I reef habitats within the Rockabill to Dalkey Island SAC from the dredging plume will be short-term with negligible magnitude. Likewise, the potential for impacts to non-migratory fish and shellfish areas from the dredging plume or habitat loss will be spatially limited to a small area, short-term, with low magnitude and are therefore of Negligible significance.

The Applicant notes that the construction methodology proposed for the outfall pipe underlines that the dredged material removed in order to allow for the installation of the pipe, will be temporarily stored on the seabed beside the trench before it is backfilled after the pipe is installed. The Applicant will secure and comply with such licence as is required.

2.2.1.2.6 New Foreshore Legislation

This submission stated that the new foreshore licence legislation must be included and assessed against compliance of the Proposed Project.

Since the application was submitted the Maritime Area Planning Act 2021 (the MAP Act) was enacted. Whilst, section 12 of the MAP Act repeals Part XV of the PDA, it preserves planning permissions granted or applications made under that Part prior to the commencement of section 12 of the MAP Act. This means that Part XV of the PDA still applies to an application for permission made under Part III of the PDA, such that the application for the Proposed Project will still be considered under Section 37E. In accordance with section 75(4) of the MAP Act, for applications for permission made under Part III of the PDA on or before 1 October 2024, an application for a MAC is to be made within 2 years of the date of the grant of permission. The Applicant confirms that it will make the MAC application within the relevant time period should permission be granted for the Proposed Project.

2.2.1.2.7 Impacts of Brexit

This submission noted that Brexit and issues surrounding wastewater discharge legislation and regulation in the United Kingdom (UK) which are impacting the Irish Sea must be assessed for the Proposed Project.

The Proposed Project will take place within the Republic of Ireland and coastal waters within the designated Irish Continental Shelf (i.e., Irish territorial waters). There are therefore no transboundary impacts associated with the Proposed Project, and Brexit is not required to be considered as part of the planning application for the Proposed Project.

2.2.1.2.8 Dye and Drogue Surveys

This submission stated that there are issues with the age of the Dye and Drogue surveys.

The 2012 Dye and Drogue surveys (and associated hydrographic surveys) were undertaken at a point in time to inform the ASA process. The 2015 Dye and Drogue surveys were undertaken to provide data against which to calibrate the solute transport modelling module of the Proposed Project's marine water quality model. Dye and Drogue surveys were undertaken in line with standard industry practices, and it should be noted that personnel health and safety considerations determine the operating limits for undertaking these marine surveys.

Section 4 of Appendix A8.1 (Model Development and Calibration) in Volume 3 Part B of the 2018 EIAR described the purpose of the 2015 Dye and Drogue surveys, as follows:

> '*The [solute] transport model was calibrated against 2015 dye release data from locations around the area of interest, with 4 releases taking place on a spring tide and again on a neap (20th April 2015 and 9th June 2015 respectively)*'.

The model calibration report was dated August 2015.

Section 8.2.4 (Solute Transport Calibration) in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR stated that:

> '*In general, the calibrated model reproduces the complex advection and the dispersion of the dye patch very well, with each measured patch well characterised by the model.*'

As the model was able to reproduce the characteristics of the dye plumes, there was no need to undertake additional dye or drogue studies. The calibrated and validated hydrodynamic and solute dispersion model was thereafter employed to model the baseline marine environmental conditions and assess impacts on the receiving waters of Dublin arising from both the Construction Phase and Operational Phase of the Proposed Project in preparation of Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR in the 2018 planning application, supplemented by Chapter 8A (Marine Water Quality) in Volume 3 Part A of the 2023 EIAR Addendum in the 2023 remittal application.

2.2.1.2.9 Hydromorphological / Geomorphological Assessment

This submission stated that sediment build up and erosion / scour impacts from dredging / trenching were never adequately assessed, and that a full hydromorphological / geomorphological survey of the area is required to inform accurate models.

The Applicant would like to clarify that the Engineering Design Report included in the 2018 planning application stated in Section 2.1.5 that:

> *'A 5m deep trench of trapezoidal section will be excavated using a combination of backhoe dredger in the shallower areas and trailer suction hopper dredger (TSHD) where the water depths are beyond the limits of the backhoe dredger. Excavated material will be temporarily stored on the sea bed within the working construction corridor and parallel to the pipeline trench. … Once the pipe is confirmed to be in place at the bottom of the trench the previously excavated material will be replaced around and over the pipe.'*

Figure 21 in the CEMP included in the 2018 planning application contained the Outline Construction Programme – Marine Based Pipelines and identified that the dredging would take place for a period of three months during a summer period, with an overlapping two month period for reinstatement. This period of three months has remained unchanged, as presented in Diagram 8.1 in the Addendum to the CEMP in the 2023 remittal application.

On the basis of this short-term and confined period of dredging works, a long-term hydromorphological / geomorphological assessment of the area would not be appropriate and a short-term sediment dispersal / transport study was undertaken for the construction activity only. As there was no change to the proposed construction activities or duration as part of the 2023 remittal application, the outcome of the 2018 planning application as stated in Section 8.4.1 of Chapter 8 (Marine Water Quality) in Volume 3A Part A, that there would be "*a brief but recurring effect during the course of the dredging operations but that it would be of negligible impact when compared to the natural variability of total suspended solid concentrations in the receiving waters*" remains valid.

2.2.1.2.10 Indicative Design / Detailed Design

This submission stated that the application should be considered as an outline permission as nearly all drawings are indicative and there are no subsurface engineering drawings for the WwTP and pumping station or internal layout drawings of buildings. The submission noted that there are three WwTP processes but only one has been subject to assessment with no proof of whether this is a worst-case assessment, and as such, details are being left to be addressed at post consent stage (detailed design stage) which does not constitute a design envelope.

A design has been undertaken to assess the environmental impacts of the Proposed Project which will be subject to detailed design development. Where different treatment processes are possible, the maximum impact is assessed with respect to the potential impact of the design.

The sub-surface engineering detail for the other permanent building structure proposed as part of the Proposed Project (Abbotstown Pumping Station) are shown on the original Planning Drawing Number 32102902-2144 in the 2018 planning application and remain unchanged since the submission of the 2018 planning application.

A design of the three 'most likely' treatment options (which will be subject to detailed design development) were considered (i.e., Activated Sludge Plant (ASP), Aerated Granular Sludge (AGS) and Sequencing Batch Reactor (SBR)) as described in Section 4.4.5 of Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR. All three options considered will achieve the required effluent standard. The inlet works and the Sludge Hub Centre (SHC) for all three options would be similar. The difference in the three options is the amount of treatment tanks required. However, all options will fit within the proposed site footprint included for in the 2018 planning application, as supplemented by the 2023 remittal application. The ASP option has the most tanks and thus the largest overall footprint, and was therefore considered as the 'worst case' to be assessed. As a result, the ASP option was updated on Planning Drawing Numbers 32102902-2127 to 32102902-2126, to account for the inclusion of UV treatment, as part of the 2023 remittal application.

It should be noted that all treatment tanks, in all options, would be covered with the contained air extracted and treated prior to discharge thereby maintaining odour emissions at the required design levels.

2.2.1.2.11 Material Contravention

This submission raised concerns that the chosen site for the Proposed Project will not be achievable due to constraints imposed by the new Fingal Development Plan 2023-2029 (FCC 2023), including concerns in the deficiency of data relating to the Material Contravention of the Fingal Development Plan 2023-2029. The submission also stated that the SHC is not small scale and cannot be considered as ancillary to the proposed WwTP, and as such, cannot be assimilated into the larger project in order to sidestep material contravention.

The Applicant would like to highlight that the 2023 Addendum Planning Report has considered and outlined the provisions of the extant Fingal Development Plan 2023-2029, including those relating to zoning and policies and any amendments to same, or new provisions since the previous Fingal Development Plan 2017-2023 (FCC 2017). This review indicated that the new Fingal Development Plan 2023-2029 itself, would not impose any constraints on the implementation of the Proposed Project, and that policies and objectives within the new Fingal Development Plan continue to support the realisation of same.

As outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), Section 4.1.10 of the 2018 Planning Report, set out in detail the zoning context of the Proposed Project. For clarity, the following provision is highlighted below:

> "*Uses which are neither 'Permitted in Principle' nor 'Not Permitted' will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan*".

In respect of the relevant policies and objectives of the Fingal Development Plan 2017-2023, the position of FCC is set out in the Chief Executive's submission (Section 7.1 Planning Policy Context), that:

> "*the proposal complies with the zoning policy and would contribute to the vision of protecting Green Belt Lands from development pressure through facilitating development in the region within appropriately zoned lands*".

In addition to the above, Section 4.1.10.1 (Project Response) of the 2018 Planning Report noted that the:

> "*primary objective of the Greenbelt zoning is to demarcate urban and rural areas in order to curb unrestricted sprawl into the countryside. The development of the proposed WwTP and sludge hub centre, on these lands will not serve to undermine this objective. The specific nature of the development, which is essential public infrastructure, will not set a precedent for additional industrial, commercial or residential development within the Greenbelt*".

As stated, and provided for in Section 4.1.10.1 of the 2018 Planning Report, in the event that ABP consider any aspect of the Proposed Project to materially contravene any of the provisions or zoning objectives of the

Fingal Development Plan 2017-2023, it is requested that ABP consider the application 'under the provisions of subsection 37G(6) of the Act'. It should be noted that Section 8.2 of the 2019 Inspector's Report confirms the Proposed Project's compliance with planning policy, and there has been no material change in planning policy since then.

In relation to the Proposed Project, it is considered that, in circumstances where the Proposed Project delivers on so many National, Regional and Local policies and objectives, it will assist the State in meeting its obligations with respect to the EU Directives noted in the 2018 Planning Report, as supplemented by the 2023 Addendum to the Planning Report.

In relation to the nature and scale of the Proposed Project, these are also considered and dealt with in both the 2018 Planning Report and the 2018 EIAR. Chapter 12 (Landscape and Visual) in Volume 3 Part A of the 2018 EIAR, outlined and assessed landscape and visual aspects relating to the Proposed Project. Section 4.1.7 (Project Response) of the 2018 Planning Report highlighted that the proposed WwTP buildings are proposed to be low-rise, and the site is also proposed to be well landscaped to ensure consistency with the existing landscape, and a 'campus-style' landscape as requested in consultation with FCC, which reflects the provisions required of development in High Technology zoned lands. Section 4.1.8 also noted that:

> "*with regard to the WwTP and Sludge Hub Centre site, as the primary focus … that represents the most visible permanent aspect of the Proposed Project, the project response has been to seek to blend and buffer the site within its surroundings - providing hedgerows within the WwTP site and extensive planting around the perimeter*".

Accordingly, there can be no concern that the chosen site for the Proposed Project will not be achievable, as the policy review of the extant Fingal County Development Plan 2023-2029 has highlighted that no constraints would be imposed on the implementation of the Proposed Project and that, as is already noted above, the policies and objectives within the Fingal Development Plan 2023-2029 continue to support the realisation of the Proposed Project.

The 2023 Addendum Planning Report produced for the 2023 remittal application considered the new Fingal Development Plan 2023-2029 in relation to the Proposed Project and concluded that the lands and associated land use zoning objectives within which the proposed WwTP will be situated have not changed under the new Fingal Development Plan. Therefore, the information in relation to material contravention previously outlined remains valid [such that a grant of planning permission does not require material contravention of the county development plan in the opinion of the Applicant noting however that if the Board were to come to a different conclusion then the project satisfies the requirements of section 37(6)].

In relation to the SHC element of the Proposed Project, the 2023 Addendum Planning Report identifies that the provisions of the new Fingal Development Plan 2023-2029, continue to support the Proposed Project. Section 3.4.2 of the 2023 Addendum Report also reflects the provisions of Policy IUP9 (Sludge Management Plan) contained within the extant Development Plan, which states that Fingal County Council will:

> "*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."*

The 2023 Addendum Planning Report also confirms, that 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 Fingal County Council to achieve its overall strategy.

The Planning Report submitted with the original 2018 planning application highlights within the Project Response in Section 4.1.10.1, the fact that the SHC comprises a use which is an 'Ancillary Use' to the proposed WwTP, with sludge being generated from the treatment of wastewater (i.e. from the proposed WwTP itself).

To further clarify, such wastewater treatment processes at the proposed WwTP forming part of the GDD project, will generate organic matter and settled solids (waste sludge) which will require management, including dewatering, thickening, drying and biogas storage, to produce a suitable sludge end-product. It is therefore appropriate, and in accordance with proper planning and sustainable development, that such management and treatment of sludge, is accommodated and co-located within the WwTP site. It is therefore appropriate, and in accordance with proper planning and sustainable development principles.

As identified within Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR as supplemented by Chapter 3A (Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, the sludge treatment capacity to be provided as part of the Proposed Project, is 18,500 tonnes of dry solids (TDS)/annum, to provide for a projected 750,000 PE at the design year horizon of 2050, with the projected treatment capacity for the WwTP comprising 500,000PE at the 2050 design horizon. The proposed SHC will thus have sufficient capacity to accommodate waste sludge generated at other municipal WwTPs within Fingal. Again, this approach is consistent with proper planning and sustainable development, with the Proposed Project having the capacity to provide sustainable treatment for municipal wastewater sludge and domestic septic tank sludges generated in Fingal to produce a 'biosolid' end-product, so as to consolidate sludge management. This will allow for significant efficiencies and avoid the need for multiple sludge management facilities at a number of different locations. This approach is in accordance with the various policies and objectives (including Policy IUP9 of the extant Fingal County Development Plan) outlined in both the original Planning Report as well as the Addendum Planning Report, submitted to An Bord Pleanála as part of the application documentation.

The provisions of both the extant and previous Fingal Development Plans, note that such ancillary uses rely on the parent use for their existence and rationale (Section 11.6 of the Fingal Development Plan 2017-2023, and Section 13.4 of the Fingal Development Plan 2023-2029), and no reference or reliance is made with regard to the scale of any such ancillary use. In the instance of the Proposed Project, the 'parent' use would be the proposed WwTP, wherein the SHC is an integral part of the proposed WwTP element of the Proposed Project, by virtue of the fact that it will treat all sludge arising / produced in the proposed WwTP. In the above regard, it is again noted that, the objective relating to such uses (Objective ZO4 in the extant Fingal Development Plan), remains as being to '*Ensure that developments ancillary to the parent use of a site are considered on their merits*'.

Further to the above, as previously highlighted within both the original 2018 Planning Report, the 2023 Addendum Planning Report and associated documentation relating to the Proposed Project, the SHC is an important integral element of the proposed WwTP site. It is one of the chief mechanisms which will assist in ensuring the move to a circular economy on-site and the provision for energy recovery from waste sludge, to assist in the transition away from dependency on fossil fuels to a low carbon economy. It will do this by 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. The SHC will therefore ensure a significant reduction in the energy required from external sources for the operation of the proposed WwTP.

2.2.1.2.12 Seveso Registration

This submission stated that the SHC requires a Seveso registration.

The Applicant would like to clarify that the quantities of biogas proposed to be stored at the SHC at the proposed WwTP site does not fall within the lower or upper tier thresholds outlined in Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (also referred to as the Seveso III Directive) for flammable or liquefied flammable gases, which includes biogas. The thresholds for dangerous substances which trigger reporting requirements under the Seveso III Directive are set out in Annex I of that Directive. This Directive was transposed into Irish Law by the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015, which sets out in Schedule 1, the relevant dangerous substances, and thresholds that carry reporting requirements. Notification requirements are imposed on "operators" of "establishments" under that act, and which is either a "lower tier establishment", or an "upper-tier establishment". On the basis that the quantities of biogas proposed to be stored at the SHC

fall below the thresholds established for lower tier establishments under the Act, no notification requirements arise, and further, a Seveso registration is not required for the proposed WwTP site.

It should also be noted that the storage of biogas generated on-site will be temporarily stored as it will be continuously used to generate electricity and recover heat through the Combined Heat and Power (CHP) system.

2.2.1.2.13 Techworks Report

This submission advised that the Techworks website references a turbidity modelling study for the Proposed Project for which Sentinel 2 satellite monitoring was used and the observer requested a copy of the report.

The Techworks Report referenced in this submission is a report on a 2015 desk study carried out for the Applicant on the analysis of satellite data available in 2015 for detection of turbidity features in the Irish Sea around Ireland's Eye, to the east of Portmarnock, Co. Dublin.

The findings of this study were not relied on for the 2018 planning application for the Proposed Project. As such the report is not relevant for the purpose of the Application and was therefore not submitted to ABP as part of the planning application documents.

2.2.1.2.14 Section 50 Consent

This submission stated that the Proposed Project requires a Section 50 consent.

The Applicant would like to clarify that, as outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), the Applicant has no objection to a condition to obtain permission under Section 50 of Number 3 of 1945 - Arterial Drainage Act, 1945, for culverting of any watercourse to be imposed, if required.

2.2.1.2.15 Baldoyle Bay SPA Waterbirds

This submission stated that no stage 2 assessment was carried out for waterbirds for Baldoyle Bay SPA. This submission also raised that a species-by-species assessment of each waterbird that uses the wetland should be undertaken.

The Applicant would like to clarify that this approach is not feasible as conservation objectives are not available for every waterbird species. Only species of Special Conservation Interest (SCI) are assigned conservation objectives. The approach taken in the original 2018 NIS and the 2023 Revised NIS is therefore appropriate (i.e., the SCI "Wetland and Waterbirds [A999]" was assessed), and was carried out in compliance with the Birds and Habitats Directives, and NPWS Guidance on Appropriate Assessment.

In addition, the original 2018 NIS, the 2023 Revised NIS, the 2018 EIAR and the 2023 EIAR Addendum specifically present data at the species level, and risk of adverse impact has been considered at this species level, drawing on the species-specific baseline data (for example as included in Section 6.1.1 of the 2023 Revised NIS and Appendix A of the 2023 Revised NIS).

2.2.1.2.16 Sillogue Nature Development Site / Frog Species

This submission stated that impacts on frog species listed on Annex V of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (also referred to as the Habitats Directive) and protected from unauthorised killing under the Habitats Directive need to be considered, particularly as they were identified by Rob Gandola of the Herpetological Society of Ireland in the Sillogue Nature Development Site (Northpoint National Car Test (NCT) Centre, Ballymun) where the Proposed Project pipeline will be located.

The Applicant would like to clarify that Common frog is scheduled to the Wildlife Act, 1976 (as amended) (hereafter referred to as the Wildlife Acts) and listed on Annex V of the Habitats Directive. It is not a species listed on Annex II of the Habitats Directive and member states do not list Common frog as a qualifying interest

of European sites in their territories. It is not listed on Annex IV of the Habitats Directive and is not a species subject to the strict protection regime in accordance with Article 12 of the Habitats Directive (unlike otters or bats, for example). It is subject to the obligations under Article 15, which may require their exploitation or taking specimens of this species from the wild to be done under 'management measures' and prohibits the capture and killing of these species by methods listed in Annex VI to the Habitats Directive.

As Common frog is not listed in Annex II to the Habitats Directive, it does not feature in an AA conducted in accordance with Article 6 of the Habitats Directive.

Being listed on Schedule V to the Wildlife Acts, Common frog is subject to the protection afforded by Section 23 of the Wildlife Acts and it is an offence to hunt or wilfully interfere with or destroy the breeding place or resting place of the species.

That protection puts the Common frog in the same category as smooth newt or badger.

The Applicant confirms that amphibian surveys were conducted in accordance with published guidance and followed the methodology licensed by the National Parks and Wildlife Service (NPWS). As part of the amphibian surveys undertaken for the 2018 EIAR and 2023 EIAR Addendum, the following information was collected at each water body surveyed, as outlined in Appendix A11.3 in Volume 3 Part B of the 2018 EIAR and Appendix A11.1 in Volume 3A Part B of the 2023 EIAR Addendum:

- Presence of fish, frogs, and birds; and
- Number of newts.

With regards the Nature Development Area at Sillogue (Northpoint National Car Test (NCT) Centre site, Ballymun), Section 11.3.2 of Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR noted that along the proposed orbital sewer route between Blanchardstown to Clonshagh, drainage ditches were found and that these habitats are "*breeding sites for common frog*". This point was reiterated to the ABP Inspector in a response to the Oral Hearing presented on 27 March 2019 (included as Appendix A11.3 in Volume 3A Part B of the 2023 EIAR Addendum).

Appendix A11.3 in Volume 3 Part B of the 2018 EIAR also notes that in relation to newt surveys conducted at Site 2, Ballymun, in May and June 2017, sticklebacks, mallard and tadpoles were observed in some of the ponds on-site in both 2015 and 2017. Site 2, Ballymun is located in the Nature Development Area at Sillogue (Northpoint National Car Test (NCT) Centre).

Section 11.4.1 of Chapter 11 in the 2018 EIAR states, in relation to the construction of the Proposed Project through this area, that:

> "*the proposed orbital sewer route shall be constructed through this area by combination of surface trench and directional drill. The temporary direct habitat loss will not undermine the NDA at Silloge Park Golf Club in terms of its potential to achieve longer-term opportunities for habitat improvement as the proposed orbital sewer route will be installed underground, and will pass through only a small part of the NDA. The overall impact is minor adverse and short-term. This is not significant*".

This was again reiterated to the ABP Inspector in a response to the Oral Hearing presented on 27 March 2019 (included as Appendix A11.3 in Volume 3A Part B of the 2023 EIAR Addendum), where it was stated that:

> "*the proposed orbital sewer pipeline will be constructed through this area by a combination of surface trench and directional drill. The temporary effects of construction will not undermine the long term potential of the to deliver habitat improvement*".

The recent smooth newt survey of the NCT Centre site was undertaken in May and June 2023, and presented as Appendix N to Appendix A11.1 (Terrestrial Baseline Survey Report) in Volume 3A Part B of the 2023 EIAR Addendum. Whilst the focus of that survey was smooth newts, frogs or tadpoles of frogs would have been recorded if observed. That survey did not record frogs or tadpoles of frogs. As frog was not recorded in recent newt surveys, its presence was not referred to in the 2023 EIAR Addendum when updating the terrestrial

biodiversity baseline and assessment, as required. However, pre-construction surveys will be undertaken, should a grant of planning be received for the Proposed Project. Should frog be identified during these pre-construction surveys, in any pond habitat to be affected by the construction of the Proposed Project, appropriate mitigation measures will be put in place. This will include the translocation of frog to an alternative suitable pond habitat under licence from the NPWS. The Applicant has prepared Outline Conservation Management Plans in respect of badgers and amphibians in response to the Development Applications Unit submission, which can be submitted to ABP if requested.

In addition the consenting authority dealt with the issue of frogs in the now quashed 2019 planning permission by including a condition covering the scenario of discovering this species post consent during pre-construction surveys, by requiring an application to be made to the NPWS seeking a licence to interfere with or destroy, as the case may be, and to incorporate any NPWS requirements into the actions to be taken before the commencement of construction to the satisfaction of the licence requirements.

In addition, Condition 16 of the quashed 2019 grant of planning required habitat restoration measures to be implemented at the Sillogue Nature Development Area (NDA), in accordance with the requirements of the planning authority, following the completion of construction;

Condition 16

> *"In relation to biodiversity the following shall apply:*
>
> *All works shall be undertaken under the supervision of a suitably qualified Ecological Clerk of Works.*
>
> *Prior to the commencement of the relevant phase of development the applicant shall submit for the written agreement of the planning authorities, full details of all measures to protect badgers, bats, smooth newt and common frog, which shall be based on follow-on surveys where necessary and which shall incorporate any requirements from licences obtained from National Parks and Wildlife Service.*
>
> *Habitat restoration at construction compounds 9 and 10 and at Sillogue Nature Development Area shall be in accordance with the requirements of the planning authority.*
>
> *Reason: In the interest of the amenities of the area and the protection and restoration of biodiversity."*

The Applicant is happy to accept this condition, if attached to any grant of planning.

2.2.1.2.17 Ireland's Eye SAC and the NIS

This submission stated that Ireland's Eye SAC should not have been screened out of the NIS.

The AA screening process for the Proposed Project was undertaken in accordance with all applicable legislation, policy and guidance, as outlined in Section 2 and Section 4 of the 2023 Revised NIS.

The Applicant would like to highlight the text in relation to Ireland's Eye SAC in Section 4.3.1 of the 2023 Revised NIS, which states:

> '*At the oral hearing convened by An Bord Pleanála in March 2019, further explanation in relation to why likely significant effects would not occur on Ireland's Eye SAC was submitted to the An Bord Pleanála Inspector, as follows –*
>
> *"Irelands Eye cSAC was included in Section 4.3 of the NIS which listed the European Sites within the Study Area of the Proposed Project. Table 4-2 listed the European Sites potentially affected by the Proposed Project and summarised the potential pathways for Likely Significant Effects (LSE).*

It was noted in the table that Irelands Eye SAC is designated for terrestrial habitats, specifically vegetated sea cliffs ['Perennial vegetation of stony banks [1220] habitat']. No marine habitats are included in the Qualifying Interests. As the island is fundamentally based on a bedrock outcrop, the aquifer that supports surface soils will be isolated from the marine section of the works by this underlying formation. No construction operations are proposed for the island and therefore there is no potential pathway for LSE.

Consideration has been given to the possible interface with the coastline via sea spray particularly on the designated habitat 'Perennial vegetation of stony banks [1220] habitat'. The NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1 states that the full distribution of the 1220 habitat on the island has not been fully mapped although the habitat was recorded by Moore and Wilson[1] *(1999) and by Ryle et al. (2009). This remains the case. Shingle occurs on the western shore between sand hills and a sandy beach. Map 3 of the document, indicates the plotted habitat on the southern tip of the main island (see Figure 1 reproduced below). The document also states that the shingle beach at Ireland's Eye SAC has poor vegetation, mainly limited to some marram (Ammophila arenaria) at the back of the beach. Curled dock (Rumex crispus), silverweed (Potentilla anserina) with spear-leaved orache (Atriplex prostrata) was also recorded.*

The Perennial vegetation of stony banks habitat is recorded on the south and possibly western side of the island, at a distance of 1.5km from and on. This is the opposite side of Island to the proposed project and plume trajectories. All locations where perennial vegetation of stony banks habitat is recorded within the SAC are in a sheltered part of the island where the likelihood of significant seawater spray is reduced. Furthermore, should it occur, the impact from seawater spray would not cause any impact to this habitat as elevations in suspended sediments or other elevated nutrients from a project would be imperceptible.

In the context of the above, Ireland's Eye SAC was screened out in relation to LSE on the following basis:

Construction Stage:

- *The hydrodynamic model indicated that plume effects during construction dredging on the adjacent north face of Irelands Eye were negligible. A maximum possible predicted elevation, of between 5 and 10mg/l for suspended solids was predicted. This is well below the natural variability of the waters surrounding the island throughout the year (which varied from 15-162mg/l and a median of 23mg/l). The Perennial vegetation of stony banks habitat for which the SAC is designated, is recorded on the south and possibly western side of the island. This is the opposite side of island to the proposed project and plume trajectories.*

Operational Phase

- *The hydrodynamic model indicated that the operational plume did not impact waters immediately adjacent to the Ireland's Eye SAC.*
- *All locations where Perennial vegetation of stony banks habitat is recorded within the SAC are in a sheltered part of the island where the likelihood of significant seawater spray is reduced.*

Furthermore the impact from seawater spray which 'might' contain imperceptible elevations in suspended sediments or other elevated nutrients from a project-related plume would not cause any impact to this habitat, should it occur."

Likely significant effects on Ireland's Eye SAC were not identified, and as such this European site was screened out from further assessment.

[1] Moore D. and Wilson, F. (1999) National Shingle Beach Survey of Ireland 1999. Unpublished report to NPWS, Dublin. Available at: https://www.npws.ie/sites/default/files/publications/pdf/Moore_&_Wilson_1999_Shingle_Beach_Survey.pdf

2.2.1.2.18 Seals and Seal Sanctuary

The submission stated that applicant failed to adequately address the Irish Seal Sanctuary or the conservation custodians of Lambay Island and to separately address the seal breeding colony located on Ireland's Eye in the EIAR. It also stated that the aged nature of the seal census data used in the 2018 EIAR was inappropriate along with concerns over bioaccumulation in foraging seal species.

The presence of both species of pinnipeds were addressed in detail in Section 9.3.7 of Chapter 9 (Biodiversity (Marine)) of the 2018 EIAR. This section clearly stated that the presence of this Annex II species was fully anticipated within the area of construction as these were qualifying species within the Lambay Island SAC (Site Code 00204). Furthermore, it was also noted that there was an expected population located on Ireland's Eye, although this is not listed as a qualifying species nor has a conservation objective for this site. As typical foraging ranges for these species are 10-30km, the actual origin of individuals does not significantly alter the likely presence of this species within the area of impact during construction, or the greater area of diffusion when the outfall is operational and both were fully assessed in the original 2018 EIAR. These were respectively summarised in Tables 9.23 and 9.25, along with proposed mitigation requirements during construction in Table 9.26 of the 2018 EIAR.

In the 2018 EIAR, the census of potential animals was based on original counts for the Lambay SAC with up to 250 adults recorded, but supported by additional data from observations recorded by the IWDG up to 2015.

Revised numbers of animals have been updated in Chapter 9A for the 2023 EIAR Addendum based on a comprehensive thermal imaging survey carried out along all of the Irish coastline in 2017. Numbers indicated significant increase in numbers since the earlier study of 70 harbour seals and 335 grey seals, in this region, and covered a larger area than that in the 2018 Irish Seal Sanctuary census which recorded up to 80 animals around Howth head and Ireland Eye, the majority of which located on the south east and south western shores away from the proposed outfall route.

The bioaccumulation of many compounds is a recognised concern to all marine species in the marine environment. The Proposed Project is designed to increase general water quality within the region through a higher level of treatment than currently employed at existing facilities, including several settlement steps and the introduction of UV disinfection with strict discharge criteria.

As outlined in the 2019 Response to Submission Report, in response to submissions relating to microplastics, the Irish Government invited Public Consultation on the 'General Scheme of the Prohibition of Certain Products Containing Plastic Microbeads Bill 2018' in November 2018. In their submission to the invitation for public consultation, the Applicant welcomed the proposals to prohibit the manufacture, import, export, supply, sale or exposure for sale of certain products that contain plastic microbeads and to provide for the safe disposal of waste products containing plastic microbeads.

Most recently, on 29 January 2024, the European Council and European Parliament reached a provisional political agreement on a proposal to remove microplastics and other micropollutants out of urban wastewater. Under the proposal, at least 80% of the costs needed to remove pollutants in the sewage treatment process would be covered by the pharmaceutical, chemical and cosmetic producers, in line with the 'polluter pays' principle. By 2045, the provisional agreement would require EU member states to remove a broad spectrum of micropollutants from urban wastewater before releasing it to the environment. The provisional agreement will be submitted to the EU members' representatives with the European Council and the European Parliament's environment committee. If adopted, the Directive will be published. The Applicant is supportive of the approach to address the microplastics and micropollutants issue at source rather than by way of end of pipe treatment as it is neither practically nor economically feasible to remove all microplastics and micropollutants during water or waste water treatment. This is consistent with the approach now proposed by the European Union Commission in their proposals for updating the Drinking Water Directive requiring Member States to take measures to ensure that polluters take preventative measures to reduce or avoid the level of treatment required and to safeguard water quality. This principle is equally applicable to waste water discharges and is already implemented in the commercial / industrial sector through trade effluent discharge licensing.

2.2.1.2.19 European Eel

This submission stated that the EIAR failed to assess the impact of the Proposed Project on European eel in terms of dredging and microtunnelling activities.

The Applicant would like to note that the presence of European Eels as a migratory species within Baldoyle Estuary, including the lower reaches of the River Sluice, was acknowledged within the 2018 EIAR (refer to Section 9.3.8 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR). In particular, the species insensitivity to noise impacts created by the microtunnelling operations below the river access was discussed in Section 9.4.2 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR. This insensitivity also applies to the intermittent background noise created by dredging operations especially given the separation of the construction site to the migratory access in Baldoyle Estuary and subsequent river system The assessment of impacts from dredging and micro-tunnelling on European Eel forms part of the assessment undertaken in respect of 'migratory fish' which concludes that any impacts will be short-term and of negligible significance.

2.2.1.2.20 Cumulative Impacts

This submission listed a number of planning applications or amendments to planning consents that have been made since the original GDD application for which a cumulative assessment needs to be carried out. The submission specifically raises that the cumulative discharge impact with Doldrum Bay and Portmarnock Pumping Station was not assessed. The submission also refers to a number of new planning applications in the immediate vicinity of the WwTP. The submission further stated that there was no cumulative impact assessment of the Proposed Project with Dublin Airport, in particular the biogas storage at the proposed WwTP which is under the flight path.

The Applicant would like to note that as part of the 2023 EIAR Addendum, an updated cumulative impact assessment was carried out and is contained in Chapter 23A (Cumulative Impacts and Environmental Interactions) in Volume 3A Part A and in Appendix A23.1 in Volume 3A Part B of the 2023 EIAR Addendum. As part of this assessment, developments have been considered between the original cut-off date applied to the cumulative assessment in the 2018 planning application, of 15 March 2018, to a new cut-off date of 31 July 2023, in order to provide an up-to-date assessment of potential cumulative impacts with other developments. Additionally, the Applicant will be in a position to furnish ABP with updated cumulative impact and in-combination assessments, and any other updated assessments that may be requested by ABP.

Any of the 'other developments' identified in Chapter 23 (Cumulative Impacts and Environmental Interactions) in Volume 3 Part A of the EIAR in the 2018 planning application that have been constructed since the submission of the 2018 planning application, were considered in the updated baseline environment throughout the 2023 EIAR Addendum, as relevant and applicable.

As part of this exercise, the Doldrum Bay Sewage Scheme and the Portmarnock Wastewater Project were assessed for potential cumulative impacts with the Proposed Project. The assessment is contained in Appendix A23.1 in Volume 3A Part B of the 2023 EIAR Addendum.

In respect of the Doldrum Bay Sewage Scheme, the assessment determined that, with the mitigation measures for the Proposed Project in place, no significant cumulative impacts are likely to occur. In particular, the assessment confirms that operationally, the Doldrum Bay project will have a positive impact as it will end existing discharge of inadequately treated wastewater into Dublin Bay south of Howth Head. Therefore, there will be a positive and imperceptible cumulative impact. In respect of the existing discharge, it forms part of the baseline and as such has been considered in the assessment on that basis, and as such does not require to be cumulatively assessed with the Proposed Project.

As the Applicant had anticipated that the Doldrum Bay outfall would no longer be operational at the time that the Proposed Project becomes operational, it was not included in the baseline modelling for the Proposed Project. Subject to the receipt of all statutory consents, it is still expected that the Doldrum Bay outfall will be decommissioned before the Proposed Project is operational.

The assessment of the Portmarnock Wastewater Project determined that, with the mitigation measures for the Proposed Project in place, no significant cumulative impacts are likely to occur. Furthermore, there will be a positive and long-term cumulative impact from a marine water quality perspective, as upgrade works will reduce spill frequency of the surface water outfall at Portmarnock Strand wastewater pumping station onto Portmarnock Beach. The Proposed Project will include tertiary treatment of wastewater to be discharged, thus protecting marine water quality.

The Applicant notes that the new North Runway at Dublin Airport was also considered in the original cumulative impact assessment in the 2018 planning application. This assessment outlined that there was the potential for some construction-related traffic impacts to arise if both projects were to be constructed at the same time, but these increases were already accounted for in the growth factors built into the traffic models for the 2018 planning application and were not considered significant. The new North Runway is now constructed and operational, and therefore, has no potential for cumulative construction impacts with the Proposed Project. The new runway also has no potential for operational cumulative impacts with the Proposed Project, as its flight path is further to the north of the Proposed Project infrastructure than the existing South Runway. The existing South Runway forms part of the baseline environment which was assessed in the 2018 EIAR and the 2023 EIAR Addendum.

2.2.1.2.21 Risk of Biogas Storage

This submission noted that there is risk associated with locating biogas storage tanks in close proximity to residential development and a sports playing field.

The potential risk of a gas explosion due to the release of biogas generated on-site during the anaerobic digestion process was assessed in Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR in accordance with current international best practice and guidelines. Mitigation measures were embedded in the design of the Proposed Project to further reduce the risk of an incident occurring. Following the implementation of mitigation, it was determined that biogas did not present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects.

The identification, control and management of risk is an integral part of the design and assessment process throughout all stages of a project life cycle as it has been for the Proposed Project. The Proposed Project will be designed, built and operated in line with current international best practice and guidelines.

Embedded design measures and additional mitigation measures include:

- The Proposed Project will be constructed in compliance with the latest Safety, Health and Welfare at Work (Construction) Regulations which place a duty on designers carrying out work related to the design of a project to take account of the General Principles of Prevention as listed in Schedule 3 of Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005. The Proposed Project will also comply with the latest Safety, Health and Welfare at Work (General Application) Regulations;
- The Proposed Project design team established a consistent and appropriate means of assessing the risks that may arise from design decisions, and in applying the General Principles of Prevention listed in Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005, proposed mitigation measures to be embedded into the design and operational activities, through Design Risk Assessments; and
- An Environmental Incident Response Plan will be developed by the appointed contractor / operator of the proposed WwTP facility. The Environmental Incident Response Plan will be a live document that undergoes monitoring, review and will be updated throughout the lifetime of the Proposed Project. The risk management assessment of major accidents and / or disasters will be continued on an ongoing basis throughout the planning, design, Construction Phase and Operational Phase of the Proposed Project. Activities on-site will be monitored to ensure that risk does not increase over time on the site.

It should also be noted that all materials used at the proposed WwTP will be stored in a manner that is safe and in line with best industry practice. Fuels and chemicals will be stored in an appropriately bunded area with double skinned tanks. All potentially harmful substances will be stored in accordance with the manufacturer's

guidelines. In addition, all aspects of the works will be watertight, which will include the pipelines, tanks and storage containers.

As part of the 2023 EIAR Addendum, an updated Risk Chapter was produced (refer to Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum) and this updated assessment determined that there was no change required to the level of risk in relation to biogas assessed in the 2018 EIAR.

2.2.1.2.22 Sutton Creek

This submission raised concerns about the raw sewage discharges at Sutton Creek.

The Applicant would like to clarify that there is an historic misconnection of a small number of houses at Sutton Creek into the FCC storm sewer network. As such, this issue is under the remit of FCC and the Applicant therefore cannot make any further comment on this observation. The Applicant will continue to engage with FCC to progress a resolution to this issue.

2.2.1.2.23 Proposed Regional Biosolids Storage Facility (RBSF)

This submission noted that the proposed RBSF element was to be constructed but was under the impression that planning permission for both the Ringsend WwTP Upgrade Project and the Proposed Project was required to be able to construct the RBSF. The submission also stated that the risk of fire at the proposed RBSF and highlighted Condition 12 of the now quashed 2019 grant of planning for the Proposed Project.

The RBSF was included in the 2018 planning application for the Proposed Project and Ringsend WwTP Upgrade planning application, as it is required by both Ringsend and the Proposed Project independently. Since the submission of the 2018 planning application for the Proposed Project, the RBSF has been granted planning permission as part of the Ringsend WwTP Upgrade Project (by ABP Case Reference Number PA29S.301798), and it is under that permission that it is being constructed. It has never been the case that both planning permissions are required to permit the RBSF. The only relevance of the RBSF to this application therefore, is to assess the RSBF cumulatively and in combination with the GDD Project.

Notwithstanding this, the Addendum Planning Report in the 2023 remittal application provides an update to the planning context, where applicable, relative to the RBSF. The Addendum Planning Report notes that permission for the development of the RBSF was granted by ABP (Case Reference Number PA29S.301798), as part of the Ringsend Wastewater Treatment Plant Upgrade Project in April 2019. The description of the 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. In addition, Volume 4A Part A and 4A Part B of the 2023 EIAR Addendum addressed any updates to the RBSF impact assessment to account for any changes to the baseline environment (including required update surveys), and any changes to the law, policy and industry standards and guidelines since the submission of the 2018 planning application for the Proposed Project.

In relation to the observation raised about Condition 12 of the now quashed 2019 grant of planning by ABP, the Applicant would like to clarify that the assessment of potential environmental impacts on water quality is provided in Section 4.5 in Volume 4 Part A of the 2018 EIAR, as supplemented by Section 4.5 in Volume 4A Part A of the 2023 EIAR Addendum. The assessment of potential impacts associated with fire water is specifically addressed in Section 4.5.3.2 in Volume 4 Part A of the 2018 EIAR. The mitigation measures proposed to address this risk are detailed in Section 4.6.2.2 in Volume 4 Part A of the 2018 EIAR, and summarised in Appendix 17 (CEMP) provided in Volume 4 Part B of the 2018 EIAR, as supplemented by Appendix 17A (CEMP Addendum) in Volume 4A Part B of the 2023 EIAR Addendum.

Since the surface water drainage system for the Proposed Project drains to a single outlet, the proposed mitigation measure involves providing a shut-off valve at the outlet to the stream and containing any contaminated fire water runoff on the site. The environmental impact assessment of fire water has been demonstrated in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, and it is appropriate that further details of mitigation measure be agreed post-consent with the relevant authority.

2.2.1.2.24 Phasing of the Proposed WwTP

This submission stated that the EIAR and NIS should include the expanded capacity of the proposed WwTP (i.e., 750,000 PE) and not just the current phase 1 capacity (i.e., 500,00 PE).

The Applicant clarifies that planning is only being sought for a 500,000 PE WwTP. Therefore, the EIAR and NIS are only required to consider the development for which permission is being sought. Any future expansion of the proposed WwTP, and consequent increase in WwTP capacity, would be subject to separate consent processes and assessed accordingly.

2.2.1.2.25 Blanchardstown Regional Drainage Scheme (BRDS)

This submission queried the storage capacity in the sewer network, the potential for use of existing emergency overflows on the network and the construction of the GDD reception chamber as part of the BRDS.

The Proposed Project diverts existing flow and load from within the 9C and north fringe sewer catchments to a new wastewater treatment plant and does not introduce any new flow or load into the network. Storage capacity was considered under the relevant network development projects including the Blanchardstown Regional Drainage Scheme, Planning Reference FW 17A/0083. The Proposed Project diversion points for the Orbital Sewer and North Fringe Sewer were considered with respect to the location of storage within the existing network.

The proposed pumping arrangement does not facilitate surcharge from the North Fringe Sewer into the 9C sewer network. Flows from the proposed Abbotstown pumping station and the existing Ballymun pumping station can be slowed or stopped for a period of time, with the large storage volumes available in the network mobilised to retain flows. This storage volume allows for a period of 6 hours at average flow for problems to be rectified.

The Proposed Project does not introduce any new emergency overflows into the existing network. The risk of a potential discharge of untreated wastewater during Commissioning and the Operational Phase has been addressed in Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A in the 2023 EIAR Addendum and at the 2019 Oral Hearing in the Brief of Evidence delivered on Risk of Major Accidents and / or Disasters.

The Blanchardstown Regional Drainage Scheme, including the chamber referenced in this submission as the as built chamber (referred to as the GDD reception chamber), was constructed pursuant to planning reference FW 17A/0083.

As noted in this submission, the chamber is part of the interface between the BRDS and the Proposed Project. As per Section 3.1 of the BRDS EIAR, the BRDS included, inter alia, underground works and local sewer diversions. As described in Section 4.3 of Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR for the Proposed Project:

> *'The proposed orbital sewer route, which will run from Blanchardstown to Clonshagh, will transfer flows from the existing Blanchardstown drainage catchment, which includes Blanchardstown and its environs, and towns and villages in Meath, including Ashbourne, Ratoath, Kilbride, Dunboyne & Clonee, to the proposed WwTP at Clonshagh. The proposed orbital sewer route will commence in the grounds of Waterville Park, Blanchardstown, where it will intercept the existing Blanchardstown main sewer line, known as the 9C Sewer'.*

The Applicant would like to note that this chamber sits within the redline boundary of the BRDS, and as such, was constructed as part of that project (planning reference FW17A/0083). It was always envisaged that the BRDS would facilitate future flow diversions to the Proposed Project (i.e., the 'North Dublin Regional WwTP' as it is referenced in the BRDS permission):

'The proposed 9CSD will allow for part of the sewage load to be diverted from Ringsend WwTP and transferred to the proposed North Dublin Regional WwTP, once this is commissioned, thus alleviating the pressure on the Ringsend plant.'

2.2.1.2.26 Bentonite Breakout

2.2.1.2.26.1 Borehole Sampling

The submission stated that no borehole samples were taken on any section of the proposed outfall pipeline route that spans the Estuary, casting doubt on the accuracy of the information relied upon to discount the possibility of a breakout.

The Applicant would like to clarify that the accuracy of the information available to inform the 2018 planning application and the 2023 remittal application is fully adequate. While there is no available information from beneath the protected marshland habitat, borehole samples were taken on either side of the marshlands, and geophysical surveys were undertaken to the west of the alignment in this area, in accordance with industry practice. Assessments carried out by qualified specialists normally use such datasets, coupled with information gathered from desk studies, to predict and interpret the likely ground conditions in a given area.

Given the information available for the Proposed Project, from both desk-based sources and the two phases of site-specific ground investigations that were carried out, the ground model beneath the Estuary is as outlined in Table 2.2.

Table 2.2: Proposed Ground Model Beneath Baldoyle Estuary

Western Side of the Estuary	Eastern Side of the Estuary
Glacial Tills from GL (8mOD) (metres above Ordnance Datum)	Sands and Gravels from GL (2.8mOD to 10mOD)
Weathered Rock from -7mOD to -15mOD	Glacial Tills from -10mOD to -12mOD
Rock from -15mOD	Roch from -12mOD

The invert of the marine tunnel section is approximately -14mOD to -19.1mOD, located mainly within the bedrock beneath the site. This would mean that, if bentonite breakout did occur, it would have to migrate through approximately 15m to 20m of rock and soils which are described as fine-grained firm to stiff clays which appear at the surface, and has been determined by appropriate specialists as unlikely to occur.

This submission also stated that, in relation to borehole sampling, a fault was identified in borehole samples for the subsurface of proposed construction compound no. 10. The submission continued that this fault was not noted in the planning application.

The Applicant would like to clarify that the borehole at proposed construction compound no. 10 (i.e., BH14A) did not identify a fault. The geophysical survey in that area, which the submission has referenced and reproduced in Appendix Drawing Bundle A16, highlights several areas located at transition points between heavily weathered bedrock and moderately weather bedrock. These were flagged by the geophysical consultant as '*possible faults or fractured zones*'.

The submission also made an observation that the sample analysis for Borehole 136 (BH136) did not appear in the reports in the 2018 planning application.

The Applicant would like to clarify that BH136 was cancelled during the ground investigation process and was never drilled or sampled. This is due to the fact that Borehole 137 (BH137) was located less than 20m from the proposed location for BH136, and was therefore determined to be representative of the ground conditions at BH136.

2.2.1.2.26.2 Bedrock Fold

This submission stated that the fold is not discussed or mentioned anywhere in the NIS or 2018 planning application, although it does appear in Map 3 of 3 in Chapter 18 of the 2018 EIAR.

The Applicant would like to clarify that this fold is mentioned in Section 18.3.3 of Chapter 18 (Soils and Geology) in Volume 3 Part A of the 2018 EIAR, which states:

> '*An anticlinal bedrock fold axis is shown on the geological maps in this area, trending north-east to south-west as can also be seen in Figure 18.2 Bedrock Geology Blanchardstown to Clonshagh (Sheet 2 of 3) and Figure 18.2 Bedrock Geology Portmarnock to Proposed Outfall Location (Sheet 3 of 3)*'.

While the presence of the fold was noted in the 2018 EIAR, it was assessed as not having any potential for an impact on the Proposed Project.

2.2.1.2.26.3 Mitigation

This submission stated that the mitigation measures in relation to bentonite breakout are remediation measures and cannot be considered mitigation, and once compensatory measures rather than mitigation measures are the only option, Article 6(4) of the Habitats Directive is triggered.

The Applicant would like to clarify that the control and management of pressures during microtunnelling operations is the principal check and balance to reduce the risk of bentonite breakout. This is how the volume of bentonite that would escape will be minimised in the unlikely event of such an occurrence.

Mitigation measures involving washing, pumping and spraying are similar in nature to spillage clean up measures proposed as part of pollution prevention. The Applicant rejects the inference that bentonite mitigation by flushing and diluting, just like pollution spill kits, is a compensatory measure, and as such, is wrongly proposed as mitigation as part of an Article 6(3) assessment. The Applicant rejects the assertion that such measures can only be applied as part of an Article 6(4) derogation.

2.2.1.2.26.4 Bentonite Breakout and Tunnel Bore Brief of Evidence

This submission stated that there is an extreme likelihood of air breakout occurring at the marine based outfall section of the Proposed Project, every time maintenance intervention is required. The submission also refers to a tunnel bore brief of evidence for the Corrib pipeline in the west of Ireland.

The Applicant notes that, in line with page 264 of the Inspector's Report for the Proposed Project, for the previous 2019 grant of permission, it is possible that air breakout could occur. However, as previously mentioned in this Report, tunnelling will be at a depth of approximately 15m to 20m below ground level. The materials expected to overlay the proposed outfall pipeline route (marine section) are described as rock and soils, which are noted as fine-grained firm to stiff clays which appear at the surface. It is therefore considered unlikely for air breakout to occur through this overlying material. The Inspector's Report specifically noted that:

> *'The evidence was that there were no bentonite breakouts at the Corrib tunnel which was a longer and larger structure. The observers commented on air breakouts which were recorded and the response of Irish Water referred to the greater surface area and the highly pressurised nature of the tunnel at Corrib. Depressions did occur at Corrib during tunnelling sand. There is potential for air breakout as a result of tunnelling but habitat impacts be very small. Changes to the channel are considered extremely unlikely and almost impossible and as an estuary it is constantly mobile and the ecological functions would not be changed and certainly there would not be damage to sediments so as to affect the conservation objectives.'*

It should also be noted that where air breakout occurred in the Corrib pipeline tunnel, the tunnel bore machine was progressing through sand, which is a significantly more permeable granular material than the overlying cohesive clays / glacial tills anticipated at the proposed outfall pipeline route (marine section) location for the Proposed Project.

2.2.1.2.27 Harbour Porpoise and Bioaccumulation

This submission raised an observation about the impact of the bioaccumulation of pathogens, chemicals, toxins and hard metals on Harbour porpoise.

The Applicant would like to clarify that the sediment conditions during the Construction Phase of the proposed outfall pipeline route (marine section) were highlighted in Section 9.3.3 in Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum. In addition control measures to prevent the release of on-site construction chemicals during construction were dealt with in Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum.

The dispersion characteristics of the operational outfall have been outlined comprehensively in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the of the 2023 EIAR Addendum. The extensive updated modelling undertaken as part of the 2023 EIAR Addendum demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. In addition, the updated modelling demonstrated that the Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies. The Proposed Project will also not influence any designated bathing water beaches (as regulated under Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC (also referred to as the Bathing Waters Directive)) nor Blue Flag beaches or designated shellfish waters (as regulated under Directive 2006/113/EC of the European Parliament and of the Council of 12 December 2006 on the quality required of shellfish waters (also referred to as the Shellfish Waters Directive)).

Whilst all predatory species have the capability of bioaccumulation of chemicals, the control and sterilisation treatment proposed for the Proposed Project will maintain overall water quality within the vicinity of the proposed outfall. This is expected to have no impact on the foraging range of either the porpoise or their key prey species (fish).

2.2.1.2.28 UV Treatment and Neutralising Pathogens / Bacterial Disease

This submission raised an observation that UV treatment is not 100% effective at neutralising pathogens and bacterial disease and the Proposed Project will add to further degradation of the marine environment in this area, and will impact harbour porpoise. The submission continues that viruses could wipe out whole communities of porpoise and this impact has not been assessed for these SCI species.

The dispersion characteristics of the operational outfall have been outlined comprehensively in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the of the 2023 EIAR Addendum. The extensive updated modelling undertaken as part of the 2023 EIAR Addendum demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. In addition, the updated modelling demonstrated that the Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies, and will not influence any designated bathing water beaches nor Blue Flag beaches or designated shellfish waters.

2.2.1.2.29 Microplastics

This submission stated that the issue of microplastics has not been responded to by the Applicant.

As outlined in the 2019 Response to Submission Report (Uisce Éireann 2019), in response to submissions relating to microplastics, the Irish Government invited Public Consultation on the General Scheme of the Prohibition of Certain Products Containing Plastic Microbeads Bill 2018 in November 2018. In their submission to the invitation for public consultation, the Applicant welcomed the proposals to prohibit the manufacture,

import, export, supply, sale or exposure for sale of certain products that contain plastic microbeads and to provide for the safe disposal of waste products containing plastic microbeads.

In addition, the Microbeads (Prohibition) Act 2019 was enacted in December 2019 and is now in force. This Act regulates the placing on the market of products containing microbeads in Ireland. The Act sets out the rules and the legal obligations for anyone that makes, imports or sells products containing microbeads in Ireland and prohibits the disposal of such substances containing microbeads to waters (inland or marine), drains and to WwTPs (municipal or domestic). The Act nominates the EPA as the Competent Authority responsible for its enforcement. Further details are available on the EPA website (EPA 2024).

Most recently, on 29 January 2024, the European Council and European Parliament reached a provisional political agreement on a proposal to reduce micropollutants out of urban wastewater. Under the proposal, at least 80% of the costs needed to remove pollutants in the sewage treatment process would be covered by the pharmaceutical, chemical and cosmetic producers, in line with the 'polluter pays' principle. By 2045, the provisional agreement would require EU member states to remove a broad spectrum of micropollutants from urban wastewater before releasing it to the environment. The provisional agreement will be submitted to the EU members' representatives with the European Council and the European Parliament's environment committee. If adopted, the Directive will be published.

The Applicant is supportive of the approach to address the microbeads and microplastics issue, from which nano plastics are derived, at source rather than by way of end of pipe treatment, as it is neither practically nor economically feasible to remove plastic microbeads during water or waste water treatment.

This is consistent with the approach now proposed by the European Commission in their proposals for updating the Drinking Water Directive requiring Member States to take measures to ensure that polluters take preventative measures to reduce or avoid the level of treatment required and to safeguard water quality. This principle is equally applicable to wastewater discharges and is already implemented in the commercial / industrial sector through trade effluent discharge licensing.

2.2.1.2.30 Bioaccumulation and Microplastics Impact on Nephrops

This submission raised an observation that the impact of bioaccumulation of microplastics in Nephrops was not assessed.

The Applicant would like to clarify that the ecology and commercial status of shellfish was covered in Section 9.3.8 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum. Whilst the Norwegian lobster (*Nephrops norvegicus*) is not a common or commercial species within the vicinity of the proposed marine outfall, due to the water depth and ground conditions (i.e., geology) in this location, it is an important offshore fishery in the soft deep-water sediments of the western Irish Sea. The closest proximity of these fishing grounds is approximately 40km north-east of the proposed marine diffuser.

The chemical and physical properties of the treated discharge are outlined in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum. The extensive updated modelling undertaken as part of the 2023 EIAR Addendum demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. In addition, the updated modelling demonstrated that the Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies, and will not influence any designated bathing water beaches nor Blue Flag beaches or designated shellfish waters. As such, and having regards to:

- the assessments carried out in Section 9.3.8 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum, and
- the proximity of these fishing to the proposed marine diffuser,

it is not considered that the Proposed Project will result in significant negative effects on the Nephrops norvegicus.

In relation to microplastics, please refer to the response provided in Section 2.2.1.2.29 above.

2.2.1.2.31 Light-Bellied Brent Geese and Construction Compound No. 9

This submission outlined that there is the potential for an impact to Light-bellied Brent Geese in the vicinity of proposed temporary construction compound no. 9.

The Applicant would like to clarify that the distribution and abundance of Light-bellied Brent Geese has been established through long-running baseline surveys, supported by desk studies, for the Proposed Project. This has been reported in Chapter 10 (Biodiversity (Marine Ornithology)) and Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR and the NIS in the 2018 planning application, as supplemented by Chapter 10A (Biodiversity (Marine Ornithology)) and Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum, and the Revised NIS in the 2023 remittal application (see in particular Drawing Number 32102902-EIAR-A102 / Figure A10.2 in Appendix A of the 2023 Revised NIS).

Therefore it is not correct to say that the Applicant '*has tried to diminish the value of these sites for the Light-bellied Brent Goose*'.

Furthermore, the points raised in this submission in relation to light-bellied brent geese have already been effectively covered in the Affidavit of Dr Simon Zisman, responding to the Supplemental Affidavit and the Affidavit of Paul Lynch during the Judicial Review proceedings in respect of the original grant of planning for the Proposed Project . In summary, Dr Zisman's Affidavit highlighted inter alia that:

a) The Quiet Zone is located outside Baldoyle Bay SPA;
b) The purpose of the Quiet Zone is to cater for use by Brent Geese and wader species;
c) The baseline environment within Baldoyle Bay SPA is the core habitat for its over-wintering birds. The SPA and its surroundings contain numerous sources of potential disturbance stimuli for birds, including dog walkers and overflying aircraft;
d) These species are therefore habituated to humans and existing noise and visual stimuli to a degree. This is particularly the case with Brent Geese;
e) Only one source of noise stimuli was identified from the Proposed Project that would exceed existing stimuli to an extent, namely noise from the piling of the jacking shaft at the microtunnelling compound (which will last for two weeks). In any event, construction compound no. 9 lies under the flight path for Dublin Airport, and this factor, together with other sources of existing background noise, reduce the sensitivity to disturbance from piling. The main sensitivity to disturbance is from visual presence of people and, particularly, the dogs that accompany many walkers;
f) Activity within construction compound no. 9 has the potential to cause visual stimuli that would exceed existing stimuli, and this potential impact will be addressed by installing a 2.4m high hoarding around construction compound no. 9 before construction activity commences. Hoarding will be completed outside the wintering bird season. The hoarding will be used for the duration of the construction works at construction compound no. 9. The use of this hoarding will mean that works within construction compound no. 9 will occur out of sight of the birds in Baldoyle Bay SPA, as referenced in Section 7.1 of the 2018 NIS and 2023 Revised NIS; and
g) Given their level of habituation, this temporary presence of construction compound no. 9 would cause no significant visual disturbance stimuli to Brent Geese or waders.

This assessment, and the evidence on which the conclusions of the 2018 EIAR and 2018 NIS were based were fully accepted by ABP and the NPWS.

It is evident from the desk study data and survey work reported in the documents above that the area is used from time to time by Light-bellied Brent Geese, depending on a range of factors, notably the availability of agricultural fields, state of the tide and weather conditions. The occasional use of this location is therefore not

in dispute. It has been fully assessed, and in the 2018 EIAR and 2018 NIS, as supplemented by the 2023 EIAR Addendum and 2023 Revised NIS, impacts on this species resulting from the temporary location of construction compound no. 9 have been found to be localised, negligible (in terms of bird numbers), temporary, and reversible.

Notably, because the footprint of construction compound no. 9 is also limited, a great majority of the Quiet Area will remain available throughout the Construction Phase for Light-bellied Brent Geese (and other species) to continue any use for foraging. The fact that the geese will do so, and will not be prevented by the construction activity at construction compound no. 9 is supported by the high level of habituation to a wide range of human activities already evident in and around known foraging sites. For example, the submission noted the development by Crekav Ltd. (ABP decision- Board Direction BD-001078-18 ABP-302225-18), and the important goose foraging sites in the Dublin Region identified in the NIS for this application (NIS Information for Stage 2 Appropriate Assessment Proposed Residential Development, St. Paul's College, Sybil Hill, Raheny, Dublin 5), Tables 4 and 6 and NIS Appendix C and D) (Scott Cawley 2017)), include numerous sites immediately adjacent to areas of substantial human activity. For example, Portmarnock Public Park (see extract below from Appendix C of NIS Information for Stage 2 Appropriate Assessment Proposed Residential Development, St. Paul's College, Sybil Hill, Raheny, Dublin 5) (Scott Cawley 2017)).

Image 3: Extract from Appendix C: Location maps of all known inland feeding sites for brent geese in the Dublin area from NIS Information for Stage 2 Appropriate Assessment Proposed Residential Development, St. Paul's College, Sybil Hill, Raheny, Dublin 5

To further illustrate the point, the level of exposure to human activity that geese using Portmarnock Public Park are exposed to is evident in Image 4 below. Although not evident in the image, from personal observation at this location, Portmarnock Public Park is used by walkers (including with dogs), and has a footpath running across it, but nonetheless, Light-bellied Brent Geese were seen feeding within close proximity to busy road traffic and within 15m of walkers in the park.

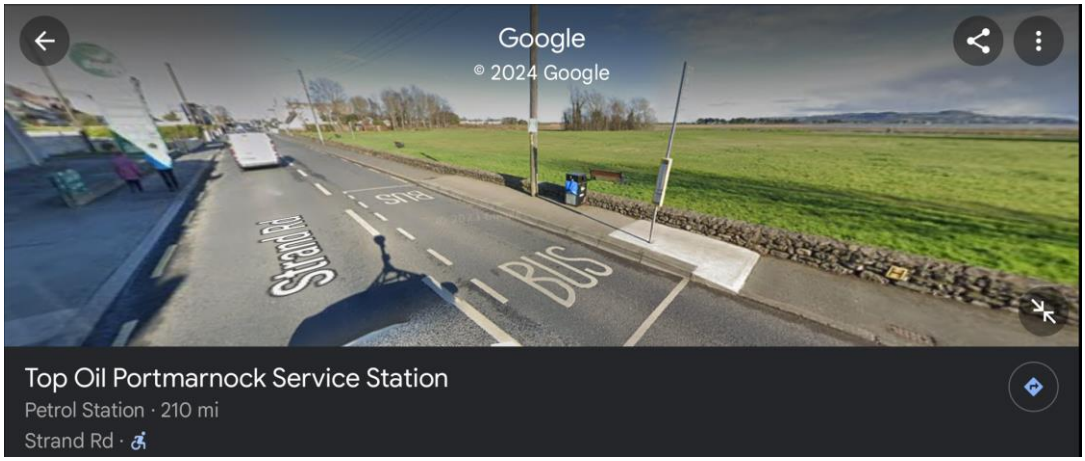

Image 4: Street View of Portmarnock Public Park (Google Earth 2024) (accessed 19.07.2024)

As an aside, that whilst highlighted by L. Benson in 2009 (as noted in paragraph 1.09 of this submission), it is notable that the Scott Cawley NIS (Scott Cawley 2017) does not list the Quiet Zone as an important site for Light-bellied Brent Geese, out of 161 sites identified.

Therefore, having considered the points raised in this submission in relation to Light-bellied Brent Geese (including the Citizen Science Report included as Appendix 23 to this submission), the conclusions of the 2018 EIAR and 2018 NIS, and the 2023 EIAR Addendum and the 2023 Revised NIS, in relation to the effects of construction compound no. 9 on this species, remain valid.

Responding to the observation in this submission that there has been a historic breach of the Habitats Regulations during the consents and mitigation associated with the rezoning of Maynetown and associated subsequent development, the time period to challenge the Portmarnock South Local Area Plan (LAP) and the mitigation measures proposed within that plan has long since passed. As such, the Proposed Project is entitled to rely on the Portmarnock South LAP and the mitigation measures within that LAP as legally valid and sufficient.

Regardless, as concluded in the 2018 NIS (as supplemented by the 2023 Revised NIS), and as reiterated in the Affidavit of Dr Simon Zisman, the key points are that the Quiet Zone is located outside Baldoyle Bay SPA, that birds in the area are habituated to substantial levels of human activity already, and the short-term construction activity required for construction compound no. 9 will be screened (as referenced in Section 7.1 of the 2018 NIS and the 2023 Revised NIS). Therefore, no significant disturbance to Brent Geese is predicted within the Quiet Area and there will be no adverse effect on Baldoyle Bay SPA as a result.

With respect to the specific points raised on the Quiet Area, the submission also highlighted that it is also set to accommodate the Applicant's proposed drainage infrastructure (noting Figure 8 on page 54 of the submission shows the infrastructure involved). The submission asserts that this additional infrastructure in the Quiet Area will '*introduce continuous disturbance from service vehicles and Irish Water staff maintaining the access chambers and vents*'. This assertion is inaccurate, as any maintenance visits required will be infrequent and of short-duration.

Whilst the Applicant's final composition and design for this infrastructure is subject to further refinement (specifically the removal of the sustainable drainage system (SUDS) pond under planning reference LRD0037/S3, which is awaiting verification), the surface footprint was limited, and the effect of the proposed drainage infrastructure on natural heritage has already been assessed and suitable mitigation measures put in place, through planning application reference F19A/0400.

Finally, in response to Section 13 of the submission on the Portmarnock Pumping Station, in the Inspector's Report ABP307641-20 on the Appeal by Catherine McMahon and Sabrina Joyce Kemper, the Senior Planning Inspector, in his 24 November 2020 decision, completed his own independent and comprehensive appropriate assessment in respect of the proposed Portmarnock Pumping Station development (set out in paragraph 10.8 of that ABP307641-20 report) and concluded, in common with that project's own NIS and revised NIS, that

with the mitigation included that (to mitigate against disturbance risk, elements of the construction works would be restricted to outside the October to April Light-bellied Brent Geese wintering season) there would be no adverse effect on the integrity of Baldoyle Bay SPA or its qualifying species, either from the project alone or in combination with other plans or projects (noting the in-combination aspect was covered in Section 10.8.3, and included the Proposed Project). The same conclusion was reached in the July 2021 NIS (Mott Macdonald 2021) for the Portmarnock Pumping Station and Associated Works, under planning application reference F21A/0389. Following a further appeal, the ABP Planning Inspector's Report (ABP-314663-22, dated 3 April 2024), completed their own AA (as outlined in Section 7.9 of their report), and having again re-visited matters of bird survey data (notably in paragraphs 7.9.30 to 7.9.35), in-combination effects, and mitigation in relation to disturbance in the Quiet Zone, outlined that they were '*satisfied that based on the design of the proposed development, combined with the proposed mitigation measures, adverse effects on the integrity of Baldoyle Bay SPA and Baldoyle Bay SAC can be excluded with confidence in view of the conservation objectives of those sites*'.

2.2.1.2.32 Consultation on the Remittal Application

This submission stated that the public should be allowed to comment on the new additional information relating to the inclusion of UV treatment. The submission also stated that a number of prescribed bodies including councils were not given the statutory opportunity to comment on this amendment.

In a letter from ABP to the Applicant, dated 26 August 2022, ABP outlined that given the passage of time since the submission of the planning application in 2018 and the intervening High Court proceedings, and in accordance with Section 37(1)(a) of the PDA, the Applicant should have the opportunity to update the EIAR and NIS and any other information submitted, as appropriate. The Applicant welcomed the opportunity to update the information submitted to ABP in June 2018 and prepared a submission of the Remittal Application, which was submitted to ABP on 26 October 2023, following a grant of extension by ABP in a letter dated 28 February 2023.

The Further Information addressed changes to the baseline since the original 2018 planning application and updates to the design of the Proposed Project following the Oral Hearing in 2019, notably the inclusion of UV treatment at the proposed WwTP and an extension to the River Mayne Culvert, as conditioned by ABP in the original grant of planning, which was quashed. The Further Information submitted ensured that:

- All surveys that were required to be updated were undertaken and the results assessed, such that both the EIAR and NIS are complete as required by law;
- Any changes to the planning context have been fully considered, in particular the Fingal Development Plan 2023-2029 (FCC 2023) which is now adopted; and
- ABP has the information necessary to allow it to comply with its legal obligations under Section 15 of Number 46 of 2015 - Climate Action and Low Carbon Development Act 2015, as amended.

Following the submission of the Further Information, ABP, in a letter dated 07 March 2024, outlined that the Further Information submitted in October 2023 "*contains significant additional data in relation to the effects on the environment of the proposed development and it therefore requires you in accordance with sub-section 2(b) of 37F of the Planning and Development Act 2000, as amended, to*":

- Publish newspapers notices in the same newspapers that the original application notification was published, stating that the significant Further Information has been provided to ABP, and the Further Information will be available for inspection or purchase at the same locations that the original application was made available, and that submissions or observations in relation to the Further Information may be made in writing to ABP before a specified date;
- Send notice of the submission of the Further Information to ABP, along with a copy of the Further Information to the prescribed bodies stating that submissions or observations in relation to the Further Information may be made in writing to ABP before a specified date; and
- Allow for no less than 30 days for interested parties to provide submissions or observations.

Following the invitation from ABP for a formal consultation period on the Further Information, the Applicant published notices in The Herald and the Irish Independent on 07 May 2024 (see Appendix A for copies of the

published newspaper notices), outlining that the Further Information was available to view from 07 May to 07 June 2024, at FCC's offices in Swords and Blanchardstown, DCC's office at Wood Quay and at the ABP offices on Marlborough Street, in line with the locations provided for during the original 2018 application consultation. The Further Information was also made available to view on ABP's website under planning reference number 312131 and on the dedicated project website (www.gddapplication.ie). Prescribed bodies and the circumstances in which notice is required to be furnished to them, are set out in Article 28 of the Planning and Development Regulations 2001 (as amended). The original prescribed bodies, with the inclusion of the Maritime Area Regulatory Authority (MARA), were furnished with a letter and a copy of the Further Information, informing each prescribed body of the consultation period and affording them the opportunity to make submissions in accordance with their function as a statutory consultee. The consultation period ran from 07 May to 07 June 2024 (a total period of 32 days), and allowed for prescribed bodies, members of the public and other interested parties to review the Further Information and provide a submission or observation to ABP, in line with the submission requirements set by ABP. The submissions and observations received during this consultation period, the 2024 submissions are addressed in Section 3 of this Report.

2.2.1.2.33 Significant Industrial Customer (SIC)

This submission stated that the SIC in Kildare should have been named so that their hazardous effluent components could have been addressed by the public and statutory bodies. The submission notes that this SIC utilises water recycling infrastructure at their other international plants and queried why this technology cannot be used at the Kildare facility.

The Applicant has demonstrated that the final effluent from the proposed WwTP will be discharged to the Irish Sea in compliance with Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (as amended) (also referred to as the Urban Waste Water Treatment Directive). The Applicant is not in a position to comment on individual customers who connect to their wastewater network as these are subject to licensing agreements with the EPA. In addition, the issue of water recycling at this IE licensed site is a matter for the SIC to address independently.

2.2.1.2.34 Dublin Airport / New Runway

This submission stated that there was no cumulative impact assessment of Dublin Airport and the Proposed Project, including the new North Runway. The submission also raised concerns over the risk associated with the location of biogas storage tanks at the proposed WwTP under the flight path of the South Runway.

The Proposed Project will be located in the vicinity of the original South Runway (Runway 10R-28L) flight path at Dublin Airport, and this was therefore assessed as part of the 2018 EIAR. The assessments for the 2018 EIAR concluded that there is no potential for impacts to the operation of this flight path as a result of the Proposed Project. The design of the Proposed Project has accounted for this flight path and included specific measures to ensure the reduction in the potential for impacts (for example, the decision was taken to cover all tanks at the proposed WwTP to prevent attracting birds to open sources of water within the flight path). This assessment and its determination were considered in the review of the studies and assessments underpinning the application that was carried out following ABP's request for further information, and remain unchanged in the 2023 EIAR Addendum.

Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR also considered the vulnerability of the Proposed Project to and from the flight path in the vicinity (including the risk of aircraft-related accidents and the presence of the biogas storage tanks at the proposed WwTP (please also see the response under Section 2.2.1.2.21 above)), and concluded that this did not present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects.

The new North Runway (10L-28R) which became operational in 2022 was considered as part of the baseline for the 2023 EIAR Addendum. The North Runway flight path is further north of the Proposed Project infrastructure. Therefore, there is no potential for risk associated with the new runway, above those already assessed for the South Runway.

2.2.1.2.35 Compulsory Purchase Order (CPO)

This submission stated that ABP should seek legal advice on the ability of the Applicant to CPO lands.

The Applicant would like to clarify that the CPO process in relation to the Proposed Project (ABP Ref. 302039) has been completed and the CPO confirmed.

2.2.1.2.36 Solar Power / Rainwater Harvesting

This submission queried why no solar or rainwater harvesting was included in the design of the Proposed Project.

The 2023 Addendum Planning Report included as a standalone document in the 2023 remittal application, outlines that there is considerable scope for the proposed WwTP 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 though energy recovery, while also ensuring the future wastewater needs of the GDA are met.

The Proposed Project has always included 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.

2.2.1.2.37 Piling

This submission stated that there was no assessment of piling of the outfall or the fibre optic cable crossing (including risk of damage to the cable).

The Applicant would like to note that the potential impacts that could result from the requirement for piling for the tunnel interface and the fibre optic cable was assessed in the 2018 EIAR (particularly in relation to marine ecology in Chapter 9 (Biodiversity (Marine)), Chapter 10 (Biodiversity (Marine Ornithology)) and Chapter 15 (Noise and Vibration) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)), Chapter 10A (Biodiversity (Marine Ornithology)) and Chapter 15A (Noise and Vibration) in Volume 3A Part A of the 2023 EIAR Addendum). Following the implementation of the mitigation measures outlined in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, no significant residual impacts are likely to occur as a result of piling activities.

In addition, the CEMP included as a standalone document in the 2018 planning application, as supplemented by the Addendum to the CEMP included as a standalone document in the 2023 EIAR Addendum, details the construction methodology to be applied when crossing the sub-sea fibre optic cable using piling techniques to ensure that this is carried out safely. A Project Supervisor Design Process (PSDP) was appointed for the planning stage of the Proposed Project and the Applicant will make the required appointments in advance of the commencement of detailed design and construction stages. These will include PSDP for the detailed design phase, contractor and project supervisor construction stage (PSCS). During the development of the Proposed Project, the PSDP will coordinate the designers and ensure that all risks are assessed. The PSDP will prepare the Preliminary Health and Safety Plan in advance of the Construction Phase and this will inform the appointed contractor of particular risks, residual risks and particular sequences of work during the design of the Proposed Project, which will include the proposed piling works.

2.2.1.2.38 Electricity Capacity and Consumption at the Proposed WwTP

This submission raised concerns about the current lack of electricity capacity in Ireland, and noted that a proposed WwTP would be one of the highest electricity consumers.

The Applicant would like to highlight that 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 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed

Project) in Volume 2A Part A of the 2023 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 CHP generators to satisfy over 50% of the facility energy demand. 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.

The proposed energy recovery (through advanced sludge digestion processes, the 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. These represent the main elements of the advanced sludge treatment processes to maximise energy recovery.

As outlined above and described in the Addendum Planning Report, there is also considerable scope for the proposed WwTP 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 though energy recovery, while also ensuring the future wastewater needs of the GDA are met.

2.2.1.2.39 Freshwater / Temperature Impacts of Discharges on Marine Ecology

This submission stated that no assessment of freshwater impacts / temperature impacts of discharges on marine ecology (e.g. on saline loving species) was undertaken.

The Applicant would like to clarify that the hydrodynamic properties of the discharge from the proposed outfall are outlined in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum. In addition, the dispersion, in particular in relation to water quality and impacts to ecology, is further discussed in Section 9.5 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum.

As a coastal site, the area is strongly influenced from existing freshwater systems via a number of rivers. The redirection and treatment of waters from some of these areas into a dedicated discharge location offshore will inevitably result in a small point-plume of freshwater, but the site was selected and modelled based on its naturally high dispersive properties. Effluent discharge water is always warmer than rivers, with a differential of between 1.5°C (degrees Celsius) and 2.5°C, although seawater temperatures are typically comparable in the winter, or up to 3.5°C cooler in the summer. Modelling results indicate a minimum diffusion of 20-fold within 50m of the proposed outfall, which is equivalent to a maximum decrease of salinity of less than two parts per thousand or maximum temperature differential of approximately less than 0.01°C. This is well within the natural range of tolerance of most pelagic species in a coastal environment.

2.2.1.2.40 Nitrogen Removal / Phosphorus Recovery

This submission queried why no tertiary treatment nitrogen removal / phosphorus recovery and best available technology (including the mining of sewage sludge) has been applied for the Proposed Project.

The Applicant notes that this level of treatment is not required to achieve the water quality objectives of the receiving water body for the proposed discharge as required under the Water Framework Directive and national transposing regulations. In addition, it should be noted that mining of sewage sludge is not necessary to facilitate the reuse of sludge for landspreading. The Nitrogen and Phosphorous content in sewage sludge ensures that it is a suitable replacement for chemical fertiliser for landspreading. The removal of these minerals would detract from the value of the sustainable practice of utilising sewage sludge for agriculture, in line with the principals of a circular economy.

2.2.1.2.41 Avian Flu and Marine Mammals

This submission stated that Avian flu and the potential cross over to marine mammals was not assessed.

Whilst bird flu infections are increasingly affecting mammal species, including semi aquatic (otter) as well as fully marine mammals (sea lions mostly, but recently dolphins and a porpoise in the UK in 2023), the mechanism for this infection is not fully determined. The Applicant also notes that the inclusion of UV treatment at the proposed WwTP will inactivate (i.e., kill) the majority of biological pathogens (including bacteria and viruses) from the discharge, which, in conjunction with the extensive updated modelling undertaken as part of the 2023 EIAR Addendum demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable.

2.2.1.2.42 International Union for Conservation of Nature (IUCN) Reports

This submission stated that the new IUCN Reports should be considered.

In the absence of further detail, or context, it is assumed that the observation relates to the fact that the contemporary version of the Birds of Conservation Concern (BoCC) should be referred to in the 2018 EIAR and NIS, and the 2023 EIAR Addendum and Revised NIS. The current BoCC in Ireland was published in 2021 (i.e., Birds of Conservation Concern in Ireland 2020 –2026. Irish Birds 9: 523-544 (Gilbert G., Stanbury A. and Lewis L. 2021)). As a result, and as noted in Section 4 of Appendix A11.2 of the 2023 EIAR Addendum, since the submission of the 2018 EIAR, the 2021 updated BOCC assessment has been published and has therefore been considered in the update assessment in the 2023 EIAR Addendum.

2.2.1.2.43 Insect Survey at Construction Compound No. 10

This submission raised an observation that an insect survey of proposed temporary construction compound no. 10 is required due to rare beetles previously recorded.

A description of the ecological baseline at proposed construction compound no. 10 has been set out at page 30 of Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR, and in Appendix A11.2 in Volume 3 Part B of the 2018 EIAR. There is also additional text describing changes in the ecological baseline at this site since the publication of the 2018 EIAR included on page 22 of Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum, and in Section 3.1.1.9 of Appendix A11.1 in Volume 3A Part B of the 2023 EIAR Addendum.

It is proposed that the Applicant will implement habitat management measures at proposed construction compound no. 10 during reinstatement of the site for the purpose of biodiversity gain. The Applicant will then hand the site over to FCC for their management, following completion of construction.

Table 2.1 of Appendix 2 (Biodiversity Assessment) of the 2023 Addendum Planning Report notes that:

> "*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)*".

and that:

> "*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.*
>
> *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.*

> *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.*
>
> *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)*".

This latter commitment formalises the Applicant's commitment to implementing positive habitat management measures at proposed construction compound no. 10, as outlined in a submission to the Inspector at the 2019 Oral Hearing. This commitment is also reiterated in Table 24.3 of Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum as measure 'ADD - TFA6'; and in Section 4.2 of the Addendum to the CEMP included as a standalone document in the 2023 remittal application.

The Applicant would like to note that Appendix E (Construction Compound 10 Pre-Development Habitats & Post-Development Landscaping) of Appendix 2 to the 2023 Addendum Planning Report illustrates the area where amenity grassland will be replaced with high value sand dune habitat within the redline of the Proposed Project at proposed construction compound no. 10.

2.2.1.2.44 New National Monument Recorded

This submission noted a new National Monument recorded at Maynetown in the vicinity of temporary construction compound no. 9.

As part of the 2023 EIAR Addendum, an updated assessment of the potential for impacts on the archaeological, architectural and cultural heritage resource was undertaken and is included as Chapter 16A (Archaeological, Architectural and Cultural Heritage) in Volume 3A Part A of the 2023 EIAR Addendum.

The new monument at Maynetown is listed as AH 80 in the updated assessment (RMP Ref. DU015-152) and is shown on Figure 16.6 in Volume 5A Part A of the 2023 EIAR Addendum. It was added to the Archaeological Survey of Ireland on 31 May 2023 (refer to www.archaeology.ie), and is located approximately 10m to the south of the Proposed Project boundary and 162m south of proposed construction compound no. 9. The potential for impacts to this site were considered in Volume 3A Part A of the 2023 EIAR Addendum, and it was concluded that it will not be subject to any direct or indirect impacts are a result of the Proposed Project.

2.2.1.2.45 Water Framework Directive (WFD) Assessment

This submission stated that a further assessment under the WFD is required for the Proposed Project.

As part of the 2023 remittal application, a full WFD assessment was completed and included as a standalone report.

The WFD assessment concluded that the Proposed Project will not compromise progress towards achieving 'Good Ecological Status' (GES) and / or 'Good Ecological Potential' (GEP) or cause a deterioration of the overall status of any of the water bodies that were in the scope of the assessment.

The WFD also requires consideration of how a new project might impact on other EU legislation. This is covered in Article 4.8 and Article 4.9 of the WFD. Article 4.8 states:

> "*a Member State shall ensure that the application does not permanently exclude or compromise the achievement of the objectives of this Directive in other bodies of water within the same river basin district and is consistent with the implementation of other Community environmental legislation*".

All water bodies within the study area have been assessed for direct impacts. The assessment concluded that the Proposed Project will not compromise the achievement of the objectives of the WFD for any water body.

In addition, the Proposed Project has been assessed for the potential for cumulative impacts with other proposed developments within 20km of the Proposed Project boundary. This assessment concluded that, in-combination with other proposed developments, the Proposed Project will not compromise the achievement of the objectives of the WFD for any water body. Therefore, the Proposed Project complies with Article 4.8 of the WFD. It was therefore concluded that the Proposed Project is fully complaint with the WFD, and does not require assessment under Article 4.7 of the WFD.

It was therefore concluded that the Proposed Project is fully complaint with the WFD, and does not require assessment under Article 4.7 of the WFD.

2.2.1.2.46 Drinking Water Directive

This submission queried whether the new Drinking Water Directive applies to the Proposed Project / 9C sewer / Leixlip network.

The new Drinking Water Directive (Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption (recast)), which is transposed via S.I. No. 99/2023 - European Union (Drinking Water) Regulations 2023, requires, inter alia, increased monitoring of public drinking water and applies a risk-based approach to managing supplies.

The final discharge location of the Proposed Project will be in the Irish Sea, from which water is not abstracted for the purposes of providing drinking water.

It should also be noted that the discharge location for the Leixlip WwTP is downstream of the Leixlip Water Treatment Plant, which itself, is located upstream of the existing Electricity Supply Board (ESB) Dam at Leixlip. There is therefore no potential for impacts to the drinking water abstraction.

2.2.1.2.47 2022 Census

This submission stated that the latest 2022 Census information needs to be assessed.

The latest 2022 Census data (CSO 2023), that was available at the time of completing the 2023 remittal application, was considered and assessed in the 2023 EIAR Addendum as submitted to ABP in October 2023.

Under the 2018 planning application, the population and load projections from the GDSDS (Dublin Drainage Consultancy 2005) were assessed using the 2016 Census data (CSO 2016). Since the submission of the 2018 planning application, a new Census was undertaken in 2022, for which summary data was available at the time of undertaking the 2023 EIAR Addendum. As part of Chapter 3A (Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, the population and load projections were reviewed using the available 2022 Census summary data, to confirm whether the projections remain valid. The 2022 population figures were found to be in-line with the projections of 'Growth Scenario 3 – Most Likely', as presented in the 2018 EIAR. Therefore, the growth rates remain the same as presented in the 2018 EIAR. However, the baseline year has changed from 2018 to 2022 which results in minor variations in loading at 2050. These variations are considered to be within allowable tolerance levels.

Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the 2023 EIAR Addendum also considered the updated 2022 Census summary data that was available at the time of undertaking the 2023 EIAR Addendum. Based on the Census 2022 summary results, over 2 million people, or just over 40% of the population of Ireland, now live in the GDA which includes the counties of Dublin, Meath, Kildare, and Wicklow. By 2031, the population of the GDA is projected to reach 2.2 million. The GDA experienced a 24.7% increase in population in the period from 2006 to 2022, with an increase of 8.7% from 2016 to 2022. The 2022 Census summary results demonstrate that the GDA also recorded the largest inward migration nationally, with +81,702 persons between 2016 to 2022. Fingal's population increased by 37% in the period from 2006 to 2022, with an increase of 11.2% from 2016 to 2022, which is significantly above the regional growth rate for the same period. It also demonstrated that all four administrative areas of Dublin were amongst the fastest growing nationally.

The Proposed Project is therefore still required to increase the wastewater drainage and treatment capacity in the GDA, protecting public health, safeguarding the environment and facilitating social and economic growth to 2050 and beyond, particularly as the population of the GDA is projected to continue to grow.

2.2.1.2.48 Overflows

This submission stated that no overflows were shown on the proposed orbital sewer. It also stated that Section 4 discharges in the River Tolka and rivers connected to the Ballymun Pumping Station must be modelled in addition to wastewater discharge licence overflows. The submission continued that no surface water overflows are monitored in Fingal and in parts of Dublin City Council (DCC) lands and this lack of overflow data may inhibit the ability to model discharges for a worst-case scenario.

The Applicant would like to clarify that there are no proposed overflows on the proposed orbital sewer route, and therefore, none are shown in the planning application drawings.

The existing overflows on the network that will be diverted away from Ringsend WwTP and into the proposed WwTP are considered in the Waste Water Discharge Authorisation Licence application for the Proposed Project, which will be submitted separately to the EPA.

The Applicant would like to note that there will be an overall improvement in performance of the network as a result of the Proposed Project being implemented, as it will reduce the pressure on the North Fringe Sewer (NFS) network due to population growth and increased housing development in the GDA.

2.2.1.2.49 Leachate

This submission queried whether leachate will be received at the proposed WwTP.

As outlined in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, regular deliveries to site will typically include leachate. Leachate is typically received at larger WwTPs and such imports are reported to the EPA in the Annual Environmental Reports (AERs) for each WwTP as part of the discharge licensing process. The Applicant will comply with this reporting requirement, and all other licence requirements including treatment standards set by the EPA, should the Proposed Project receive a grant of planning permission and become operational.

2.2.1.2.50 Aerated Granular Sludge (AGS) Treatment

This submission queried why AGS treatment has not been included as an alternative.

Three layouts for the proposed WwTP were developed for the proposed WwTP site, based on a conventional Activated Sludge Plant (ASP), a Sequencing Batch Reactor (SBR) plant and an Aerated Granular Sludge (AGS) plant, as described in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR and further described in Section 2.2.1.2.10 of this report.

Contractors will be appointed to design, build and operate the proposed WwTP to achieve the required emission limit values listed in the 2018 EIAR, or as conditioned by the EPA, within defined design constraints. Where different treatment processes are possible, the maximum environmental impacts from the type of treatment process envisaged by the proposed WwTP were assessed in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, with respect to the potential impact of the design.

2.2.1.2.51 Portmarnock South Bathing Waters

This submission noted that Portmarnock South Bathing Waters are currently being redesignated and this should be considered in the EIAR.

The Applicant would like to clarify that, as part of the 2023 remittal application, Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum also considered any requirements for updated modelling. The updated modelling examined the impacts on the designated Bathing Water Beaches (noting

that Portmarnock South is not a designated bathing water). The updated modelling results reconfirmed that the Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin.

2.2.1.2.52 Marine Water Quality Modelling

2.2.1.2.52.1 Construction Phase Sediment Plume

Appendix A26 of this submission stated that the sediment plume at the interface between the tunnelled section and the dredged subsea section of the proposed outfall pipeline route (marine section) and the crossing of the fibre optic cable were not assessed.

The Applicant would like to clarify that the sediment transport modelling scenario for the proposed outfall pipeline route (marine section) trenching and dredging operations, and their interface, aligned with Section 8.2 of the CEMP which describes the construction methodology for the tunnelled and dredged section, and as shown on Planning Drawing Number 32102902-2107 in the 2018 planning application. The sediment transport modelling scenario for the proposed outfall pipeline route (marine section) also considered the fibre optic cable as described in Section 8.5 of the CEMP, and as located on Planning Drawing Number 32102902-2108 in the 2018 planning application.

2.2.1.2.52.2 Operational Discharge Modelling and Potential Shellfish Impacts

Appendix A5-2 and A6 of this submission raised concerns about the discharge modelling and the potential for impacts on shellfish, and in particular razor clam in the designated Malahide Shellfish Area. This submission raised concerns over the evidence on shellfish provided by Dr Marja Aberson at the 2019 Oral Hearing. The submission stated that, as a result, any updated modelling should take account of the closest points to designated shellfish areas. The submission notes that the Malahide Shellfish waters were designated Class A at the time of the 2019 decision by ABP but since then also hold a Class B designation outside of seasonal months. In addition, the area surrounding the outfall is not Class A but is nonetheless a specified zone for Razor Clam conservation. Any deterioration in water quality to the Malahide shellfish Area will impact fisheries and may also cause serious food safety risks in the event of a failure and the release of untreated wastewater.

The Applicant would like to emphasise the extensive modelling of the receiving waters that has been undertaken and reported in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 planning application, examining the potential for impact of the Proposed Project and assessment of compliance with the European Commission (Quality of Shellfish Waters) Regulations.

The Applicant would like to clarify that, as part of the 2023 remittal application, Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum considered any requirements for updated modelling. That updated modelling incorporated the inclusion of UV treatment in the treatment process and examined impacts on the designated Malahide Shellfish Waters at the designated sampling point and along the southern boundary of Malahide Shellfish waters. The modelling also examined the impacts on the designated Bathing Water Beaches. The updated modelling results demonstrated that the Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin.

2.2.1.2.53 Process Failure

This submission stated that process failure for the Proposed Project only assesses electrical failure and not other equipment failures, and that there is no assessment of process failure discharge to rivers upstream of the proposed WwTP.

As outlined in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, the normal Operational Phase of the Proposed Project and its constituent elements will be fully automated and will be monitored, controlled and managed from the control centre location at the proposed WwTP. The proposed WwTP will be added to the new Uisce Éireann 24-hour manned Operations Management Centre, which went live in 2022, for monitoring and escalation of critical alarms.

The risk of a process failure was fully assessed in the 2018 EIAR and was outlined further in the 2019 Response to Submissions Report and at the 2019 Oral Hearing in the Brief of Evidence delivered on Risk of Major Accidents and / or Disasters. This assessment considered the risk of failure from a number of different sources, not just an electrical failure.

The identification, control and management of risk is an integral part of the design and assessment process throughout all stages of a project life cycle as it has been for the Proposed Project. For example, a Flood Risk Assessment (FRA) was carried out during the site selection process to ensure that the selected sites for the proposed WwTP at Clonshagh and the proposed Abbotstown pumping station were not located in areas vulnerable to flood risk. The Proposed Project will be designed, built and operated in line with current international best practice and guidelines.

The mitigation measures embedded into the design of the Proposed Project to mitigate against total or partial failure events at the proposed WwTP and Abbotstown Pumping Station, include:

- The proposed WwTP will have three power supply sources (electricity on a looped supply, natural gas and biogas) and will be capable of running off any single one or off a combination of sources;
- A standby / backup diesel generator will be provided at the proposed Abbotstown Pumping Station;
- The proposed WwTP is designed to accommodate a planned maintenance regime whereby an individual treatment unit can be taken offline for maintenance without impacting treatment capacity;
- All pumps will be installed in duty / standby configurations to act as a backup in case of pump failure;
- A telemetry system will be installed within the control room located in the proposed WwTP. This will allow operators to control the flows passed forward from the proposed Abbotstown pumping station and the existing Ballymun pumping station. As a result, in the event of a problem arising at the proposed WwTP, flows from the two pumping stations can be slowed or stopped for a period of time, with the large storage volumes available in the network mobilised to retain flows. This storage volume allows for a period of 6 hours at average flow for problems to be rectified;
- All key items of mechanical plant will incorporate alarms to immediately warn of malfunction / failure; and
- The construction of all proposed pipeline routes will be carried out in accordance with best practice and design. Appropriate watertight pipeline materials for the safe transfer of wastewater will be utilised during the construction of the proposed pipelines and the pipelines will have a limited number of joints to minimise potential for leaks. The rising main will be pressurised and will be fitted with a pressure monitor that will stop flows in the event of a burst along the proposed orbital sewer route. A flow meter will be included in the design at the proposed Abbotstown pumping station and at the inlet works for the proposed WwTP, which will allow for flow balance calculations to be monitored. This will aid in the early detection of any potential leaks or bursts along the proposed orbital sewer route.

A short summary of the assessment of the risk of a discharge of untreated sewage resulting from the potential failure mechanisms during operation of the proposed WwTP is presented below.

2.2.1.2.53.1 Pump Failure

During the 2019 Oral Hearing, it was outlined that the risk of pump failure at either the proposed WwTP or Abbotstown pumping station will be mitigated by the installation of all pump sets in a duty / assist / standby configuration. In such a configuration, and coupled with the provision of an alternate / standby power supply, the risk of all pumps failing is assessed as ‘very unlikely’ and consequently the risk of a discharge of untreated sewage from pump failure is assessed as ‘very unlikely’. This assessment is an update on the assessment in the 2018 EIAR and follows the additional review carried out in response to the submissions received in following the submission of the 2018 planning application. This update to the likelihood of a discharge of untreated sewage has been accounted for in Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum.

2.2.1.2.53.2 *Partial Failure of Elements of the proposed WwTP*

During the 2019 Oral Hearing, it was outlined that the proposed WwTP is designed with in-built redundancy to accommodate a planned maintenance regime, whereby an individual treatment unit can be taken offline for maintenance without impacting treatment capacity. The implementation of the planned maintenance regime will in itself mitigate against the potential of partial failure events. In the unlikely event of such an occurrence, the WwTP would still continue to meet the discharge emission limit values as flows would be seamlessly distributed to the other treatment units at the WwTP. The risk of a discharge of untreated sewage to the marine environment as a result of a partial failure event at the WwTP is assessed as 'very unlikely'. As above, this update to the likelihood of a discharge of untreated sewage has been accounted for in Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum.

2.2.1.2.53.3 Total Failure of the WwTP

The proposed WwTP will have three power supply sources (electricity on a looped supply, natural gas and biogas) and will be capable of running off any single one or a combination of sources, thereby mitigating the likelihood of total power failure at the WwTP and consequently mitigating against a total failure of the WwTP itself.

The orbital sewer and the NFS diversion sewer will discharge to the inlet chamber at the WwTP, which will be 4.5m below ground level. Duty / standby / assist pump sets at the inlet chamber will lift the wastewater to the head of the treatment line at the coarse screens. In the unlikely event of a total power failure at the WwTP, these inlet pumps would not work and therefore it would not be possible to pass sewage into and through the WwTP. In such an unlikely event, the telemetry system would default to instruct the proposed Abbotstown pumping station and the existing Ballymun pumping station to stop pumping flows forward and the large storage volumes available in the network would be mobilised to retain flows. At the same time, the Applicant's emergency response plan would be activated.

The Applicant is therefore satisfied that, with these storage volumes and the other embedded design measures incorporated into the Proposed Project design, a discharge of untreated sewage to the marine environment as a result of a total failure of the WwTP cannot occur.

The Applicant would also like to clarify that the modelling scenario referred to in Appendix A5-1 of this submission was one of a number of 'Process Failure' scenarios examined by the Project Team during the design development of the Proposed Project. The final design of the proposed WwTP published in the 2018 planning application made this scenario redundant and was therefore not included in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum.

2.2.1.2.54 Construction Methodology at Arklow WwTP

This submission noted that the construction methodology outlined for the Arklow WwTP project contradicted evidence for the Proposed Project in relation to safe depth of trenching.

The Inspector's Report from the Arklow WwTP Project (under planning reference number ABP302556-18) outlined that '*Mr. Aidan McCarthy on behalf of Irish Water at the oral hearing stated that it is considered good engineering practice to avoid pipeline installation by open cut trenches for excavation in excess of 4 to 5 metres*'.

The Applicant would like to clarify that it is good engineering practice to avoid depths greater than 5m in open cut trenches which require construction personnel to work within the trench itself. As outlined in the CEMP in the 2018 planning application, as supplemented by the Addendum to the CEMP in the 2023 remittal application, the subsea dredged trench for the Proposed Project will be dredged using either a backhoe dredger (BHD) or trailer suction hopper dredger (TSHD). Divers will only be required to facilitate the mechanical connection underwater of the proposed outfall pipeline when the pipeline has been towed, placed over the trench and installed by the float and sink method. Construction personnel will not be working within the trench otherwise.

As outlined in the CEMP in the 2018 planning application, as supplemented by the Addendum to the CEMP in the 2023 remittal application, the Applicant will make the required health and safety appointments in advance of the commencement of the detailed design and construction stages. These appointments include project supervisor design process (PSDP), contractor and project supervisor construction stage (PSCS). The PSDP will prepare the Preliminary Health and Safety Plan in advance of the construction stage and this will inform the contractor of particular risks, residual risks and particular sequences of work during the design of the Proposed Project.

As outlined in Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A in the 2023 EIAR Addendum, Regulation 15 of S.I. No. 291/2013 - Safety, Health and Welfare at Work (Construction) Regulations 2013 (as amended by S.I. No. 528/2021 - Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021) places a duty on designers carrying out work related to the design of a project to take account of the General Principles of Prevention, as listed in Schedule 3 of Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005. In addition, as outlined in Chapter 22 in the 2018 EIAR, as supplemented by Chapter 22A of the 2023 EIAR Addendum, designers must comply with Section 17(2) of Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005, which requires persons who design a project for construction work to ensure, so far as is reasonably practicable, that the project is designed and is capable of being constructed to be safe and without risk to health, can be maintained safely and without risk to health during use, and complies in all respects, as appropriate, with other relevant legislation. This includes the latest Building Regulations and Safety, Health and Welfare at Work (General Application) Regulations that will be in place at the time of construction.

2.2.1.2.55 The Absence of Any Confirmation Notice of Acceptance of the Supplemental 2018 Planning Application Documents on the EIA Portal

The original application was submitted in June 2018 and was therefore not subject to S.I. 296/2018 as it had not yet been published. We understand the reference to the supplemental planning application documents to refer to the Addendum (Omitted Documents) that were mistakenly omitted from the original application and subsequently submitted to ABP in September 2018. Whilst the 2018 Addendum (Omitted Documents) were submitted to ABP after S.I. No. 296/2018 came into effect, the Applicant was not instructed by ABP to upload those documents to the EIA Portal.

Insofar as there has been a technical defect as ABP did not request that the 2018 Addendum (Omitted Documents) were uploaded in line with the Regulation, there has been no prejudice as those documents have at all times been available and remain available to the public on the dedicated project website. Additionally, Sabrina Joyce Kemper and others, made submissions on that information as part of the consultation on the original planning application.

2.2.2 Vivienne Burch

2.2.2.1 Overview of the Submission

The submission from Vivienne Burch raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.2.2 of this Report:

- Smaller Plants and Alternatives;
- Socio-Economic Impacts;
- Visual Impact of the Proposed WwTP;
- Tourism / Leisure / Community Impacts;
- Odour;
- Outdated Reports and Surveys / No Assessment of UV Treatment;
- Microplastics / Nano Plastics;
- Dublin Airport Flight Paths and Biogas Storage Risk,
- Impact on Portmarnock Blue Flag Beach;

- Traffic Impacts; and
- Updated Hydrodynamic Modelling.

2.2.2.2 Response to Submission

2.2.2.2.1 Smaller Plants and Alternatives

This submission stated that one large WwTP goes against best practice which would be building smaller plants in a variety of locations instead.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection for the proposed WwTP and alternatives considered.

2.2.2.2.2 Socio-Economic Impacts

This submission asserted that there will be a negative impact and lower reputation of the area surrounding the proposed WwTP, which is already affected by over-population and socio-economic issues, if the Proposed Project is permitted.

The Applicant would like to emphasise that wastewater treatment forms an essential part of the primary infrastructure network necessary for communities to form, grow and thrive. The Proposed Project is vital to delivering the required wastewater treatment capacity and infrastructure, which in turn, will safeguard public health, protect and improve the environment and facilitate sustainable residential and commercial development in the Dublin region, including in the area referenced.

As outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), following a detailed socio-economic and demographic analysis, a community infrastructure audit was undertaken within the Proposed Project area for the 2018 planning application. The outputs of the research undertaken were considered in combination with the feedback on community gain as provided by members of the public and other stakeholders during the various Proposed Project consultations. Priorities for social, economic and environmental development were then identified and assessed. The research found that initiatives that deliver economic (employment / enterprise), educational or environmental benefits would be most beneficial to communities in proximity to the Proposed Project.

The Applicant reviewed and considered the feedback provided by members of the public and other interested stakeholders relating to community benefit, prior to the submission of the 2018 planning application. In response, the Applicant researched and proposed a Community Benefits Scheme for the Proposed Project that leverages significant public expenditure so as to maximise the benefits for communities in proximity to the Proposed Project.

The Community Benefits Scheme proposes to deliver tangible benefits for communities in proximity to the proposed infrastructure in the three key identified areas: Employment, Education and Environment. Image 5 summarises the Proposed Project and the Applicant's commitment and actions under each category of the Community Benefits Scheme, which was included as a standalone document in the 2018 planning application.

Category	Commitments	Actions
Employment	A social procurement initiative to provide local employment opportunities to new entrant employees/job seekers.	A minimum of 10% of the person weeks worked on the Proposed Project during construction to be delivered by new entrant employees/job seekers through the use of social clauses in the construction contracts.
	Providing opportunities for SMEs and social enterprises to benefit from the delivery of the Proposed Project.	'Meet the Buyer' events will be organised locally to identify potential sub-contractors and local suppliers of goods and services.
		A minimum of 5% of project team personnel including contractor(s) staff, consultants and sub-consultants are to be employees of SMEs.
Education	Initiatives that encourage progression in education at all levels and which seek to reduce early school leaving in the project area.	Workplace training will be provided for recruited personnel.
		A Permanent Wastewater Education Zone will be located at the proposed WwTP. Guided tours of the proposed WwTP will be facilitated.
		A Community Liaison Officer (CLO) will be appointed to coordinate delivery of the scheme with all stakeholders. Outreach by CLO and appointed contractor(s) to schools, colleges, universities within the GDA.
Environment	The Proposed Project will be developed in an environmentally sensitive manner.	Construction works will be sequenced and phased in order to minimise impacts for the local community and on the local environment. The new treatment facility and pumping station will be appropriately landscaped and screened.
	The Applicant will support local projects which seek to protect and enhance the local environment.	The Applicant will provide in-kind supports for local projects that seek to enhance or protect the local built or natural environment.

Image 5: Summary of Community Benefit Scheme Commitments for the Proposed Project (from the Community Benefits Scheme Report included in the 2018 Planning Application)

The impact of the Proposed Project on population was also separately assessed and addressed Chapter 6 (Population and Human Health: Population) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the 2023 EIAR Addendum. These Chapters assessed the potential impacts of the Proposed Project on community and residential settlement, educational facilities, economic activities and businesses, and on tourism, amenity and community infrastructure.

Under Section 6.8 (Mitigation Measures) in Chapter 6 (Population and Human Health: Population) in Volume 3 Part A of the 2018 EIAR, a CLO will be employed during the Construction Phase of the Proposed Project. The role of the CLO will be to maintain an open, transparent and positive relationship with members of the public, groups and organisations affected by the works. The CLO will work closely with the Applicant and the appointed contractor(s) to ensure that all efforts to address public concerns are made, and to ensure that information on the nature and duration of all works is available. The CLO will also act as a point of contact for sporting clubs and community facilities in the area.

In addition, an updated assessment of the potential for impacts on population was undertaken and is included as Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the 2023 EIAR Addendum. This Addendum Chapter considered all updates to elements of the Proposed Project, updates to the baseline environment, and updates to guidance and reference material since the 2018 planning application submission.

Following the implementation of mitigation measures outlined in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, all potential significant negative impacts will be avoided.

2.2.2.2.3 Visual Impact of the Proposed WwTP

This submission outlined that the proposed WwTP will result in a visual impact on the ground in an area already impacted by flight paths for Dublin Airport.

As outlined in the 2019 Response to Submissions Report, in response to submissions in respect of 'Visual obtrusion as a result of the Proposed Project', 'Height and size of the proposed Wastewater Treatment Plant (WwTP)' and the more general issue of 'Visual Impact', the relevant assessment can be found in Section 12.4.4 and also Section 12.5.3 of Chapter 12 (Landscape and Visual) in Volume 3 Part A of the EIAR. Residual visual impacts, following the establishment of proposed mitigation screen planting, were then assessed in Section 12.8 in Chapter 12 of the 2018 EIAR where a comparison table (Table 12.13) of pre-mitigation and post-mitigation establishment effects was provided. These sections of Chapter 12 in the 2018 EIAR collate and summarise the individual visual impact assessments carried out from a range of 14 representative viewpoints, which are contained in full, in Appendix A12.1 in Volume 3 Part B of the 2018 EIAR and supported by photomontages contained in Volume 6 of the 2018 EIAR.

In addition, an updated visual impact assessment was undertaken for the 2023 EIAR Addendum. This assessment accounted for any changes to the baseline environment, including new receptors and is included in Chapter 12A (Landscape and Visual) in Volume 3A Part A of the 2023 EIAR Addendum. As part of this update, a new set of photomontages were included in Volume 6A of the 2023 EIAR Addendum. Following consideration, the assessment determined that there were no material changes to the assessment of the landscape and visual environment included in the 2018 EIAR, as a result of any of the updates to the baseline environment.

Much of the Operational Phase visual impact assessment is focused on the effects of the proposed WwTP, as this is the main above-ground feature of the Proposed Project. It is considered that these general issues relating to visual impact, which are central to any landscape and visual impact assessment, have been comprehensively assessed in accordance with the relevant Guidelines for Landscape and Visual Impact Assessment 2013 (Landscape Institute and Institute of Environmental Management and Assessment 2013). The 2018 EIAR and the 2023 EIAR Addendum determined that the Proposed Project will not result in any significant visual impacts.

2.2.2.2.4 Tourism / Leisure / Community Impacts

This submission outlined that there will be a negative impact on tourism / leisure as a result of the proposed WwTP.

The impact of the Proposed Project on population is addressed in Section 6.4 and 6.5 in Chapter 6 (Population and Human Health: Population) in Volume 3 Part A of the 2018 EIAR, as supplemented by Section 6.4 and 6.5 of Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the 2023 EIAR Addendum. These Chapters assessed the potential impacts of the Proposed Project on community and residential settlement, educational facilities, economic activities and businesses, and on tourism, amenity and community infrastructure. In addition, Figure 6.6 in Volume 5A of the 2023 EIAR Addendum includes all tourism, amenity, sport and community infrastructure in the vicinity of the Proposed Project.

The EIAR assessment takes full account of the scale of the proposed WwTP. The rationale for the scale of the proposed WwTP is established in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum. In terms of potential impacts on the community, it is considered that the scale of the proposed WwTP does not impact upon sensitive receptors. This is on the basis that potential impacts are mitigated and confined to a very restricted area within the site boundary of the proposed WwTP. Overall, the scale of the proposed WwTP was fully considered as part of the EIA process and was not considered to alter or extenuate the residual impact.

Section 6.5.2 of Chapter 6 in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A in Volume 3A Part A of the 2023 EIAR Addendum, considers that there will be no additional significant impacts on the community during the Operational Phase of the Proposed Project. In general, the residual impacts identified

in these Chapters on population are considered as Slight and Not Significant following the implementation of the robust mitigation measures proposed (as outlined in Chapter 6 in the 2018 EIAR and summarised in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum). It is not considered that there will be a negative impact on residential communities or the usability of outdoor recreation and amenity facilities by reason of proximity to the proposed WwTP. The EIAR also addresses potential impacts on residential amenity during the Construction Phase which is noted in the following paragraphs.

Impacts on Tourism, Public Amenities and Community Infrastructure are generally amenity related and are interrelated with other environmental topics, particularly Air Quality and Noise and Vibration, which are addressed in Chapter 14 (Air Quality, Odour and Climate) and Chapter 15 (Noise and Vibration) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 14A (Air Quality, Odour and Climate) and Chapter 15A (Noise and Vibration) in Volume 3A Part A of the 2023 EIAR Addendum. Section 6.5.4 of Chapter 6 states that the Proposed Project will not give rise to adverse impacts on tourism attractions and this determination remains unchanged in Chapter 6A of the 2023 EIAR Addendum.

Dublin Airport is the primary international access point nationally. As construction and operation will not have a noticeable impact on access to and from Dublin Airport, the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, considered that there will be a Neutral and Imperceptible impact on the accessibility of the region or the local tourism base. Section 6.6.4 of the 2018 EIAR identifies that the route in this area falls just outside the northern end of Portmarnock Golf Club and to the southern boundary of Portmarnock Golf Links course, which is part of the Portmarnock Hotel and Golf Links complex. Impacts in terms of noise, dust and visual impact are described in Chapter 14 and Chapter 15 of the 2018 EIAR, as supplemented by Chapter 14A and Chapter 15A of the 2023 EIAR Addendum. No restrictions to access to either golf course will arise, as road closures will not be required (as microtunnelling will take place in this area).

Section 6.6.4 of Chapter 6 of the 2018 EIAR also noted that proposed temporary construction compound no. 10 will encompass part of the public car park lands on the Golf Links Road. A section of the Velvet Strand Beach car parking area which is currently used by the public will be unavailable for the duration of the marine-related works. It was also noted that this area is located in the unpaved section of the car park (a green area in which there are no formally marked out car parking spaces but on which an informal extension of the car park has occurred over time). It is estimated that approximately 12 spaces for cars in this area will be unavailable during the Construction Phase. However, the public pedestrian pathway will be unaffected and access to the beach will be maintained at all times. This will have a Moderate, Negative and Temporary impact in terms of accessibility and amenity to the access to Velvet Strand Beach.

Section 6.6.4 of Chapter 6 of the 2018 EIAR duly notes that the coast is also popular for recreational sailing and organised events, including regattas. These events typically occur during the summer months when the proposed works on the proposed outfall pipeline route (marine section) are planned to take place. Mitigation measures proposed for the Construction Phase of proposed outfall pipeline route (marine section) (refer to Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum for all mitigation measures) seek to reduce, as far as practicable, any adverse impacts on the local sailing community. However, it is likely that Slight, Negative and Temporary impacts on marine recreation will arise in this section of the shoreline and sea. Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR, details construction methodology and operational procedures / requirements to ensure the marine habitat and recreational facilities are protected and sustained.

Section 6.6.4 of the 2023 EIAR Addendum assessed the new Baldoyle to Portmarnock Greenway in the study area. However, the crossing of the Greenway is proposed as trenchless / tunnelled, and the microtunnelling techniques proposed for the crossing will limit impact to surface activities and avoid the need for any temporary closure or diversion. It is therefore considered that there will be a Negative, Slight and Temporary impact on the Greenway and patrons utilising the Greenway due to construction work and the presence of proposed temporary construction compound no. 9.

Overall, it is considered that the Proposed Project is not likely to have a significant impact on the recreation or tourism facilities within the study area in the Construction or Operational Phases. No potential impacts were identified outside the study area defined in the 2018 EIAR or 2023 EIAR Addendum, and it is therefore concluded that the Proposed Project would not have any impact on Fingal's promotion as a tourist destination generally.

The 2018 EIAR and 2023 EIAR Addendum did not consider there to be any impact on residential amenity during the Operational Phase. The sports grounds for Craobh Chiaráin Gaelic Athletic Association (GAA) club are located 300m from the southern boundary of the proposed WwTP site. In the absence of appropriate mitigation measures, a Significant, Negative and Temporary impact in relation to access to the GAA club would result during the Construction Phase. However, the construction works will provide for a permanent re-routing of the access road to ensure access to the club grounds remains undisrupted during the works. As such, a Neutral and Imperceptible impact is anticipated in terms of accessibility. Both the NFS diversion sewer and the proposed access road to the proposed WwTP site from the R139 Road (Northern Cross Link) will run along the western boundary of the playing grounds. Darndale and Belcamp Parks are located 800m to the south-west and south-east of the proposed WwTP site, respectively. Any impacts associated with the construction of the proposed WwTP on the amenity offered by these parks will be dissipated to a Neutral and Imperceptible level by reason of distance from the site and the main construction vehicles routes, and from the mitigation measures which will be put in place to minimise the impact of noise (as outlined in Chapter 24 of the 2018 EIAR, as supplemented by Chapter 24A of the 2023 EIAR Addendum. Patrons of the Cumann Peil Innisfail GAA club at Carr's Lane situated approximately 900m from the south-east corner of the proposed WwTP site are not likely to experience adverse impacts in terms of accessibility or other potential disruption as a result of the Construction Phase. As such, the impact is anticipated to be Neutral and Imperceptible. No negative impacts were identified on this recreational facility during the Operational Phase. It is considered that the operation of the proposed WwTP would not give rise to any negative impacts that would restrict the continued use and operation of the Cumann Peil Innisfail GAA facility.

As outlined in Section 6.8 (Mitigation Measures) in Chapter 6 of the 2018 EIAR, a CLO will be employed during the Construction Phase of the Proposed Project. The role of the CLO will be to maintain an open, transparent and positive relationship with members of the public, groups and organisations affected by the works. The CLO will work closely with the Applicant and the appointed contractor(s) to ensure that all efforts to address public concerns are made, and to ensure that information on the nature and duration of all works is provided. The CLO will also act as a contact point for sporting clubs and community facilities in the area.

The EIAR has considered in detail the likely significant impacts of the Proposed Project. Following the implementation of mitigation measures outlined in the 2018 EIAR and the 2023 EIAR Addendum, all potential significant negative impacts on recreation or amenity facilities will be avoided.

2.2.2.2.5 Odour

This submission outlined that properties in the surrounding area will not be serviced by the proposed WwTP, but those properties will have to deal with odours coming from the proposed WwTP.

The Applicant would like to highlight that the design of the proposed WwTP and Abbotstown pumping station has incorporated several mitigation measures and management proposals to minimise odour impact. All tanks and potential odour-releasing activities will be covered or enclosed at the proposed WwTP, and as such, the ability to contain, abstract and treat gases will be enhanced. All gases at the proposed WwTP and Abbotstown pumping station will be contained, abstracted and treated in Odour Control Units (OCUs).

The performance of the OCUs will be monitored during a comprehensive Process Proving Phase at commissioning and at regular intervals throughout the operation of the proposed WwTP. Monitors will be installed which monitor key elements of performance for the odour abatement systems over the full life of the proposed WwTP.

In addition, independent performance checks will be carried out by an ISO17025 accredited testing laboratory at quarterly intervals during the first two years of operation to verify the effectiveness of control measures and ongoing compliance with the required performance targets.

As outlined in Chapter 14 (Air Quality, Odour and Climate) in Volume 3 Part A of the 2018 EIAR, a detailed air quality modelling assessment was undertaken using the then current version of the United States EPA's AERMOD Prime model in 2018 (Version 16216). The model computes average ground-level concentrations of pollutants emitted from either elevated or ground-level emission sources. As part of the 2023 EIAR Addendum, a series of updated model runs were completed using the most up-to-date model (AERMOD Prime model (Version 22112)) to re-verify the results of the odour modelling completed for the 2018 EIAR. The updated assessment determined that the current regulatory version of the dispersion model AERMOD (Version 22112) does not lead to any different findings compared with the then current AERMOD version used in the 2018 EIAR, which both show that the proposed mitigation measures included for in the 2018 EIAR will be effective in the management of potential air quality and odour impacts associated with the Proposed Project. Both assessments therefore determined that there will be no significant residual odour and air quality impacts.

The Proposed Project is being developed to meet the gap between the developing load in the Greater Dublin Area (GDA) and the maximum load which can be delivered to and treated at the existing treatment plants in the catchment and primarily at Ringsend WwTP. The location and extent of the catchments to be diverted to the proposed WwTP was considered in Appendix 3.1 Assessment of Domestic and Non-Domestic Load of Proposed Regional Wastewater Treatment Plant in Volume 2 Part B of the 2018 EIAR. Collectively the existing WwTPs, including the proposed WwTP, will service the wastewater treatment needs of the GDA up to the 2050 design horizon.

The Applicant would also like to note that the conclusion of the Inspector's Report (ABP301908-18) attached to the 2019 grant of planning, which has since been quashed, stated that the Inspector was "*satisfied that all relevant air emissions standards will be met, that the development will not give rise to odour nuisance a residential areas and that no adverse health impacts will arise*". This conclusion stood for all elements and activities associated with the Proposed Project, including those at Abbotstown, Clonshagh and Dubber and for the RBSF for both the Construction and Operational Phases.

2.2.2.2.6 Outdated Reports and Surveys / No Assessment of UV Treatment

This submission requested that:

- All surveys, including marine seabed surveys be updated to 2022;
- An updated assessment of cumulative impacts since 2018 be undertaken;
- A detailed report on UV treatment be undertaken; and
- An assessment of whether the Proposed Project complies with planning and environmental legislation introduced since June 2018.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to outdated reports and assessment of UV treatment.

2.2.2.2.7 Microplastics / Nano Plastics

This submission requested an assessment of microplastics and nano plastics.

Please refer to Section 2.2.1.2.29 of this Report, which responds to a similar submission relating to microplastics (from which nano plastics are derived).

2.2.2.2.8 Dublin Airport Flight Paths and Biogas Storage Risk

This submission requested that a comprehensive review of new flight paths and the new runway at Dublin Airport, in particular for the biogas storage tanks at the proposed WwTP directly under flight paths, be undertaken.

Please refer to Section 2.2.1.2.21 and Section 2.2.1.2.34 of this Report which respond to similar submissions relating to biogas storage at the proposed WwTP site and Dublin Airport flight paths, respectively.

2.2.2.2.9 Impact on Portmarnock Blue Flag Beach

This submission stated that Portmarnock Beach is the only Blue Flag Beach and the waste from the proposed outfall will be brought back in the tide and will destroy the beach.

Please refer to Section 2.2.1.2.51 of this Report which responds to a similar submission relating to Portmarnock Bathing Waters / Blue Flag Beach.

2.2.2.2.10 Traffic Impacts

This submission outlined that traffic is already an issue in the area and that tanker trucks driven to the proposed WwTP on the N32 National Road / R139 Regional Road will further exacerbate these problems.

As outlined in the 2019 Response to Submission Report (Uisce Éireann 2019), in response to submissions relating to the potential for negative traffic impacts, the assessment of traffic was undertaken with respect to the requirements of the Traffic and Transportation Assessment Guidelines (National Roads Authority 2014), and in accordance with the assessment requirements of FCC and DCC, as detailed in Section 13.2 of Chapter 13 (Traffic and Transport) in Volume 3 Part A of the 2018 EIAR.

Potential traffic impacts during the Construction Phase will be mitigated as follows:

- Creation and implementation of a Construction Traffic Management Plan (CTMP);
- Information provided to local communities and relevant stakeholders;
- Access to and from the proposed WwTP construction site will be by left-turn only to avoid crossing traffic flows;
- Access to construction areas will be laid out to avoid queuing of heavy goods vehicles (HGVs) on the public roads;
- Clear signposting and provision of clear sightlines at junctions;
- Timing deliveries outside of peak traffic hours;
- Provision of a wheel wash for construction vehicles; and
- The covering of HGV loads leaving site where required to reduce dust impacts, monitoring of roads and the deployment of a road sweeper where required.

During the Operational Phase, increased congestion will be influenced more by the general predicted increase in background traffic rather than as a result of the Proposed Project. However, a number of mitigation measures will be employed to reduce the traffic congestion and impact. These will include:

- Completion of a further Road Safety Audit at the detailed design stage;
- Access to and egress from the proposed WwTP will be by left-turn only;
- Access to the proposed WwTP will be designed to avoid queuing of HGVs on the public road network;
- Provision of clear sightlines at the entrance and exit, and stop markings at the exit from the proposed WwTP;
- Provision of sufficient car parking spaces for staff and visitors;
- Pedestrian and cycling routes will tie into existing facilities on the public road network, where possible; and
- Consideration of measures to encourage use of sustainable modes of transport will be carried out, where possible (e.g. tax saver commuter tickets, / car sharing options/ and scheduling of shifts to start and end outside of peak traffic times).

With these measures in place, minimal impacts on the road network in the vicinity of the Proposed Project will remain.

In addition, an updated assessment of the potential for traffic and transport impacts was undertaken as part of the 2023 remittal application and is included as Chapter 13A (Traffic and Transport) in Volume 3A Part A of

the 2023 EIAR Addendum. This Addendum Chapter has considered all updates to elements of the Proposed Project, updates to the baseline environment, and updates to guidance and reference material since the 2018 planning application submission. Following consideration, the mitigation measures outlined above and the remaining residual impacts of the Proposed Project are considered to be the same as presented in Chapter 13 (Traffic and Transport) in Volume 3 Part A of the 2018 EIAR.

2.2.2.2.11 Updated Hydrodynamic Modelling

This submission stated that updated 'hydro-modelling' for the discharge pipe is required.

As part of the 2023 remittal application, an updated marine water quality assessment was undertaken and is included in Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum. This Addendum Chapter considered any changes to the baseline, requirements for updated modelling and any changes to relevant law, policy, and industry standards and guidance in the intervening period since the 2018 planning application was submitted to ABP. Extensive updated modelling was undertaken as part of the 2023 EIAR Addendum, which accounts for the addition of UV treatment before final discharge of the treated wastewater. This additional monitoring determined that, with the inclusion of UV treatment:

- The receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated bathing water beaches nor Blue Flag beaches; and
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated shellfish waters.

2.2.3 Chambers Ireland

2.2.3.1 Overview of the Submission

The submission from Chambers Ireland raised the following points, on which the Applicant has provided a response in Section 2.2.3.2 of this Report:

- The Proposed Project is a much needed development, given continued population growth, as demonstrated from the 2022 Census population results, and the subsequent growing requirement for sustainable wastewater treatment; and
- The delivery of the Proposed Project is a key strategic investment priority under the National Planning Framework and the renewed National Development Plan 2021 – 2030, and a strategic policy of the Regional Planning Guidelines for the GDA, Dublin City Development Plan and the Fingal Development Plan.

2.2.3.2 Response to Submission

The Applicant acknowledges and welcomes Chambers Ireland's support for the Proposed Project. The submission reiterates the vital need for the Proposed Project, as summarised in Section 1.1 of this Report. The Applicant is committed to continuing to consult with Chambers Ireland throughout the next phases of the Proposed Project, should a grant of planning be received.

2.2.4 Development Application Unit (DAU)

2.2.4.1 Overview of the Submission

The submission from the DAU raised the following point, on which the Applicant has provided a response in Section 2.2.4.2 of this Report:

- The Department's original observations and recommendations submitted to ABP on 17 August 2018 still stand.

2.2.4.2 Response to Submission

This submission from the DAU has been acknowledged by the Applicant. No response is considered necessary, as responses to the 2018 DAU submission were provided in the 2019 Response to Submission Report (Uisce Éireann 2019), which was provided to ABP in January 2019 and is available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf).

The observations raised in the 2018 submission from the DAU were also considered within the Inspector's Report and conditions arising from that consideration were attached to the original grant of planning in 2019 by ABP.

2.2.5 Terri Gray and Paul Burke

2.2.5.1 Overview of the Submission

The submission from Terri Gray and Paul Burke raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.5.2 of this Report:

- Site Selection and Alternatives Considered;
- Dublin Airport / Flight Paths;
- Odour;
- Biogas Storage in the Proposed Project; and
- Consultation for Residents.

2.2.5.2 Response to Submission

2.2.5.2.1 Site Selection and Alternatives Considered

This submission stated that the site selection process was not balanced and favoured the southern route option, and that the proposed WwTP will be located in a highly populated residential area.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection and alternatives considered.

2.2.5.2.2 Dublin Airport / Flight Paths

This submission outlined that the proposed WwTP will be located over the new flight path at Dublin Airport and queried if this was properly assessed.

Please refer to Section 2.2.1.2.34 of this Report which responds to a similar submission relating to Dublin Airport's flight paths.

2.2.5.2.3 Odour

This submission stated that odours will be emitted from the proposed WwTP.

Please refer to Section 2.2.2.2.5 of this Report which responds to a similar submission relating to the potential for odours at the proposed WwTP.

2.2.5.2.4 Outdated Reports / No Detail on UV Treatment

This submission outlined that, due to the passage of time since the original planning application was submitted, assessments and reports are now outdated. It also submitted that no detailed information on the inclusion of UV, including plans, drawings and assessment are available, following the decision made during the 2019 Oral Hearing to include UV treatment at the proposed WwTP.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to outdated reports and the assessment of UV treatment.

2.2.5.2.5 Biogas Storage in the Proposed Project

This submission outlined that they the observers were unaware of the inclusion of a 'biogas storage element' to the Proposed Project.

The Applicant would like to note that the inclusion of a proposed SHC at the proposed WwTP site was outlined in the original 2018 planning application. A description of the proposed SHC was provided in Section 4.4.6 of Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR. This Section outlined that:

> "*In accordance with the National Wastewater Sludge Management Plan (NWSMP) (Irish Water 2016), it is proposed to treat the sludge using advanced anaerobic digestion to produce a 'biosolid' end-product suitable for reuse in agriculture, with the biogas produced during the treatment process used on-site for energy recovery.*"

The Proposed Project will utilise the biogas produced during the treatment process as an energy source, on-site, as highlighted in Chapter 4 (Description of the Proposed Project) of the 2018 EIAR, and as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 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 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 will be utilised as an energy source, on-site.

The inclusion of the biogas storage element was assessed, where relevant, throughout the 2018 EIAR, as supplemented by the 2023 EIAR Addendum. This included an assessment of the potential risk of a gas explosion due to the release of biogas generated on-site during the anaerobic digestion process in Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR. Mitigation measures, as outlined below, were embedded in the design of the Proposed Project to ensure that this risk would be unlikely to occur.

The identification, control and management of risk is an integral part of the design and assessment process throughout all stages of a project life cycle as it has been for the Proposed Project. The Proposed Project will be designed, built and operated in line with current international best practice and guidelines.

Embedded design measures and additional mitigation measures include:

- The Proposed Project will be constructed in compliance with the latest Safety, Health and Welfare at Work (Construction) Regulations which place a duty on designers carrying out work related to the design of a project to take account of the General Principles of Prevention as listed in Schedule 3 of Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005. The Proposed Project will also comply with the latest Safety, Health and Welfare at Work (General Application) Regulations;
- The Proposed Project design team established a consistent and appropriate means of assessing the risks that may arise from design decisions, and in applying the General Principles of Prevention listed in Number 10 of 2005 - Safety, Health and Welfare at Work Act 2005, proposed mitigation measures to be embedded into the design and operational activities, through Design Risk Assessments; and

- An Environmental Incident Response Plan will be developed by the appointed contractor / operator of the proposed WwTP facility. This Environmental Incident Response Plan will be a live document that undergoes monitoring, review and will be updated throughout the lifetime of the Proposed Project. The risk management assessment of major accidents and / or disasters will be continued on an ongoing basis throughout the planning, design, Construction Phase and Operational Phase of the Proposed Project. Activities on-site will be monitored to ensure that risk does not increase over time on the site.

It should also be noted that all materials used at the proposed WwTP will be stored in a manner that is safe and in line with best industry practice. Fuels and chemicals will be stored in an appropriately bunded area / with double skinned tanks. All potential harmful substances will be stored in accordance with the manufacturer's guidelines. In addition, all aspects of the works will be watertight, which will include the pipelines, tanks and storage containers. Following the implementation of mitigation, it was determined that biogas did not present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects.

As part of the 2023 EIAR Addendum, an updated risk assessment was undertaken (refer to Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum) and determined that there was no change required to the level of risk in relation to biogas assessed in the 2018 EIAR.

2.2.5.2.6 Consultation for Residents

This submission outlined that residents in the new homes built in the study area since the original planning application consultation and Oral Hearing process were undertaken have not had the opportunity to make a submission on the Proposed Project. Please refer to Section 2.2.1.2.32 of this Report which responds to a similar submission relating to consultation since the 2018 planning application.

Please refer to Section 2.2.1.2.32 of this Report which responds to a similar submission relating to consultation since the 2018 planning application.

The Applicant would like to note that all residents were provided with the opportunity to make a submission on the 2023 remittal application. Where a resident previously made a submission to ABP in 2018, no fee was required as a fee would have been paid as part of the original submission process in 2018. Any new residents were required to pay the relevant fee to make a submission on the application for the first time. Whilst the newspaper notices refer to consultation on the Addendum, the full application (including the 2018 EIAR) has been available for review both in person and online on the project website (www.gddapplication.ie). Additionally the Addendum covers the full application and cross references back to the original EIAR.

The consultation period ran from 07 May to 07 June 2024 (a total period of 32 days), and allowed for prescribed bodies, members of the public and other interested parties to review the Further Information and provide a submission or observation to ABP, in line with the submission requirements set by ABP. The submissions and observations received during this consultation period are addressed in Section 3 of this Report.

2.2.6 Eamonn Hart

2.2.6.1 Overview of the Submission

The submission from Eamonn Hart raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.6.2 of this Report:

- Existing WwTPs; and
- Site Selection and Alternatives Considered and Consultation.

2.2.6.2 Response to Submission

2.2.6.2.1 Existing WwTPs

This submission stated that existing WwTPs already in operation in Ireland on similar systems do not work and disperse raw sewage into lakes, rivers and the seas, causing pollution.

The Applicant would like to note that existing WwTPs in Ireland are operating under licence from the EPA and are required to adhere to the treatment standards set by the EPA, as required under EU law. The EPA takes such enforcement action as may be warranted from time to time.

The Applicant would also like to note that the implementation of the Proposed Project will add more capacity to the network, which will reduce the pressures on the existing network in the GDA that are resulting from increased population growth and development. This, coupled with the inclusion of UV treatment, will have a positive impact on water quality and will safeguard public health.

Additionally, there is no potential for the release of untreated wastewater during normal operation of the proposed WwTP. The risk of a process failure was fully assessed in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, and outlined further in the 2019 Response to Submissions Report (Uisce Éireann 2019) and at the 2019 Oral Hearing in the Brief of Evidence delivered on Risk of Major Accidents and / or Disasters. This assessment considered the risk of failure from a number of different sources.

Please refer to Section 2.2.1.2.53 of this Report which responds to a similar submission relating to the potential process failure and the subsequent release of untreated wastewater, and outlines how this risk was assessed.

2.2.6.2.2 Site Selection and Alternatives Considered and Consultation

This submission stated that the selection of the Clonshagh site was not given enough consideration and local residents were not consulted.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection for the proposed WwTP and alternatives considered.

The Applicant would like to note that consultation formed a central part of the development of the Proposed Project from 2011 to-date and has been effective in widely disseminating information about the Proposed Project, as evidenced from the fact that substantive submissions have been received at each stage of the process to-date. An overview of the communication, engagement and consultation undertaken is included in Section 1.2 of this Report.

2.2.7 Sean Haughey TD

2.2.7.1 Overview of the Submission

The submission from Sean Haughey TD raised the following points, on which the Applicant has provided clarification in Section 2.2.7.2 of this Report:

- Smaller Plants and Alternatives Considered;
- Noise Impacts;
- Traffic Impacts;
- Odour;
- Adequacy of Secondary Treatment;
- Visual Impact of the Proposed WwTP;
- Impact on Biodiversity;
- Pollution in Dublin Bay During Normal Operation / Process Failure; and
- Light-Bellied Brent Geese.

2.2.7.2 Response to Submission

2.2.7.2.1 Smaller Plants and Alternatives Considered

This submission raised opposition to a Regional WwTP and stated that sewage should be treated as close as possible to the source, and that it would be preferable to provide multiple smaller WwTPs. The submission further outlined that the site selected for the proposed WwTP is unsuitable.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection, the scale of the proposed WwTP and alternatives considered.

2.2.7.2.2 Noise Impacts

This submission stated that construction activities will result in noise and local residents will be impacted by noise pollution from the operation of the proposed WwTP.

As outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), in response to submissions relating to noise impacts, a Programme of Noise and Vibration monitoring, both attended and unattended, will be carried out during the Construction Phase works. The Noise and Vibration Management Plan will form part of the overall CEMP and will give the details of who will undertake the noise and vibration monitoring and the list of proposed monitoring locations during the construction works. The noise and vibration monitoring will be carried out by a competent person in accordance with the definition provided by the EPA in their Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (EPA 2016).

A dedicated contact will be appointed by the appointed contractor(s) engaged by the Applicant, who will deal with all communications in relation to noise and vibration. All noise and vibration complaints will be fully investigated in a timely manner and appropriate action will be taken, including noise and vibration monitoring, where complaints arise.

In addition, an updated assessment of the potential for noise and vibration impacts was undertaken as part Chapter 15A (Noise and Vibration) in Volume 3A Part A of the 2023 EIAR Addendum. This Addendum Chapter considered all updates to elements of the Proposed Project, updates to the baseline environment, and updates to legislation, policy, standards, guidance and reference material since the 2018 planning application submission. Following consideration, the updated assessment determined that there were no changes to the outcome of the assessment of noise and vibration in the 2018 EIAR as a result of any of the updates.

2.2.7.2.3 Traffic Impacts

This submission stated that construction traffic will cause disruption at the Malahide Road / Baskin Lane Junction and that construction traffic should not be allowed to use Baskin Land or Clonshaugh Road. This submission also stated that traffic resulting from the operation of the proposed WwTP will diminish quality of life for local residents as traffic on the major and minor road in the vicinity has already reached saturation point.

Please refer to Section 2.2.2.2.10 of this Report which responds to a similar submission relating to traffic impacts as a result of the Proposed Project.

2.2.7.2.4 Odour

This submission outlined that inadequate design and maintenance of the proposed WwTP will result in odours coming from the proposed WwTP and this will impact local residents.

Please refer to Section 2.2.2.2.5 of this Report which responds to a similar submission relating to the potential for odours at the proposed WwTP.

2.2.7.2.5 Adequacy of Secondary Treatment

This submission stated that secondary treatment is inadequate.

The Applicant would like to note that the extensive modelling studies undertaken as part of the 2018 planning application on the expected discharge confirmed that, for the identified proposed outfall location and the emission limit values set out in Table 4.2 of Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, the receiving water will meet good status criteria and will meet the environmental quality objectives for coastal water nutrients levels. The modelling studies also confirmed that:

- The Proposed Project will have a negligible impact on the water quality of the coastal waters off County Dublin;
- The Proposed Project will have no impact on achieving the goals of the WFD (i.e. reaching good status in all water bodies);
- The proposed discharge location will not negatively impact any designated bathing waters; and
- The Proposed Project will have a negligible impact on the quality of shellfish waters.

In response to issues raised during the 2018 consultation period in relation to shellfish, the Applicant formerly outlined that, with secondary wastewater treatment, the discharge concentrations of coliforms in the effluent are variable and are dependent on the combined or otherwise nature of the sewage network, the organic load to the WwTP, the flow on any given day, the temperature, and the residence time in the WwTP. Water quality modelling undertaken in advance of, and during the Oral Hearing for the Proposed Project, confirmed that the combination of these factors provided equal time for uptake / accumulation and the subsequent clearance / removal of any coliforms by the shellfish. As such, it was concluded that there was no predicted impact on the shellfish water quality as a result of the Proposed Project and that the Proposed Project would not lead to a deterioration in water quality within the Shellfish Protected Area.

However, having regard to submissions made by FCC and members of the public, including relevant fishermen, it was determined that, out of an abundance of caution to ensure the protection of the shellfish waters, additional treatment would be applied to the effluent prior to discharge.

It was subsequently agreed as part of the Oral Hearing process that this additional treatment would take the form of UV treatment at the proposed WwTP located at Clonshagh. UV treatment of the final effluent will be incorporated into the proposed WwTP to provide a further reduction in the *E. coli* concentrations and further protection to the designated shellfish waters.

The 2023 EIAR Addendum considered the inclusion of UV treatment from all environmental aspects, and as part of Chapter 8A (Marine Water Quality) in Volume 3A Part A of the Addendum, updated water quality modelling was undertaken with the inclusion of UV treatment. These assessments concluded that the addition of UV treatment would result only in beneficial impacts, as additional treatment of the wastewater will be applied.

This extensive marine monitoring determined that, with the inclusion of UV treatment:

- The receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated bathing water beaches nor Blue Flag beaches; and
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated shellfish waters.

2.2.7.2.6 Visual Impact of the Proposed WwTP

This submission stated that the proposed WwTP will be visually obtrusive due to its proposed height.

Please refer to Section 2.2.2.2.3 of this Report which responds to a similar submission relating to the potential for visual impacts as a result of the proposed WwTP.

2.2.7.2.7 Impact on Biodiversity

This submission stated that locating the proposed WwTP in Clonshaugh will seriously affect birds and wildlife in this agricultural area and the European Habitats, Birds and EIA Directives will potentially be breached if permission is granted.

The Applicant would like to clarify that the abundance and distribution of breeding and non-breeding birds within and around the proposed WwTP has been established through standard survey methods, as reported in Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum. The surveys undertaken demonstrated that the habitats and birds in the vicinity of the proposed WwTP were of no more than local interest, and impacts were assessed as Not Significant in EIA terms, even prior to the implementation of a Landscape Management Plan which demonstrate the replacement planting to be included at the proposed Abbotstown pumping station and WwTP sites. The Landscape Management Plans will be prepared and implemented by the appointed contractor and will align with the Landscape Mitigation Plans included in the 2023 EIAR Addendum (refer to Figure 12.1 in Volume 5A of the 2023 EIAR Addendum for the proposed WwTP site).

The submission also raises the potential effect of '*ex-situ* feeding sites' referring to areas of grassland outside of the Natura 2000 network where development is proposed and the area is deemed to be important for the overwintering populations of certain waterbird special conservation interest (SCI) or feature species of the SPA in question.

In a response to the ABP Inspector at the Oral Hearing convened in March 2019[2], the ornithology expert clarified that -

72. *'In addition to the three general categories of wildlife-related responses, specific submissions were also made in relation to Light Bellied Brent Geese. One submission raised specific issues regarding Light Bellied Brent Geese at Clonshagh. A second stated that the area of the proposed Wastewater Treatment Plant is a migration path for Brent Geese and this will cease if the Proposed Project goes ahead.*
73. *Survey work confirms that there will be no impact on Light Bellied Brent Geese. In that regard, Section 11.2.3 in Chapter 11 in Volume 3 Part A of the EIAR presents the type and number of field surveys that were completed along the entire length of the Proposed Project including the Clonshagh area where the proposed WwTP is proposed to be located. This included wintering farmland surveys. Section 11.2.3 states that: "Three sets of visits were carried out, in late winter 2014/2015, in early winter 2015/2016 and in late winter 2016/2017."2016 Section 11.3.5 in Volume 3 Part A of the EIAR states that "There were no agglomerations of winter birds, such as geese or other wildfowl, or species reliant on farmland. The Proposed Project study area is therefore of no more than local importance for wintering birds".*
74. *Chapter 10 Biodiversity (Marine Ornithology) and Chapter 11 (Terrestrial and Freshwater Aquatic) in Volume 3 Part A of the EIAR identify, describe and assess the likely significant effects of the Proposed Project on birds at and around the proposed Wastewater Treatment Plant and there is no likely significant effect predicted on foraging grounds or migration of Light Bellied Brent Geese. The NIS also considers the potential effects on Light Bellied Brent Geese from airborne noise and visual disturbance (covered in section 6.1 of the NIS) and water quality (covered in section 6.2). In both cases, using baseline data (in section 5.1.4, reflected for Light Bellied Brent Geese in Figure A10.2:*

[2] https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/oral-hearing/GDD-Response-to-Ornithology-Questions-27-March-2019%21en%21.pdf

Records in Baldoyle Bay (Dec 2014 to March 2018)) and taking account of the species' conservation objectives at Baldoyle Bay SPA (see extract from Table 6.1 below), it is concluded beyond reasonable scientific doubt, that mitigation (in the form of screening, and specified in section 7.1, and quoted above in paragraph 41) means there would be no adverse impact on the conservation objectives in relation to this (or any other species). Specifically, the NIS concludes (section 8) that: "Following the implementation of mitigation to reduce the impact of visual disturbance (screening around both microtunnelling compounds and access track; Section 7.1), no residual impact on the Baldoyle Bay SPA is predicted. On this basis it is concluded that the proposed development will not adversely affect the integrity of the above Baldoyle Bay SPA, having regard to the conservation objectives of the site".'

In the 2018 EIAR and 2023 EIAR Addendum, the wildlife-related legislation that is relevant to the assessment process has been referred to and complied with, taking account of standard guidance and feedback from statutory consultees, including the legislation referred to in this observation. In addition, for the Revised NIS, as set out in Section 4.1.4, the possibility of '*ex-situ*' effects is specifically referred to as being a potential impact type considered in the approach adopted.

The 2018 EIAR, the 2023 EIAR Addendum, the 2018 NIS and 2023 Revised NIS are therefore compliant with the relevant wildlife-related EU Directives and concludes in Section 8 thereof that '*the proposed development will not adversely affect the integrity of the above Baldoyle Bay SPA, having regard to the conservation objectives of the site*'. The same conclusion is reached in relation to all other SPA sites. Contrary to what the submission claims, points 1 and 2 listed under 'Reasons and Considerations' of ABP Planning Ref: APB-307444-20 (a now quashed permission) have no material bearing on this application.

2.2.7.2.8 Pollution in Dublin Bay During Normal Operation / Process Failure

This submission stated that there is a threat of pollution occurring from the normal operation of the proposed WwTP or from an accident or systems failure, and that the Dublin Bay Biosphere and its designated ecological sites are under threat from the Proposed Project.

The risk of a process failure was fully assessed in the EIAR in the 2018 planning application and outlined further in the 2019 Response to Submissions Report (Uisce Éireann 2019) and at the 2019 Oral Hearing in the Brief of Evidence delivered on Risk of Major Accidents and / or Disasters. This assessment considered the risk of failure from a number of different sources. The Applicant would like to clarify that there was no change to the statements documented at the 2019 Oral Hearing that, a total failure of the WwTP cannot occur, and therefore, a resulting discharge of untreated sewage to the marine environment would also not occur.

Please refer to Section 2.2.1.2.53 of this Report which responds to a similar submission relating to the potential process failure and how this risk was assessed.

2.2.7.2.9 Light-Bellied Brent Geese

This submission outlined that the planning decision for ABP planning reference number 307444-20 is very relevant to the Proposed Project application, particularly in relation to Light-Bellied Brent Geese which feed at the Clonshagh site.

The Applicant would like to clarify that the baseline winter bird surveys (reported in Chapter 10 (Biodiversity (Marine Ornithology)) and Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR) confirmed that the proposed WwTP site at Clonshagh is of no habitat significance for Light-Bellied Brent Geese. This was elaborated on in the 'Response to Issues Raised on Breeding and Wintering Birds in Relation to Clonshagh Waste Water Treatment Plant: Dr Simon Zisman 27.03.2019' presented at the 2019 Oral Hearing and included as Appendix A10.3 in Volume 3A Part B of the 2023 EIAR Addendum. Section 5 of this Response stated that the proposed WwTP is over 5km from the Baldoyle Bay SPA and that the proposed WwTP is of no importance for SCI species of this or any other SPA. This includes for Brent Geese, and also for all other migratory waders and wildfowl. The construction and operation of the WwTP will therefore have no adverse impact on the integrity of the SPA.

Therefore, the issues raised relative to the planning refusal decision by ABP reference 307444-20 (relating to lands to the east of St. Paul's College, Sybil Hill Road, Raheny, Dublin 5) have no relevance in relation to the proposed WwTP at Clonshagh.

The wider relevance of this and associated planning applications for the St. Paul's site have been considered above, in relation to the submission of Sabrina Joyce Kemper (refer to Section 2.2.1.2 of this Report), and effects on foraging Light-Bellied Brent Geese. The conclusions of the 2018 EIAR, 2018 NIS, 2023 EIAR Addendum and 2023 Revised NIS, that there will be no significant or adverse effect on Light-Bellied Brent Geese, remain valid.

2.2.8 Sean Lyons

2.2.8.1 Overview of the Submission

The submission from Sean Lyons raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.8.2 of this Report:

- Connolly Hospital / St. Francis' Hospice and Odours;
- Odours from Proposed RBSF / WwTP;
- Outdated Environmental Assessment;
- Consultation;
- Pumping Sewage During Electricity Shortages / Inflated Charges; and
- Anaerobic Digestion and Site Selection.

2.2.8.2 Response to Submission

2.2.8.2.1 Connolly Hospital / St. Francis' Hospice and Odours

This submission stated that the location of the Proposed Project in close proximity to Connolly Hospital and St. Francis' Hospice will cause pungent odours and gases to be released which has the potential to impact on the surrounding population and sick patients.

As outlined in the 2019 Oral Hearing 'GDD Response to Air Quality and Odour Questions 28 March 2019' Brief of Evidence, delivered to the Inspector and the public, odour impacts are evaluated by comparison of predicted impacts with performance standards, expressed as the air quality standards that must be achieved at the site boundary, which means that the highest possible levels of protection, including a margin of safety, have been factored into the design of the Proposed Project.

Section 14.2.3 of Chapter 14 (Air Quality, Odour and Climate) in Volume 3 Part A of the 2018 EIAR set out the approach that was followed in the selection of the appropriate standards for the Proposed Project. As noted in the 2018 EIAR, the most stringent assessment target of 1.5OUE/m^3 (odour units per cubic metre) as a 98th percentile of one-hour averaging periods was selected as the most appropriate assessment criterion for the Proposed Project. The assessment criterion is based on ensuring that odours that would be classified as a nuisance would not occur outside the site boundary for more than 2% of the time in any one year or 175 hours spread across a year. This is referred to as the 98^{th} percentile, since 175 hours represents 2% of a calendar year.

The odour impact assessment for the Operational Phase of the Proposed Project was discussed in detail in Section 14.6 of Chapter 14 in the 2018 EIAR. The discussion focused on evaluating the impact of potential odour emissions from the proposed Abbottstown pumping station, the Dubber OCU and the proposed WwTP. This assessment is based on the use of a computer dispersion model which predicts how the odour emissions will be released and dispersed in the atmosphere and the model predictions are compared with the assessment criterion of 1.5OUE/m^3 as a 98th percentile of one-hour averaging periods.

Appendix A14.5 in Volume 3 Part B of the 2018 EIAR presented the detailed dispersion modelling predictions that are discussed in Section 14.6 of Chapter 14 of the 2018 EIAR. The assessment findings demonstrated

that for all normal operating scenarios, the predicted impacts would be significantly lower than the assessment criterion. This means that for at least 98% of the time, nuisance odour associated with any element of the Proposed Project will not be detectable at the boundary of the facility or at any sensitive receptor outside the site boundary. The risk of detecting nuisance odours is higher close to the odour sources at the site boundary and diminishes as the distance from the sources increases.

The assessment further showed that even if the odour emissions are more than twice the level which the OCUs are designed to achieve, nuisance odour associated with any element of the Proposed Project will not be detectable at the boundary of the facility or at any sensitive receptor outside the site boundary. This is clearly a very significant margin of safety in the assessment.

Appendix A14.5 in Volume 3 Part B of the 2018 EIAR also presents modelling predictions for the 99.5th percentile which demonstrated that nuisance odour associated with any element of the Proposed Project will not be detectable at the boundary of the facility or at any sensitive receptor outside the site boundary for more than 44 hours in any one year. The model showed that the percentage of time that nuisance odours could be detected beyond the site boundary is substantially lower than 44 hours in any one year, but the impact predictions are specifically included in the 2018 EIAR as the model predictions for that particular time interval. Specifically at Abbottstown, nuisance odours would not be detectable at any sensitive receptor, including St. Francis' Hospice, for more than 0.01% of the time, and most likely even less frequently.

As already stated, the performance standard against which the potential odour impact is being assessed is the 98th percentile which means that nuisance odours will not be detected at the site boundary or at any sensitive receptor for more than 175 hours in any year. However, this does not mean that nuisance odours would occur for that amount of time. The Standard recognises that it is possible that nuisance odours might be detectable at the site boundary under certain weather conditions. The 98th percentile Standard takes account of even the most adverse weather conditions that could affect the dispersion of odours and which could result in a situation whereby odours might disperse poorly even though the OCUs performance continues to be as designed and fully effective.

The dispersion of odour from emission sources is affected by atmospheric stability. There are six categories of atmospheric stability normally used for this type of study which range from very unstable (A) to stable (F). The most common type of stability category encountered in the area is neutral (D) stability which is representative of the conditions normally encountered in Ireland and is associated with cloudy, rainy or windy weather. Dispersion of pollutants is poorest under stable atmospheric conditions (categories E and F, normally experienced during the night), and present for less than 6% of the time in the area. These types of conditions might lead to poorer dispersion and then potentially nuisance odours could be detected close to the sites. The detailed modelling predictions show that even under these maximum adverse meteorological conditions, nuisance odours will not be detectable at the closest sensitive receptors, including Connolly Hospital and St. Francis' Hospice. Nuisance odours might be detectable close to the site boundary for short periods, but as noted above, this will not exceed 0.5% of the time which equates to less than 44 hours in one year.

It is important to note that the OCUs are designed to meet the required performance and that this performance does not change in a way that would lead to nuisance odours being detected beyond the site boundary. It is only adverse weather conditions associated with poorer dispersion that might lead to detectable nuisance odours beyond the site boundary for short periods of time. If those weather conditions do not arise, then nuisance odours will not be detectable beyond the site boundary or at sensitive receptors at a distance from the site boundary.

In order to ensure that there will be no odour nuisance at or beyond the site boundary, a number of factors must be considered as follows:

- The target performance criterion for odour;
- Effective containment and capture of odours;
- The selection of appropriate odour control systems; and
- Monitoring and maintenance to ensure ongoing effective operation and achievement of the specified performance targets.

The critical factor for the Proposed Project locations in the vicinity of Connolly Hospital and St. Francis' Hospice is that full containment and capture of odours is a feature of the design. The design of the Proposed Project ensures that odours will be contained, captured and treated effectively and efficiently, with significant margins of safety. It is therefore possible to conclude that nuisance odours will not be released at levels that would lead to detectable nuisance at the boundaries of the sites or at sensitive receptor locations.

As part of the 2023 EIAR Addendum, a series of updated model runs were completed using the most up-to-date model (AERMOD Prime model (Version 22112)) to re-verify the results of the odour modelling completed for the 2018 EIAR. The current regulatory version of the dispersion model AERMOD (Version 22112) does not lead to any different findings compared with the previous AERMOD version used in the 2018 EIAR, and the above findings therefore remain valid.

2.2.8.2.2 Odours from Proposed RBSF / WwTP

This submission stated that the location of the proposed WwTP and RBSF are such that pungent smelling solid waste will be an issue.

2.2.8.2.2.1 *Proposed RBSF*

With regard to concerns around potential odours from the RBSF, indicated by reference to '*pungent smelling solid waste*', the environmental impact assessment of odour at the RBSF site at Newtown was provided in Section 10 in Volume 4 Part A of the 2018 EIAR, as supplemented by Section 10A in Volume 4A Part A of the 2023 EIAR Addendum. It is explained in this Section that the impact of odours can be mitigated by covering, extracting and treating potential odour sources using OCUs. It is demonstrated in this Section that mitigation measures will ensure that emissions from the RBSF will be limited to less than 3 OUE/m^3, as the 98th percentile of hourly averages at any receptor near the site. The RBSF is under construction pursuant to permission granted, that construction includes provision for active odour control, as envisaged by the design for which permission was granted. Operational odour issues will be managed fully in accordance with the conditions attached to the planning permission.

2.2.8.2.2.2 Proposed Project (Including Proposed WwTP)

Please refer to Section 2.2.2.2.5 of this Report which responds to a similar submission relating to the potential for odour as a result of the Proposed Project, including at the proposed WwTP.

2.2.8.2.3 Outdated Environmental Assessments

This submission stated that the environmental impact assessments undertaken for the 2018 planning application are out of date and need to be carried out again.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to outdated assessments.

2.2.8.2.4 Consultation

This submission outlined that populations in the surrounding areas of Blanchardstown and Clonshagh have grown since the original 2018 planning application and should be given the opportunity to comment on the Proposed Project.

Please refer to Section 2.2.5.2.6 of this Report which responds to a similar submission relating to consultation.

2.2.8.2.5 Pumping Sewage During Electricity Shortages / Inflated Charges

This submission outlined that pumping millions of litres of sewage to Clonshagh and then out to sea is not recommended at this time of electricity shortages and inflated charges.

As outlined in the 2018 Engineering Design Report, as supplemented by the 2023 Addendum to the Engineering Design Report, included in the 2018 planning application and the 2023 remittal application respectively, the Applicant is committed to designing, building and operating assets to ensure energy efficiency.

The plant, equipment, buildings and systems associated with the Proposed Project have been designed, and will be equipped, operated and maintained in such a manner to ensure a high level of energy performance and that energy is used efficiently. The design of the Proposed Project aligns with the requirements set out in Irish Standard (IS) 399 Energy Efficient Design and Management, as published by the National Standards Authority of Ireland (NSAI 2021). This standard requires that any design features or methods that may reduce energy consumption are considered and the process of their consideration is clearly documented.

Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency, and amending Regulation (EU) 2023/955 (recast), 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. The design of the Proposed Project is such as to accommodate all elements needed to account for this and to adhere to the relevant Sustainable Energy Authority of Ireland (SEAI) Guidelines including development of energy balances, determination of the minimum achievable energy performance indicator (EnPi) for the design, energy benchmarks, energy variables for the design that quantify variables that impact energy performance and preparation of Measurement and Verification (M&V) Plans to detail how the energy performance of the design will be measure and verified as per the International Organization for Standardization (ISO) 50015:2014 – Energy Management Systems (ISO 2014).

The proposed orbital sewer will be a gravity sewer for approximately 8.5km of its total 13.7km length and the NFS diversion sewer will operate as a gravity sewer from its point of interception to the proposed WwTP. The proposed outfall pipeline route will operate as a pressurised gravity sewer. The inclusion of gravity pipelines reduces the amount of energy required to pump wastewater to the proposed WwTP.

The Proposed Project will utilise the biogas produced during the treatment process as an energy source, on-site, as highlighted in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the EIAR in the 2018 planning application, and as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 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 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.

The proposed energy recovery (through advanced sludge digestion processes, the 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 will assist in reducing dependency on fossil fuels.

These represent the main elements of the advanced sludge treatment processes to maximise energy recovery. There is also considerable scope for the proposed WwTP site to accommodate additional renewable energy technologies such as solar energy in due course. 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 though energy recovery, while also ensuring the future wastewater needs of the GDA are met.

2.2.8.2.6 Anaerobic Digestion and Site Selection

This submission outlined that the use of anaerobic digestion can provide clean water, agricultural fertiliser and heat and power and that FCC have enough land to the east and south of the M50 Motorway where a facility could be located.

As outlined in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, in accordance with the National Wastewater Sludge Management Plan (NWSMP) (Uisce Éireann 2016), it is proposed to treat the sludge at the proposed WwTP using advanced anaerobic digestion to produce a 'biosolid' end-product suitable for reuse in agriculture.

In addition, as outlined above in Section 2.2.8.2.5, biogas generated on-site during the anaerobic digestion of sludge will be used to generate electricity and recover heat through the CHP system. In addition, the use of thermal hydrolysis with anaerobic digestion will reduce the dry matter and increase production of biogas. A well-designed CHP system will produce power at a cost below that of retail electricity, which will reduce the overall energy consumption of the proposed WwTP, therefore reducing the reliance on the national grid, while also reducing emissions of greenhouse gases.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection.

2.2.9 Iarnród Éireann

2.2.9.1 Overview of the Submission

The submission from Iarnród Éireann raised a number of conditions and requirements for the Applicant to comply with in undertaking the Proposed Project in the vicinity of Iarnród Éireann assets, on which the Applicant has provided clarification in Section 2.2.9.2 of this Report.

2.2.9.2 Response to Submission

The Applicant acknowledges the recommended conditions and requirements within the submission from Iarnród Éireann, which are in line with consultation between the Applicant and Iarnród Éireann to-date. The Applicant is committed to ongoing consultation with Iarnród Éireann throughout the development of the Proposed Project, and accepts the principle, spirit, and intent of the suggested conditions and requirements.

The Applicant will comply with the conditions attached to any grant of planning approval, in addition to those already included as mitigation or monitoring measures in the 2018 EIAR, 2023 EIAR Addendum, the Revised NIS, plus the 2018 CEMP, as supplemented by the 2023 Addendum to the CEMP, which are all included in the planning application documentation. Specifically, the Applicant is willing to accept the suggested conditions put forward by Iarnród Éireann, as follows:

- The Applicant must take the Railway Safety Act 2005 into consideration in the design, construction and operation of the Proposed Project;
- The Applicant must engage with Iarnród Éireann to seek advice on technical requirements for mitigating impacts on railway infrastructure;
- The Applicant should engage with Iarnród Éireann and provide detailed cross sections with a view to agreeing the position of access shafts on for the proposed outfall pipeline that will pass under the Dublin to Belfast railway line;
- The proposed pipelines and ancillary services that will cross along, over or under the railway must be the subject of a licence agreement with Iarnród Éireann / Córas Iompair Éireann (CIÉ) and all lands directly under the railway are in Iarnród Éireann / CIÉ ownership and all proposed works in these areas are subject to agreement with, and require written consent from Iarnród Éireann / CIÉ;rThe Dart+ Coastal Project (Northern Line) is underway and is the Concept, Feasibility and Option Selection stage. Uisce Éireann should consult with Iarnród Éireann in relation to the output of this option selection study and other aspects of the Dart+ Coastal Project;
- The Dart+ Coastal Project (Northern Line) is underway and is the Concept, Feasibility and Option Selection stage. Uisce Éireann should consult with Iarnród Éireann in relation to the output of this option selection study and other aspects of the Dart+ Coastal Project;
- The integrity and functionality of any existing historical drainage channel running parallel to the railway at the crest of cutting must not be affected by any temporary or permanent works;

- No overhang of construction plant and equipment will be allowed over railway property and if a crane that is required to swing over the railway property is required, the Applicant must enter into an agreement with Iarnród Éireann / CIÉ;
- No additional liquids (surface water or effluent) will be discharged or allowed to seep into railway property;
- Any lights required for the construction and / or operation of the Proposed Project should not cause glint or glare or impair the vision of train drivers or personnel operating on track machines;
- The Proposed Project may not undermine the integrity of the embankment supporting a culvert structure (UBB20A) and overbridge (OBB21) which Iarnród Éireann has a statutory obligation to maintain;
- The security of the railway boundary must be maintained during the installation of the proposed pipelines under the railway and access of Iarnród Éireann staff to culverts / bridges under the railway should not be hindered during construction works;
- A traffic management plan must be in place during construction to prevent construction traffic passing under the height-restricted underbridge (UBB20) and should take note of the full loss of bridges along the railway. In addition, any works that could disrupt traffic in the vicinity of railway underbridge UBB20 will comply with the Railway Safety Act 2005; and
- A comprehensive and detailed ground investigation / report and works design statement must be carried out prior to detailed design.

2.2.10 Catherine McMahon and Others

2.2.10.1 Overview of the Submission

The submission from Catherine McMahon and Others raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.10.2 of this Report:

- 2018 Planning Application / 2020 Foreshore Licence Difference;
- Foreshore Licence Mitigation Measures;
- NIS and EIAR Outdated; and
- There are issues with the Dye and Drogue Reports dated 2012 and 2015.

2.2.10.2 Response to Submission

2.2.10.2.1 2018 Planning Application / 2020 Foreshore Licence Differences

This submission stated that there are differences between the original 2018 planning application NIS and the NIS included in the 2020 Foreshore Licence application. The submission also stated that there are differences between the Quiet Oceans Report in the original 2018 planning application and in the 2020 Foreshore Licence application.

The Applicant would like to clarify that the content contained within both NIS documents (one submitted for the 2018 planning application and the other for the 2020 Foreshore Licence application) is identical. The version included with the 2020 Foreshore Licence application has a different cover page to note that it is being included with the Foreshore Licence application and was split into two files due to its large file size and restrictions on file size for this application. The title page of the 2020 Foreshore Licence application NIS reads ‘Natura Impact Statement, Issue for Foreshore Licence Application (Appendix 4), February 2020’, while the 2018 planning application NIS title page reads ‘Natura Impact Statement’.

It is also important to note that, following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the PDA, the Applicant should have the opportunity to update, where appropriate, the EIAR and NIS and any other information submitted. Uisce Éireann prepared the 2023 EIAR Addendum in response to that request from ABP, and in order to provide a full update of the surveys and assessments underpinning the Application. A Revised NIS has also been produced as part of this remittal Application.

The Applicant would like to clarify that the two Quiet Oceans Reports mentioned in this submission are two separate reports. The Modelling Dredging and Piling Noise Offshore Dublin Report (Version 04) report forms part of the Proposed Project NIS. It is located at Appendix D within the NIS. The Quiet Oceans Report – Modelling Dredging Noise Offshore Dublin Report (Version 02) forms part of the 2018 EIAR. It is contained in Appendix A9.3 (Underwater Noise Assessment and Modelling) in Volume 3 Part B of the 2018 EIAR. This Appendix is referenced on Page 4 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR.

Both reports are contained within the 2018 planning application and the subsequent 2020 Foreshore Licence application.

The Applicant would also note that the Foreshore Licence regime has been replaced by MAP Act 2021 and as such the Applicant will no longer be progressing the 2020 Foreshore Licence application.

2.2.10.2.2 Foreshore Licence Mitigation Measures

This submission stated that the updated mitigation measures (as attached to the submission) included in the 2020 Foreshore Licence application do not include secondary treatment.

The Applicant would like to clarify that the report attached to this submission is Appendix 8 (Summary of Mitigation Measures Specific to the Marine Environment) of the 2020 Foreshore Licence application.

It is important to note that this Appendix is an extract from Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR and summarises the mitigation measures specific to the marine environment only, for ease of reference. The information in this Appendix is identical to the information contained in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, which is also included with the 2020 Foreshore Licence application.

It is also important to note that, following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the PDA, the Applicant should have the opportunity to update, where appropriate, the EIAR and NIS and any other information submitted.

The Foreshore Licence regime has been replaced by the MAP Act 2021 and as such the Applicant will no longer be progressing the 2020 Foreshore Licence application. Refer to Section 2.2.1.2.6 for details on the new maritime area consents process relevant to the Proposed Project as prescribed by the MAP Act 2021.

2.2.10.2.3 NIS and EIAR Outdated

This submission stated that the NIS and the EIAR submitted in the 2018 planning application are out of date.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to outdated NIS and EIAR assessments.

2.2.10.2.4 Dye and Drogue Reports

This submission stated that there are issues with the Dye and Drogue Reports dated 2012 and 2015.

The Applicant would like to clarify that the dye and drogue surveys were undertaken in line with standard industry practices. Personnel health and safety considerations determine the operating limits for undertaking dye and drogue surveys.

2.2.11 Denise Mitchell TD and Others

2.2.11.1 Overview of the Submission

The submission from Denise Mitchell TD and Others raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.11.2 of this Report:

- Site Selection and Alternatives Considered;
- Proximity of WwTP to Residential Properties and Visual Impact;
- Construction Phase Traffic;
- Odour;
- Bathing Water Quality; and
- Impacts on Marine Biodiversity.

2.2.11.2 Response to Submission

2.2.11.2.1 Site Selection and Alternatives Considered

This submission outlined that the site selection process should be re-evaluated as the site at Clonshagh is unsuitable.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection and alternatives considered.

2.2.11.2.2 Proximity of WwTP to Residential Properties and Visual Impact

This submission stated that the proposed WwTP will be in very close proximity to large housing estates and the size of the plant will be unsightly and will not be in keeping with the development in the area.

Please refer to Section 2.2.2.2.3 of this Report which responds to a similar submission relating to visual impacts as a result of the proposed WwTP.

2.2.11.2.3 Construction Phase Traffic

This submission outlined that the Construction Phase will cause traffic problems due to truck movements and will cause a permanent increase in traffic volume in an area that already experiences significant traffic issues.

Please refer to Section 2.2.2.2.10 of this Report which responds to a similar submission relating to traffic impacts.

2.2.11.2.4 Odour

This submission stated that the proposed WwTP will emit odours which will impact the quality of life for residents and businesses in the local area.

Please refer to Section 2.2.2.2.5 of this Report which responds to a similar submission relating to the potential for odours at the proposed WwTP.

2.2.11.2.5 Bathing Water Quality

This submission raised concerns about the environmental impact of the proposed outfall on the areas of Portmarnock, Baldoyle, Howth, Sutton and Ireland's Eye. The submission also stated that the Proposed Project will likely further deteriorate bathing water quality and cause harm to local species and humans.

Please refer to Section 2.2.1.2.51 of this Report which responds to a similar submission relating to bathing waters.

2.2.11.2.6 Impacts on Marine Biodiversity

This submission outlined that the impact of the discharge of effluent close to Ireland's Eye has not been fully thought through as Ireland's Eye is an important breeding ground for seabirds and the outfall at this location is contrary to the EU Birds Directive. The submission also stated that the proposed outfall will have a major

impact on North Bull Island Nature Reserve which is a vital winter-feeding ground for internationally important Brent Geese.

2.2.11.2.6.1 Ireland's Eye

The Applicant would like to clarify that the potential pathways and potential impacts of effluent discharge on seabirds breeding at Ireland's Eye have been fully assessed throughout the 2018 EIAR and 2023 EIAR Addendum, in addition to the 2018 NIS and the 2023 Revised NIS. The firm conclusion reached in these ecological assessments is that there will be no adverse impact on site integrity for Ireland's Eye, alone or in combination with other plans and projects.

2.2.11.2.6.2 North Bull Island Nature Reserve

The Applicant would like to clarify that potential impacts to the North Bull Island Nature Reserve have been fully assessed, and are covered in:

- Chapter 10 (Biodiversity (Marine Ornithology)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 10A (Biodiversity (Marine Ornithology)) in Volume 3A Part A of the 2023 EIAR Addendum);
- Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)), notably Section 11.9 in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum; and
- The 2018 NIS, as revised by the 2023 Revised NIS.

The Proposed Project was considered beyond its physical distance for the potential for effects on North Bull Island SPA. As noted in Section 4.2.1 'Water Catchments traversed by the Proposed Project' of the 2023 Revised NIS, a satellite compound will be located at the M50 Interchange No. 4, which is approximately 100m from the River Santry. Drawing on the assessment of the potential pathways and potential impacts of the application, the 2023 Revised NIS therefore considered hydrological (water quality and habitat deterioration, airborne noise and visual disturbance, and habitat loss impacts (see Tables 4-2 and 4-3) and concluded (in Section 6.1.3.1, 6.2.44, and Section 6.4.5.1) that the conservation objectives for the SCIs of this SPA would not be compromised, and there would not be an adverse effect on site integrity from the Proposed Project (including its proposed outfall pipeline).

2.2.12 Anne Murphy and Maria Murphy

2.2.12.1 Overview of the Submissions

The submissions from Anne Murphy and Maria Murphy (which both contained the same observations) raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.12.2 of this Report:

- Pollution During Normal Operation / Process Failures at the Proposed WwTP;
- Impact to European Designated Sites;
- Odour; and
- Smaller WwTPs and Alternatives Considered.

2.2.12.2 Response to Submission

2.2.12.2.1 Pollution During Normal Operation / Process Failures at the Proposed WwTP

The two submissions stated that there is a threat of pollution occurring from the normal operation of the proposed WwTP or from an accident or systems failure, or from the inevitable deliberate release of sewage following heavy rainfall. Thes submissions continued that this will present a danger to designated sites and shellfish waters.

The Applicant would like to clarify that there is no potential for the release of untreated wastewater during normal operation of the proposed WwTP. The risk of a process failure was fully assessed in the 2018 EIAR and outlined further in the 2019 Response to Submissions Report (Uisce Éireann 2019) and at the 2019 Oral Hearing in the Brief of Evidence delivered on Risk of Major Accidents and / or Disasters. This assessment considered the risk of failure from a number of different sources.

Please refer to Section 2.2.1.2.53 of this Report which responds to a similar submission relating to the potential process failure and how this risk was assessed.

2.2.12.2.2 Impact to European Designated Sites

The two submissions stated that the precautionary principle of the Habitats Directive should be used to protect Rogerstown Estuary, Lambay Island, Skerries Islands, Rockabill to Dalkey, Malahide Estuary and Ireland's Eye designated areas, as well as Balbriggan / Skerries and Malahide designated shellfish waters.

The Applicant would like to clarify that the precautionary principle of the Habitats Directive is to be applied in the absence of up-to-date scientific evidence supporting an appropriate assessment. In the case of the Proposed Project, a compendium of up-to-date scientific knowledge in the field has informed appropriate assessment, as detailed in the 2018 NIS and the 2023 Revised NIS to meet the legal requirement of an appropriate assessment based on best scientific evidence. The competent authority is therefore not encumbered by limiting itself only to the application of the precautionary principle.

2.2.12.2.3 Odour

The two submissions outlined that the proposed WwTP will release odours, similar to the odour problems noted at Ringsend WwTP and other UK examples.

Please refer to Section 2.2.2.2.5 of this Report which responds to a similar submission relating to the potential for odours at the proposed WwTP.

2.2.12.2.4 Smaller WwTPs and Alternatives Considered

The two submissions stated that sewage should be treated as close as possible to the source and it would be preferable to provide multiple smaller WwTPs.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection and alternatives considered.

2.2.13 Portmarnock Beach Committee

2.2.13.1 Overview of the Submission

The submission from Portmarnock Beach Committee raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.13.2 of this Report:

- Surveys;
- Legislation Changes and Inclusion of UV Treatment;
- Impact of Dredging on Blue Flag Beaches;
- Viruses in Wastewater;
- Bathymetric Desktop Model Validity; and
- Howth fishermen are worried about the outfall in the Irish Sea and the EPA should work with the fishermen relating to any consequences from the proposed outfall.

2.2.13.2 Response to Submission

2.2.13.2.1 Surveys

This submission stated that there is a lack of field surveys relating to the environmental impact assessment in all aspects of the Proposed Project and such surveys should be carried out by properly qualified scientists employed by the EPA.

An extensive range of environmental surveys were carried out to inform the environmental impact assessment for the 2018 planning application. Details of the field surveys, as well as desk-based assessments carried out to inform each environmental aspect, are outlined in Chapter 6 to Chapter 23 in Volume 3 Part A of the 2018 EIAR. All surveys were carried out by suitably qualified specialist teams.

In addition, following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the PDA, the Applicant should have the opportunity to update, where appropriate, the EIAR and NIS and any other information submitted.

The Applicant prepared the 2023 EIAR Addendum in response to that request from ABP to provide a full update of the surveys and assessments underpinning the Application. The 2023 EIAR Addendum was submitted to ABP on 26 October 2023. In the preparation of the 2023 EIAR Addendum, the Applicant and its technical advisors considered the extent to which each of the technical chapters of the 2018 EIAR and NIS were required to be updated, having particular regard to:

- Changes to the baseline environment;
- The requirement for updated surveys; and
- Changes to the law, policy, and industry standards and guidance in the intervening period.

Insofar as relevant to the 2023 EIAR Addendum, the Applicant also had regard to the information presented at the Oral Hearing for application ABP-301908-18 and the High Court proceedings in respect of that application, including the addition of UV treatment and the extension to the River Mayne Culvert, such that the Proposed Project description was fully updated.

The 2023 EIAR Addendum outlines the updated surveys and desk-based assessments that were carried out for all environmental aspects (refer to Chapter 6A to Chapter 23A in Volume 3A Part A for further details of all update surveys and assessments), which increases the data pool that was used to inform the environmental impact assessment. The 2023 remittal application presents any changes or updates to the Planning Report, EIAR and NIS, where appropriate, and has undertaken the required surveys and desk-based assessments to ensure that the assessment of the Proposed Project is as up-to-date as possible.

2.2.13.2.2 Legislation Changes and Inclusion of UV Treatment

This submission noted the recently enacted legislation requiring county councils to have legal responsibility relating to the coastal marine environment and that the enactment of this legislation requires a new investigation into all marine aspects of the Proposed Project. The submission also stated that the inclusion of UV treatment was only added during the 2019 Oral Hearing process and members of the public and interested bodies had no opportunity to assess the effectiveness of this treatment process.

The relevant Councils, Dublin City Council and Fingal County Council, are prescribed bodies. They have been consulted and provided with the opportunity to comment and make submissions on the Proposed Project at every stage of the application process. Their role as coastal planning authorities under the MAP Act does not change this requirement.

In respect of the assertion that members of the public have not had an opportunity to assess the effectiveness of UV treatment please refer to the response in Section 2.2.1.2.3 of this Report.

2.2.13.2.3 Impact of Dredging on Blue Flag Beaches

This submission stated that the dredging of the proposed outfall pipeline across Velvet Strand is not appropriate for a Blue Flag Beach and desktop assessments are inadequate for a receptor as important as Portmarnock Beach.

As outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), and as presented in Section 9.4.3 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, the proposed outfall pipeline route (marine section) will be installed using a tunnel beneath Baldoyle Bay and will run for approximately 2km below Velvet Strand out to 600m from the coast. A backhoe dredger (BHD) or trailer suction hopper dredger (TSHD) will then be used for trenching in the shallower waters to the proposed outfall pipeline route (marine section) discharge point north of Ireland's Eye. The impact from the sediment plume dispersion model is presented in Figure 9.6 in Volume 5 Part A of the 2018 EIAR. This data shows that there will be no impact to Portmarnock Beach (Velvet Strand) from dredging during the Construction Phase. Section.8.5 of the 2018 EIAR sets out the proposed mitigation measures which will be implemented during dredging operations to further limit any impact on surrounding waters, and which include: the disposal of dredged material only occurring on local flooding tides to ensure suspended sediments are not transported to sensitive receptors around Ireland's Eye, continuous monitoring of turbidity and suspended sediment concentrations of the receiving waters, and the suspended sediment limit.

The Applicant notes that the construction methodology proposed for the outfall pipe underlines that the dredged material removed in order to allow for the installation of the pipe, will be temporarily stored on the seabed beside the trench, before it is backfilled after the pipe is installed. While there is no specific dredging licence regime in Ireland, dredging and the disposal of dredging material is regulated by the Dumping at Sea Act 1996, and any dredging activity is regulated by a Dumping at Sea permit granted by the EPA. The Applicant will secure and comply with such licence as is required.

2.2.13.2.4 Viruses in Wastewater

This submission noted that an EPA study in 2022 found that the COVID-19 virus was detected in the receiving water of Irish WwTPs and stated that details on how to deal with viruses must be published.

In May 2022, the National Wastewater Surveillance Programme (NWSP) was established by the Health Protection Surveillance Centre (HPSC), the Health Service Executive (HSE), the Health Intelligence Unit, the National Virus Reference Laboratory (NVRL), University College Dublin (UCD) School of Biomolecular and Biomedical Science, and by the Applicant, in response to SARS-CoV-2. The Applicant facilitated access to influent samples to enable monitoring for SARS-CoV-2 viral loads in 68 wastewater catchment areas (an 80% population connect to public wastewater services) across Ireland on a weekly basis, and Ringsend WwTP on a bi-weekly basis. The NWSP adapted to evolutions in the pandemic and with the support of a European Commission grant, to include SARS-CoV-2 variant testing. In January 2023, the NWSP commenced monitoring SARS-CoV-2 viral loads in 30 wastewater catchment areas (a 69.5% population connect to public wastewater services) across Ireland on a weekly basis, and a bi-weekly basis at Ringsend WwTP.

Peer reviewed publications (L. Sala-Comorera, L.J. Reynolds, N.A. Martin *et al.* 2021; K. Purves *et al.* 2024) for studies which assessed the decay of infectious SARS-CoV-2 in seawater, river water and sewage showed a rapid decline in infectivity of the virus, while the ribonucleic acid (RNA) remained detectable for a long time in the water. The study found that the infectious particle decays most rapidly in seawater illustrating that there is no chance of being infected with SARS-CoV-2 from treated wastewater (i.e., the virus would already be inactive in sewage and even if it remained somewhat infectious upon discharge in receiving waters, it would decline rapidly in fresh and seawater).

The Applicant also notes that the inclusion of UV treatment at the proposed WwTP will inactivate (i.e., kill) the majority of biological pathogens (including bacteria and viruses such as coronavirus) from the discharge, which, in conjunction with the extensive updated modelling undertaken as part of the 2023 EIAR Addendum demonstrates that the receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. In addition, the updated modelling demonstrated that the Proposed Project will have an Imperceptible residual impact on the water quality of the

coastal waters off Dublin, will not impact on achieving the goals of the WFD of reaching good status in all water bodies, and will not influence any designated bathing water beaches nor Blue Flag beaches or designated shellfish waters.

2.2.13.2.5 Bathymetric Desktop Model Validity

This submission stated that the bathymetric desktop model for the proposed outfall pipeline is no longer valid as there have been changes in the sand bank off Ireland's Eye.

As part of the 2023 remittal application, Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum considered any changes to the baseline, requirements for updated modelling and any changes to relevant law, policy, and industry standards and guidance in the intervening period since the 2018 planning application was submitted to ABP.

This updated assessment determined that there have been no updates to, or publication of, any publicly available seabed bathymetry data since the submission of the 2018 planning application. Therefore, bathymetry data sourced from Ordnance Survey Ireland (OSI) which underpinned the assessments as presented in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR (as supplemented by Chapter 8A in the 2023 EIAR Addendum) remains the best available data and is valid.

2.2.13.2.6 Howth Fishermen

This submission stated that there is concern among the Howth Fisherman in relation to the proposed outfall off Ireland's Eye and that the EPA should work hand in hand with the fishermen relating to any consequences of the Proposed Project.

The Applicant would like to highlight that engagement with stakeholders in coastal areas of north Dublin took place during the environmental assessment phase (2014 to 2018). This included three series of information events held at Howth, Baldoyle and Portmarnock in July 2014, July 2015 and November 2017.

Press advertising in national and local media and project updates were issued to promote the information events in advance. Information on the Proposed Project was issued proactively to all identified community stakeholders in Howth, as listed on the Fingal Public Participation Network list. In July 2015, door-to-door outreach by the Project Team was undertaken with businesses and organisations on Howth's West Pier ahead of the commencement of the marine investigations.

Engagement with marine leisure (diving, swimming and sailing etc.), fishing (commercial and seafood processors) and statutory stakeholders (including the Department of Agriculture, Food and the Marine and the Sea Fisheries Protection Authority) was undertaken at specially arranged meetings at Howth Yacht Club in July 2015 and in April 2018. Individual meetings and engagement with Howth Yacht Club and other stakeholders with an interest in the marine environment has been conducted on an ongoing basis since 2011. The dedicated project email has remained active since the submission of the 2018 planning application and the Applicant has engaged with the Irish South and East Fish Producers Organisation through this communication channel as recently as 2024.

The impact of the Proposed Project on population is addressed in Section 6.4 and 6.5 in Chapter 6 (Population) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A (Population) in Volume 3A Part A of the 2023 EIAR Addendum. The impact on economic activity as a result of the proposed orbital sewer route and outfall pipeline route is assessed at Section 6.6.3 of Chapter 6 in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A in the 2023 EIAR Addendum.

Specifically in relation to fisheries, Section 6.6.3 in Volume 3 Part A of the 2018 EIAR notes that the dredging for the proposed outfall pipeline route (marine section) installation will take place over the period March to October (though it is likely that the appointed contractor(s) will mobilise between June and September). A safety advisory zone of 250m either side of the centreline of the proposed outfall pipeline route (marine section) will be maintained during the Construction Phase for health and safety purposes. The construction works will be on a phased basis to ensure that a large commercial fishing channel area will remain open at all times.

While the offshore works are temporary in nature, there will be a Negative, Slight and Temporary impact on the commercial fisheries sector in the locality as a result of the temporary loss of some trawling ground during the Construction Phase.

During the Operational Phase, the proposed outfall pipeline route (marine section) is to discharge treated wastewater approximately 1km north-east of Ireland's Eye and south of the designated Malahide shellfish waters. The proposed discharge is designed to comply with the Bathing Water Directive and the Urban Wastewater Treatment Directive and this is addressed in Chapter 8 (Marine Water Quality) and Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR in full, as supplemented by Chapter 8A (Marine Water Quality) and Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum. The stringent mitigation measures set out in the 2018 EIAR and 2023 EIAR Addendum, will ensure the maintenance of water quality and protection of the marine environment during Construction and Operational Phases. This, in turn will secure the habitat to sustain the razor clam and fisheries industries.

In addition, further modelling of the Operational Phase, with the inclusion of UV treatment at the proposed WwTP (which was introduced as part of the 2019 Oral Hearing process and fully assessed throughout the 2023 EIAR Addendum), has been undertaken, and is detailed in full in Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum.

This modelling concludes that the impact on commercial fisheries is anticipated to be Neutral and Imperceptible once the proposed outfall pipeline route (marine section) is operational. As a mitigation measure, a Fisheries Liaison Officer will be appointed to minimise potential impacts on commercial and recreational fishing.

With respect to the point raised in relation to the EPA, that the EPA is an independent body, to which an application for a wastewater discharge licence will be submitted for the proposed discharge to the Irish Sea. The EPA will independently assess the Proposed Project's 2018 EIAR / 2023 EIAR Addendum and the 2023 Revised NIS (which updated the 2018 NIS in full), as part of this application process. The granting of a licence and any conditions attached to a licence will be at the discretion of the EPA. The Applicant will adhere to any conditions attached to a licence, should a licence be granted by the EPA.

2.2.14 Transport Infrastructure Ireland (TII)

2.2.14.1 Overview of the Submission

The submission from TII raised a number of conditions, as listed below, and requirements for the Applicant to comply with in undertaking the Proposed Project in the vicinity of TII assets, on which the Applicant has provided a response in Section 2.2.14.2 of this Report:

- Any crossings of the existing motorway network will require approval from TII under Section 53 of Number 14 of 1993 - Roads Act, 1993 (as amended);
- All structures, access chambers, valves or other such devices associated with routine maintenance and operation of the Proposed Project shall be located outside of the road reservation of the national road;
- The pipeline will be installed at a depth so as not to conflict with the drainage of the motorway or existing national road drainage systems; and
- Neither the works or the pipeline will damage or interfere with the motorway or national road.

2.2.14.2 Response to Submission

The Applicant acknowledges the recommended conditions and accepts the principle, spirit, and intent of the suggested conditions. The Applicant is committed to continued engagement with TII throughout the next phases of the Proposed Project, and will comply with conditions imposed by ABP, should a grant of planning be received.

2.2.15 Bernadette Walsh

2.2.15.1 Overview of the Submission

The submission from Bernadette Walsh raised points in relation to the following topics, on which the Applicant has provided clarification in Section 2.2.15.2 of this Report:

- Previous Submission;
- Microplastics; and
- Independent Environmental Assessment.

2.2.15.2 Response to Submission

2.2.15.2.1 Previous Submission

This submission stated that the original observations and recommendations in relation to the environment, marine life, water quality, clean air, odours, discharges and contamination of local conservation areas, as submitted to ABP for the 2018 planning application, still stand.

No additional response is considered necessary, as responses to the 2018 submission from Bernadette Walsh were provided in the 2019 Response to Submission Report (Uisce Éireann 2019), which was provided to ABP in January 2019 and is available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf). Those submissions were also fully considered by ABP prior to issuing its decision to grant permission in 2019, which has since been quashed.

2.2.15.2.2 Microplastics

This submission stated that the issue of microplastics has not been addressed.

Please refer to Section 2.2.1.2.29 of this Report which responds to a similar submission relating to microplastics.

2.2.15.2.3 Independent Environmental Assessment

This submission stated that no independent environmental assessment has been carried out by the EPA.

The Applicant would like to note that, in line with applicable legislation and the remittal Order, the EPA will be asked by ABP to review ABP's assessment prior to ABP making its decision. The EPA's views will therefore be fully considered prior to ABP making any decision.

The EPA will then subsequently carry out its own review of the entire application as part of the waste water discharge authorisation licence application process for the Proposed Project, which application will facilitate public participation. The Applicant will be submitting this licence application to the EPA in due course.

3. 2024 Submissions

3.1 Overview of 2024 Submissions

A total of 22 submissions were received by ABP and are summarised in Table 3.1 below. The Applicant is cognisant and appreciative of the time spent by all third parties in preparing these submissions. Each submission has been considered and the Applicant has sought to ensure that the issues raised in each are appropriately addressed in this Report.

Table 3.1: 2024 Submissions Received

No.	Name	Individual, Group or Organisation
1	Sabrina Joyce Kemper	Individual
2	Samantha Brown	Individual
3	Vivienne Burch and others	Individuals
4	Chambers Ireland	Organisation
5	Barbra and Niall Connolly	Individuals
6	daa	Organisation
7	Development Applications Unit (DAU)	Organisation
8	Environmental Protection Agency (EPA)	Organisation
9	Fingal County Council (FCC)	Organisation
10	Terri Gray and Paul Burke	Individuals
11	Health Services Executive (HSE)	Organisation
12	Irish Aviation Authority (IAA)	Organisation
13	Irish Business and Employers Confederation (Ibec)	Organisation
14	Sean Lyons	Individual
15	Catherine McMahon and Others	Individuals
16	Meath County Council (MCC)	Organisation
17	Elaine Murray	Individual
18	National Transport Authority (NTA)	Organisation
19	South Dublin County Council (SDCC)	Organisation
20	Sport Ireland	Organisation
21	Peter Sweetman	Individual
22	Transport Infrastructure Ireland (TII)	Organisation

3.2 Response to 2024 Submissions

A significant quantity of the issues raised in submissions received during the 2024 consultation period had previously been addressed in the 2023 remittal application (2023 Addendum Planning Report, 2023 EIAR Addendum, 2023 Revised NIS and other supporting documentation, as submitted to ABP on 26 October 2023), in addition to the original Planning Report, EIAR, NIS and supporting documentation in the 2018 planning application submitted to ABP on 20 June 2018. To avoid significant replication of text, the Applicant has addressed the substance of issues raised and provides references to the relevant sections of the 2023 remittal application and the original 2018 planning application documentation, as relevant.

While the Applicant has sought to respond to each submission individually, where the same observation has been raised in another submission, for which a response has already been provided in this Report, a reference to the relevant response is provided. In addition, where the same observation was raised by the same individual or organisation in 2022, a cross reference to the relevant response to the 2022 submission has been provided in the sections below to avoid replication of text. As the submission of Sabrina Joyce-Kemper raised a wide variety of issues, that submission is considered first below.

3.2.1 Sabrina Joyce-Kemper

3.2.1.1 Overview of the Submission

The submission from Sabrina Joyce-Kemper raised the following points, on which the Applicant has provided clarification in Section 3.2.1.2 of this Report:

- Previous Submission;
- Compliance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines;
- Remittal Application;
- Combined Approach;
- WFD Assessment;
- Data Gaps;
- Doldrum Bay and Howth Head SAC / SPA;
- Modelling of Other Discharges;
- Discharge Limits and Process Failure;
- Marine Water Quality Modelling
- Portmarnock Bathing Waters;
- Migratory Path of Fish Species;
- NIS / AA Compliance;
- In-Combination / Cumulative Assessment;
- Periodic Dredging of Razor Clams;
- Huntstown Power Station;
- Dublin Airport PFAS Contamination;
- Harbour Porpoise / Cetacean Impacts;
- NIS Compliance with Habitats / Birds Directives;
- Recast Urban Waste Water Treatment Directive;
- GDSDS
- Fairshare Report;
- Development Plans;
- Railway Crossing; and
- Construction Traffic Assessment.

3.2.1.2 Response to the Submission

3.2.1.2.1 Previous Submission

This submission noted that the previous 2022 submission from Sabrina Joyce-Kemper contains observations that were not addressed in the 2023 remittal planning application.

The Applicant would like to clarify that, as noted in Section 2.4 of Chapter 2A (The Environmental Impact Assessment Process) in Volume 2A Part A of the 2023 EIAR Addendum, the 2022 submissions were reviewed by the Project Team in 2022 and were considered in the updates to the planning application documentation as part of the 2023 remittal application, where applicable. Where a 2022 submission did not require an update to the planning application documentation, but required further clarification based on the information provided either in the original 2018 planning application or the information in the 2023 EIAR Addendum, responses have been provided in this Report.

Please see the response to the observations raised in the 2022 submission from Sabrina Joyce Kemper in Section 2.2.1.2 above.

3.2.1.2.2 Compliance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines

This submission stated that most of the modelling, data inputs and surveys are outdated, despite the Applicant stating that it is in compliance with the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland.

In relation to ecology survey data covered by Chapter 9A (Biodiversity (Marine)), Chapter 10A (Biodiversity (Marine Ornithology)) and Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum, these chapters all explicitly state that updated ecology surveys were undertaken in the period after the 2018 EIAR was submitted to ABP in order to inform the updated ecological baseline of the 2023 EIAR Addendum.

Section 9.2.2 of Chapter 9A in the 2023 EIAR Addendum notes that:

- A benthic habitat survey was undertaken in January 2023;
- A reef survey on Ireland's Eye was undertaken in January 2023; and
- A habitat survey of the Proposed Project boundary within Baldoyle Estuary was undertaken between October and November 2022.

Section 10.2.2 to Section 10.2.3 of Chapter 10A in the 2023 EIAR Addendum notes that:

- Estuarine bird surveys were undertaken during 2020 / 2021, 2021 / 2022 and 2022 / 2023; and
- Coastal and marine vantage point surveys were undertaken in 2020 / 2021, October to December 2022 and January to June 2023.

Section 11.2.3 of Chapter 11A in the 2023 EIAR Addendum notes that:

- Updated terrestrial habitat surveys were undertaken in 2022;
- Updated invasive species surveys were undertaken in 2019 and 2023;
- Updated badger surveys were undertaken in 2020 and 2023;
- Updated bat surveys were undertaken in 2020, 2021 and 2022;
- Updated breeding bird surveys were undertaken in 2021 and 2023;
- Updated wintering bird surveys were undertaken between October 2022 and March 2023;
- Updated smooth newt surveys were undertaken in 2021 and 2023; and
- Updated freshwater aquatic surveys were undertaken in 2021 and 2023.

In addition, Section 9.2.4 of Chapter 9A, Section 10.2.1 of Chapter 10A and Section 11.2.4 of Chapter 11A in the 2023 EIAR Addendum, detail how the updated ecological assessments included in the 2023 EIAR Addendum have been completed in accordance with the latest CIEEM Guidelines.

3.2.1.2.3 Remittal Application

This submission stated that the nature of the 2023 remittal application documents discussing information between the previous 2018 planning application and the new 2023 remittal application assessments is very difficult to review. The submission also states that this format will also make it difficult to know what has received consent and what has been supplanted when it comes to complying with planning consent under the standard ABP Condition 1. The submission continues that the consent may be impossible to follow and interpret and will be legally unsound and should be refused and commenced from the beginning. The submission also queries whether the Inspector requested a document containing all amendments in place at the end of the Oral Hearing in 2019.

Applicant considers that it has ensured that the 2018 and 2023 Remittal Applicant assessment can be reviewed together in an understandable way and that ABP, if it decides to grant planning consent, will be able to make it clear precisely what development has been granted planning approval. The description of the proposed

development has been updated in the addendum documentation, which includes the basis upon which this was changed.

Following the remittal of the Application by Order of the High Court, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the PDA, the Applicant should have the opportunity to update, where appropriate, the EIAR and NIS and any other information submitted. This required an extensive exercise in identifying which modelling and surveys required updating, and further, which sections of each document would require updating in turn. The Applicant, for transparency has ensured that both the originally submitted documents, and the documents submitted with the 2023 remittal application, remain available to view by members of the public on the GDD Application website, and where updates have been made to certain documents, these are clearly identifiable as blue text with light grey background shading.

A list of all documents submitted in support of the Application can be found in the 2018 Planning Report, at s.1.8 and in the 2023 Addendum Planning Report, in Table 1.2. Any change between each of these documents is clearly identified in the 2023 Addendum documentation, and where no change has been made, this is likewise clearly stated, with the original document reference included.

3.2.1.2.4 Combined Approach

This submission states that the Applicant has not complied with the legal definition of the 'combined approach'.

The Applicant would like to clarify that the combined approach does not require the steps and assessment as described by Ms. Joyce Kemper in this submission.

As ABP will be aware, in his Judicial Review judgement, Mr. Justice Allen clarified the requirements of the combined approach insofar as it relates to the Proposed Project in paragraphs 199-202 of that Judgement, as follows:

> "*199. In my view the correct starting point is to look at the cases to which article 44 applies. Those are the cases to which articles 41, 42 or 43 apply.*
>
> *200. Article 43 of the 2007 Regulations provides insofar as is relevant:-*
>
> *"43. (1) Where … An Bord Pleanála is considering an application for permission … for development being development which involves a disposal of waste water to a waste water works … the Board … shall consider whether the discharge of waste water from the proposed development, in conjunction with existing discharges to the receiving waters, would cause non-compliance with the combined approach or, in situations where there is existing non-compliance, would result in a significant breach of the combined approach.*
>
> *(2) Where, following consideration under paragraph (1) … the Board forms the opinion that the proposed discharge would result in non-compliance with, or a significant breach of, the combined approach, the … Board shall*
>
> *(a) refuse permission or approval for the development,*
>
> *(b) impose conditions in any grant of permission or approval to ensure that the discharge does not result in non-compliance with, or in a significant breach of, the combined approach, as the case may be, or*
>
> *(c) decide not to proceed with the development."*
>
> *201. Article 3 of the 2007 Regulations provides:-*
>
> *"'combined approach', in relation to waste water works, means the control of discharges and emissions to waters whereby the emission limits for the discharge are established on the basis of*

> *the stricter of either or both, the limits and controls required under the Urban Waste Water Regulations, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made."e202. Article 43(1) requires the Board, when considering an application for permission for development which involves the disposal of waste water to a waste water works, to*
>
> *202. Article 43(1) requires the Board, when considering an application for permission for development which involves the disposal of waste water to a waste water works, to*
>
> *consider whether the discharge of waste water from the proposed development would cause non-compliance with the combined approach or would result in a significant breach of the combined approach. Article 43(2) directs the Board as to what is to be done in the event that it forms the opinion that the proposed discharge would result in non-compliance with, or a significant breach of, the combined approach. Since the opinion drives the decision, it seems to me that the consultation [with the EPA] must occur before the opinion is formed. If that is so, the trigger for the consultation is a provisional or tentative view, based on the consideration required by article 43(1) as to the impact of the proposed development on the receiving waters, that the impact is likely to be significant.*"

In essence, ABP must consider whether the discharge of waste water from the Proposed Project would cause a non-compliance with the combined approach or would result in a significant breach of the combined approach. The combined approach in relation to wastewater works, as described above, means the control of discharges and emissions to waters having regard to the established limits and controls required under the Urban Waste Water Treatment Regulations, 2001 (as amended), or any other relevant limits set for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharges is made.

3.2.1.2.4.1 Compliance with Emissions Limits Under Relevant Wastewater Treatment and Water Quality Regulations

In its letter to ABP dated 26 October 2023, the Applicant confirmed that the EIAR for the Proposed Project (including the 2023 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 WFD, European Union Environmental Quality Objectives (Surface Waters) Regulations 2009 (as amended) and the Bathing Water Quality Regulations 2008. The Applicant also confirmed that:

> "*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***" (emphasis added).

The 2018 EIAR, in Volume 3 Part A, as supplemented by Volume 3A Part A of the 2023 EIAR Addendum, examines in great detail the hydrography of the proposed pipeline route and the impact of the construction and operation of the Proposed Project. It looks at the existing quality of the receiving waters and the impact on those waters of the proposed discharge. It looks at the WFD, and all the relevant regulations, including the Urban Wastewater Treatment Regulations, the Surface Water Regulations, Bathing Water Regulations and the Shellfish Water Regulations. It looks at the impact of the discharge of treated effluent and the potential discharge of untreated wastewater by reference to the maximum permitted concentrations of dissolved inorganic nitrogen, molybdate reactive phosphorous, biochemical oxygen demand, and *E. coli* on the basis of Average Daily Flow, Flow to Full Treatment, and Process Failure.

Treatment standards for treated wastewater from the proposed WwTP to be discharged into the marine environment of the Irish Sea off the coast of North County Dublin were examined and reported on in the Key Wastewater Treatment Standards Report, which is appended as Appendix A4.1 in Volume 2 Part B of the 2018 EIAR. This report noted, subject to the granting of a wastewater discharge licence by the EPA, that the final treated wastewater produced at the proposed WwTP will conform to the standards.

Additionally, the 2023 EIAR Addendum confirms:

> "*Since the assessment presented in the EIAR in the 2018 planning application there has been minimal change with respect to the hydrology and hydrogeology baseline within the study area, with the only changes being as a result of the updated Water Framework Directive water body statuses. There were minor changes in the statuses of the River Sluice, the Mayne Estuary, the Tolka Estuary and the North Bull Island transitional water body*."

Chapter 8 (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum also considered the Surface Water Amendment Regulations and the updated water quality standards for the general physico-chemical conditions supporting the biological elements in transitional and coastal waters.

Table 3.2 confirms the relevance of and compliance with EU Directives and National Regulations for the Operational Phase of the Proposed Project.

Table 3.2: Confirmation and Compliance with EU Directives / National Regulations for the Operational Phase of the Proposed Project

Legislation (EU and National)	Confirm Relevance (Yes / No)	Compliant with Requirements (Yes / No)	Section of 2018 Planning Application / 2023 Remittal Application which Provide Relevant Details of Compliance
Urban Waste Water Treatment Directive 91/271/EEC	Yes	Yes	The design of the proposed WwTP is greater than 15,000 PE and is in line with Article 4 of this Directive, (i.e., "*Member States shall ensure that urban waste water entering a collecting system shall before discharge be subject to secondary treatment or an equivalent treatment for all discharges from agglomerations of more than 15,000 p.e*".) The proposed WwTP will provide secondary treatment and UV disinfection all year round. Refer to the 2018 EIAR and 2023 EIAR Addendum for a full impact assessment of the Proposed Project, but specifically to: • Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, for details on the wastewater works and associated proposed WwTP, • Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, for details on the impact assessment of the Proposed Project in relation to its discharge into the Irish Sea; • Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, for embedded design measures to prevent the release of untreated wastewater to the Irish Sea; and • Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, for details of all mitigation and monitoring measures proposed to prevent, avoid or reduce potential impacts.
Urban Waste Water Treatment Regulations, 2001 (as amended)	Yes	Yes	The proposed outfall will not discharge to, or impinge on, any Nutrient Sensitive Waters listed under the Urban Waste Water Treatment (Amendment) Regulations 2010 (S.I. No. 48 of 2010). Therefore, the implementation of nitrogen and / or phosphorus reduction measures are not required.

Legislation (EU and National)	Confirm Relevance (Yes / No)	Compliant with Requirements (Yes / No)	Section of 2018 Planning Application / 2023 Remittal Application which Provide Relevant Details of Compliance
			Refer to the 2018 EIAR and 2023 EIAR Addendum and 2023 for a full impact assessment of the Proposed Project, but specifically to: • Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, for details on the wastewater works and associated proposed WwTP, • Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, for details on the impact assessment of the Proposed Project in relation to its discharge into the Irish Sea; • Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, for embedded design measures to prevent the release of untreated wastewater to the Irish Sea; and • Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, for details of all mitigation and monitoring measures proposed to prevent, avoid or reduce potential impacts.
Water Framework Directive 2000/60/EC	Yes	Yes	The Applicant is committed to ensuring that water service infrastructure operates in a manner that supports the achievement of the water body objectives under WFD. The extensive modelling studies undertaken on the expected discharge have confirmed that, the proposed effluent discharge standards set out in this licence application will ensure that the operational discharges from the proposed WwTP will contribute towards achieving / maintaining at least Good status of the applicable receiving water body by 2027, thereby ensuring compatibility with achievement of the WFD objectives of the receiving waters. Refer to the 2018 EIAR and 2023 EIAR Addendum for a full impact assessment of the Proposed Project, but specifically to: • Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, for details on the wastewater works and associated proposed WwTP; • Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, for details on the impact assessment of the Proposed Project in relation to its discharge into the Irish Sea; • Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, for embedded design measures to prevent the release of untreated wastewater to the Irish Sea; • Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of

Legislation (EU and National)	Confirm Relevance (Yes / No)	Compliant with Requirements (Yes / No)	Section of 2018 Planning Application / 2023 Remittal Application which Provide Relevant Details of Compliance
			Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, for details of all mitigation and monitoring measures proposed to prevent, avoid or reduce potential impacts; and • Water Framework Directive Assessment Report included as a standalone document in the 2023 remittal application.
European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended)	Yes	Yes	See rows above.
European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009	No	N/A	Not applicable. No designated Freshwater Pearl Mussel water bodies downstream of the proposed discharge.
Drinking Water Directive 80/778/EEC	No	N/A	Not applicable. No designated drinking water bodies within the vicinity of the proposed discharge.
Bathing Water Directive 76/160/EEC	Yes	Yes	There are eight stretches of beach in the surrounding area designated as protected bathing water beaches, two of which were awarded Blue Flag status in 2024 (Balcarrick, Donabate and Velvet Strand in Portmarnock). The extensive modelling studies undertaken on the expected discharge have confirmed that, the proposed effluent discharge standards set out in this licence application will comply with and not result in a contravention with the Bathing Water Directive. Refer to the 2018 EIAR and 2023 EIAR Addendum for a full impact assessment of the Proposed Project, but specifically to: • Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, for details on the wastewater works and associated proposed WwTP; • Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, for details on the impact assessment of the Proposed Project in relation to its discharge into the Irish Sea; • Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, for embedded design measures to prevent the release of untreated wastewater to the Irish Sea; and • Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, for details of all mitigation and monitoring measures proposed to prevent, avoid or reduce potential impacts.
Bathing Water Quality Regulations 2008	Yes	Yes	See 'Bathing Water Directive 76/160/EEC' row above.
Groundwater Directives 80/68/EEC & 2006/118/EC	Yes	Not applicable	Not applicable. No discharge to groundwater.
European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended	Yes	Not applicable	Not applicable. No discharge to groundwater.

Legislation (EU and National)	Confirm Relevance (Yes / No)	Compliant with Requirements (Yes / No)	Section of 2018 Planning Application / 2023 Remittal Application which Provide Relevant Details of Compliance
Habitats Directive 92/43/EEC, Birds Directive 79/409/EEC, and European Communities (Birds and Natural Habitats) Regulations 2011 as amended	Yes	Yes	There are 19 European protected sites within 10km of the Proposed Project. European protected SACs and SPAs within 5km of the Proposed Project include: • Baldoyle Bay SAC / SPA; • Howth Head SAC / SPA; • Malahide Estuary SAC / SPA; • North Dublin Bay SAC; • North-West Irish Sea SPA; • Ireland's Eye SAC / SPA; • Rockabill to Dalkey Island SAC; and • North Bull Island SPA. Along with the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, a NIS in 2018 and a Revised NIS in 2023, have been carried out in line with the requirements of the Habitats Directive to assess potential negative impacts on European sites in the vicinity of the proposed discharge point. The 2018 NIS and the 2023 Revised NIS concluded, 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. Refer to: • Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum; • Chapter 10 (Biodiversity (Marine Ornithology)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 10A (Biodiversity (Marine Ornithology)) in Volume 3A Part A of the 2023 EIAR Addendum; • Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 11A (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3A Part A of the 2023 EIAR Addendum; and • The 2023 Revised NIS (updated from the original 2018 NIS).
Birds Directive 79/409/EEC, Habitats Directive 92/43/EEC and European Communities (Birds and Natural Habitats) Regulations 2011 as amended	Yes	Yes	The following documents address compliance with the Birds and Habitats Directive and the Birds and Natural Habitats Regulations:
Environmental Impact Assessment Directive 2011/92/EU, as amended by Directive 2014/52/EU	Yes	Yes	Regulation 17 of the relevant Waste Water Discharge Regulations (2007-2020) requires a mandatory EIAR as the capacity of the Ringsend WwTP is greater than 10,000 PE. The 2018 EIAR, as supplemented by the 2023 EIAR Addendum provide a full assessment of the potential impacts of the Proposed Project.
Marine Strategy Framework Directive 2008/56/EC	Yes	Yes	At present, there are no standards for the discharge of treated wastewater to the open sea apart from the emission standards contained in the Urban Waste Water Treatment Regulations 2001. See 'Urban Waste Water Treatment Regulations, 2001 (as amended)' Section above.

Legislation (EU and National)	Confirm Relevance (Yes / No)	Compliant with Requirements (Yes / No)	Section of 2018 Planning Application / 2023 Remittal Application which Provide Relevant Details of Compliance
Shellfish Waters Directive 2006/113/EC / European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. No. 268 of 2006)	Yes	Yes	The extensive modelling studies undertaken on the expected discharge have confirmed that, the proposed effluent discharge standards will comply with and not result in a contravention with this Directive and Regulations. Refer to the 2018 EIAR and 2023 EIAR Addendum for a full impact assessment of the Proposed Project, but specifically to: • Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, for details on the wastewater works and associated proposed WwTP; • Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, for details on the impact assessment of the Proposed Project in relation to its discharge into the Irish Sea; • Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, for embedded design measures to prevent the release of untreated wastewater to the Irish Sea; and • Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, for details of all mitigation and monitoring measures proposed to prevent, avoid or reduce potential impacts.

3.2.1.2.4.2 Compliance with the WFD

The Applicant submitted a Water Framework Directive Assessment Report (the WFD Report) with the remittal application in October 2023. The WFD Report identifies the WFD Environmental Objectives (in Table 1), sets out the criteria that Member States must meet in accordance with Article 4.7 of the WFD and undertakes an assessment of the potential impacts of the Proposed Project on the surrounding WFD water bodies. Section 1.2.3 of the WFD Report sets out the scope of the assessment for those elements that could affect a WFD water body as follows:

- Construction activities adjacent to water bodies for the various project elements, including temporary construction compounds;
- Construction of below-ground sections of the proposed orbital sewer route, outfall pipeline routes and NFS diversion sewer, including the formation of tunnel drive and reception shafts;
- Construction of the new proposed WwTP;
- Construction of water body crossings related to the proposed orbital sewer and outfall pipeline routes;
- Construction of a proposed channel crossing in relation to the new proposed WwTP access road culvert;
- Construction of the outfall pipeline route (marine section) including microtunnelling and dredging works;
- Operation of the new outfall pipeline route including discharge of treated wastewater to the marine environment;
- Operation of the new below-ground sections of the proposed orbital sewer route and outfall pipeline route; and

- Operation of new channel crossings in relation to the proposed access road to the proposed WwTP.

The WFD Report includes a baseline assessment of the main water bodies (Section 1.4.1) and a scoping assessment (Section 1.4.2) of the principal receptors that have the potential to be affected by the Proposed Project. This is followed by the impact assessment (Section 1.6), which considers the potential impacts of an activity, identifies ways to avoid or minimise impacts, and indicates if an activity may cause the deterioration of, or jeopardise, the water body achieving GEP / GES. An assessment of the Proposed Project against mitigation measures, a cumulative assessment against other proposed developments (Section 1.7 and Section 1.8) and an assessment of the Proposed Project against other EU Directives (Section 1.9) have also been undertaken.

The WFD assessment concludes:

> "*Taking into consideration the impacts of the Proposed Project on the biological, physico-chemical, hydromorphological and groundwater quality elements, it is concluded that following the implementation of design and mitigation measures, it will not compromise progress towards achieving GES or GEP or cause a deterioration of the overall status of the water bodies that are in scope. It will also not compromise the qualifying features of protected areas and is compliant with other relevant Directives. It can therefore be concluded that the Proposed Project is fully complaint with the WFD, and therefore, does not require assessment under Article 4.7 of the WFD*".

ABP should note that in the absence of WFD assessment guidance in Ireland, the WFD assessment has been carried out using the Clearing the Waters for All Guidance, which was last updated on 9 October 2023 (Environment Agency 2017). This Guidance is considered appropriate to use for the assessment of the Proposed Project.

3.2.1.2.4.3 Compliance with the Habitats and Birds Directives

The 2023 Revised NIS takes account of the requirements of the WFD and details the treatment standards for treated wastewater from the Proposed Project to be discharged into the marine environment of the Irish Sea off the coast of North County Dublin as reported on in the 'Key Effluent Treatment Standards Report; December 2017', which was included as Appendix A4.1 in Volume 2 Part B of the 2018 EIAR. The 2023 Revised NIS confirms that:

> "*3-dimensional hydrodynamic modelling studies undertaken on the proposed discharge have confirmed that, for the identified outfall location and the emission limit values set out in Table 3-1 the receiving water (apart from the small mixing zone) will meet good status criteria and meet the environmental quality objectives for coastal water nutrients levels.*
>
> *The modelling studies have also confirmed that:*
>
> - *The Proposed Project will have negligible impact on the water quality of the coastal waters off County Dublin;*
> - *The Proposed Project will not impact achieving the goals of the WFD of reaching good status in all water bodies; and*
> - *The proposed discharge location will not negatively influence any designated bathing waters*."

The 2023 Revised NIS identifies designated European sites (SACs and SPAs) with hydrological connections to the primary discharge location or to the proposed WwTP site and concludes, beyond reasonable scientific doubt, that following the implementation of the prescribed mitigation measures included in the 2023 Revised NIS, the Proposed Project 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.

3.2.1.2.4.4 The Date and Adequacy of Modelling Used in the Assessments

Please refer to Section 3.2.1.2.10 below which includes a response in relation to marine water quality modelling data and methodology.

3.2.1.2.4.5 Requirement for a Wastewater Discharge Licence

The proposed WwTP will require a wastewater discharge authorisation to be granted by the EPA under the European Union (Waste Water Discharge) Regulations 2007 to 2020, prior to commissioning. Wastewater discharges from the proposed WwTP must comply with this licence. The Applicant confirms that it is in the process of preparing the Waste Water Discharge Authorisation Application which will be submitted to the EPA in due course.

3.2.1.2.4.6 Summary / Conclusion

The approach outlined above taken by the Applicant in respect of the likelihood of potential impacts, demonstrates clear compliance with the combined approach as set out under Article 3 of the Waste Water Discharge (Authorisation) Regulations 2007.

Firstly, the Proposed Project has been designed to ensure that the discharges from the agglomeration will comply with, and will not result in the contravention of, EU Legislation and National Regulations.

Secondly, the proposed Emission Limit Values (ELVs) will ensure that the operational discharges from the Proposed Project contribute towards achieving / maintaining at least Good status of the applicable receiving water bodies by 2027, thereby ensuring compatibility with achievement of the WFD objectives of the receiving waters. Thirdly, the proposed discharge will not cause a deterioration in the chemical status in the relevant receiving water body and will not compromise the achievement of the objectives and environmental quality standards (EQSs) established for any European sites water dependent species and natural habitats, or any other designations. Having regard to the above and the further detail provided in the assessments submitted to the Board, the Applicant confirms that, under expected operating conditions, the discharge of waste water from the Proposed Project, in conjunction with the existing discharge to the receiving waters, will not cause or exacerbate breaches of the 'Combined Approach', as set out in the Waste Water Discharge (Authorisation) Regulations 2007.

3.2.1.2.5 WFD Assessment

3.2.1.2.5.1 WFD Compliance

This submission stated that the WFD assessment submitted in the 2023 remittal application does not include detailed maps of status reporting for impacted water bodies as required for a complete assessment. The submission continues that a number of impacted water bodies are excluded. The submission also states that the WFD assessment lacks explicit detail on specific monitoring parameters, presentation of monitoring results, and classification and reporting of water status as mandated by the WFD, modelling of standards and substances in operational discharge (including cumulative impacts with existing discharges). The submission continues that the WFD does not fully comply with all detailed requirements of the WFD necessary for a project of this nature.

The Applicant would like to highlight that the WFD Assessment Report complies with all relevant best practice standards and guidance (including professional judgement and lessons learned from already published WFD compliance across the UK and Ireland, most notably the UK Environment Agency guidance on WFD (Clearing the Waters for All guidance (Environment Agency 2017)). The assessment has outlined the objectives to be considered, the receptors to be assessed and includes a comprehensive assessment of WFD elements against activities for the relevant water bodies. The assessment then goes on to test against the programme of measures, and a cumulative assessment, before the final conclusion that all objectives will be met for the Proposed Project. Further detail on the approach taken, and conclusions reached by the WFD Assessment Report are detailed in section 3.2.1.2.4.2 of this response document.

In relation to the observation about the inclusion of mapping, the Applicant would like to clarify that the WFD Assessment Report submitted in support of the 2023 remittal application included all necessary mapping that is required to fulfil the requirements of the WFD Assessment. The assessment must consider the status of water bodies within the study area to ensure that the Proposed Project does not compromise progress towards achieving GES or GEP, or cause a deterioration of the overall status of the water bodies that are in scope. The current status for all water bodies within the study area for the Proposed Project are outlined in Table 3 of the WFD Assessment Report. The relevant in-scope water bodies were identified by reference to the approach recommended by best practice guidance, and status of each water body determined by reference to the publicly available EPA mapping source.

3.2.1.2.5.2 WFD Fish Assessment

The submission stated that the WFD assessment should include consideration of fish if the activity is in an estuary and could affect fish in the estuary, is outside the estuary but could delay or prevent fish from entering the estuary and/or could affect fish migrating through the estuary to freshwater. The submission continues that a WFD assessment must include fish if the activity could impact on normal fish behaviour like movement, migration and spawning if the development will lead to a physical barrier, noise or vibration, chemical change across part or all of the estuary, a significant change to depth or flow of the water body.

The Applicant would like to clarify that Table 7 of the WFD Assessment Report provides an assessment of fish against all of the WFD Assessment Questions, including "*consider if your activity is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary?*" and "*consider if your activity could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)?*". The WFD Assessment Report considers the Proposed Project against all required assessment questions as recommended by best practice (i.e., Clearing the Waters for All Guidance (Environment Agency 2017), which is used for estuaries and coastal waters in England and is applied here in the absence of guidance in WFD Assessment guidance in Ireland).

The conclusion of the WFD Assessment Report determined that there will be no risk to fish with the implementation of the mitigation measures included for in the 2018 EIAR and 2023 EIAR Addendum.

3.2.1.2.5.3 WFD and RBSF and Ward_030 Assessment

This submission stated that road runoff, biosolid sediments from loading and offloading of trucks at the proposed RBSF must be assessed in the Ward_030 water body. The submission continues that the inclusion of hydrocarbon interceptors is not enough as they only deal with hydrocarbons and not other pollutants. The submission noted that the previous decision conditioned that an assessment of firefighting runoff on the Ward be carried out, and stated that this must happen as part of the WFD assessment before consent.

The Applicant notes that permission for the development of the RBSF was granted by ABP (Case Reference Number PA29S.301798), as part of the Ringsend Wastewater Treatment Plant Upgrade Project in April 2019. The RBSF is under construction pursuant to the permission granted and the environmental impacts associated with the construction and operation of the RBSF have already been considered and determined by ABP. Operational run-off and surface water drainage issues will be managed fully in accordance with the conditions attached to the planning permission. The only relevance of the RBSF to this application therefore, is to assess the RSBF cumulatively and in combination with the GDD project.

3.2.1.2.6 Data Gaps

This submission stated that the inclusion of UV and the culvert extension are not the only new components of the Proposed Project. The submission continued that during High Court proceedings it was argued that there was a need for precise, definitive and up-to-date scientific data. The submission further states that the data at the time of the Juridical Review was already not reliable due to age.

The Applicant would like to highlight that the Judicial Review Judgement did not conclude that there was any issue with the data included in the 2018 planning application, nor was this a reason for the application being remitted back to ABP.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to the updates undertaken as part of the preparation of the remittal application.

3.2.1.2.7 Doldrum Bay and Howth Head SAC / SPA

This submission stated that the historical raw sewage discharges from Doldrum and the proposed construction / operational impacts of the Doldrum Bay discharges and new infrastructure need to be cumulatively assessed as part of the AA cumulative impact assessment for the Proposed Project. The submission also stated that it was not appropriate for Doldrum and Howth Head SAC to be screened out / omitted from the assessment. The submission continued that Howth Head SPA also interacts with Doldrum and needs to be screened in.

The Applicant would like to clarify that the scientific reasoning as to why Howth Head SAC was screened out, is summarised on page 33 of the 2023 Revised NIS. Further justification is also provided on page 36 of the 2023 Revised NIS. There is no impact pathway that could significantly affect the qualifying interests and conservation objectives of Howth Head SAC. A detailed response to the screening out of Howth Head SAC can be found at Section 3.2.21.2.1 of this response document.

For completeness, the Applicant notes that the Howth Head Coast SPA was screened into the stage 2 appraisal for AA and is fully assessed in the original 2018 NIS and the 2023 Revised NIS.

The observation in respect of Doldrum Bay has been answered in detail at Section 2.2.1.2.20.

3.2.1.2.8 Modelling of Other Discharges

This submission noted that the constant discharge from Doldrum Bay was never modelled in any water quality assessments, and as such, the modelling is flawed. The submission stated that the Applicant excluded water bodies affected by the development via cumulative impacts and hydrological pathways (due to sewage overflow discharge points in the proposed agglomeration and surface water runoff from catchments that construction and operational activity will take place in) and applied an incorrect test of site selection based on proximity to the site. The submission continues that the Applicant failed to correctly model and assess discharges from combined sewer overflows (CSOs), surface water overflows (SWOs), rivers, WwTPs and pumping stations as required by the WFD. The submission also states that any Kildare or Meath water bodies that receive discharges from the Proposed Project agglomeration should be modelled and cumulatively assessed.

As the Applicant had anticipated that the Doldrum Bay outfall would no longer be operational at the time that the Proposed Project becomes operational, it was not included in the baseline modelling for the Proposed Project. Subject to the receipt of all statutory consents, it is still expected that the Doldrum Bay outfall will be decommissioned before the Proposed Project is operational.

The Applicant would like to clarify that there are no proposed overflows on the land-based pipelines or at the proposed WwTP for the Proposed Project, and therefore, the only surface water discharge point modelled for the Proposed Project is the discharge location at the end of the proposed outfall pipeline in the Irish Sea.

The Applicant notes that there will be an overall improvement in performance of the network as a result of the Proposed Project being implemented, as it will reduce the pressure on the network within the GDA due to population growth and increased housing development.

3.2.1.2.9 Discharge Limits and Process Failure

This submission stated that at the 2019 Oral Hearing, the Applicant admitted that the model runs for 39,000 cfu (colony forming units) discharge were an issue, and as such, two commitments were made (i.e., effluent would be 20,000 cfu and that a system would be put in place that no raw sewage would be discharged to sea

and that during a failure it would be stored upstream in the network). The submission then stated that in the updated EIAR, the Applicant has rolled back on that commitment and has indicated that there will be a discharge to sea in the event of a process failure and refers specifically to Section 9.5 of Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum.

The Applicant would like to clarify that there was no change to the statements documented at the 2019 Oral Hearing that, a total failure of the WwTP cannot occur, and therefore, a resulting discharge of untreated sewage to the marine environment would also not occur.

This is reflected in the updates to Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum, which noted that for Risk ID 'F' (i.e. 'Discharge of untreated wastewater during Commissioning and Operational Phase'), there has been an update to the modelling for this scenario, included as part of Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum. During the Oral Hearing in March 2019, it was outlined that with the consideration of all of the embedded measures in the design of the Proposed Project and the additional mitigation measures outlined in Chapter 22 (Risk of Major Accidents and / or Disasters) in Volume 3 Part A of the 2018 EIAR, the risk of a discharge of untreated sewage to the marine environment as a result of total failure of the proposed WwTP would not occur. Following the Oral Hearing, the 'Post-Mitigation Likelihood' for Risk ID 'F' ('Discharge of untreated wastewater during Commissioning and Operational Phase') was reduced from 'Unlikely' to 'Very Unlikely'. A risk category that is classified as 'Very Unlikely' is 'not expected to occur', as per A Guide to Risk Assessment in Major Emergency Management (Department of Environment, Heritage and Local Government (DEHLG) 2010).

This amendment to the risk category likelihood did not change the outcome of the risk assessment, as Risk ID 'F' still did not present a sufficient combination of risk and consequence that would lead to significant residual impacts or environmental effects. The reduction to the risk category likelihood in respect of untreated sewage discharge does not require any changes to the proposed mitigation measures in the 2018 EIAR.

This is reflected in Section 9.5 of Chapter 9A in the 2023 EIAR Addendum, which refers to this update in Chapter 22A of the 2023 EIAR Addendum. It is standard practice in EIARs to outline the potential impacts in the absence of mitigation, and then consider the embedded design measures and mitigation measures in the EIAR, before stating the final residual impact. This is therefore the reason why Section 9.5 states that the only impact on water quality during the Operational Phase will be due to the treated wastewater discharge, or the potential discharge of untreated wastewater for a very short duration owing to a pumping failure in the proposed WwTP (i.e., the potential impact), but then goes on to note that following the consideration of the embedded design measures, this is not expected to occur (i.e., the predicted impact).

3.2.1.2.10 Marine Water Quality Modelling

The submission stated that from comparing the 2018 EIAR and 2023 EIAR Addendum Marine Water Quality Chapters, it shows the modelling was never sound in the first instance and therefore cannot be sound 13 years on.

3.2.1.2.10.1 Other Marine Modelling Reports

The submission notes that the Marcon 2011, Marcon 2013, Marcon 2015 and Interek 2023 reports were never submitted to ABP. The submission continues that the Marcon 2011 report assessment was not modelled on the actual discharge point which is the subject of this application, and that it was modelled on discharge point 72 which is further out to sea in deeper water and faster currents. The submission stated that the foundation of the modelling and impact assessments for EIAR / AA are fatally flawed and do not meet the requirement for precise and scientific information under the Habitats Directive. The submission continued that the current outfall is closer to Point 66 in that study, but that was never modelled.

The Applicant would like to clarify that GP201103_doc001_04 (i.e., the Marcon 2011 Report) referred to in the submission relates to the 2011 modelling undertaken for the ASA process. This modelling study was referenced in Appendix A8.1 in Volume 3 Part B of the 2018 EIAR, which noted that the aim of this study was to identify a range of potential marine outfall locations along the north Dublin coastline. That study showed that two discrete areas existed within the project area where locating a marine outfall would have the least

detrimental impact on the receiving marine environment. The conclusion from the GP201103_doc001_04 (Marcon (2011)) Report stated that:

> '*The modelling study found that for southern part of the study region (south of Malahide shellfish waters designation), the preferable outfall location(s) lay approximately 1km off Ireland's Eye, to both the north and east of the island.*'

Solute plumes were modelled from all 80 outfall locations considered. The GP201103_doc001_04 Report identified the outfalls with the lowest environmental impact as being outfalls 63, 64, 65, 66, 67, 71, 72, 76, 80. The Report did not identify outfall location 72 as the preferred location. Section 5.7 of Chapter 5 (Consideration of Alternatives) in Volume 2 Part A of the 2018 EIAR stated that outfall location 66 represents the selected discharge location for the Proposed Project.

As also noted in Appendix A8.1 in Volume 3 Part B of the 2018 EIAR (i.e., the Marcon 2015 Report), a subsequent modelling study was undertaken by MarCon in 2013 and reported in GP201103_doc003_02 (i.e., the Marcon 2013 Report), to determine the relative merits of locating a marine outfall within either of the two discrete areas identified in 2011. That study showed that the southern outfall study area exhibited more favourable coastal hydrodynamic characteristics (i.e., larger current speeds and greater water depths) than the northern outfall study area.

Following publication of the ASA and Route Selection Report (Phase 4): Final Preferred Site and Routes, a detailed highly resolved hydrodynamic and water quality model was required to assess both the Construction Phase and Operational Phase impacts of the proposed outfall pipeline route (marine section) on the marine environment. Appendix A8.1 details the development and calibration of the highly resolved hydrodynamic and water quality model that was undertaken for the 2018 planning application for the Proposed Project.

In relation to the Interek 2024 Report noted in the submission, this Report is not related to the Proposed Project. As it was not produced by the Project Team for the Proposed Project, it is not required to be included with the Proposed Project application.

3.2.1.2.10.2 Outdated Data

This submission stated that, even with the updates in Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, the hydraulic flow data is outdated. The submission also stated that there is a paucity of data relating to sampling for Intestinal Enterococci in the inflowing rivers.

The Applicant would like to clarify that Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR identified that only six rivers had gauging stations and that the gauge area transposition method was used to calculate flows in other rivers. Chapter 8A in the 2023 EIAR Addendum identified that only two of the 15 rivers included in the modelling had updated information available. The most up-to-date information available to the Applicant was therefore used for the modelling undertaken for both the 2018 EIAR and the 2023 EIAR Addendum.

The submission also stated that the inputs to the model in relation to WwTPs came from outdated Annual Environmental Reports from 2018 / 2019.

The Applicant would like to clarify that Chapter 8A in the 2023 EIAR Addendum states that:

> '*Pollutant loads for the remaining WwTPs were updated from the respective annual environmental reports (EPA 2022a; EPA 2022b; EPA 2022c; EPA 2022d; EPA 2022e; EPA 2022f; EPA 2022g*'.

This was the most up-to-date information available at the time that the updated modelling studies were undertaken in 2023 to inform the 2023 remittal application.

The Applicant utilised the latest available data in the 2018 planning application and the 2023 remittal application.

3.2.1.2.10.3 Sediment Modelling

This submission stated that no cumulative modelling of sediments or impact of a potential change to the hydromorphology of the mouth of Baldoyle Estuary as a result of redevelopment was undertaken.

Please refer to Section 2.2.1.2.9 of this Report which responds to a similar submission relating to hydromorphology surveys / assessment.

This submission also stated that the bed sediment composition was only bored to 5m and this does not capture the interface between the tunnelled and dredged section of the proposed outfall pipeline route (marine section) which will be between 10m to 12m.

Please refer to Section 2.2.1.2.52.1 of this Report which responds to a similar submission relating to the sediment modelling.

3.2.1.2.10.4 Historical Pollution in Bed Sediment

This submission stated that there is no discussion of accumulated historical pollutants in the sediment that may be dispersed during dredging and the potential impact on marine life through bioaccumulation.

The Applicant would like to clarify that Section 18.5.3 of Chapter 18 (Soils and Geology) in Volume 3 Part A of the 2018 EIAR discussed the issue of accumulated historical pollutants in the bed sediment and potential mobilisation, as follows:

> "*There is the possibility that the sediments to be excavated during the Construction Phase may be contaminated and may have an impact on the pNHA, SACs and SPAs.*
>
> *While this is considered important, the magnitude of the impact is small adverse as the sediment testing carried out to date shows no evidence of contamination. However, this does not rule out the possibility of encountering isolated hotspots of contamination along the route.*
>
> *The construction of the TBM section may have impacts on the overlying sediments.*
>
> *Given the sensitive nature of the environment, this is considered as having a high importance, but given the nature of the ground conditions and the proposed construction methods, it is classified as having a small adverse impact. The overall impact would be described as Moderate/Slight*".

Section 8.5 of Chapter 18A (Soils and Geology) in Volume 3A Part A of the 2023 EIAR Addendum noted that:

> "*Based on a review, no additional Construction Phase impacts were identified. The impacts outlined in this Section of the EIAR in the 2018 planning application therefore remain unchanged*".

3.2.1.2.10.5 Dissolved Inorganic Nitrogen (DIN) Parameters

This submission noted that the DIN parameters that were inputted to the model and their source are not know.

The Applicant would like to clarify that Section 8.2.6 of Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 planning application identified the concentrations of DIN parameters from rivers and outfalls that were used in the modelling studies and identified that they were sourced from EPA, FCC, the Applicant and the respective WwTP Annual Environmental Reports. As part of the 2023 remittal application, Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum considered any requirements for updated modelling. Section 8.2.5 (Model Inputs) of that Chapter contains the updated concentrations of DIN parameters from rivers and outfalls that were used in the modelling studies. It is therefore, fair to say that the source of the DIN parameters has always been clear and expressly noted in the relevant assessments.

3.2.1.2.10.6 'Undefined Area'

This submission noted that Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum states that all coloured areas represent a breach of the limit in relation to molybdate reactive phosphorus (MRP) / biochemical oxygen demand (BOD) but further notes that the 2015 modelling has a grey colour listing for an 'undefined' area on the legend. The submission requests the Applicant to expand on what 'undefined' means.

The Applicant would like to clarify that the 'undefined area' does not denote a breach of the EQS limit but refers to the exposed intertidal areas in the Images in Chapter 8A in the 2023 EIAR Addendum at certain stages of the tides, most notably mid ebb, low water and mid flood. It is denoted as 'undefined' as it is an area that dries out and therefore model calculations are not undertaken for the water quality parameters at those locations at those times.

3.2.1.2.10.7 EQS Annex I Assessment

This submission stated that the fact that the Applicant failed to carry out an assessment of the EQS against Annex I of the Directive is a lacunae. The submission continued that the Applicant should have this data available, on the basis of the information collected in accordance with Articles 5 and 8 of the WFD, under Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register.

The 2018 EIAR and the 2023 EIAR Addendum for the Proposed Project 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.

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.

Furthermore, the proposed WwTP will require a wastewater discharge licence to be granted by the EPA under the European Union (Waste Water Discharge) Regulations 2007 to 2020, prior to commissioning. Wastewater discharges from the proposed WwTP must comply with this licence. The Applicant confirms that it is in the process of preparing the Waste Water Discharge Licence Application which will be submitted to the EPA in due course.

3.2.1.2.10.8 E. coli / Intestinal Enterococci

This submission stated that the flawed model shows breaches of *E.coli* in a scenario and does not model Intestinal Enterococci.

The Applicant would like to clarify that the updated assessment completed for Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum considered any changes to the baseline and the requirements for updated modelling in the intervening period since the 2018 planning application was submitted to ABP. Modelling for Intestinal Enterococci was undertaken as part of this process. Section 8.4.2.5 of Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum specifically considers

Intestinal Enterococci (IE) in the context of the potential impact of the Proposed Project during operational stage.

Please refer to Section 3.2.1.2.10.1 of this Report which responds to the observation relating to the model being flawed.

3.2.1.2.10.9 Shellfish Waters Impacts

This submission stated that the discharge from the Proposed Project poses a danger to Class A shellfish waters. The submission continued that the Applicant never sought to produce the evidence to ABP to identify that UV treated effluent at 20,000 cfu per 100ml would breach the safe levels for this designated shellfish area. The submission also states that if there is a process failure, raw sewage will go to sea and the impact assessments for AA / EIA and the Combined Approach / WFD need to be redone to account for this. The submission continued that the wrong modelled discharge location that has better dilution will result in water quality / shellfish impacts, and that the Proposed Project cannot therefore meet safe levels when modelling the wrong but better discharge location (with outdated and lower riverine flows and *E.coli* rates, dated WwTP inputs for modelling, and without cumulative CSO / SWO discharges) shows that the discharge will not meet standards.

As outlined in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, the UV treatment system proposed at the WwTP will be designed and operated to achieve a maximum of 20,000 cfu/100ml (colony forming units per millilitre), with an average concentration in the order of 5,000 to 6,000 cfu/100ml, in the final effluent. Extensive updated modelling has been undertaken as part of the updates to Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum. This updated modelling has demonstrated that, at this concentration, there will be no impact on the designated shellfish water and the Proposed Project will comply with the requirements of the Shellfish Water Directive, the WFD and the Surface Water Amendment Regulations. The inclusion of the proposed UV treatment system at the proposed WwTP will provide a combined 99.9% *E. coli* reduction across the entire proposed WwTP (a cumulation of primary, secondary, and tertiary treatment processes).

3.2.1.2.11 Portmarnock Bathing Waters

This submission stated that the Portmarnock Bathing Waters were substantially extended in 2023 which the Applicant has not considered.

The Applicant would like to clarify that the location of the statutory monitoring point for Portmarnock Bathing Waters, against which all Proposed Project modelling results were reported, was not changed when the designated bathing water area was substantially extended in 2023. The Applicant has demonstrated in Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum that the requirements for this statutory monitoring point have been adhered to, and would therefore remain the case for the wider extent of the designated bathing water area.

3.2.1.2.12 Migratory Path of Fish Species

This submission stated that the Applicant is yet to assess the migratory path of fish species such as the European eel / salmon etc. via Baldoyle Estuary and salmonid rivers, and that there is inadequate reference in the EIAR.

The Applicant would like to clarify that the fish species referred to in this submission are not applicable to the AA, as they are not qualifying interests of Baldoyle Bay SAC.

The presence of European eel as a migratory species within Baldoyle Estuary, by virtue of its presence within the lower reaches of the River Sluice, was acknowledged within the EIAR (refer to Section 9.3.8 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum), along with other important rivers such the River Mayne. Similarly, anadromous species such as salmon and sea trout were also noted within nearby rivers, including the River Sluice, treated as a salmonid river due to trout, or known salmon rivers such as the River

Tolka. All inshore fish species were assessed via various survey means in and around the proposed outfall survey route as well as around the entrance to the Baldoyle Estuary (refer to Appendix A9.1 in Volume 3 Part B of the 2018 EIAR). Neither the European eels (*Anguilla anguilla*), nor salmon (*Salmo salar*), were recorded in these surveys by any sampling protocol, reflecting the very transient nature of these species in the marine area. Nevertheless, the presence of salmon is of medium importance as a sensitive receptor within the region and was assumed and assessed accordingly within the 2018 EIAR, as supplemented by the 2023 EIAR Addendum.

The proposed route of entry into the upper River Sluice system will be limited to the entrance of Baldoyle Estuary located several kilometres south of the proposed outfall construction works and directly above the route of the proposed outfall pipeline beneath the estuary channel which will be completed via microtunnelling. The insensitivity of salmonids and eels to noise impacts, particularly those of the proposed microtunnelling operation was discussed in the EIAR (refer to Section 9.4.2 of Chapter 9 in the 2018 EIAR), with this insensitivity equally applying to the intermittent background noise created by dredging operations, should this be encountered during a period of migration. No physical, chemical or bathymetric changes are impacts which are expected within the estuary as a result of the Proposed Project.

3.2.1.2.13 NIS / AA Compliance

This submission stated that the NIS is not in compliance with the Habitats and Birds Directives and that the NIS repeatedly references sections, appendices and conclusions in the EIAR which is not legally sound. The submission continued that the NIS cannot rely on conclusions in another assessment document and any conclusions with reference to specific impacts on Natura 2000 sites or Annex species inhabiting or using the Proposed Project site must be reasoned and contained within the NIS itself. The submission stated that an example is Section 1.1 of the 2023 Revised NIS which references survey data / maps in the EIAR which are not in the NIS, and that a standalone NIS with complete surveys, mitigation and a cumulative impact assessment is required.

The Applicant would like to clarify that the 2018 EIAR / 2023 EIAR Addendum are referenced in the 2018 NIS and 2023 Revised NIS, and survey reports appended to the 2018 EIAR / 2023 EIAR Addendum are also appended to the 2018 NIS / 2023 Revised NIS, as appropriate. This is in order to exhibit what information was relied upon when making the separate assessment as contained in the main body of the 2018 NIS and 2023 Revised NIS. It is entirely routine for the assessor carrying out the AA to take into account the information contained in separate assessments written by other specialists (in an EIA sense or any other sense) when the conclusions of those assessments are pertinent to the assessment of the Proposed Project against conservation objectives of European sites. The assertion in this observation that "*the NIS cannot rely on conclusions in another assessment document*" is simply incorrect. Where an AA for a project with multiple potential impact pathways is to be conducted correctly, it will necessarily take into account the outcome of other assessments that inform the overall planning application.

In carrying out an AA, it would be imprudent to 'set aside' assessments carried out by other competent experts for the Proposed Project as part of the EIA process (e.g., a marine water quality assessment, or a sediment plume assessment, or a noise impact assessment), and instead embark on a separate assessment of such topics when they are not competent experts in those relevant fields. The use of EIA by competent experts aids the AA process, as the conclusions of those assessments can be applied to the tests of Article 6(3) of the Habitats Directive, and allow for the competent AA expert to record their own assessment in the NIS based, in part, on the assessments made by other experts. Section 3.3.5 of the EPA's Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA 2022), specifically identifies that, while AA and EIA are separate assessments, with separate functions, they are complementary, and each is reliant on the other to ensure robust and substantive assessments are carried out, For example, the Guidance notes that:

> '*A biodiversity section of an EIAR, for example, should not repeat the detailed assessment of potential effects on European sites contained in documentation prepared as part of the Appropriate Assessment process, but* ***it should refer to the findings of that separate assessment in the context of likely significant effects on the environment, as required by the EIA Directive. It may also utilise data that is also included in the Appropriate Assessment documentation***.' (emphasis added)

An example of this non-compliance cited at paragraph 5.2 is 'Section 1.1 of the revised NIS document'. This reference in the observation is incorrect and the passage referred to is Section 1.1 of the May 2018 Estuarine, Coastal and Marine Ornithology Technical Report (the 2018 Ornithology Technical Report), which is appended to the 2023 Revised NIS and was appended to the original 2018 NIS also. It is important to point out that the 2018 Ornithology Technical Report is not an assessment report and is instead a factual survey report that was used to inform the NIS and EIAR. The figures that this report refers to are contained at the back of the report itself. The 2018 NIS (and the 2023 Revised NIS) do contain the relevant bird surveys at Appendix A and do contain the relevant mitigation measures and cumulative impacts to be assessed by the competent authority under the AA regime.

3.2.1.2.14 In-Combination / Cumulative Assessment

This submission stated that the Applicant has failed to adhere to its own methodology in the NIS and has not carried out a correct cumulative assessment for both the EIAR and AA. The submission continued that the cumulative impact of numerous projects along the route and associated hydrology impacts in the catchment areas overlapping Natura 2000 sites must be robustly assessed (referring to Case C-392/96). The submission noted that the issue with EIARs and AAs is that the development itself may not have a cumulative effect and then incorrectly assessing that because the development itself has no impact, then it will not cumulatively impact with other developments. This submission stated that this method is wrong and all effects should be assessed in a cumulative matrix.

3.2.1.2.14.1 AA In-Combination Assessment

The in-combination assessment contained in Table 6-12 of the 2023 Revised NIS identifies the possibility of diminution of water quality effects in combination, due to the release of suspended sediment or contaminated runoff during construction, for 39 other projects in the same catchments traversed by the Proposed Project, and the possibility of disturbance or displacement as a result of airborne noise, vibration or other visual stimuli for four other projects.

This assessment also identifies the possibility of disturbance or displacement effects in-combination, on feature species of European sites as a result of airborne noise, vibration or other visual stimuli, for five other projects which are located in quite close proximity to elements of the Proposed Project at the coast.

Having then taken into consideration the mitigation measures proposed in CEMPs and conditioned to approvals in the case of already permitted developments, the analysis concludes for the reasons stated on page 166 to 167 of the 2023 Revised NIS, that no adverse effects on the European sites were assessed as part of the 2023 Revised NIS.

3.2.1.2.14.2 In-Combination Assessment and Windfarms

This submission stated that the Applicant has only identified one of the many windfarms seeking consent in the Rockabill to Dalkey SAC and has not listed the cumulative impact on harbour porpoise in relation to lubricant spills, sea lift pumps for turbine cooling stations extracting cold water and returning warmer water to the sea.

The Applicant would like to clarify that, in relation to assessing projects cumulatively for which, at the time of submission of the remittal application, there had not yet been any application for development consent, Section 4.1.6 of the 2023 Revised NIS states that, "*on grounds of legal certainty it would seem appropriate to restrict the 'in combination' provision to plans that have been proposed, i.e. for which an application for approval or consent has been submitted*", which adopts the advice contained in the following European Commission Notices:

- European Commission Notice C/2018/7621 - Managing Natura 2000 Sites -The provisions of Article 6 of the Habitats Directive 92/43/EEC (European Commission 2019); and
- European Commission Notice C/2021/6913 - Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2021).

These two European Commission Notices provide guidance in relation to managing Natura 2000 sites and assessing plans and projects in relation to Natura 2000 sites. It should be noted that the methodology and guidance for in-combination assessment in an NIS differs to that of the methodology and guidance for cumulative assessment in an EIAR.

As stated in Section 4.1.6 of the 2023 Revised NIS, the European Commission guidance advises against considering these categories of projects for which there has not yet been any application. Such an approach is in line with current European Commission guidance, and in October 2023 when the 2023 Revised NIS was finalised, none of the 'Phase 1' Irish Sea Offshore Wind Farms had submitted applications for development consent. The correct approach is for each of the 'Phase 1' Irish Sea Offshore Wind Farm assessments to consider the Proposed Project cumulatively or in-combination with each of those respective wind farms when preparing their planning application documentation.

Additionally, the Applicant has confirmed that it will be in a position to furnish ABP with an updated in-combination assessment at the request of ABP.

3.2.1.2.14.3 EIA Cumulative Assessment

The Applicant, through the design development and environmental assessments carried out as part of the 2018 planning application and the 2023 remittal application, has demonstrated its commitment to the avoidance, reduction or prevention of significant impacts resulting from the Proposed Project itself through the embedded design measures and mitigation measures included in the 2018 EIAR and 2023 EIAR Addendum.

In the absence of Irish guidance specifically on cumulative impact assessment, the 2018 EIAR and 2023 EIAR Addendum were undertaken in line with best practice as per the following guidance documents:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA 2022h);
- Environmental Impact Assessment of Projects. Guidance on the preparation of the Environmental Impact Assessment Report (European Commission 2017);
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission 1999); and
- Advice Note Seventeen: Cumulative Effects Assessment Relevant to Nationally Significant Infrastructure Projects (UK Planning Inspectorate 2019).

In particular, the matrices applied in the assessments for the Proposed Project are adapted from Matrix 1 and Matrix 2 in Advice Note Seventeen from the UK Planning Inspectorate and are therefore considered best practice as they have been tried and tested.

The cumulative assessments for the 2018 EIAR and 2023 EIAR Addendum, which followed the above best practice and the approach taken on other major infrastructure projects, considered the impact of the embedded design measures and all of the mitigation measures included in the 2018 EIAR and 2023 EIAR Addendum, on the potential for cumulative impacts with the other developments, along with any mitigation measures included as part of the planning application for each of the other developments, wherever this information was available. As outlined in Chapter 23 (Cumulative Impacts and Environmental Interactions) in Volume 3 Part A of the 2018 EIAR, no additional mitigation measures other than those provided in the 2018 EIAR (as summarised in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A) were necessary to mitigate adverse cumulative impacts.

As part of the updated cumulative assessment for the 2023 EIAR Addendum, additional mitigation measures were identified for instances where an impact could not be ruled out based on the embedded design measures and mitigation measures included in both the Proposed Project and the other development. These additional mitigation measures outlined in Section 23.4 of Chapter 23A in the 2023 EIAR Addendum include the requirement for a coordinated approach between the project teams for four of the other developments short-listed. This coordination will ensure that temporal overlaps during construction will be avoided where an overlap has the potential to result in a cumulative impact. A coordinated approach between developers will also ensure cooperation during Construction Phases to minimise any potential impacts, should temporal overlaps occur.

The Applicant is committed to continued engagement with stakeholders and interested parties, a number of which are infrastructure asset owners / operators and are responsible for the delivery of infrastructure projects. The Applicant will also continue to engage with other developers in the vicinity of the Proposed Project as part of consultation for those other developments to ensure that the potential for impacts are managed effectively.

The Applicant would also like to highlight that, as outlined in Chapter 23 of the 2018 EIAR, and supplemented by Chapter 23A of the 2023 EIAR Addendum, it is acknowledged that certain assessments, such as traffic and associated assessments for vehicular emissions (including air and noise) are inherently cumulative assessments. This is because they have incorporated modelled traffic data growth for future traffic flows for assessment years.

The Applicant confirms that it will be in a position to furnish ABP with an updated cumulative impact assessment at the request from ABP.

3.2.1.2.14.4 EIA Cumulative Assessment and Windfarms

This submission stated that the Applicant has only identified one of the many windfarms seeking consent in the Rockabill to Dalkey SAC.

As outlined in Chapter 23A (Cumulative Impacts and Environmental Interactions) in Volume 3A Part A of the 2023 EIAR Addendum, the cumulative assessment initially looks at a long list of other developments that are either Tier 1 (permitted and under construction, permitted but not yet implemented, submitted for planning that are not yet determined), or Tier 2 (other developments outlined in relevant development plans or appropriate plans and programmes). The assessment notes that information on the specifics of the other developments will reduce as you progress from Tier 1 to Tier 2 developments. It should be noted that there must be sufficient information available on the other development to facilitate an assessment of any potential cumulative impacts.

The screening process for developing a short-list of other developments for which sufficient information was available, and therefore carried forward for a detailed cumulative assessment is detailed in Chapter 23A in Volume 3A Part A and Appendix A23.1 in Volume 3A Part B of the 2023 EIAR Addendum, respectively. This assessment captured all applicable other developments within the 20km zone of influence from the Proposed Project boundary, and assessed whether there was the potential for spatial or temporal overlaps with the Proposed Project. This assessment captured the Dublin Array and Codling Wind Park windfarm developments, which were due for planning submission in 2023, based on the information available at the time of the assessment. The Codling Wind Farm was deemed to be outside of the zone of influence and was screened out on this basis. The Dublin Array development was within the zone of influence and was carried forward for a detailed cumulative assessment (as included in Appendix A23.1 of the 2023 EIAR Addendum). The assessment determined that there was no potential for significant cumulative impacts with the Dublin Array development.

Other windfarms are at early stages of their development (i.e., concept and feasibility stages where a design has not been significantly progressed) and therefore would not have been captured as part of the screening process, as there is no active planning application or a lack of sufficient design and environmental impact information to allow for a detailed cumulative assessment with the Proposed Project. As the Proposed Project has been submitted for planning, the respective designs and environmental assessments for these windfarms will be required to consider the Proposed Project route and the detailed assessments carried out as part of the 2018 planning application and 2023 remittal application, in order to consult with the Applicant design team to inform their final designs and mitigation. Further detail on the scoping out of windfarms at concept and feasibility stage is provided at Section 3.2.15.2.7 of this response document.

3.2.1.2.14.5 Dublin Airport

The submission also noted that the North and South Runways at Dublin Airport have not been cumulatively assessed.

Please refer to Section 2.2.1.2.21, Section 2.2.1.2.34 and Section 3.2.6.2.2 of this Report which respond to similar submissions relating to biogas storage at the proposed WwTP, Dublin Airport's flight paths and Public Safety Zones, respectively.

3.2.1.2.15 Periodic Dredging of Razor Clams

This submission stated that there was no impact assessment under EIA or AA of the periodic dredging of razor clams in the Malahide Shellfish Area. The submission also stated that dredging impacts several species by damaging the seabed, and by being physically caught in the dredge and sediment / plumes.

The Applicant would like to clarify that the importance of commercial shellfish, in particular razor clams (*Ensis siliqua*), was covered in Section 9.3.8 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, along with the impact of dredging to this species in Section 9.4.3 of Chapter 9 of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum. Consequently, the impact was assessed to be high, but extremely localised through extraction (approximately 0.16km^2 (squared kilometres)) or smothering (1km^2). However, as this species can vertically migrate within the sediments, the latter would not introduce significant mortality.

It was also noted that the nature of commercial razor clam operations is itself a dredging operation that periodically disturbs significant areas of surface sediment at regular intervals, but allows the species to naturally repopulate between dredging cycles. No long-term damage of the seabed is expected as a result of the construction dredging, with sediment impacts to benthos or fish assessed to be of negligible magnitude or significance and of a short-term duration (refer to Table 9.23 of Chapter 9 in the 2018 EIAR). The Applicant would like to clarify that the periodic dredging carried out in the context of normal fishing operations would not fall under the remit of EIA / AA cumulative or in-combination assessment.

3.2.1.2.16 Huntstown Power Station

This submission stated that, in relation to Huntstown Power Station, an EIA exemption notice in Iris Oifigiúil on 24/12/22 made it impossible to cumulatively assess the potential impact due to the EU energy exception. The submission also stated that there are lacunae in EIA / AA as an unexpected consequence of the legislation.

The Applicant notes that, in December 2022, the Minister for Environment, Climate and Communications was satisfied that an application to ABP for approval under Section 181(2A)(b) of the PDA was not required for a temporary emergency electricity generating plant to be provided within the existing Huntstown Power Station at Finglas in Dublin 11.

Separate determinations were made by ABP in relation to the requirement for an NIS (ABP reference number 314778) and EIAR (ABP reference number 314777). As outlined in the Inspector's Report for the NIS Determination (ABP-314778-21), ABP were satisfied that, given the nature and limited scale of the emergency generator development and the separation distance between the development and European sites, in addition to the lack of any identified plans or consented projects which had the potential to act in-combination with the development, an NIS was not required. It should be noted that the Proposed Project was considered in the AA Screening Report (Mott MacDonald 2022) carried out for the emergency generator development. This Report determined that, "*given the nature and scale of the proposed development, and the development's distant location in relation to European sites, no potential for in combination effects are identified with this project*".

As outlined in the Inspector's Report (ABP-314777-22) for an EIA Determination, ABP determined that, given the limited nature and scale of this emergency generator development, it would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an EIAR was not required.

Having regard to the EIA and AA screening determinations carried out by ABP in respect of the Huntstown Power Station, there is no basis for the assertion that this project gives rise to lacunae in the cumulative impact assessment of the Proposed Project.

Furthermore in January 2024, the emergency generator plant was undergoing final commissioning. Therefore, there is no potential for its construction phase to overlap with the Construction Phase of the Proposed Project

and given the nature of this other development, there is no potential for impacts to occur during the Operational Phases.

3.2.1.2.17 Dublin Airport PFAS Contamination

This submission raised the issue for the potential per- and poly-fluoroalkylated substances (PFAS) contamination of surface and ground water bodies at Dublin Airport. In particular, the submission noted:

- Orbital sewer excavation on the boundary of the Dublin Airport Campus and potential to encounter contaminated soil;
- PFAS monitoring report released by daa in April 2024 identified toxic contamination of PFAS in the River Mayne, Cuckoo Stream and River Sluice which the Dublin Airport Campus drains into. There is also soil and groundwater contamination reported (Para 5.15 to 5.17, Pg 33); and
- Live applications for a Drainage Area Plan includes partial treatment of contaminated surface water and then discharged to the North Fringe Sewer and so will make up the influent at the GDD WwTP. PFAS chemicals do not break down in the environment and can accumulate over time. The persistence of PFAS poses risks to marine life through bioaccumulation / biomagnification, toxicity to marine species, impairment of reproductive functions, immunotoxicity, contamination of aquatic ecosystems (see Para 5.19.1 to 5.19.5, Pg 33/34).

This was not an issue which the Applicant had been specifically aware of prior to receipt of this submission, and it is not therefore considered in the Application or the Addendum.

There are currently no limits for PFAS in groundwater and soils in Ireland. The EU Drinking Water Directive (EU 2020/2184) includes limits for PFAS total of 500ng/l and the sum of 20 PFAS of most concern of 100ng/l. This Directive entered into force on 12 January 2021, with EU Member States having a two-year transitional period to develop national laws, by 12 January 2023. On 10 March 2023, the Government of Ireland published the European Union (Drinking Water) Regulations 2023 (S.I. No. 99 of 2023). These Regulations set out the limits of the 2020 Directive for PFAS total (500ng/l) and Sum of 20 PFAS (100ng/l). The Regulations will become effective on 11 January 2026, with water suppliers not obligated to monitor water intended for human consumption until this date.

In October 2022, the European Commission proposed amendments to the Water Framework Directive, the Groundwater Directive and the Environmental Quality Standards Directive where the threshold for a sum of 24 PFAS would be 4.4ng/l in both groundwater and surface water, with the aim of achieving good water chemical status at the latest by 22 December 2033. However, these remain to be enacted in Ireland. Additionally, the Proposed Urban Waste Water Treatment Directive (EC: 27 October 2022) (recast) agreed text includes additional responsibilities of Member States in the areas of monitoring for a range of chemicals, including PFAS, especially arising from non-domestic sources. Member States would be required to monitor for a wide range of chemicals, including PFAS, at inlets and outlets to WwTPs, particularly those discharging to catchments used for abstraction of drinking water. The agreed text also includes strengthened requirements for pre-authorisation of non-domestic wastewater connections to treatment systems and future provision for including producers of products containing PFAS in the Extender Producer Responsibility Scheme, to encourage control at source. The Applicant confirms that it will comply with such requirements as are imposed on it pursuant to the Directives by Irish law.

The Applicant has anticipated the possibility of encountering contaminated waste as part of the material to be excavated as part of the Proposed Development. Contaminated waste is considered in Chapter 18 (Soils and Geology) in Volume 3 Part A of the 2018 EIAR, which confirms that-

> "*Contaminated ground, if encountered, will require excavation and removal off-site to a suitably licensed waste facility during the construction of the proposed orbital sewer route and outfall pipeline route (land based section).*"

The management of such material will be in accordance with the details as provided in the Outline CEMP and will be further detailed in the contractor's Final CEMP and Construction Waste Management Plan.

The Applicant is endeavouring to carry out further site investigations on the lands proposed to be excavated, subject to the necessary third-party consents being obtained. This will allow the Applicant gain greater clarity on the nature and volume of material to be excavated that may be impacted by PFAS, such that the draft CEMP as well as the relevant environmental assessments can be updated as required.

3.2.1.2.18 Harbour Porpoise / Cetacean Impacts

This submission raised a number of queries in relation to Harbour Porpoise and cetaceans, as follows:

- There are situations where freshwater impacts can affect Harbour Porpoise including salinity changes, sedimentation, nutrient loading, temp changes, chemical;
- Freshwater Skin Disease (FWSD) in cetaceans like dolphins and whales is a new area of study but has been increasingly observed among populations that spend periods in freshwater environments or estuaries. Some of the impacts of FWSD are skin lesions, increased vulnerability to infections, behavioural changes, impaired thermoregulation, increased mortality. Research is ongoing but the more dangerous combination of FWSD and impacts from wastewater pollutants must be assessed when an outfall is discharging into the most populated section of Rockabill to Dalkey SAC designated for harbour porpoise;
- Wastewater can indirectly contribute to conditions such as pneumonia in cetaceans through mechanisms including introducing pathogens, immunosuppression, changes to the marine ecosystem, respiratory irritants, pneumonia;
- Marine mammals are susceptible to SARS-CoV-2 and the presence of this virus has been detected in samples from stranded cetaceans and manatees indicating infection in the mammals. The virus can be transmitted through untreated wastewater and there is a potential for reverse zoonotic transmission from humans to marine mammals. This highlights the need for appropriate action to protect these vulnerable populations; andsThe Applicant fails to assess impacts other than noise on Harbour Porpoise and these additional potential impacts must be assessed under the combined approach and the application should be refused due to the lack of assessment.
- The Applicant fails to assess impacts other than noise on Harbour Porpoise and these additional potential impacts must be assessed under the combined approach and the application should be refused due to the lack of assessment.

The Applicant would like to clarify the following, in response to the above observations about Harbour Porpoise and cetaceans:

The hydrodynamic properties of the discharge from the proposed marine diffuser are outlined in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum, whilst the dispersion, in particular in relation to water quality and impacts to the ecology, is further discussed in Section 9.5 of Chapter 9 (Biodiversity (Marine)) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 9A (Biodiversity (Marine)) in Volume 3A Part A of the 2023 EIAR Addendum.

As a coastal site, the area is strongly influenced from existing freshwater systems via a number of rivers. The re-direction and treatment of waters from some of these areas into a dedicated discharge location offshore will inevitably result in a small point-plume of freshwater, but the site was selected and modelled based on its naturally highly dispersive properties. Effluent discharge water is always warmer than rivers, with a differential of between 1.5°C and 2.5°C, although seawater temperatures are typically comparable in the winter, or up to 3.5°C cooler in the summer. Modelling results indicate a conservative minimum diffusion of 20-fold within 50m of the proposed outfall, which is equivalent to a maximum decrease of salinity of less than 2 parts per thousand or maximum temperature differential of approximately less than 0.01°C. This is well within the natural range of tolerance of most pelagic species in a coastal environment and the surface variability of this area of the coastline. Consequently, issues relating to freshwater impacts (or FWSD as mentioned in the submission which would require chronic or prolonged exposure) are assessed on the basis of dispersion as negligible due to the very low change in salinity and a very limited area compared to the Harbour Porpoise foraging range.

Chapter 8 of the 2018 EIAR, as supplemented by Chapter 8A of the 2023 EIAR Addendum, outline the target treatment levels for the proposed outfall discharges, along with the dispersion level expected on discharge.

The model showed that, with the exception of DIN immediately within the near-field mixing zone, the compliance levels within the plume of the surrounding waters were not compromised.

The inclusion of UV treatment at the proposed WwTP will inactivate (i.e. kill) the majority of biological pathogens (including bacteria and viruses such as coronavirus) from the discharge, which, in conjunction with the dispersion modelled, will maintain the current water quality status for the region as 'good' under the Bathing Water Directive. The increase in dissolved nutrients was assessed in Section 9.5 of Chapter 9 of the 2018 EIAR, as supplemented by Section 9.5 of Chapter 9A in the 2023 EIAR Addendum, against the model described in Chapter 8 of the 2018 EIAR / Chapter 8A of the 2023 EIAR Addendum, with eutrophication in the sediments discounted and the increased productivity of the water column assessed as Imperceptible. The onward effect of increased productivity of plankton and subsequently fish populations was also assessed as negligible, which will indicate no perceptible alteration to habitat or foraging range for marine mammals.

The Applicant would like to clarify that, in relation to the observation made that the assessment fails to assess impacts other than noise on Harbour Porpoise, noise is a key factor in cetacean biology, and as a result, makes up the primary potential impact to this biological receptor. However, the impact to Harbour Porpoise and other marine species was assessed for numerous factors including changes in nutrients, salinity, clarity, productivity and habitat. All other factors listed in the submission rely on the assumption that the outfall is not treated wastewater, and does not naturally disperse to below an acceptable level. The Applicant would like to clarify that neither of these factors are correct.

3.2.1.2.19 NIS Compliance with Habitats / Birds Directives

This submission stated that the 2023 Revised NIS is not in accordance with the Habitats and Birds Directives, as its conclusion is based on incorrect sewage effluent modelling / dredging sediment modelling. The submission continued that the 2023 Revised NIS contains several contradictory statements across various sections.

The Applicant would like to clarify that the 2023 Revised NIS does not contain contradictory statements. Section 6.3 of the 2023 Revised NIS deals with each European site in turn. Section 6.3.2 deals with Rockabill to Dalkey Island SAC, firstly outlining the conservation objectives in Section 6.3.2.1, followed by signposting the relevant baseline information in Section 6.3.2.2, which does state background noise levels recorded during a baseline survey, and does not state that these activities could cause significant avoidance behaviour and temporary threshold shifts in hearing for the Harbour Porpoise. Section 6.3.2.3 then makes an assessment of the implications of the Proposed Project on the conservation objectives for Harbour Porpoise, explaining in detail the effects on Harbour Porpoise and why mitigation measures are required to ensure that effects on this Annex II species do not compromise the conservation objectives for the SAC.

The Applicant would like to clarify that:

- Section 6.3.2.2 does not highlight any concern, nor does it use the term 'minimal', or state that "*cumulative impacts could be significant and warrant a more comprehensive assessment*", as outlined in the submission;
- Section 6.2.4.1 does not state that 'the risk of pollution incidents during construction pose a significant threat to water quality, which can affect multiple habitats', as outlined in the submission;
- Section 6.4 does not state that the mitigation measures proposed will effectively minimise impacts on protected species and habitats. It does state that mitigation would prevent bentonite causing habitat loss;
- The submission notes that "*section 6.3.2.4 claims that cumulative Impacts from the proposed activities, in combination with other ongoing projects, are not significant*", but as there is no Section 6.3.2.4 of the Revised NIS this comment cannot be clarified;
- The submission claims that "s*ection 6.3.2.5 acknowledges that cumulative impacts could be significant and warrant a more comprehensive assessment*", but as there is no Section 6.3.2.5 of the Revised NIS this comment cannot be clarified;
- Sections 6.4.3.2, 6.4.4.2 and 6.4.5.4 of the Revised NIS do not specify effects that cannot be fully mitigated; and

- Section 7 of the 2023 Revised NIS prescribing the mitigation necessary to prevent adverse effects from occurring again does not specify any effects that cannot be fully mitigated.

3.2.1.2.20 Recast Urban Waste Water Treatment Directive

This submission stated that the Applicant did not take the new requirements for Tertiary and Quaternary Treatment for the urban wastewater treatment plants (UWWTPs) as per the Proposed Urban Waste Water Treatment Directive (EC: 27 October 2022) (recast) into consideration.

Section 3.2.2 of the Addendum to the Planning Report, submitted as part of the 2023 remittal application, specifically addresses the Proposed Urban Waste Water Treatment Directive (EC: 27 October 2022) (recast) (the Recast Directive). The Proposed Project site will likely be sufficient to accommodate any additional treatment processes necessary to meet the requirements of the Recast Directive. Once those requirements are known and in force, all relevant consents will be obtained as necessary.

3.2.1.2.21 GDSDS

This submission stated that the Proposed Project was based on the findings of the GDSDS (Dublin Drainage Consultancy 2005) which was subject to an SEA (FCC 2008), the outcome of which necessitated an amendment to the GDSDS, but further stated that this amendment is not available to the observer. The submission highlighted that the GDSDS was not subject to an AA and the data that the GDSDS was based on / fed into the modelling is now completely out of date and reliance on the GDSDS's conclusions, which is still an objective in the Fingal Development Plan, cannot be considered legally sound.

The Applicant would like to clarify that the recommended strategy for the long-term drainage requirements for the Greater Dublin Region outlined in the GDSDS published in 2005 was for a new Regional WwTP to be built at Portrane. FCC commissioned an independent SEA of the GDSDS and the findings of this SEA resulted in changes to the preferred drainage strategy published in the Final Strategy Report of the GDSDS. The preferred location for a Regional WwTP was amended from Portrane to a "*suitable site in the North Dublin Area*". The SEA recommended that the new Regional WwTP include a coastal outfall at a "*suitable location on the North Dublin coastline*".

The SEA also recommended that "*all elements of the strategy will be subject to more detailed engineering design, which will then accurately determine the specific infrastructure configuration"*. Following these recommendations, as part of normal design development, an ASA and route selection process was undertaken to determine the most appropriate location for the new Regional WwTP in the North Dublin Area. Section 2.2.1.2.1 of this Report details that site and route selection process. In addition, a preliminary modelling study was undertaken in 2011 to identify a range of potential marine outfall locations along the north Dublin coastline.

The Proposed Project in its entirety has been the subject of a systematic, authoritative and comprehensive consideration of alternatives. A significant range of alternatives were considered during strategy development, strategic environmental appraisal and site selection. The consideration of these alternatives was informed, authoritative, rational and robust. These assessments resulted in the Proposed Project design that was brought forward for planning in 2018, for which comprehensive and robust EIA was completed as part of the 2018 EIAR.

A review of the GDSDS recommendations against the latest Census data at that time of the preparation of the 2018 planning application (Census 2016 (CSO 2016)) was undertaken, as documented in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR. This review of projected treatment capacity requirements undertaken for the Proposed Project confirmed the key recommendations of the GDSDS and its SEA. As part of the 2023 remittal application, a further review of the GDSDS recommendations against the updated Census 2022 (CSO 2023) data was undertaken. This review determined that the origins of the Proposed Project within the GDSDS have not changed, and as stated in Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, the GDSDS and its outcomes, including the determination that additional wastewater treatment capacity would be required, remain valid.

In addition, as part of the 2023 EIAR Addendum, the previous site and route selection processes were considered against the most recent Uisce Éireann Guidance, A Guide to Route and Site Selection (IW-AD-PD-GL-008) (Uisce Éireann 2021), and it was determined that the ASA process completed for the Proposed Project follows the recommended site / route selection process in this Guidance. Therefore, the fundamental principles guiding the original assessment in the 2018 planning application remain valid and comprehensive.

Additionally, as part of the assessment completed for the 2023 remittal application, it was determined that no elements of the Proposed Project incorporated into the planning design following direction at the Oral Hearing in 2019, and the subsequent planning conditions applied to the 2018 planning application submission, necessitated an update to the original hydrodynamic modelling that identified the preferable location for the proposed outfall discharge location. The modelling undertaken as part of the consideration of alternatives was informed, authoritative, rational and robust.

As outlined throughout the 2023 EIAR Addendum, out of an abundance of caution, UV treatment has been included in the design of the Proposed Project, following the Oral Hearing process in 2019, to provide additional reassurance on the protection of designated shellfish waters. The EIAR and the NIS included in the 2018 planning application concluded that there will be no significant residual impacts on the environment from the construction and operation of the proposed long sea outfall pipeline route (marine section) for a WwTP providing secondary treatment. The updated assessments completed for the EIAR Addendum and the 2023 Revised NIS included in the 2023 remittal application, assessed the inclusion of UV treatment, and continue to conclude that there will be no significant residual impacts on the environment from the construction and operation of the proposed long sea outfall pipeline route (marine section).

3.2.1.2.22 Fairshare Report

This submission noted that an independent report (included as Appendix 8.2 of the submission) commissioned by the advocacy group Fairshare, found that the GDSDS (Dublin Drainage Consultancy 2005) failed to adequately deal with the aspect of infiltration by rain and stormwater into the agglomeration sewer network. The submission continued that most of the points in Section 10 of that report are still valid and the Applicant has not considered the alternative of diverting storm water from the sewer network to reduce shock loads, giving Ringsend WwTP more capacity. The submission also stated that the Applicant now has more data with updated Drainage Area Plans and has rehabilitation schemes in place. The submission continued that the polluter pays principle should be applied so that Intel should treat and reuse their water as they do internationally. The submission continued that Meath County Council could also build its own plant in County Meath using additional nature based solutions such as wetland construction to treat wastewater where it is produced.

The Applicant notes that the Fairshare Report referenced in this submission was produced in response to the GDSDS published in 2005 and the Scoping stage of the SEA that was completed for the GDSDS (FCC 2008). Refer to Section 3.2.1.2.21 above for further detail of how the Proposed Project developed following the publication of the GDSDS and its SEA.

As outlined in Chapter 5 (Consideration of Reasonable Alternatives) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 5A (Consideration of Reasonable Alternatives) in Volume 2A Part A of the 2023 EIAR Addendum, the potential for alternative approaches other than the provision of new WwTPs to address the shortfall in wastewater treatment capacity in the GDA was considered as part of the GDSDS. These included:

- Reducing the inflow of storm water to the combined / foul sewer network by constructing dedicated storm water sewers in areas containing only combined / foul sewers;
- Reducing groundwater infiltration to the combined / foul sewer network through a programme of sewer rehabilitation, which included sewer relining and / or replacement;
- Reducing the industrial load discharged to the combined / foul sewer network, which would require a formal review of all licensed discharges to sewer; and
- Upgrading existing combined / foul sewer networks (including those undertaken as part of updated Drainage Area Plans) and WwTPs.

The Applicant would like to note that the GDSDS found that these combined alternative approaches would not remove the requirement for the provision of new wastewater treatment capacity. Furthermore, it determined that even with the expansion of each of the existing WwTPs to their ultimate design capacity, the projected combined growth (residential population, commercial, institutional and industrial sources) in the GDA would exceed the treatment capacity provided by the existing WwTPs.

The Applicant would like to emphasise that the reduction of storm water from the system does not remove the need for biological treatment for the population equivalent in the GDA and its associated BOD load, which are continuously increasing due to population growth and increased development.

Under the 2018 planning application, the population and load projections from the GDSDS were assessed using the 2016 Census data (CSO 2016) and reported in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR. As part of the updated assessment completed for Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum, those population and load projections were reviewed using the latest 2022 Census (CSO 2023) summary data. According to the 2022 Census, over 2 million people, or just over 40% of the population of Ireland, now live in the GDA which includes the counties of Dublin, Meath, Kildare, and Wicklow. By 2031, the population of the GDA is projected to reach 2.2 million. The GDA experienced a 24.7% increase in population in the period from 2006 to 2022 with an increase of 8.7% from 2016 to 2022.

The 2022 Census population figures were found to be in-line with the projections of 'Growth Scenario 3 – Most Likely', as presented in Chapter 3 of the 2018 EIAR. Therefore, the growth rates remain the same as presented in the 2018 EIAR. The review of the 2018 planning application in light of the new population and industrial loading data confirmed that there was no basis for amending the previous recommendations outlined in Chapter 3 of the 2018 EIAR. The Proposed Project will add more capacity to the network, which will reduce the pressures on the existing network in the GDA that will result from increased population growth and development.

3.2.1.2.23 Development Plans

This submission stated that the Proposed Project contravenes a number of objectives of the Fingal, Meath, Kildare and DCC Development Plans. The submission also stated that the Applicant failed to address any updates in development plans neighbouring Fingal.

The Applicant would like to note that the 2023 Addendum Planning Report provides, at Sections 3 and 4, 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. This includes relevant updates as they pertain to the Proposed Project and the County Development Plans of not only Fingal, but also the neighbouring local authority areas referenced in the submission. A detailed response on Material Contravention and the Fingal County Development Plan 2023 – 2029 can be found in section 2.2.1.2.11 of this response document.

3.2.1.2.24 Railway Crossing

This submission noted the detailed 2022 submission received from Iarnród Éireann and that there are issues that need to be addressed for the crossing of the railway line at Maynetown.

Please see the response provided to Iarnród Éireann under Section 2.2.9 above.

3.2.1.2.25 Construction Traffic Assessment

3.2.1.2.25.1 Moyne Railway Bridge

This submission noted that the Moyne Railway Bridge may not be able to accommodate heavy vehicles which may require construction traffic to use another access route. The submission stated that this should be addressed in an updated Road Safety Audit (noting that the last one was dated in 2014).

The Applicant would like to clarify that the height restriction of the Moyne Railway Bridge is acknowledged in Section 13.5.2 of Chapter 13 (Traffic and Transport) in Volume 3 Part A of the 2018 EIAR. This Section states that due to a low bridge on the R123 Moyne Road, it has been assumed all HGVs travelling east of Access Point 12 (AP12) will go through AP12 as an alternative route.

Figure 13.2 (Sheet 3 of 3) in Volume 5 Part A of the 2018 EIAR shows the height restriction ('Low Bridge 3.85m') and the alternative route for HGVs.

An additional Road Safety Audit is not required as a Road Safety Audit is only required where a change to the road or roadside layout occurs.

3.2.1.2.25.2 Portmarnock Road Layout Amendments

This submission stated that the traffic assessment mentions a roundabout in Portmarnock where there are now traffic lights and a cycle path, and at another junction in Portmarnock Village by Lidl, the assessment mentions traffic lights where there now are none. The submission continued that a new traffic assessment that takes these changes into consideration is required.

The Applicant notes that Junction 10 has been upgraded to a signalised junction. However, at the time of the original 2018 planning application submission, it was a mini-roundabout which was reassessed as a worst-case scenario for the 2023 EIAR Addendum. It is acknowledged that the assessment showing the mini-roundabout configuration demonstrated that there were no capacity issues, with or without the implementation of the Proposed Project. A signalised junction has more capacity than a mini-roundabout, and therefore, it is expected that the junction upgrade to a signalised junction has increased the capacity of the junction.

In relation to the Lidl mentioned in the submission, the Applicant would like to clarify that this Lidl was operating at the time of the November 2022 traffic counts that were completed to inform the 2023 EIAR Addendum. Therefore, any increase in traffic resulting from the Lidl development is incorporated into the baseline traffic in Chapter 13A (Traffic and Transport) in Volume 3A Part A of the 2023 EIAR Addendum. Further detail on the Road Layout Amendments can be found at section 3.2.15.2.8 of this response document.

3.2.2 Samantha Brown

3.2.2.1 Overview of the Submission

The submission from Samantha Brown raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.2.2 of this Report:

- Objection to the Proposed Project for the following reasons:
  - Traffic Impacts;
  - Risk of Dublin Airport Flight Paths / Air Pollution;
  - Risk of Biogas Storage / Leaks;
  - Air Quality and Odours / Health Impacts; and
  - Property Values.

3.2.2.2 Response to the Submission

3.2.2.2.1 Traffic Impacts

This submission stated that there will be a negative impact on traffic in the area as a result of the Proposed Project.

Please refer to Section 2.2.2.2.10 of this Report which responds to a similar submission relating to traffic impacts.

3.2.2.2.2 Risk of Dublin Airport Flight Paths / Air Pollution

This submission outlined that there is a risk resulting from the location of the proposed WwTP under flight paths at Dublin Airport.

Please refer to Section and Section of this Report which respond to similar submissions relating to the location of the proposed WwTP and the flight paths are Dublin Airport.

3.2.2.2.3 Risk of Biogas Storage / Leaks

This submission stated that there is a potential risk of a large-scale disaster if there is an explosion or leak at the proposed WwTP.

Please refer to Section 2.2.1.2.21 of this Report which responds to a similar submission relating to the risk of biogas storage.

3.2.2.2.4 Air Quality and Odours / Health Impacts

This submission outlined that odours will be released from the proposed WwTP in hotter months like in other areas with WwTPs and the public will not be able to enjoy outdoor spaces. The submission also stated that there will be health impacts associated with exposure to gases from the WwTP on a daily basis. This submission then outlined that there is a risk resulting from the location of the proposed WwTP under flight paths at Dublin Airport, and the level of existing air pollution from planes.

The Applicant would like to clarify that impacts relating to air quality are addressed in Chapter 14 (Air Quality, Odour and Climate) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 14A (Air Quality, Odour and Climate) in Volume 3A Part A of the 2023 EIAR Addendum. Chapter 14 / 14A assessed all emissions to air including dusts and particulate matters. For the Operational Phase, Appendix A14.5 in Volume 3 Part B of the 2018 EIAR presents the air quality predictions for every modelling scenario and meteorological year assessed for the proposed Abbotstown pumping station site, the OCU at Dubber and the proposed WwTP. Model executions were completed to assess the incremental additions to ground level concentrations of particulate matter (PM_{10} and $PM_{2.5}$), Nitrogen dioxide (NO_2), nitrogen oxide (NO_x), sulphur dioxide (SO_2) and carbon monoxide (CO) over specified averaging intervals to allow comparison of the predictions with the relevant Air Quality Standards and Guidelines. The data for each of the assessed air quality parameters demonstrated that emissions from the Proposed Project will not cause air quality standards to be exceeded. Chapter 14A (Air Quality, Odour and Climate) in Volume 3A Part A of the 2023 EIAR Addendum 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 were no material changes to the assessment of air quality and odour presented in the 2018 EIAR. As such, the assessment concluded that there will be no adverse human health effects from particulate matter or indeed any other aspect of air quality.

In addition, a thorough and comprehensive odour impact assessment was undertaken as part of the EIA process (refer to Chapter 14 of the 2018 EIAR, as supplemented by Chapter 14A of the 2023 EIAR Addendum). This assessment presents a comprehensive assessment of the odour emitting potential from the proposed WwTP and sets out the robust approach adopted for the containment, treatment and control of odours associated with the proposed WwTP. All tanks will be covered at the proposed WwTP, and as such, the ability to contain, abstract and treat gases will be enhanced. All gases at the proposed WwTP will be contained, abstracted and treated in Odour Control Units (OCUs). All potential odour releasing activities at the proposed WwTP will be enclosed. The performance of the OCUs will be monitored during a comprehensive Process Proving Phase at commissioning and at regular intervals throughout the operation of the proposed WwTP. Monitors will be installed which monitor key elements of performance for the abatement systems over the full life of the proposed WwTP. In addition, independent performance checks will be carried out by an ISO17025 accredited testing laboratory at quarterly intervals during the first two years of operation to verify the effectiveness of control measures and ongoing compliance with the required performance targets.

As part of the 2023 EIAR Addendum, a series of updated model runs were completed using the most up-to-date model (AERMOD Prime model (Version 22112)) to re-verify the results of the odour modelling completed for the 2018 EIAR. The current regulatory version of the dispersion model AERMOD (version 22112) does not lead to any different findings compared with the then current AERMOD version used in the 2018 EIAR.

Chapter 14 of the 2018 EIAR, as supplemented by Chapter 14A of the 2023 EIAR Addendum conclude that the implementation of the very robust mitigation measures proposed for the proposed WwTP will ensure that it does not cause odour nuisance beyond the site boundary (refer to Chapter 14 in the 2018 EIAR and Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR and supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum) for all mitigation measures). It is therefore considered that there will be no significant negative impacts on the community, or their residential and recreational amenity or health during the Operational Phase by reason of proximity to the proposed WwTP.

The Applicant would also like to note that the conclusion of the Inspector's Report (ABP301908-18) attached to the 2019 grant of planning, which has since been quashed, stated that the Inspector was "*satisfied that all relevant air emissions standards will be met, that the development will not give rise to odour nuisance a residential areas and that no adverse health impacts will arise*". This conclusion stood for all elements and activities associated with the Proposed Project, including those at Abbotstown, Clonshagh and Dubber and for the RBSF for both the Construction and Operational Phases.

3.2.2.2.5 Property Values

This submission stated that there will be a negative impact on property values in the area surrounding the proposed WwTP.

The impact of the Proposed Project on population is addressed in Section 6.4 and 6.5 in Chapter 6 (Population) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A (Population) in Volume 3A Part A of the 2023 EIAR Addendum. Tourism, public amenities and community infrastructure for the proposed WwTP is assessed in Section 6.5.4 of Chapter 6, as supplemented by Chapter 6A.

It is considered that communities in the study area may experience some temporary impacts as a result of the Construction Phase (refer to Section 6.6.2 in Volume 3 Part A of the 2018 EIAR, as supplemented by Section 6.6.2 in Volume 3A Part A of the 2023 EIAR Addendum). In general, the residual impacts identified in Chapter 6 / 6A are considered to be Slight and Not Significant with the implementation of the mitigation measures outlined in the 2018 EIAR and 2023 EIAR Addendum.

In addition, a thorough and comprehensive odour impact assessment was undertaken as part of the EIA process (refer to Chapter 14 (Air Quality, Odour and Climate) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 14A (Air Quality, Odour and Climate) in Volume 3A Part A of the 2023 EIAR Addendum. This odour assessment concludes that there will be no significant residual impacts from odour as a result of the Proposed Project.

There will be no additional significant impacts on the community during the Operational Phase, and there will be no significant negative impact on residential amenity or associated recreational amenity arising from the Proposed Project.

3.2.3 Vivienne Burch and Others

3.2.3.1 Overview of the Submission

The submission from Vivienne Burch and Others raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.3.2 of this Report:

- Strong objection to the Proposed Project for the following reasons:
  - Consultation;
  - Dublin Airport Flight Paths and Biogas Storage Risk;

- Air Quality;
- Tourism / Leisure / Community Impacts;
- Visual Impact of the Proposed WwTP;
- Site Selection and Alternatives Considered;
- Socio-Economic Impact
- Traffic Impacts;
- Odour; and
- Portmarnock Beach.

3.2.3.2 Response to the Submission

3.2.3.2.1 Consultation

This submission stated that there was a lack of consultation with no direct communication from ABP. The submission continued that reliance on a newspaper notice is insufficient and does not ensure all affected parties are adequately informed.

The Applicant has complied fully with ABP's requests and all applicable law in relation to its consultation processes and has indeed gone beyond such requirements as is set out in Section 1.2 above. The Applicant would note that ABP has facilitated two rounds of public consultation since the High Court remittal Order, and the Applicant is responding to those submissions both in this Report and in relation to issues raised in the 2022 Submissions, in the 2023 EIAR Addendum and 2023 Revised NIS.

3.2.3.2.2 Dublin Airport Flight Paths and Biogas Storage Risk

This submission stated that there is a potential risk for a large scale disaster if there is an explosion or leak from the proposed WwTP, in addition to the general risk of the proposed WwTP being under the direct flight path of Dublin Airport.

Please see the response provided under Section 2.2.2.2.8 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.3 Air Quality

This submission stated that there will be a reduction in air quality in the area and the impacts associated with breathing in gas emissions daily.

Please refer to Section 3.2.2.2.4 of this Report which responds to a similar submission relating to the air quality assessment for the Proposed Project.

3.2.3.2.4 Tourism / Leisure / Community Impacts

This submission outlined that there will be a negative impact on tourism / leisure as a result of the proposed WwTP.

Please see the response provided under Section 2.2.2.2.4 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.5 Smaller Plants and Alternatives

This submission stated that the proposed WwTP is too big and goes against best practice. The submission continued that best practice would be to build a number of smaller WwTPs in a variety of locations.

Please see the response provided under Section 2.2.2.2.1 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.6 Socio-Economic Impacts

This submission asserted that there will be a negative impact and lower reputation of the area surrounding the proposed WwTP which is already affected by over-population and socio-economic issues, if the Proposed Project is permitted.

Please see the response provided under Section 2.2.2.2.2 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.7 Visual Impact of the Proposed WwTP

This submission outlined that there will be a negative visual impact as a result of the proposed WwTP, which will add to the impact from planes already flying overhead.

Please see the response provided under Section 2.2.2.2.3 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.8 Traffic Impacts

This submission stated that the Proposed Project will exacerbate existing traffic issues in the area, particularly with tankers and trucks accessing the site of the proposed WwTP.

Please see the response provided under Section 2.2.2.2.10 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.9 Odour

This submission stated that the smell from the proposed WwTP will affect everyone in the area as it will not be possible to control all odours.

Please see the response provided under Section 2.2.2.2.5 to the same submission made in the 2022 submission by Vivienne Burch.

3.2.3.2.10 Portmarnock Beach

This submission stated that Portmarnock Beach is the only Blue Flag Beach in the area and wastewater will destroy the beach.

Please refer to Section 2.2.1.2.51 of this Report which responds to a similar submission relating to Portmarnock Bathing Waters / Blue Flag Beach.

3.2.4 Chambers Ireland

3.2.4.1 Overview of the Submission

The submission from Chambers Ireland:

- Outlined Chambers Ireland's support for the much needed investment in critical national infrastructure and that adequate investment will be critical in helping the State meet its targets under the National Development Plan (NDP), improve capacity and enable efficient wastewater treatment for businesses;
- Highlighted that the provision of wastewater treatment and the efficiency of water infrastructure are areas of concern for the network and outlined that the advancement of the Proposed Project without delay is critical to sustainable development, and that it is a vital once-in-a-lifetime project; and
- Emphasised that the Proposed Project should be fast-tracked as the lack of treatment capacity has been a limiting factor on development across wide tracts of the State and places a constraint upon the efficaciousness of the NDP.

3.2.4.2 Response to the Submission

The Applicant acknowledges and welcomes Chambers Ireland's support for the Proposed Project. The submission reiterates the vital need for the Proposed Project, as summarised in Section 1.1 of this Report. The Applicant is committed to continuing to consult with Chambers Ireland throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.5 Barbra and Niall Connolly

3.2.5.1 Overview of the Submission

The submission from Barbra and Niall Connolly raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.5.2 of this Report:

- Previous Submission;
- Consultation;
- Location of the Proposed WwTP to Residential / Amenity Receptors; and
- Risk of Dublin Airport Flight Paths / Storage of Biogas and Chemicals.

3.2.5.2 Response to the Submission

3.2.5.2.1 Previous Submission

This submission noted that a previous submission had been made to ABP in relation to the Proposed Project and noted the additional information that the Applicant have been instructed to undertake.

The Applicant carefully considered and responded to a previous submission made by Barbra and Niall Connolly during the 2018 consultation period and a full response was provided to this submission in the 2019 Response to Submission Report (Uisce Éireann 2019) which was provided to ABP in January 2019 and is also publicly available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf).

3.2.5.2.2 Consultation

This submission noted that public consultation is flawed, and the process followed for the remittal application is not in line with keeping interested parties informed.

Please refer to Section 3.2.3.2.1 of this Report which responds to a similar submission relating to public consultation for the 2023 remittal application.

3.2.5.2.3 Location of the Proposed WwTP to Residential / Amenity Receptors

This submission stated that the location of the proposed WwTP to residential and amenity receptors is not suitable.

Please refer to Section 2.2.2.2.4 of this Report which responds to a similar submission relating to residential and amenity receptors in the vicinity of the proposed WwTP.

3.2.5.2.4 Risk of Dublin Airport Flight Paths / Storage of Biogas and Chemicals

This submission outlined that there are risks associated with new flight path, the Outer Public Safety Zone at Dublin Airport and storage of biogas and chemicals at the proposed WwTP site.

Please refer to Section 2.2.1.2.21 and Section 2.2.1.2.34 of this Report which respond to similar submissions relating to biogas storage at the proposed WwTP site and Dublin Airport flight paths, respectively.

3.2.6 daa

3.2.6.1 Overview of the Submission

The submission from daa raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.6.2 of this Report:

- Wildlife / Bird Hazards;
- Outer Public Safety Zone / Environmental Resources Management (ERM) Report;
- Cranes;
- External Road Network; and
- Dublin Airport Local Area Plan.

3.2.6.2 Response to the Submission

3.2.6.2.1 Wildlife / Bird Hazards

This submission stated that construction and operation of the proposed WwTP must not give rise to increased bird activity. daa requests a condition is attached to any grant of planning requiring the developer to agree with any subsequent requirement of the daa / AirNav Ireland for mitigation measures, should there be undue wildlife / bird hazards.

The Applicant would like to note that the design of the Proposed Project has taken the location of Dublin Airport and its flight paths into consideration, and all tanks at the proposed WwTP and Abbotstown pumping station sites will be covered to prevent attracting birds during the Operational Phase. The Applicant will accept in the usual way, a condition requiring compliance with all mitigation measures included in the EIAR and NIS as revised.

3.2.6.2.2 Outer Public Safety Zone / Environmental Resources Management (ERM) Report

This submission noted that the Proposed Project will be located in the Outer Public Safety Zone and that the Fingal Development Plan 2023-2029 (FCC 2023) includes objectives DAO18 and DAO19 for projects within this zone. daa request that ABP consider the density restrictions in the ERM Public Safety Zones Report (Department of Transport and the Department of the Environment, Heritage and Local Government 2005a) for 'working premises' of 110 persons per half hectare during the hours of operation.

Chapter 22 (Risk of Major Accidents and/or Disasters) in Volume 3 Part A of the 2018 EIAR considered the vulnerability of the Proposed Project to and from the flight path in the vicinity (including the risk of aircraft-related accidents). The risk assessment undertaken took into consideration the Maximum Aircraft Movement Data and the Calculation of Risk and PSZs: Dublin Airport (Department of Transport and the Department of the Environment, Heritage and Local Government 2005b) and noted that for Risk ID J (aircraft related accidents), the site fringes the southern boundary of the outer public safety zone and was consequently not considered significant.

In addition, the new North Runway which became operational in 2022 was considered as part of Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum. However, the North Runway flight path is further north of the Proposed Project infrastructure. Therefore, there is no potential for risks associated with the new runway, above those already assessed for the South Runway.

As outlined in the Project Response provided within Section 4.1.6 of the Planning Report submitted with the original 2018 planning application:

> "*The WwTP and sludge hub centre site is partially located within the Dublin Airport Red Approach Area. While the entire site is situated in the Outer Public Safety Zone, it is just south of the Inner Public Safety Zone. The site is substantially located within the Outer Noise Zone of Dublin Airport, while a small portion of the lands to the north of the site are located within the Inner Noise Zone. The proposed development of the WwTP comprises relatively low-rise, fully enclosed treatment tanks*

> *and associated buildings of a maximum height of 18 metres. The proposed Project will thus have no impact on the safety and navigation of aircraft associated with Dublin Airport, and is in compliance with the requirements of the IAA. Discussions have been ongoing between the Applicant and the IAA throughout the design stages of this scheme. Any requirements of the IAA in relation to the proposed Project will be taken into account in implementing the proposed Project, if approved.*"

The component elements of the Proposed Project which will be located within the Outer Public Safety Zone, comprising underground pipes, will not alter or negatively compromise the land use pattern in the area or vicinity of the flight paths serving Dublin Airport.

The 2005 ERM Report on Public Safety Zones at airports focuses on controlling the number of people on the ground who could be injured or killed in the event of an aircraft accident during landing or take-off. With respect to the Outer PSZ, the Report states that the proposed land-use policy is to:

> "…*prevent high density housing development, and the building of schools, hospitals and facilities attracting large numbers of people*."

In addition to the above, the Report states that:

> "*It is not practical to list all development types that may or may not be permitted in the PSZs. However, in general terms, a development should be assessed where people can be expected to be present for all or part of the day. It follows that developments that need not be considered are those where persons are not normally expected to be present*."

Furthermore, the Report also provides an indication of the types of uses / developments which are permitted within the Outer Public Safety Zone (such uses include roads, railways, car parks), whilst Table 6.1 provides an indication of the Outer Public Safety Zone restrictions which should be applied to permitted developments (applicable to new applications for development). It is notable that within this table, 'Working Premises' is clarified as:

> "*i.e. factories, offices and facilities where persons are expected to congregate, such as railway stations*".

Implementation of the Proposed Project would not give rise to conflict with the density restrictions prescribed by the ERM Public Safety Zones Report.

On the basis of the above, and in consideration of the fact that the elements of the Proposed Project which will be located within the Outer Public Safety Zone comprises underground pipe infrastructure, which would not be expected to comprise a 'land use' at which persons would be expected to congregate, it is considered that the Proposed Project would be compliant with the density recommendations of the ERM Public Safety Zones Report. Therefore, it would not be appropriate for any density restriction to be imposed on the Proposed Project.

3.2.6.2.3 Cranes

This submission noted that the use of cranes during construction may require further detailed assessment in relation to flight procedures at Dublin Airport. daa request a condition is attached to any grant of planning requiring the developer to agree any proposals for crane operations (mobile or tower) 90 days in advance with daa and AirNav Ireland.

The Applicant acknowledges the recommended condition in relation to crane operations, and accepts the principle, spirit, and intent of the suggested condition. The Applicant is committed to continued engagement with daa, in particular in relation to the erection of cranes, throughout the next phases of the Proposed Project, and will comply with conditions imposed by ABP, should a grant of planning be received.

3.2.6.2.4 External Road Network

This submission noted that the Proposed Project has the potential to impact on the external road network on which Dublin Airport greatly relies.

The Applicant would like to note that a full traffic impact assessment was carried out for the 2018 EIAR and supplemented by the updated traffic assessment for the 2023 EIAR Addendum. The traffic assessment included the proposed construction access routes required for the Construction Phase, as well as the proposed Operational Phase traffic associated with maintenance activities.

The traffic assessment for the 2018 EIAR determined that the generated traffic associated with the proposed infrastructure in the vicinity of Dublin Airport (i.e., proposed construction compound no.3, access point 8A (AP-8A) and access point 8B (AP-8B) on the R132 Road) had the potential to result in Negative and Slight effects during the Construction Phase which would be Short-Term. The assessment noted that the Construction Traffic Management Plan (included as Appendix 2 of the CEMP in the 2018 planning application) includes a number of mitigation measures, which will be developed and implemented by the appointed contractor(s), to reduce the impact further. These include a detailed construction programme that gives consideration to traffic flows and aims to avoid coincidentally high volumes of traffic using the same roads where possible. The updated assessment for the 2023 EIAR Addendum did not result in a change to the assessed impact included in the 2018 EIAR, and the same mitigation measures will apply. The traffic assessments carried out in the 2018 EIAR, and updated for the 2023 EIAR Addendum, confirm that operational Phase traffic will have no impact on the external road network surrounding the airport.

3.2.6.2.5 Dublin Airport Local Area Plan

This submission noted that the Dublin Airport Local Area Plan (FCC 2020) includes objective EI03 that all developments shall not prejudice the orderly operation and continued growth of Dublin Airport, including the provision of a third terminal in the future. daa request that ABP consider objective EI03. The submission also outlined that proposed wayleaves could inhibit future development of airport lands, particularly to the east of the R132 Road. daa requested that the following condition be attached to any grant of planning:

- Prior to commencement of the development construction plans, with particular reference to construction traffic, must be developed in consultation with and agree with daa as the landowner.

The Applicant would like to note that the original 2018 Planning Report for the Proposed Project indicates the extent of the Dublin Airport Local Area Plan 2006 (at Section 3.4.9) and its location relative to the Proposed Project (Figure 3.3). The extents of the Dublin Airport Local Area Plan 2020 remain unchanged.

Section 2.3.3.4 of the Dublin Airport Local Area Plan 2020, as incorporated into the extant Fingal Development Plan 2023-2029 (FCC 2023), also provides an indication, at Figures 2.4 and 2.5, of the Dublin Airport Zoning Map and Adopted Variation No.1 of same (Zoning Objective: Ensure the efficient and effective operation and development of the airport in accordance with an approved Local Area Plan), whilst Figure 9.2 (Cultural Heritage) also provides the Dublin Airport Local Area Plan Outline.

Objective EI03 of the Dublin Airport Local Area Plan should be read within the context of the Local Area Plan and the extent of the Local Area Plan boundaries. As can be noted within Figure 3.3 of the original 2018 Planning Report, the orbital sewer corridor of the Proposed Project will traverse the southern boundary / extent of lands to the south-east of the Local Area Plan boundary which are zoned for “runways/ taxiways” and as an “ancillary aviation-related development zone”. The lands zoned for “runways / taxiways” accommodate the existing southern runway of Dublin Airport.

As stated in the original 2018 Planning Report, the construction of the orbital sewer through these lands will not restrict the future development of lands within Dublin Airport, and will in fact, assist in providing essential and critical enabling infrastructure for the future growth and development of the airport and these lands, through the provision of increased treatment capacity in the GDA.

In addition, the latest Dublin Airport Local Area Plan 2020 is addressed in Section 3.4.10 of the 2023 Addendum Planning Report.

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 (FCC 2006). 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."*

The 2023 Addendum Planning Report also outlines that 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.

The Applicant has no difficulty with a condition requiring it to consult daa when developing construction plans, and is committed to continued engagement with daa throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.7 Development Applications Unit (DAU)

3.2.7.1 Overview of the Submission

The submission from the DAU raised the following points, on which the Applicant has provided clarification in Section 3.2.7.2 of this Report:

- Previous Submissions;
- European Sites;
- Badger Setts;
- Common Frog;
- Plant Species at Ballymun NCT Centre; and
- Proposed Conditions.

3.2.7.2 Response to the Submission

3.2.7.2.1 Previous Submissions

This submission outlined that previous observations raised by the DAU in 2018 and 2022 still stand and should be given due consideration.

The Applicant carefully considered and responded to a previous submission made by the DAU during the 2018 consultation period, and a full response was provided to this submission in the 2019 Response to Submission Report (Uisce Éireann 2019) which was provided to ABP in January 2019 and is also publicly available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf).

The observations raised in the 2018 submission from the DAU were also considered within the Inspector's Report and conditions arising from that consideration were attached to the original grant of planning in 2019 by ABP.

The Applicant has also responded to the 2022 submission made by the DAU in Section 2.2.4 of this Report.

3.2.7.2.2 European Sites

This submission noted that the Proposed Project is now within two European sites (i.e., Rockabill to Dalkey SAC and North-West Irish Sea SPA).

The Applicant acknowledges that the Proposed Project will be located within two European designated sites. The original NIS in the 2018 application, and the 2023 Revised NIS in the 2023 remittal application consider and assess the Rockabill to Dalkey Island SAC (Site Code: 3000). The Revised NIS included in the 2023 remittal application takes account of the designation of the North-West Irish Sea candidate SPA (Site Code: 004236) in July 2023 and fully assesses the potential for direct, indirect and in combination impacts affecting this newly designated European site, taking into account its site-specific conservation objectives .In particular, the potential for airborne noise impacts during construction, visual disturbance, water quality and habitat deterioration were assessed in the 2023 Revised NIS.

The 2023 Revised NIS assessment concluded that, beyond reasonable scientific doubt, the Proposed Project with the implementation of the prescribed mitigation measures in the 2023 Revised NIS, 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. The Applicant is committed to continued engagement with the DAU in relation to these concerns and will continue to review any construction management plans and methodologies in the context of the potential for impact on Natura 2000 Sites.

3.2.7.2.3 Badger Setts

This submission noted that works that will have an impact on badger setts require a licence from the NPWS. The submission also noted, for ABP, that any interference with or destruction of a sett must be regulated by the attachment of conditions to the permission granted by the planning authority for the relevant development.

The Applicant acknowledges the observation in relation to badger setts and notes that there has been no request for further information in relation to the methods to be used to close badger setts, above the information and mitigation measures provided for in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum.

The Applicant notes the request for a Badger Conservation Plan to be included by ABP as a condition of planning. The Applicant has prepared Outline Conservation Management Plans in respect of badgers and amphibians in response to the Development Applications Unit submission, which can be submitted to ABP if requested.

3.2.7.2.4 Common Frog

The submission noted the additional surveys and mitigation measures proposed to prevent impacts to identified amphibian populations, but stated that there is no mention of surveys for Common Frog in the additional documents, despite the species being expected to be present at the three sites surveyed for newts. The submission highlighted that the surveys for the Proposed Project identified a frog population adjacent to the NCT Centre, and frogs will almost certainly be present at Coldwinters and possibly at Toberbunny and elsewhere on the orbital sewer route.

The Applicant confirms that, as part of the amphibian surveys undertaken for the 2018 EIAR and 2023 EIAR Addendum, the following information was collected at each water body surveyed, as outlined in Appendix A11.3 in Volume 3 Part B of the 2018 EIAR and Appendix A11.1 in Volume 3A Part B of the 2023 EIAR Addendum:

- Presence of fish, frogs, and birds; and
- Number of newts.

Frog tadpoles were recorded in a number of water bodies surveyed in the Coldwinters site of the Proposed Project, but none were identified within the NCT Centre or Toberbunny sites in the 2023 EIAR Addendum. Appendix A11.3 in Volume 3 Part B of the 2018 EIAR notes that in relation to newt surveys conducted at site

2 (Ballymun) in May and June 2017, sticklebacks, mallard and tadpoles were observed in some of the ponds on-site in both 2015 and 2017. Section 11.3.2 of Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic)) in Volume 3 Part A of the 2018 EIAR notes that along the proposed orbital sewer route (Blanchardstown to Clonshagh Section), drainage ditches are to be found and that these habitats are "*breeding sites for common frog*". This point was reiterated in a response to the Inspector presented at the Oral Hearing on 27 March 2019, which is included as Appendix A11.3 in Volume 3A Part B of the 2023 EIAR Addendum.

The recent smooth newt survey of the NCT Centre site was undertaken in May and June 2023, and presented as Appendix N to Appendix A11.1 (Terrestrial Baseline Survey Report) in Volume 3A Part B of the 2023 EIAR Addendum. Whilst the focus of that survey was smooth newts, frogs or tadpoles of frogs would have been recorded if observed. That survey did not record frogs or tadpoles of frogs. As frog was not recorded in recent newt surveys, its presence was not referred to in the 2023 EIAR Addendum when updating the terrestrial biodiversity baseline and assessment, as required. However, pre-construction surveys will be undertaken, should a grant of planning be received for the Proposed Project. Should frog be identified during these pre-construction surveys, in any pond habitat to be affected by the construction of the Proposed Project, appropriate mitigation measures will be put in place. This will include the translocation of frog to an alternative suitable pond habitat under licence from the NPWS. The Applicant has prepared Outline Conservation Management Plans in respect of badgers and amphibians in response to the Development Applications Unit submission, which can be submitted to ABP if requested.

3.2.7.2.5 Plant Species at Ballymun NCT Centre

This submission noted that the treatment of the site adjacent to the Ballymun NCT Centre where interconnected ponds are present amidst recolonising bare ground and wet grassland habitats have developed were discussed at the 2019 Oral Hearing as raised by the Ballymun Biodiversity Action Group. The submissions noted that during a site visit by the NPWS in 2022, various plant species occurring in the ponds which were typical of hard-water lake habitats were noted and are considered to be of local importance (notably fen pondweed was present and it is the third record for County Dublin and the first in 35 years).

The Applicant would like to note that the 2018 EIAR assesses artificial lakes and ponds as being of local importance (higher value); spoil & recolonising bare ground as being of local importance (lower value) (refer to Table 11.8 in Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic) in Volume 3 Part A of the 2018 EIAR); and Sillogue Nature Development Area as being of County Importance (refer to Table 11.13 in Chapter 11 (Biodiversity (Terrestrial and Freshwater Aquatic) in Volume 3 Part A of the 2018 EIAR). This is consistent with the opinion of the NPWS aquatic ecologist expert and a consultant freshwater botanist following their visit to the site in May 2022 (i.e., local value).

The Applicant would like to clarify that fen pondweed (*Potamogeton coloratus*) was not encountered during surveys undertaken for the 2018 EIAR or the 2023 EIAR Addendum, and was therefore not discussed in either EIAR. However, pre-construction surveys will be undertaken, should a grant of planning be received for the Proposed Project. Should fen pondweed be identified during these pre-construction surveys, in any pond habitat to be affected by the construction of the Proposed Project, appropriate mitigation measures will be put in place. This may involve the translocation of the fen pondweed to a receptacle pond.

To successfully translocate fen pondweed, receptacle ponds need to be established in advance so that the mud being desilted from the old habitat can be moved directly into the new pond. Mud from the old location should be moved directly to the new location without any storage period. After the desilting process is complete, a settling period and monitoring of the pond is required. During the settling period, adding an aerator to the pond would be beneficial to prevent the disturbed carbon from affecting the oxygen levels within the pond.

Individual plants may be removed from the old pond and the rhizomes separated to form multiple new plugs for the new pond. When moving the plants from the old to the new pond location, they will not be stored overnight and will be replanted as soon as possible to minimise stress to the individual plants. It should be noted that fen pondweed is an early succession plant and is a poor competitor. It can therefore be out competed by taller overshading plants such as common reed. A management plan will be developed and monitoring of translocated populations will be undertaken to ensure re-establishment success of fen pondweed in the new pond location (if required).

3.2.7.2.6 Proposed Conditions

This submission recommended conditions be attached to any grant of planning, including:

- Prior to commencement of works, the Applicant will submit a Badger Conservation Plan and an Amphibian Conservation Plan to FCC; and
- The Applicant shall be required to establish one or more new ponds adjoining the route of the orbital sewer through 'waste ground' site to the north-west of the Ballymun NCT Centre and transfer elements of the existing plant communities present in the ponds on the NCT-adjacent site to the new ponds.

The Applicant will comply with the conditions attached to any grant of planning approval, in addition to those already included as mitigation or monitoring measures in the 2018 EIAR, 2023 EIAR Addendum, the 2023 Revised NIS, plus the 2018 CEMP, as supplemented by the 2023 Addendum to the CEMP, which are all included in the planning application documentation.

As detailed in Section 3.2.7.2.3 and Section 3.2.7.2.4 above, the Applicant has prepared an Outline Badger Conservation Plan and an Outline Amphibian Conservation Plan. Both Outline Conservation Plans will be updated by the appointed ECoW, as necessary, to comply with any related conditions attached to a grant of planning, and following the completion of pre-construction surveys. As noted above, the Applicant can supply these Outline Conservation Plan if ABP thinks those plans would assist its consideration of the application.

3.2.8 Environmental Protection Agency (EPA)

3.2.8.1 Overview of the Submission

The submission from the EPA raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.8.2 of this Report:

- Licence Application to the EPA;
- Regulation 41 of the Waste Water Discharge Regulations; and
- Regulation 44 of the Waste Water Discharge Regulations.

3.2.8.2 Response to the Submission

3.2.8.2.1 Licence Application to the EPA

The submission stated that the EPA are satisfied that the planning application for permission is development comprising or for the purposes of a waste water discharge that requires a licence. The EPA noted that it has not yet received a licence application, and continued that, should the EPA receive a licence application, the Applicant must submit the associated EIAR to the EPA as part of the application. The submission stated that consultation on the licence application will be carried out in accordance with Regulation 21(6)/21(7) of the EU (Waste Water Discharge) Regulations 2007-2020 and all observations from ABP will be taken into account as part of the EPA's assessment and before granting any discharge licence. The submission outlined that ABP will be required to provide their documentation relating to the EIA to the EPA and requested that a condition be attached to any grant of planning that requires the Applicant to submit a licence application within six months of the final grant of permission and before development starts. The EPA noted that they cannot make a decision on any licence application until a planning decision is made.

The observation relating to the licence application to the EPA has been noted and accepted by the Applicant. The Waste Water Discharge Authorisation licence application will be submitted to the EPA within the timeframe requested. The Applicant welcomes the engagement that is required between ABP and the EPA prior to the grant of any planning permission. The Applicant will adhere to the EPA's licence application requirements, including the inclusion of the EIAR in the application and related public consultation.

3.2.8.2.2 Regulation 41 of the Waste Water Discharge Regulations

This submission noted the requirements of Regulation 41 of the Waste Water Discharge Regulations relating to the limitations of the PDA and outlined that ABP's determination should not cause a breach or exacerbate breaches of the combined approach, or otherwise cause serious water pollution. The submission advised that the Proposed Project should not result in a contravention of the WFD, UWWTD, Habitats Directive, Birds Directive and Environmental Liabilities Directive, as appropriate.

The Applicant notes and accepts the EPA observation in relation to Regulation 41 of the WWD Regulations.

3.2.8.2.3 Regulation 44 of the Waste Water Discharge Regulations

This submission noted that any consultation from ABP to the EPA under Regulation 44 of the Waste Water Discharge Regulations should include ABP's assessment of likely impacts of the Proposed Project on waste water discharges.

The Applicant welcomes the observation in relation to Regulation 44 of the Waste Water Discharge Regulations and fully endorses the EPA's observation in respect of the requirement for consultation between the EPA and ABP and the associated process as per Regulation 44 of the Waste Water Discharge Regulations. The Applicant will rely on ABP to carry out that consultation in accordance with applicable law.

3.2.9 Fingal County Council (FCC)

3.2.9.1 Overview of the Submission

The submission from FCC outlined that FCC have no further comment to make on the Proposed Project. The submission noted that the latest Fingal Development Plan 2023-2029 (FCC 2023) acknowledges that the availability of wastewater infrastructure, like the Proposed Project, will be crucial to furthering the economic potential of the Fingal area.

The submission noted that 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 in the latest Fingal Development Plan 2023-2029, as well as the previous Fingal Development Plan 2017-2023 (FCC 2017), and is identified as a critical piece of infrastructure that will need to be progressed to assist FCC to achieve its overall strategy.

3.2.9.2 Response to the Submission

The Applicant acknowledges that there is no further comment from FCC. The Applicant is committed to continuing to consult with FCC throughout the next phases of the Proposed Project, should a grant of planning be received. The Proposed Project is fully compatible with the latest Fingal Development Plan 2023-2029.

3.2.10 Terri Gray and Paul Burke

3.2.10.1 Overview of the Submission

The submission from Terri Gray and Paul Burke welcomed the additional information and further public consultation for the Proposed Project, and raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.10.2 of this Report:

- Consultation; and
- Dublin Airport / Flight Paths.

3.2.10.2 Response to the Submission

3.2.10.2.1 Consultation

This submission outlined that consultation is flawed and not in compliance with Section 37F of the PDA. The submission advised that the observers did not see the newspaper notice and nothing was released by ABP.

The submission stated that there are new developments in Belcamp Manor for which new residents have not been provided with any information and were not aware of the Proposed Project. The submission continued that in 2018 a large number of Clonshaugh residents raised objections and concerns about the proposed WwTP, and that ABP have shown little respect or responsibility to the locals residents in close proximity and have not followed the regulations regarding public consultation.

Please see the response provided under Section 2.2.5.2.6 to a similar submission made in the 2022 submission by Terri Gray and Paul Burke.

3.2.10.2.2 Dublin Airport / Flight Paths

This submission outlined that the proposed WwTP will be under new flight path at Dublin Airport and within the Outer Public Safety Zone and this has not been considered. The submission continued that biogas will be stored on-site and chemicals to treat the wastewater will have the potential to put airline staff and passengers at risk. The submission also stated that the Irish Aviation Authority (IAA) need to be fully informed and all safety measures adhered to.

Please see the response provided under Section 2.2.5.2.2 to a similar submission made in the 2022 submission by Terri Gray and Paul Burke.

The Applicant would like to note that the IAA and daa are prescribed bodies under Article 213 of the Planning and Development Regulations, and for the purposes of Section 37E(3)(c), have been regularly and repeatedly consulted with as part of the planning process for the Proposed Project (please refer to the IAA and daa submissions and responses provided in Section 3.2.12 and Section 3.2.6 of this Report, respectively).

3.2.11 Health Services Executive (HSE)

3.2.11.1 Overview of the Submission

The submission from the HSE raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.11.2 of this Report:

- Previous Submissions;
- Emissions Reductions;
- Climate Resilience; and
- Population Health.

3.2.11.2 Response to the Submission

3.2.11.2.1 Previous Submissions

This submission stated that the 2024 submission has been made in addition to the 2018 submission from the HSE.

The Applicant carefully considered and responded to a previous submission made by the HSE during the 2018 consultation period and a full response was provided to this submission in the 2019 Response to Submission Report (Uisce Éireann 2019) which was provided to ABP in January 2019 and is also publicly available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf).

3.2.11.2.2 Emissions Reductions

This submission stated that the main focus of the climate assessment is focused on reducing greenhouse gas emissions during construction and operation. The submission also stated that some additional means to reduce emissions could be employed during the construction and development phases, and continued that the National Environmental Health Service recommends that consideration be given to the use of zero emission

vehicles and machinery during the Construction Phase. The submission noted that workers should be supported to get to site via shuttle buses, active travel or public transport, and the generation of renewable energy beyond the heat recovery during sludge treatment could be explored, namely solar, wind and geothermal energy.

3.2.11.2.2.1 Transport Emissions

Construction traffic and activities are expected to be a source of greenhouse gas emissions as a result of the approximate 48 month Construction Phase of the Proposed Project. Mitigation measures are outlined in Section 5.2.2.2 of Appendix A14.1 in Volume 3A Part B of the 2023 EIAR Addendum to reduce the transport emissions during the Construction Phase, stipulating that the appointed contractor(s) will be required to comply with the latest EU regulations relating to CO_2 emission performance standards for new passenger cars and light commercial vehicles. This aligns with the Avoid-Shift-Improve framework called out in the Climate Action Plan 2024 (Government of Ireland 2023), by shifting to the procurement of lower or zero emissions vehicles where practicable.

The most recent standards in force at the time of writing for emissions from on-road vehicles, including passenger vehicles and shuttle buses for staff transportation, is Regulation (EU) 2023/851 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2019/631 strengthening the CO_2 emission performance standards for new passenger cars and new light commercial vehicles, in line with the European Union's increased climate ambition. As outlined in Appendix A14.1 in Volume 3A Part B, and Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, respectively, the appointed contractor will comply with the latest EU regulations relating to CO_2 emission performance standards for new passenger cars and new light commercial vehicles for Construction Phase activities. As such, the appointed contractor will be required to capture any revisions and updates in relation to the performance standards of vehicles procured to ensure alignment with the latest best practice.

In addition, the Proposed Project's impact will be minimised through the mitigation measures included in Section 5.2.2 of Appendix A14.1 in Volume 3A Part B of the 2023 EIAR Addendum.

The Climate Action Plan 2024 identifies key targets for transport including increases to sustainable transport trips and modal share. The Construction Phase Traffic Assessment for the Proposed Project (refer to Section 13.5 of Chapter 13 (Traffic and Transport) in Volume 3 Part A of the 2018 EIAR), as supplemented by Chapter 13A (Traffic and Transport) in Volume 3A Part A of the 2023 EIAR Addendum, considered that supports for workers to get to site is based on the locations for the individual elements of the Proposed Project and staff origin locations.

For the construction of the proposed WwTP at Clonshagh, Abbotstown pumping station and the outfall pipeline route (including tunnelling and access shafts), modal share to reduce vehicle movements and hence emissions is outlined in Section 13.5 of Chapter 13 in the 2018 EIAR, as supplemented by Chapter 13A in the 2023 EIAR Addendum.

The appointed contractor will be required to prepare a Construction Traffic Management Plan to minimise traffic impacts and associated emissions during Construction Phase. In addition, the mitigation measures included in Section 5.2.2.1 of Appendix A14.1 in Volume 3A Part B of the 2023 EIAR Addendum will require the appointed contractor(s) to organise shuttle and minibuses to reduce the number of passenger cars required for construction staff.nR*enewable Energy*

3.2.11.2.2.2 Renewable Energy

In relation to the consideration of other renewable energy generation sources, above the proposed heat recovery from sludge, 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 at the SHC, and using the biogas produced from this process to fuel on-site CHP 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 2023 EIAR Addendum. Primary and secondary sludge produced by the proposed WwTP can be mixed with the sludge imported to the SHC 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 CHP 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 CHP systems can have total efficiencies of up to 80%.

The design of the Proposed Project has therefore considered the impacts of climate change through the proposed use of energy saving and efficiency measures. In addition, the use of advanced sludge digestion processes, the thermal hydrolysis process and anaerobic sludge digesters will seek to maximise energy recovery on the site. 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 will 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 proposed WwTP 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 though energy recovery, while also ensuring that the future wastewater needs of the GDA are met.

While the provision of solar photovoltaic (PV) technology has not been provided as an energy source for the elements assessed within the Proposed Project scope (as detailed in Section 1 of Appendix A14.1 in Volume 3A Part B of the 2023 EIAR Addendum), PV technology is included in the design for the RBSF which is designed to store the treated biosolids produced at the Proposed Project's WwTP. Roof mounted PV solar panels are proposed to be installed on the RBSF's warehouse structure contributing upwards of 40% of the site's annual energy load. To maximise the potential power generation of this technology, further design has been undertaken for this element of then RBSF to capture any advances in solar technology, and therefore the potential to improve the renewable energy yield. The Applicant would like to note that the RBSF has been approved as part of the Ringsend WwTP Upgrade Project (by ABP Case Reference Number PA29S.301798), and it is under that permission that it is currently in the process of being constructed.

3.2.11.2.3 Climate Resilience

This submission outlined that reference is made to the need to provide sectoral resilience to climate change impacts but detail on how the Project will provide that resilience could not be found, including reference to the National Adaptation Framework of 2018. The National Environmental Health Service recommends that the Proposed Project is assessed in terms of how it will adapt to climate change over its lifetime, including a risk assessment that is not just confined to severe weather events. Risk should assess sudden onset of floods, windstorms, wildfires but also slower onset effects. A Response Plan should be put in place after the risk assessment.

As outlined in the carbon assessment in Appendix A14.1 in Volume 3A Part A of the 2023 EIAR Addendum, the then updated Climate Action Plan 2023 (CAP 2023) (Government of Ireland 2022) identified that climate change will result in further pressure on water resources and that the Applicant need to provide sectoral resilience to the impacts of climate change. This messaging is reiterated in the most recent Climate Action

Plan 2024 (Government of Ireland 2023). The Proposed Project is designed to provide such resilience by providing capacity to meet the demand based on population forecasts to 2040.

In the absence of the Proposed Project, the following would not be provided:

- Resilient infrastructure aligned with the aims of the GDSDS (Dublin Drainage Consultancy 2005) to provide an environmentally sustainable Regional Drainage Strategy consistent with the WFD;
- Compliance with the requirements of the Urban Waste Water Treatment Directive; and
- Assistance to the completion of Action AD/23/14 (Chapter 22 Adaptation of the Climate Action Plan 2023 to improve the resilience of Ireland's water infrastructure to the impacts of climate change.

Providing resilient sanitation infrastructure which is designed to meet both current and future wastewater demands, with capacity to recover energy and produce a circular biosolid fertiliser product, represents a sustainable development approach.

As part of the 2023 EIAR Addendum, a new risk category was added to the updated risk assessment, as outlined in Table 22.2 of Chapter 22A (Risk of Major Accidents and / or Disasters) in Volume 3A Part A of the 2023 EIAR Addendum. The addition of this risk category recognises and responds to developments in climate-related legislation, policy and knowledge base, which have emerged and evolved since the submission of the original planning application in 2018. This category evaluates the risk of climate change-related weather events on the Proposed Project during the Construction and Operational Phases.

The implementation of an Environmental Incident Response Plan by the appointed contractor / operator of the facility, as outlined in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR will reduce risks of climate change-related weather events. Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum includes additional mitigation to ensure that the appointed contractor will pay due consideration to the impacts of climate change-related weather events during the Construction Phase as part of their Environmental Incident Response Plan. The appointed contractor will utilise available meteorological forecast data from Met Éireann or other approved providers of meteorological data to inform short to medium-term program management, environmental control and impact mitigation measures. d by the appointed contractor having regard to the CEMP included in the 2018 planning application, as supplemented by the Addendum to the CEMP in the 2023 remittal application), will be considered in order to ensure mechanisms are in place should this impact arise. The documents will contain plans and mitigation to prevent future impacts due to increasingly severe weather events resulting from climate change.

The appointed contractor's Environmental Management System (EMS) will consider all measures deemed necessary to manage climate change-related weather events and will, as a minimum, cover training of personnel and prevention and monitoring arrangements. Mitigation will be as follows:

- Construction method statements will consider extreme weather events where risks have been identified;
- Emergency preparedness and contingency procedures will be put in place for an extreme weather event on the construction site or within the supply chain;
- The appointed contractor will schedule concrete curing to avoid peak temperatures;
- The appointed contractor will consider increased dust suppression measures in hot and dry conditions;
- The appointed contractor will have a health and safety plan in place that takes into consideration dust-related air quality concerns; and
- The appointed contractor will use short to medium range weather forecasting to inform short to medium-term programme management, environmental control, and impact adaptation measures. The appointed contractor will register with the flood warning service in areas of flood risk.

The Applicant and the site operator will maintain the Severe Weather Management Plan during the Operational Phase to ensure that critical infrastructure is protected during operation from the impacts of severe weather.

The Environmental Incident Response Plan will continue to be a live document that undergoes monitoring, review and update throughout the lifetime of the Proposed Project, and as a result will adapt to changing climate over the lifespan of the Proposed Project. As outlined above, this will include a Severe Weather Management Plan for the Construction and Operational Phases, which will also be a live document that will be subject to monitoring, review and update throughout the lifetime of the Proposed Project. All activities on-site will continue to be monitored to ensure that risk of climate change-related events does not increase over time on the site.

As outlined in Chapter 22 in the 2018 EIAR, as supplemented by Chapter 22A of the 2023 EIAR Addendum, 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 2018 EIAR, in relation to total or partial failure events, will protect the Proposed Project infrastructure against power outages resulting from storm events or other climate change-related demand issues.

Additionally, the location of the Proposed Project was subject to a FRA, which has been revised as part of the 2023 remittal application. The original FRA and the 2023 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 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) (DEHLG and OPW 2009). 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 2018 EIAR, as supplemented by the 2023 EIAR Addendum, and the design of the proposed pipelines will ensure that flood risk, including flooding brought on by climate change, is not considered significant.

3.2.11.2.4 Population Health

This submission outlined that the climate crisis is a health crisis but actions to address climate change also present opportunities to protect population health. The National Environmental Health Service recommends that the Applicant look for ways to enhance or protect population health in line with the vision of Healthy Ireland.

The objective of the Proposed Project, as described throughout the 2018 EIAR and 2023 EIAR Addendum, is to increase the wastewater drainage and treatment capacity in the GDA, protecting public health, safeguarding the environment and facilitating social and economic growth to 2050 and beyond.

Wastewater treatment forms an essential part of the primary infrastructure network that is necessary for communities to form, grow and thrive. This Proposed Project is vital to delivering the required wastewater treatment capacity and infrastructure which in turn will safeguard public health; protect and improve the environment; and facilitate sustainable residential and commercial development in the Dublin region.

The Proposed Project will ensure that wastewater generated from the continued growth and economic development of the GDA is appropriately treated in order to safeguard human health and the environment and will be carried out in compliance with the relevant EU Directives and National regulations on water quality.

The 2023 EIAR Addendum determined that the overriding purpose of the Proposed Project remains to provide a long-term sustainable drainage solution that will cater for existing and future development in the GDA. The Proposed Project remains a key infrastructural element to ensure that wastewater generated from the continued growth and economic development of the GDA is appropriately treated in order to safeguard human health and the environment. It is clear from the updated assessments for the 2023 EIAR Addendum that there is still a critical need to increase the wastewater treatment capacity currently available to the GDA, particularly as the Census 2022 summary results (CSO 2023) show that the population is increasing in the GDA, as projected. An efficient and functioning wastewater system is a necessity for both residential and economic development in a modern economy, in addition to being essential to public health. The Proposed Project continues to have the potential to provide opportunities for health improvements by providing the essentials for residential and economic development.

The inclusion of UV treatment will have a positive impact, as it will further reduce microbial count levels (i.e. beyond compliance), and from first principles, its use will only be of benefit.

Therefore, the overall impact of the Proposed Project remains as overwhelmingly positive, and this is further enhanced by the inclusion of UV treatment.

3.2.12 Irish Aviation Authority (IAA)

3.2.12.1 Overview of the Submission

The submission from the IAA raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.12.2 of this Report:

- daa Submission; and
- Proposed Conditions.

3.2.12.2 Response to the Submission

3.2.12.2.1 daa Submission

This submission outlined that the IAA support the submission made by daa and request ABP to give due consideration to the observations made.

The Applicant has carefully considered and responded to the 2024 submission made by daa in Section 3.2.6 of this Report.

3.2.12.2.2 Proposed Conditions

This submission included a request that a condition be attached to any grant of planning to ensure that the Applicant must engage with daa / Dublin Airport to ensure that appropriate wildlife hazard reduction techniques and management are employed during construction / operation, and that the Applicant must notify daa / Dublin Airport and AirNav Ireland of the intention to commence crane operations with at least 30 days' prior notification of erection.

The Applicant acknowledges the recommended conditions and accepts the principle, spirit, and intent of the suggested conditions. The Applicant is committed to continued engagement with the IAA throughout the next phases of the Proposed Project, should a grant of planning be received.

The Applicant will comply with the conditions attached to any grant of planning approval, in addition to those already included as mitigation or monitoring measures in the 2018 EIAR, 2023 EIAR Addendum, the 2023 Revised NIS, plus the 2018 CEMP, as supplemented by the 2023 Addendum to the CEMP, which are all included in the planning application documentation.

3.2.13 Irish Business and Employers Confederation (Ibec)

3.2.13.1 Overview of the Submission

This submission from Ibec raised the following points, on which the Applicant has provided clarification in Section 3.2.13.2 of this Report:

- Ibec fully support the Proposed Project;
- Ibec members see a clear need for a resilient and future-proofed wastewater treatment system;
- The commencement of strategic infrastructure projects such as the GDD will serve as a key determinant of the region's future economic prosperity. In the context of the recently published National Adaptation Framework (NAF), it will also serve to boost our climate resilience from the potential implications of climate change;

- The high level of risk to the schedule of the project through challenge and delay actively undermines business confidence in further expanding their presence in the GDA.

3.2.13.2 Response to the Submission

The Applicant acknowledges and welcomes Ibec's support for the Proposed Project. The submission reiterates the vital need for the Proposed Project, as summarised in Section 1.1 of this Report. The Applicant is making every effort to ensure that the Proposed Project schedule is not further delayed.

3.2.14 Sean Lyons

3.2.14.1 Overview of the Submission

The submission from Sean Lyons raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.14.2 of this Report:

- Engineering Design; and
- Connolly Hospital / St. Francis' Hospice and Odour and Noise Impacts.

3.2.14.2 Response to the Submission

3.2.14.2.1 Engineering Design

This submission stated that the Proposed Project is "*from a time when engineering was at its infancy and new methods were not available*".

The design of the Proposed Project has evolved through a comprehensive design iteration process, with particular emphasis on minimising the potential for environmental impacts, where practicable, whilst ensuring the objectives of the Proposed Project are attained. In addition, feedback received from the comprehensive consultation and engagement process with stakeholders, landowners and members of the public throughout the development of the Proposed Project were incorporated, where appropriate.

The 2018 planning application, as supplemented by the 2023 remittal application, have outlined the types of treatment options which were determined as appropriate to facilitate the level of treatment required to achieve the water quality objectives of the receiving water body and to comply with all relevant standards and legislation (i.e., ASP, AGS and SBR options) for wastewater treatment. The 2018 planning application, as supplemented by the 2023 remittal application, includes all relevant assessments and documentation required under current legislation to allow for ABP to independently assess the proposals to inform a decision on planning.

3.2.14.2.2 Connolly Hospital / St. Francis' Hospice and Odour and Noise Impacts

This submission stated that the location of the storage tanks and pumping station are too close to Connolly Hospital, the Children's Hospital and St. Francis' Hospice, and that the Proposed Project will have a great impact on the environment, and the community and patients at the hospital and hospice will suffer from the smell and noise.

3.2.14.2.2.1 Odour

Please see the response provided under Section 2.2.8.2.1 to a similar submission made in the 2022 submission by Sean Lyons.

3.2.14.2.2.2 Noise

As outlined in the Oral Hearing 'GDD Response to Noise and Vibration Questions' Brief of Evidence, delivered to the Inspector and the public on 28 March 2019, and included as Appendix A15.3 in Volume 3A Part B of the 2023 EIAR Addendum, the Construction Phase noise and vibration impact on St. Francis' Hospice is assessed in Section 15.4.2 and Section 15.4.4 of Chapter 15 (Noise and Vibration) in Volume 3 Part A of the 2018 EIAR.

Noise monitoring for baseline assessment was carried out at St. Francis' Hospice (Table 15.9 in Chapter 15 of the 2018 EIAR) and this noise sensitive receptor (NSR) was included as R3 (Table 15.12 in Chapter 15 of the 2018 EIAR) in the assessment. Figure 14.4 in Volume 5 Part A of the 2018 EIAR is shown below to indicate where the Hospice is relative to the elements of the Proposed Project.

The Construction Phase noise impacts on the Hospice were addressed as follows:

- Construction Phase noise impacts of the proposed Abbottstown Pumping Station on St. Francis' Hospice were shown in Table 15.15 in Chapter 15 of the 2018 EIAR to be significantly lower than the adopted and permissible standards for daytime works. No night time construction works for these elements of construction are proposed;
- The potential noise impacts associated with construction of the proposed orbital sewer at St. Francis' Hospice was specifically included in the impact assessment even though it is located a considerable distance from the proposed orbital sewer route, as this location is considered to have an increased sensitivity to noise impacts. The noise impact for these works was assessed in Table 15.23 of Chapter 15 in the 2018 EIAR, where the maximum predicted impact for construction activity was determined to be less than 60dB(A) (A-weighted decibels) LAeq,1hr (A-weighted sound pressure of a continuous sound for a 1 hour period) outside the building, which is very significantly lower than the permissible 70dB(A) LAeq,1hr standard for weekday and 65dB(A) LAeq,1hr work on Saturdays;
- The assessment of the potential noise impact of microtunnelling on the Hospice was considered in Section 15.4 of Chapter 15 under the heading 'Trenchless Works (Micro-tunneling)'. It was noted in this section of the 2018 EIAR that tunnelling works would be required in the grounds of Connolly Hospital over a length of approximately 1km. In the assessment, a screening exercise identified the closest receptors that could be affected by the proposed microtunnelling works, and specifically for the Connolly Hospital works, the distance between the identified receptors and the closest boundary of the most significant elements of the works (the construction compound for the launch shaft of the tunnel) is noted in Table 15.25 in Chapter 15 of the 2018 EIAR as being 45m;
- It is noted that the closest distance to the microtunnelling works is 45m from the West Wing of Connolly Hospital and 65m from the Outpatient Unit. Predicted noise levels for the different aspects of the microtunnelling works are presented in Table 15.26 (Launch shaft construction works), Table 15.28 (tunnel boring machine construction works – daytime), Table 15.29 (tunnel boring machine construction works – night-time) and Table 15.30 in Chapter 15 of the 2018 EIAR (groundborne noise levels associated with microtunnelling). These tables show that the adopted standards for day and night time works will be met for each element of the microtunnelling works at each of the listed locations;
- Although not specifically stated in these Tables, the noise impacts will be lower than those presented in these Tables for St. Francis' Hospice which is located further away from the orbital sewer than these identified locations (over 80m from the closest point of the orbital sewer and 220m from the Abbotstown pumping station). With the standard mitigation measures identified in the EIAR, the predicted daytime noise levels at the closest Hospice location would range from 46dB LAeq to 54dB LAeq depending on the microtunnelling works occurring compared to the adopted standard of 70dB LAeq,1hr at the external facades of the building. The predicted night-time noise levels at the closest Hospice location would range from 24dB LAeq to 44dB LAeq depending on the microtunnelling works occurring compared to the adopted standards of 45dB LAeq,1hr at the external facades of the building. Noise levels reduce by approximately 15 decibels through an open window and 20 to 45 decibels through a closed window (depending on the type) so the internal noise levels would be less than 29dB(A) and 19dB(A), respectively, for day and night time construction works. Both of these levels are below the recommended night time indoor level of 30dB(A) LAeq adopted for the assessment;
- Ground-borne noise may arise from microtunnelling. Table 15.30 in Chapter 15 of the 2018 EIAR presents the calculated groundborne noise levels that may be experienced at the nearest receptors to the microtunnelling activity for all locations where microtunnelling will take place. Specifically for the Hospice, the distance to the nearest microtunnelling location is over 80m and the predicted groundborne noise level within the hospice building for the worst-case scenario is 24dB LAeq which is well within the adopted guide value of 30dB LAeq. Consequently, noise from this source will not be perceptible at the Hospice for either day time or night time tunnelling works;

- Vibration impacts were addressed in Section 15.4 in Chapter 15 of the 2018 EIAR. The Hospice is the closest NSR to the proposed Abbotstown pumping station site and is located more than 220m from the nearest construction site boundary. The most intensive works that could be undertaken from a vibration perspective are rock-breaking and piling and these activities will only be carried out during the day as noted in the 2018 EIAR. The assessment showed that the potential vibration impacts at this particular location will be below 1 mm/s PPV (millimetres per second Peak Particle Velocity) (refer to Table 15.42 in Chapter 15 of the 2018 EIAR), and in fact at that distance, will be below the level of human perception (0.3mm/s PPV). Consequently, the assessment showed that there will be an imperceptible vibration impact on the Hospice from the proposed construction works; and
- The Operational Phase noise impacts on the Hospice were assessed in Section 15.5.3 in Chapter 15 of the 2018 EIAR, where it was determined that there would be no perceptible change to the noise climate as a result of the proposed Abbottstown Pumping Station.

The Applicant is satisfied that the potential impact of the Proposed Project on St. Francis' Hospice was thoroughly assessed and no significant adverse impacts will arise due to construction or operation of the Proposed Project, with mitigation measures implemented.

The clarifications provided in the Brief of Evidence were checked against the updates provided in Chapter 15A (Noise and Vibration) in Volume 3A Part A of the 2023 EIAR Addendum and were determined to remain valid.

3.2.14.2.3 General Impact on Environment and Community

The Applicant would like to emphasise that wastewater treatment forms an essential part of the primary infrastructure network that is necessary for communities to form, grow and thrive. This Proposed Project is vital to delivering the required wastewater treatment capacity and infrastructure which in turn will safeguard public health, protect and improve the environment, and facilitate sustainable residential and commercial development in the Dublin region.

3.2.14.2.3.1 Environment

The potential for environmental impacts as a result of the Construction and Operational Phases of the Proposed Project have been robustly assessed as part of the 2018 EIAR and the 2023 EIAR Addendum.

The following key stages formed the basis of the assessment process for the 2018 EIAR:

- Consultation with statutory and non-statutory stakeholders and relevant interested parties;
- Establishing a robust baseline of the existing environment on and around the Proposed Project. The existing environmental baseline of the Proposed Project and its surroundings was established for each environmental aspect under consideration. This was achieved by close co-operation with the Applicant and other relevant authorities and stakeholders, a desktop review of available data and literature, and detailed interpretation of field surveys. The ultimate goal of the Proposed Project is to meet the need for additional wastewater treatment within the GDA as identified in a number of national, regional and local planning policy documents and to have the capacity to provide sustainable treatment for municipal wastewater sludge and domestic septic tank sludges, generated in Fingal;
- Assessment of the environmental impacts and establishing their significance; and
- Formulation of mitigation measures to ameliorate the potential impacts of the Proposed Project that cannot be avoided practically through design.

As part of the 2023 EIAR Addendum, the following key stages were applied to update the environmental assessment since the submission of the 2018 EIAR:

- Establishing a robust baseline for each environmental aspect, to account for any changes that may have occurred in the baseline environment since the submission of the original 2018 planning application. This has been achieved through close co-operation with the Applicant, a desk-based review of available up-to-date data and literature, modelling updates (as required) and detailed interpretation of updated field surveys (as appropriate);

- Assessment of the potential environmental impacts and their significance, as a result of any changes in the baseline, and to account for any updates to the design (as outlined in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum); and
- Assessment of whether there are any required updates to the proposed mitigation measures in the 2018 EIAR to ameliorate the potential impacts of the Proposed Project.

The 2023 EIAR Addendum for the Proposed Project demonstrates that a detailed updated assessment has been carried out to assess the effects of the Proposed Project on the environment, and where appropriate, additional mitigation measures have been proposed to address any changed or additional impacts that have been identified since the 2018 planning application. All mitigation measures in the 2018 EIAR and 2023 EIAR Addendum will be implemented in full to protect the environment.

3.2.14.2.3.2 Community

The Applicant would like to note that the impact of the Proposed Project on population is addressed in Section 6.4 and 6.5 in Chapter 6 (Population and Human Health: Population) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 6A (Population and Human Health: Population) in Volume 3A Part A of the 2023 EIAR Addendum. These Chapters assessed the potential impacts of the Proposed Project on community and residential settlement, educational facilities, economic activities and businesses and on tourism, amenity and community infrastructure.

Section 6.5.2 in Chapter 6 of the 2018 EIAR, as supplemented by Section 6.5.2 of Chapter 6A in the 2023 EIAR Addendum, considers that there will be no additional significant impacts on the community during the Operational Phase of the Proposed Project. In general, the residual impacts identified in Chapter 6 of the 2018 EIAR, as supplemented by Chapter 6A of the 2023 EIAR Addendum, on population are considered as Slight and Not Significant following the implementation of the robust mitigation measures proposed (as outlined in Chapter 6 and summarised in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum). It is not considered that there will be a negative impact on residential communities or the usability of outdoor recreation and amenity facilities by reason of proximity to the proposed WwTP.

Overall Chapter 6 of the 2018 EIAR and Chapter 6A of the 2023 EIAR Addendum have considered in detail the likely significant impacts of the Proposed Project on community in conjunction with Chapter 14 (Air Quality, Odour and Climate) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 14A (Air Quality, Odour and Climate) in Volume 3A Part A of the 2023 EIAR Addendum. It is concluded that Chapter 14 and Chapter 14A present a comprehensive assessment of the odour emitting potential from the proposed WwTP and set out the robust approach adopted for the containment, treatment and control of odours associated with the proposed WwTP. The Chapters conclude that, the implementation of the very robust mitigation measures proposed for the proposed WwTP included in the 2018 EIAR, as supplemented by the 2023 EIAR Addendum, will ensure that it does not cause odour nuisance beyond the site boundary. It is considered that there will be no significant negative impacts on the community, or their residential and recreational amenity during the Operational Phase by reason of proximity to the proposed WwTP.

Under Section 6.8 (Mitigation Measures) in Chapter 6 (Population and Human Health: Population) in Volume 3 Part A of the 2018 EIAR, it is confirmed that a CLO will be employed during the Construction Phase of the Proposed Project. The role of the CLO will be to maintain an open, transparent and positive relationship with members of the public, groups and organisations affected by the works. The CLO will work closely with the Applicant and the appointed contractor(s) to ensure that all efforts to address public concerns are made, and to ensure that information on the nature and duration of all works is provided. The CLO will also act as a point of contact for sporting clubs and community facilities in the area.

Following the implementation of mitigation measures, all potential significant negative impacts on population will be avoided.

In addition, and as outlined in the 2019 Response to Submissions Report (Uisce Éireann 2019), following a detailed socio-economic and demographic analysis, a community infrastructure audit was undertaken within the Proposed Project area. The results were considered in combination with the feedback on community gain

as provided by members of the public and other stakeholders during the various Proposed Project consultations. Priorities for social, economic and environmental development were then identified and assessed. The research found that initiatives that deliver economic (employment / enterprise), educational or environmental benefits would be most beneficial to communities in proximity to the Proposed Project.

The Applicant reviewed and considered the feedback provided by members of the public and other interested stakeholders relating to community benefit. In response, the Applicant researched and proposed a Community Benefits Scheme for the Proposed Project that leverages the significant public expenditure so as to maximise the benefits for communities in proximity to the Proposed Project.

The Community Benefits Scheme proposes to deliver tangible benefits for communities in proximity to the proposed infrastructure in the three key identified areas: Employment, Education and Environment. Image 6 summarises the Proposed Project and the Applicant's commitment and actions under each category of the Community Benefits Scheme.

Category	Commitments	Actions
Employment	A social procurement initiative to provide local employment opportunities to new entrant employees/job seekers.	A minimum of 10% of the person weeks worked on the Proposed Project during construction to be delivered by new entrant employees/job seekers through the use of social clauses in the construction contracts.
	Providing opportunities for SMEs and social enterprises to benefit from the delivery of the Proposed Project.	'Meet the Buyer' events will be organised locally to identify potential sub-contractors and local suppliers of goods and services.
		A minimum of 5% of project team personnel including contractor(s) staff, consultants and sub-consultants are to be employees of SMEs.
Education	Initiatives that encourage progression in education at all levels and which seek to reduce early school leaving in the project area.	Workplace training will be provided for recruited personnel.
		A Permanent Wastewater Education Zone will be located at the proposed WwTP. Guided tours of the proposed WwTP will be facilitated.
		A Community Liaison Officer (CLO) will be appointed to coordinate delivery of the scheme with all stakeholders. Outreach by CLO and appointed contractor(s) to schools, colleges, universities within the GDA.
Environment	The Proposed Project will be developed in an environmentally sensitive manner.	Construction works will be sequenced and phased in order to minimise impacts for the local community and on the local environment. The new treatment facility and pumping station will be appropriately landscaped and screened.
	The Applicant will support local projects which seek to protect and enhance the local environment.	The Applicant will provide in-kind supports for local projects that seek to enhance or protect the local built or natural environment.

Image 6: Summary of Community Benefit Scheme Commitments for the Proposed Project

3.2.15 Catherine McMahon

3.2.15.1 Overview of the Submission

The submission from Catherine McMahon raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.15.2 of this Report:

- Location of Proposed Project;

- Previous Submissions;
- Consultation;
- Outdated Drawings / Reports and Proposed Project Naming;
- Marine Pipeline Construction Assessment;
- Dredged Trench Dimensions;
- Cumulative Assessment of Offshore Windfarms;
- Traffic Assessment;
- Activated Sludge Plant (ASP) Option;
- Embedded Design Measures;
- Frogs;
- Outfall Pipeline Alternative;
- Faults; and
- Update Surveys.

3.2.15.2 Response to the Submission

3.2.15.2.1 Location of Proposed Project

This submission stated that the Proposed Project is outdated and the wastewater situation in Dublin needs to be revisited. The submission also states that both Meath and Kildare have land and resources to cater for their own wastewater requirements.

In relation to the inclusion of areas in County Meath and Kildare, the Engineering Need for the Proposed Project is addressed in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 3A (The Need for the Proposed Project) in Volume 2A Part A of the 2023 EIAR Addendum. The contributing catchments for each of the eight WwTPs in the GDSDS study (Dublin Drainage Consultancy 2005) area are illustrated in Figure 3.1 in Volume 5 Part A of the 2018 EIAR and remain unchanged. The Applicant notes that the inclusion of areas in County Meath and Kildare is on a strictly limited basis, and is a function of the necessity for the expansion of wastewater treatment capacities projected in these defined areas. The contributing catchment to Ringsend WwTP currently includes the Meath towns and villages of Ashbourne, Ratoath, Kilbride, Dunboyne and Clonee. These towns and villages are connected to Ringsend WwTP via the main Blanchardstown trunk sewer, known as the 9C Sewer. These towns and villages are the only areas in County Meath that are proposed to be diverted to the proposed WwTP at Clonshagh.

The Applicant has completed works to transfer excess flow and load from Leixlip WwTP to the Blanchardstown (9C Sewer) catchment as a result of a projected treatment capacity arising at Leixlip WwTP between 2016 and 2025 and an inability to further expand Leixlip WwTP beyond its current 150,000 PE treatment capacity. Leixlip WwTP serves the Lower Liffey Valley Catchment which includes Kilcock, Maynooth, Straffan, Celbridge and Leixlip. These towns and villages are the only areas in County Kildare that are proposed to be diverted to the proposed WwTP at Clonshagh. The Proposed Project will intercept the 9C Sewer downstream of the above connections and divert these flows to the proposed WwTP at Clonshagh.

Please refer to Section 2.2.1.2 of this Report which responds to a similar submission relating to site selection for the proposed WwTP and alternatives considered.

3.2.15.2.2 Previous Submissions

This submission noted that it should be read in conjunction with the 2018 and 2022 submissions from Catherine McMahon and others. The submission also noted that the remittal mentioned that the 2022 submissions would be responded to post the submission of the 2023 remittal and highlights that there is some confusion over whether the previous submission was considered.

The Applicant carefully considered and responded to a previous submission made by Catherine McMahon during the 2018 consultation period and a full response was provided to this submission in the 2019 Response

to Submission Report (Uisce Éireann 2019) which was provided to ABP in January 2019 and is also publicly available on the dedicated project website (https://www.gddapplication.ie/sites/default/files/planning-sites/greater-dublin-drainage/docs/planning-documents/Response-to-An-Bord-Pleanala-dated-11th-January-2019%21en%21.pdf).

The Applicant notes that the 2022 submissions were considered as part of the updates to the EIAR Addendum submitted in 2023 insofar as relevant. However, for completeness, and to ensure that any issues raised which were not relevant to the 2023 EIAR Addendum or 2023 Revised NIS have been addressed, the Applicant has also carefully considered and responded to the 2022 submission made by Catherine McMahon in Section 2.2.10 of this Report.

3.2.15.2.3 Consultation

This submission noted that those who did not sign up to the project email may not have been aware of the remittal and the new consultation period as there were only newspaper notices and not site notices or other communications with the general public. The submission also stated that there was no public consultation at this stage of the Proposed Project.

Please refer to Section 3.2.3.2.1 of this Report which responds to a similar submission relating to public consultation for the remittal application.

Specifically, in relation to the consultation period for the 2023 remittal application, the Applicant followed the instructions provided by ABP in a letter dated 7 March 2024, as outlined in Section 1.2.3.1 of this Report. The instructions provided to the Applicant by ABP were in compliance with their obligations under s.37F of the Planning and Development Act 2000 (as amended).

3.2.15.2.4 Outdated Drawings / Reports and Proposed Project Naming

This submission stated that many drawings in the remittal are years old and date back to the Greater Dublin Drainage Scheme (GDDS), and that old reports refer to a mix of the Greater Dublin Drainage Project (GDDP) submitted for planning and the previous GDDS or Strategy. The submission states that the GDDP and GDDS are not the same thing, and the Applicant was provided with the opportunity to revise and update the application and the older and outdated drawings and reports should have been removed or updated. The submission noted that there was some confusion in Dave Walsh's (ex ABP Chairperson) verifying affidavit where he referred to the project as the 'Greater Dublin Drainage Strategy' and not the 'Greater Dublin Drainage Project'. The submission continued that the application is for the Greater Dublin Drainage Project.

Please refer to Section 2.2.1.2.3 of this Report which responds to a similar submission relating to outdated reports and drawings.

The Applicant would like to note that the 2023 remittal application is supplementary to the original 2018 planning application, and thus, builds on and updates the information provided in the original planning application. All reports and drawings that were required to be updated as part of the remittal process were included in the 2023 remittal application.

As set out in Chapter 3 (The Need for the Proposed Project) in Volume 2 Part A of the 2018 EIAR, the Proposed Project has its origins in the GDSDS (Dublin Drainage Consultancy 2005), which was a major region-wide strategic study conducted between 2001 and 2005 to examine and report on the medium and long-term urban drainage needs.

The key findings of the GDSDS and its SEA (FCC 2008) informed the site selection process and consideration of alternatives which led to the selection of the preferred option for the delivery of new wastewater infrastructure in the Greater Dublin Area (GDA) (i.e., the Proposed Project brought forward for planning under the name 'Greater Dublin Drainage Project'). This is all part of the normal design development process for an infrastructure project. Please refer to Section 3.2.1.2.21 of this Report for further details on the GDSDS.

In early 2011, the project name and visual identity was developed by FCC who were formerly responsible for the Proposed Project, to make the 'Greater Dublin Drainage Project' easily identifiable, to ensure that one could instantly understand what the Proposed Project was about, and to emphasise the regional nature of the Proposed Project. A project logo was developed and included on all project materials, whether they were technical reports or stakeholder and public focused materials (event displays / leaflets / website) to ensure they were instantly recognisable.

When the Applicant assumed responsibility for the Proposed Project in January 2014, the project logo was updated to incorporate the then former 'Irish Water' logo and the tagline 'Ag obair I gcomhpháirtíocht Working in partnership' was added to reflect the close collaboration between the Applicant and the local authorities within the GDA in working to deliver this vital regional project. As part of the 2023 remittal application, the planning documentation was updated to include the new 'Uisce Éireann' logo, following the name change from Irish Water.

The project name, 'Greater Dublin Drainage Project' has remained the same for the 2018 planning application, as supplemented by the 2023 remittal application, which both clearly set out the Proposed Project that has been brought forward for planning.

3.2.15.2.5 Marine Pipeline Construction Assessment

This submission stated that the application failed to assess works being carried out at either end of the marine outfall simultaneously, both for sediment dispersal and noise.

The Applicant would like to clarify that, as outlined in Section 8.2.2 of the CEMP included in the 2018 planning application, the proposed outfall pipeline (marine section) will involve the excavation of a trench within a 250m wide working corridor from the tunnel termination point out to the outfall location (approximately 4km), meaning there will not be works undertaken simultaneously at either end of the marine outfall. This methodology remained unchanged in the Addendum to the CEMP included in the 2023 remittal application. On the basis of this design, there was no requirement to assess sediment dispersal arising from works being carried out simultaneously from either end of the marine outfall pipeline. The various applicable Construction Phase assessments in the 2018 EIAR and 2023 EIAR Addendum are based on the information and methodologies contained in the CEMP included in the 2018 planning application, as supplemented by the Addendum to the CEMP included in the 2023 remittal application.

3.2.15.2.6 Dredged Trench Dimensions

This submission queried how wide the top of the dredged trench is, and stated that according to the EIAR, only the depth and the width at the bottom have been assessed (i.e., 5m x 5m).

The Applicant would like to clarify that a trapezoidal trench 5m deep and 5m wide at the base, results in the width of the top of the trench being approximately 22m (assuming trench side slope of 30 degrees). This trapezoidal trench is outlined in the design included in the 2018 planning application which has not changed, and is fully assessed in the 2018 EIAR (described in Chapter 4 (Description of the Proposed Project) in Volume 2 Part A), as supplemented by the 2023 EIAR Addendum.

3.2.15.2.7 Cumulative Assessment of Offshore Windfarms

This submission stated that no cumulative assessment of proposed windfarm export cables along or close to the marine outfall, such as the Sunrise offshore windfarm and Leinster offshore windfarm, was undertaken.

As outlined in Chapter 23A (Cumulative Impacts and Environmental Interactions) in Volume 3A Part A of the 2023 EIAR Addendum, the cumulative assessment initially looks at a long list of other developments that are either Tier 1 (permitted and under construction, permitted but not yet implemented, submitted for planning that are not yet determined), or Tier 2 (other developments outlined in relevant development plans or appropriate plans and programmes). The assessment notes that information on the specifics of the other developments will reduce as you progress from Tier 1 to Tier 2 developments. It should be noted that there must be sufficient information available on the other development to facilitate an assessment of any potential cumulative impacts.

The screening process for developing a short-list of other developments for which sufficient information was available, and therefore carried forward for a detailed cumulative assessment, is detailed in in Chapter 23A in Volume 3A Part A and Appendix A23.1 in Volume 3A Part B of the 2023 EIAR Addendum, respectively. This assessment captured all applicable other developments within the 20km zone of influence from the Proposed Project boundary, and assessed whether there was potential for spatial or temporal overlaps with the Proposed Project. This assessment captured the Dublin Array and Codling Wind Park windfarm developments, which were due for planning submission in 2023, based on the information available at the time of the assessment. The Codling Wind Farm was deemed to be outside of the zone of influence and was screened out on this basis. The Dublin Array development was within the zone of influence and was carried forward for a detailed cumulative assessment. The assessment determined that there was no potential for significant cumulative impacts with the Dublin Array development.

According to the Ivernia Energy website (Ivernia Energy 2024), the Sunrise Wind Farm development is currently at the Concept / Early Planning Phase. Ivernia Energy has submitted a Foreshore Licence application to the Department of Housing Local Government and Heritage for preliminary marine survey and site investigations for the Sunrise Offshore Wind Farm. According to the Inis Offshore Wind website (Inis Offshore Wind 2024), the Leinster Offshore Wind Farm Project is preparing to investigate the feasibility of developing an Offshore Windfarm approximately 14km off the coast of Greystones, County Wicklow. A Foreshore Investigatory Licence Application and supporting documentation has been submitted to the Marine Planning and Foreshore Section of the Department of Housing, Planning and Local Government.

As both the Sunrise and Leinster wind farm developments are at early stages of their development (i.e., concept and feasibility stages where a design has not been significantly progressed), these would not have been captured as part of the screening process as there is no active planning application. In addition, due to the lack of design and environmental impact information for those developments, there would be insufficient information to facilitate a detailed cumulative assessment with the Proposed Project. As the Proposed Project has been submitted for planning, the respective designs and environmental assessments for these windfarms will be required to consider the Proposed Project and the detailed assessments carried out as part of the 2018 planning application and 2023 remittal application, in order to inform their final designs and mitigation, and to ensure the cumulative impacts are adequately assessed.

3.2.15.2.8 Traffic Assessment

This submission stated that three junctions in Portmarnock have not been assessed properly. The submission noted that the 2022 survey failed to account for a seasonal adjustment of summer beach users / day trip traffic and noted that Junction 8 of the R123 Moyne Road / R106 Coast Road now has traffic lights, and though the EIAR states it will be over capacity by 2024, it does not mention the traffic lights. The submission also notes that Junction 9 now has extra traffic associated with Lidl and the junction no longer has a mini roundabout which previously facilitated the flow of traffic.

As outlined in Section 13.5.3 in Chapter 13A (Traffic and Transport) in Volume 3A Part A of the 2023 EIAR Addendum, an assessment was carried out to determine if a seasonal adjustment was required. It was determined that a seasonal adjustment was not required, as the traffic volumes for both the AM and PM peak flows were above the average peak traffic flows.

The Applicant notes that Junction 8 has since been upgraded to a signalised junction. However at the time of the original 2018 planning application, it was a T-Junction which was reassessed for the 2023 EIAR Addendum. It is acknowledged the assessment of the T-Junction configuration was over capacity without the Proposed Project. A signalised junction generally has more capacity than a T-Junction, and therefore, it is expected that the junction upgrade to a signalised junction has increased the capacity of the junction. As such, the change in junction configuration will result in no further negative impact than that presented by the 2018 EIAR and 2023 EIAR Addendum.

In relation to the Lidl mentioned in the submission, the Applicant would like to clarify that this Lidl was operating at the time of the November 2022 traffic counts that were completed to inform the 2023 EIAR Addendum. Therefore, any increase in traffic resulting from the Lidl development is incorporated into the baseline traffic in Chapter 13A (Traffic and Transport) in Volume 3A Part A of the 2023 EIAR Addendum.

Similar to Junction 8, it is noted that Junction 10 has since been upgraded to a signalised junction. However at the time of the original 2018 planning application submission, it was a mini-roundabout which was reassessed for the 2023 EIAR Addendum. The assessment showing the mini-roundabout configuration demonstrated that there were no capacity issues, with or without, the implementation of the Proposed Project. A signalised junction has more capacity than a mini-roundabout, and therefore, it is expected that the junction upgrade to a signalised junction has increased the capacity of the junction, and likewise, the change in junction configuration will result in no further negative impact than that presented by the 2018 EIAR and 2023 EIAR Addendum.

3.2.15.2.9 Activated Sludge Plant (ASP) Option

This submission queried whether the ASP option has been selected as the preferred option as no other options have updated drawings, and whether this indicated that the Project is now at design stage.

Please refer to Section 2.2.1.2.10 of this Report which responds to a similar submission relating to the plant options for the Proposed Project.

3.2.15.2.10 Embedded Design Measures

This submission noted that the term 'embedded in the design' appears throughout the EIAR. The submission stated that ABP and the public do not know what embedded in the design means, and the whole application should be refused on this point.

The Applicant would like to clarify that the term embedded design measure or embedded mitigation measure is used throughout the 2018 planning application / 2023 remittal application documents where measures to prevent, reduce or offset any significant adverse impacts, are incorporated into the design of the Proposed Project. The term mitigation measure is used for any additional measures that are proposed to prevent, reduce or offset any remaining significant adverse impacts that cannot be addressed by the design.

Embedded design measures are distinguished from standard mitigation measures in the 2018 planning application / 2023 remittal application to highlight the comprehensive and iterative nature of the design development for the Proposed Project. The design has been informed by, and has evolved as a result of consultation with stakeholders and environmental specialists, from the early stages of the Proposed Project. In this manner, the Applicant has sought to design out as many potential adverse impacts as possible. Significant examples of embedded design measures for the Proposed Project include:

- Covering all tanks and buildings at the proposed WwTP in consultation with stakeholders to prevent attracting birds at the proposed WwTP site which is in the vicinity of Dublin Airport;
- The inclusion of an odour control system at the proposed WwTP to ensure that odour does not give rise to any nuisance beyond the boundary of the proposed WwTP; and
- The inclusion of the following design measures to prevent total or partial failure events in the treatment system:
  - Three power sources at the proposed WwTP site;
  - Standby / backup generator at the proposed Abbotstown pumping station;
  - Installing all pumps with duty / standby configurations to act as a backup in case of pump failure;
  - Installing a telemetry system within the control room located in the proposed WwTP to allow operators to control the flows passed forward from the proposed Abbotstown pumping station and the existing Ballymun pumping station allowing flows from the two pumping stations to be slowed or stopped for a period of time, in the event of an issue at the proposed WwTP.

The inclusion of embedded design measures is in accordance with the EPA EIAR Guidelines 2022. Section 3.8.1 Mitigation (& Offsetting) of the EPA EIAR Guidelines 2022 states *"The best mitigation measures are fully incorporated into the permitted design and operation of the project. Other mitigation measures may respond to exceedances detected by monitoring and are expressed as 'if'/'then' measures. These measures clearly set out a sequence of actions and responsibilities that arise on detection of an exceedance*."

The combination of the embedded design measures and the additional mitigation measures included in the 2018 EIAR, 2023 EIAR Addendum, the 2018 NIS and the 2023 Revised NIS will ensure that significant adverse impacts are prevented, reduced or offset for both the Construction and Operational Phases.

3.2.15.2.11 Frogs

This submission stated that frogs have not been assessed at any relevant sites. The submission noted that frogs are mentioned in the EIAR but there is no assessment.

Please refer to Section 2.2.1.2.16 of this Report which responds to a similar submission relating to the assessment of frogs.

3.2.15.2.12 Outfall Pipeline Alternative

This submission noted that a 4.5m diameter pipeline was discussed at the Oral Hearing as an alternative outfall, but there is no mention of this in the EIAR and it should have been part of the public consultation stage at ASA. The submission queried when this was dismissed as an alternative.

The Applicant would like to note that the consideration of reasonable alternatives is documented in Chapter 5 (Consideration of Alternatives) in Volume 2 Part A of the 2018 EIAR, as supplemented by Chapter 5A (Consideration of Alternatives) in Volume 2A Part A of the 2023 EIAR Addendum.

It has been established above that the Proposed Project in its entirety has been the subject of a systematic, authoritative and comprehensive consideration of alternatives. A significant range of alternatives has been considered during strategy development, strategic environmental appraisal and site selection processes. The consideration of these alternatives was informed, authoritative, rational and robust. The assessment took account of land use, planning and environmental impacts at appropriate stages, and of engagement with stakeholders at various stages throughout the project design lifecycle.

The preferred option for the construction of the outfall pipeline (marine section) is a combination of microtunnelling and subsea pipe laying (dredging) techniques. The microtunnelled section will commence at the west side of the Baldoyle Estuary and the tunnel section will progress beneath Baldoyle Estuary and terminate seaward of the Baldoyle Bay SAC / SPA below the low water level mark, a distance of approximately 2,000m in total.

As outlined in the 'Project Description, Consideration of Alternatives & EIAR Process' Brief of Evidence delivered by the Project Manager at the time of the 2019 Oral Hearing, consideration of the environmental constraints pertaining to the Baldoyle Bay SAC and technical constraints pertaining to Portmarnock Golf Club's groundwater irrigation system require that this section of the outfall pipeline, that is from the fields to the west of the Coast Road (section 4, chainage 0.00m) to a point below the low water mark (section 4, chainage 2,000m approximately) will be constructed in tunnel. The ultimate size or diameter of this tunnel depended on the construction methodology adopted for the section of outfall pipeline between the low water mark and the final discharge point, a distance of approximately 4,000m.

Two potential construction methodologies were investigated for the remaining subsea element of the outfall pipeline as follows:

- Continuation in tunnel; or
- Subsea laying of the outfall pipeline in a trench excavated (dredged) in the seabed.

The construction of the outfall pipeline by tunnelling the complete length (approximately 6,000m), would require a large bore tunnel, with an approximate outer diameter of 4.5m, constructed in the rock layer using a Tunnel Boring Machine (TBM).

Construction of the final section of the outfall, commencing below the low water level mark, by subsea laying methods requires the construction of a smaller diameter tunnel, with an approximate outer diameter of 2m,

using microtunnelling techniques under Baldoyle Estuary and Portmarnock Golf Club. This tunnelled section would connect to the section laid by subsea laying techniques below the low water mark.

Extensive investigations were carried out in the marine environment, in order to determine the feasibility of either option. This included:

- Geotechnical investigations along the pipeline corridor including rotary core boreholes, vibrocores, lab testing of rock and sediments and geophysical surveys;
- Archaeological surveys along the pipeline corridor including geophysical surveys and follow on dive surveys;
- Ecological surveys including dive surveys at Ireland's Eye to assess reef habitat, bird surveys and harbour porpoise surveys (visual and passive acoustic monitoring); and
- Tide and current surveys.

Analysis of the findings of the above marine investigations determined that construction by subsea laying of the outfall pipeline in a trench excavated (dredged) in the seabed is technically feasible and has minimal environmental impact. Further details are provided in Chapter 18 (Soils and Geology) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 18A (Soils and Geology) in Volume 3A Part A of 2023 EIAR Addendum. The geotechnical investigations indicate the presence of a south-east to north-west trending fault west of Ireland's Eye and also identified areas of highly weathered rock, both of which increase the technical difficulty and environmental risk of constructing the outfall pipeline completely in tunnel. As a result, the construction by subsea laying techniques was deemed to be the preferred option on technical and environmental reasons.

Chapter 5 and 5A of the 2018 EIAR and 2023 EIAR Addendum, which describe in detail this consideration of alternatives, along with the above mentioned Brief of Evidence have been publicly available on the dedicated project website since their respective submission dates to ABP (www.gddapplication.ie).

3.2.15.2.13 Faults

This submission noted that the EIAR states that there is no major fault at Portmarnock, but fails to identify any faults that aren't major.

The Applicant would like to clarify that the statement included in the submission noting that the EIAR identifies no major fault at Portmarnock, is not a direct statement from the 2018 EIAR. Section 18.3.2 of Chapter 18 (Soils and Geology) in Volume 3 Part A of the 2018 EIAR states:

> "*The bedrock geology of the area is shown in Figure 18.2 Bedrock Geology Clonshagh to Blanchardstown (Sheet 1 of 3) to Figure 18.2 Bedrock Geology Portmarnock to Marine Outfall Location (Sheet 3 of 3). A series of parallel faults running mainly in a north-west to south-east direction are indicated in this region between Blanchardstown and Dublin Airport. Additional faulting is indicated in a north-north-west to south-south-east direction with associated fold axes running in a north-east to south-west direction*."

Additionally, Section 18.3.3 of Chapter 18 in the 2018 EIAR states:

> "*A number of bedrock faults and fold axes are indicated along the alignment of the proposed orbital sewer as shown on Figure 18.2 Bedrock Geology (Sheet 1 of 3) Clonshagh to Blanchardstown to Figure 18.2 (Sheet 3 of 3) Bedrock Geology Portmarnock to Marine Outfall Location*."

Major faults are large, regional scale faults and can contain significant areas of brecciated (fractured) rock. These areas are inherently weaker and less stable than the surrounding rock which can act as preferential pathways for water flow which further weathers the rock. Hence, if a major fault was present at Portmarnock, this would likely have implications for the construction process.

Minor faults are localised, small-scale faults which due to their size are often difficult to detect. These can have the same features of a major fault such as brecciated rock but on a minor scale that would likely have minimal impact on the construction process.

Faults were identified from available geological mapping of the area from the Geological Survey of Ireland (GSI). No faults (major or minor) were identified within the proposed outfall pipeline route (marine section), as shown on Figure 18.2 (Sheet 3 of 3) in Volume 5 Part A of the 2018 EIAR.

3.2.15.2.14 Update Surveys

This submission included a list of updated surveys for the Proposed Project, and stated that this list demonstrates the lack of updated surveys undertaken. The submission invited ABP to request a list of all surveys related to the GDDS / GDDP.

As stated in Chapter 1A (Introduction) in Volume 2A Part A of the 2023 EIAR Addendum, the Applicant and its technical advisors considered the extent to which each of the technical chapters of the original 2018 EIAR and 2018 NIS required to be updated. This 2023 remittal application therefore presented any changes or updates required to the Planning Report, EIAR and NIS, where appropriate. Additionally, where the Applicant and its technical advisors confirmed that no update was required as part of the remittal process, that was confirmed within the relevant document.

All update surveys completed as part of the 2023 remittal application are outlined in the 2023 EIAR Addendum and the 2023 Revised NIS. These surveys were completed to supplement the survey information previously provided in the 2018 EIAR and the 2018 NIS, in order to ensure that the assessment of the impacts of the Proposed Project is as up-to-date as possible.

3.2.16 Meath County Council (MCC)

3.2.16.1 Overview of the Submission

MCC outlined that it supports the Proposed Project which is of strategic importance to MCC. The submission noted that the latest Meath County Development Plan 2021-2027 (MCC 2021) acknowledges the strategic importance of the Proposed Project.

The submission also raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.16.2 of this Report:

- Meath County Development Plan Relevance to the Proposed Project;
- East Meath - North Dublin EirGrid Project;
- Cumulative Impacts of Ongoing SID Applications;
- Cultural Heritage;
- Mitigation Measures and Proposed Conditions.

3.2.16.2 Response to the Submission

The Applicant welcomes MCC's support for the Proposed Project and is committed to continuing to consult with MCC throughout the next phases of the Proposed Project, should a grant of planning be received.

The Applicant would also like to note that, while the Proposed Project will accept wastewater from areas of the GDA, including County Meath, no Proposed Project infrastructure will be located within the MCC administrative area.

3.2.16.2.1 Meath County Development Plan Relevance to the Proposed Project

This submission outlined that Section 6.6 and 6.9 of Chapter 6 of the Meath County Development Plan 2021-2027 (MCC 2021), and INF OBJ1 / INF POL 11 are relevant to the Proposed Project.

The Applicant would like to note that the 2023 Addendum Planning Report has considered and outlined the provisions of the new (extant) Meath County Development Plan 2021-2027, including those relating to zoning and policies and any amendments to same, or new provisions since the previous Meath County Development

Plan 2013-2019 (MCC 2013). In this regard, the 2023 Addendum Planning Report has also specifically referenced INF PBJ1 and INF POL11.

As is noted within the 2023 Addendum Planning Report:

> "*the current Meath County Development Plan 2021-2027…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 addition, the 2023 Addendum Planning Report Project Response provided to the above, also highlights that:

> "*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*".

3.2.16.2.2 East Meath - North Dublin EirGrid Project

3.2.16.2.2.1 In-Combination Assessment

This submission stated that, in relation to the in-combination assessment, the East Meath North Dublin EirGrid Project is noted in the 2023 EIAR Addendum but not in the 2023 Revised NIS.

The Applicant would like to note that the 2023 Revised NIS states at Section 4.1.6 that, "*on grounds of legal certainty it would seem appropriate to restrict the 'in combination' provision to plans that have been proposed, i.e. for which an application for approval or consent has been submitted*", which adopts the advice contained in the following European Commission Notices:

- European Commission Notice C/2018/7621 - Managing Natura 2000 Sites -The provisions of Article 6 of the Habitats Directive 92/43/EEC (European Commission 2019); and
- European Commission Notice C/2021/6913 - Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2021).

These two European Commission Notices provide guidance in relation to managing Natura 2000 sites and assessing plans and projects in relation to Natura 2000 sites. It should be noted that the methodology and guidance for in-combination assessment in an NIS differs to that of the methodology and guidance for cumulative assessment in an EIAR.

EirGrid submitted a planning application for the provision of new electricity transmission infrastructure at the existing ESB Belcamp 220kV (kilovolt) substation in February 2023. The 2023 remittal application for the Proposed Project was submitted to ABP in October 2023, and as such, in accordance with the methodology outlined in the 2023 Revised NIS, this EirGrid Project was taken into consideration.

EirGrid submitted the planning application for their East Meath - North Dublin Grid Upgrade Project on 28 March 2024 (under ABP reference number 319422), following the submission of the 2023 remittal application for the Proposed Project in October 2023. As such, and in accordance with the methodology outlined in the 2023 Revised NIS, this EirGrid Project was not taken into consideration in the 2023 Revised NIS, as it had not yet sought consent when the 2023 remittal application for the Proposed Project was submitted. It should be noted that, the NIS for the EirGrid Project considers potential in-combination effects with the Proposed Project, and notes that with the implementation of mitigation measures for both projects, there is no potential for in-combination effects.

3.2.16.2.3 Cumulative Impacts of Ongoing SID Applications

This submission stated that while the EIAR and AA consider cumulative effects, ABP may need to consider the cumulative impacts of ongoing SID applications which intersect in / around the Proposed Project including

subsurface congestion in the road corridor (e.g., specific separation distances required for subsurface electrical infrastructure).

3.2.16.2.4 Cultural Heritage

This submission noted that the 'Appendix A16 Cultural Heritage Report' was not part of the 2023 remittal documents available for review. The submission recommend that it would be useful if the quantity of advance trial trench testing in greenfield areas was specified (if the testing is at 12% of the site area, and where no archaeological remains are found, there would normally be no requirement to monitor the construction works in those blank areas). The submission also commented that the new sites, 2018 mitigation measures and the location of those measures should be put in a single map series. The submission noted that there is always the potential for unknown architectural heritage to be encountered and if not covered under archaeological mitigation works, should be assessed to determine what level of architectural heritage record surveys are required (if any). The submission also noted that MCC believe that the 2023 route has been revised in several areas to avoid archaeological heritage impacts noted in 2018 but cannot see the detail. The submission also recommended additional archaeological conditions to be applied.

The Applicant notes the MCC submission of a 'Archaeology Heritage Desk Based Review and Assessment', carried out by Niall Roycroft in May 2024. The submission notes that Chapter 16 was not available for review. The Applicant would like to note that while the consultation period related to the 'Further Information' provided in the 2023 remittal application, which was provided by file transfer to MCC via email, as requested, the email also stated that the Further Information and the original 2018 application is also available on the dedicated project website at www.gddapplication.ie. MCC were also a prescribed body notified of the original 2018 planning application process and provided a submission in 2018 which did not raise the below points in relation to the archaeology assessment.

Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 16A (Archaeological, Architectural and Cultural Heritage) in Volume 3A Part A of the 2023 EIAR Addendum, provide a full analysis and impact assessment for the Proposed Project on archaeology, architectural and cultural heritage. The chapters provide a full review of the baseline conditions, field inspections, details on the programmes of geophysical survey and archaeological testing that has been carried out, along with underwater archaeological investigations.

The submission cites that 12% test trenching should be carried out as mitigation. The Applicant can confirm that Chapter 16 in the 2018 EIAR includes mitigation that includes an extensive programme of archaeological testing (12%) in all greenfield areas in advance of groundworks. Chapter 16 of the 2018 EIAR also states that works will be managed by a Project Archaeologist.

The submission noted that all of the sites should be included in the map series. The Applicant would like to clarify that Figure 16.1 to 16.6 in Volume 5 Part A of the 2018 EIAR, as updated by Figure 16.1 to 16.6 in Volume 5A of the 2023 EIAR Addendum present a map series showing all sites detailed in Chapter 16 of the 2018 EIAR and Chapter 16A of the 2023 EIAR Addendum, respectively.

The submission queried whether any additional mitigation is required as it is not detailed in Chapter 16A of the 2023 EIAR Addendum. The Applicant can confirm that, as outlined in Section 16.6 in Chapter 16A, no new archaeological, architectural or cultural heritage mitigation is required, as no new cultural heritage sites were identified within the Proposed Project boundary.

3.2.16.2.5 Mitigation Measures and Proposed Conditions

This submission requested that ABP condition that all mitigation proposed in the application and any additional conditions requested by MCC be implemented, should planning be granted. An Ecological Clerk of Works should be appointed during the pre-construction stage through to post-construction, and that post-construction monitoring should be in place for a minimum of 7 years.

The Applicant would like to note that, as outlined in the 2018 planning application documents and the 2023 remittal application documents, all of the proposed mitigation measures in the 2018 EIAR and 2023 EIAR

Addendum will be implemented in full. As outlined in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR, as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum, an Ecological Clerk of Works will be appointed by the Applicant to advise on the effective implementation of biodiversity mitigation specified in the 2018 EIAR, 2023 EIAR Addendum, 2018 NIS, 2023 Revised NIS, and the Outline CEMP, as supplemented by the 2023 Addendum to the CEMP, and to act as a liaison between the Applicant and ABP in the discharge of planning conditions relating to biodiversity.

The Applicant, while noting that the Proposed Project infrastructure will not be located within the MCC administrative area, accepts the principle, spirit, and intent of the suggested conditions and will comply with any conditions attached by ABP to a grant of planning.

3.2.17 Elaine Murray

3.2.17.1 Overview of the Submission

The submission from Elaine Murray raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.17.2 of this Report:

- Objection to the proposed WwTP for the following reasons:
  - Air Quality;
  - Risk of Dublin Airport Flight Paths / Air Pollution; and
  - Property Values.

3.2.17.2 Response to the Submission

3.2.17.2.1 Air Quality

This submission stated that there will be damage to the air quality in the area surrounding the proposed WwTP.

Please refer to Section 3.2.2.2.4 of this Report which responds to a similar submission relating to the air quality assessment for the Proposed Project.

3.2.17.2.2 Risk of Dublin Airport Flight Paths / Air Pollution

This submission outlined that there is risk associated with the location of the proposed WwTP under flight paths at Dublin Airport, and noted the level of existing air pollution from planes.

Please refer to Section 3.2.2.2.2 of this Report which responds to a similar submission relating to the risk associated with Dublin Airport's flight paths and the risk of air pollution as a result of the Proposed Project.

3.2.17.2.3 Property Values

This submission stated that there will be a negative impact on property values in the area surrounding the proposed WwTP.

Please refer to Section 3.2.2.2.5 of this Report which responds to a similar submission relating to property values in the vicinity of the Proposed Project.

3.2.18 National Transport Authority (NTA)

3.2.18.1 Overview of the Submission

The submission from the NTA raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.18.2 of this Report:

- Swords to City Centre BusConnects Scheme; and

- MetroLink.

3.2.18.2 Response to the Submission

3.2.18.2.1 Swords to City Centre BusConnects Scheme

This submission welcomed the consideration given to the Swords BusConnects Scheme in the documentation as it overlaps with the Proposed Project at the Collinstown Cross Junction on the R132 Regional Road. The submission noted that there is the potential for construction phases to coincide. In particular Manhole 51 and the access road to construction compound no. 5 have the potential to clash with elements of the works required for the BusConnects Scheme, if not coordinated effectively. The submission also requested that the Applicant is conditioned to engage with the NTA as part of any grant of permission and that their detailed design and pre-construction stages are coordinated with that of the BusConnects Scheme design, to ensure that it does not prejudice the delivery of the BusConnects Scheme.

The Applicant would like to note that the Swords to City Centre Scheme, as submitted for planning under planning reference number 317121, is assessed for potential cumulative impacts in Chapter 23A (Cumulative Impacts and Environmental Interactions) and Appendix A23.1 in Volume 3A Part A and 3A Part B of the 2023 EIAR Addendum, respectively. The assessment noted that there is the potential for a temporal and spatial overlap between the two projects. The assessment determined that, following the implementation of the mitigation measures proposed in the 2018 EIAR (as outlined in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR) and the 2023 EIAR Addendum (as outlined in Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum), there will be no potential for significant cumulative impacts between the two projects.

The Applicant has liaised with the NTA in relation to the BusConnects Scheme during the design development and is committed to continued engagement with the NTA throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.18.2.2 MetroLink

This submission requested that Appendix A4.2 and Chapter 4 of the EIAR are updated to reflect the MetroLink Railway Order submitted. The submission also noted that, given that there is the potential for the construction phases of these two projects to overlap, it is important that the Applicant considers the impact of such a scenario on working areas, wayleaves and rights of way. In this regard, the NTA requested that the Applicant is conditioned to engage with the NTA and the TII MetroLink Project Team as part of any grant of permission and that their detailed design and pre-construction stages are coordinated with that of the MetroLink Project to ensure that it does not prejudice the delivery of the MetroLink Project.

The Applicant would like to note that it has liaised with TII in relation to the MetroLink Project during the design development and is committed to continued engagement with TII throughout the next phases of the Proposed Project, should a grant of planning be received. As part of the original 2018 planning application, MetroLink was considered under the material assets and cumulative assessments (included in Chapter 21 (Material Assets) and Chapter 23 (Cumulative Impact and Environmental Interactions) in Volume 3 Part A of the 2018 EIAR). These assessments considered the proposed MetroLink design at that time, noting that it was at pre-planning stage in 2018 and subject to further design development.AThe MetroLink Project, as submitted for planning under planning reference number 314724, is assessed for potential cumulative impacts in Chapter 23A (Cumulative Impacts and Environmental Interactions) and Appendix A23.1 in Volume 3A Part A and 3A Part B of the 2023 EIAR Addendum, respectively. The assessment noted that there is the potential for a temporal and spatial overlap between the two projects. The assessment determined that, following the implementation of the mitigation measures proposed in the 2018 EIAR and 2023 EIAR Addendum, there will be no potential for significant cumulative impacts between the two projects.

The MetroLink Project, as submitted for planning under planning reference number 314724, is assessed for potential cumulative impacts in Chapter 23A (Cumulative Impacts and Environmental Interactions) and Appendix A23.1 in Volume 3A Part A and 3A Part B of the 2023 EIAR Addendum, respectively. The assessment noted that there is the potential for a temporal and spatial overlap between the two projects. The

assessment determined that, following the implementation of the mitigation measures proposed in the 2018 EIAR and 2023 EIAR Addendum, there will be no potential for significant cumulative impacts between the two projects.

In addition, Chapter 21A (Material Assets) in Volume 3A Part A of the 2023 EIAR Addendum considered the MetroLink Project, as submitted under planning reference number 314724. Chapter 21A of the 2023 EIAR Addendum noted that while there have been changes to the planned MetroLink Project since the submission of the 2018 EIAR, the crossing of the proposed orbital sewer route and MetroLink, immediately east of Junction 4 on the M50 Motorway remains unchanged. Therefore, no changes were required to the routing of the proposed orbital sewer route on foot of the changes to MetroLink, and there was therefore no requirement to update Chapter 4 (Description of the Proposed Project) included in Volume 2 Part A, or Appendix A4.2 included in Volume 2 Part B of the 2018 EIAR, as part of the 2023 EIAR Addendum.

3.2.19 South Dublin County Council (SDCC)

3.2.19.1 Overview of the Submission

The submission from SDCC outlines that SDCC supports the principle of the Proposed Project and welcomes the much-needed increase in wastewater treatment capacity of Dublin that the Proposed Project will bring.

3.2.19.2 Response to the Submission

The Applicant acknowledges and welcomes SDCC's support for the Proposed Project. The Applicant is committed to continuing to consult with SDCC throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.20 Sport Ireland

3.2.20.1 Overview of the Submission

The submission from Sport Ireland outlined that Sport Ireland support, in principle, the application for the Proposed Project. Sport Ireland highlighted that it is a strategically important project and will provide much needed drainage infrastructure for developments within the region including sports related development within the National Sports Campus and beyond.

3.2.20.2 Response to the Submission

The Applicant acknowledges and welcomes Sport Ireland's support for the Proposed Project. The Applicant is committed to continuing to consult with Sport Ireland throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.21 Peter Sweetman

3.2.21.1 Overview of the Submission

The submission from Peter Sweetman raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.21.2 of this Report:

- Revised NIS Screening;
- Baseline Data;
- In-Combination Assessment;
- AA Screening Approach;
- Proposed Project Description;
- Modelling.

3.2.21.2 Response to the Submission

3.2.21.2.1 Revised NIS Screening

This submission stated that the 2023 Revised NIS screens out Natura 2000 sites based on proximity as the main factor and no scientific reasons was given for screening out sites, such as Howth Head SAC / Howth Head SPA (noting the requirements of Case C-258/11, Peter Sweetman and Others v ABP on the correct approach).

Howth Head SAC

Scientific reasoning as to why Howth Head SAC was screened out is summarised on page 33 of the Revised NIS. Further justification is also provided on page 36 of the Revised NIS. There is no impact pathway that could significantly affect the qualifying interests and conservation objectives of Howth Head SAC. As noted in the Revised NIS, there is no hydrological link and no open pathway of effect, between the Proposed Project, and the Howth Head SAC, and thus there is no likelihood of significant effects. This conclusion was confirmed by the Inspector in the 2019 Inspector's Report, which concluded that:

> *"The conservation objectives for this European site are vegetated sea cliffs and dry heaths. These coastal terrestrial habitats are a considerable distance from the project in terms of any pathways which might give rise to significant effects. In relation to the construction and operational plumes the site is to the south and therefore away from and in the opposite direction to the area which might be affected. In any case at that distance there would be no discernible changes in water quality in the construction or operational phases.* ***I consider that there is sufficient objective information to enable the Board to conclude that Howth Head SAC can be screened out from further consideration****".* (emphasis added)

Further, this conclusion was reaffirmed by Mr Justice Allen in *Joyce-Kemper v. An Bord Pleanála* (No. 2) [2020] IEHC 601, [2020] 11 JIC 2402 (Unreported, High Court, 24th November 2020, in which Mr Justice Allen held at para 292 that:

> *"The applicant has not established any substantial ground on which the screening out of Ireland's Eye SAC or Howth Head SAC might be challenged".*

Howth Head Coast SPA

The Applicant confirms that Howth Head Coast SPA was screened into the stage 2 appraisal for appropriate assessment. It was not screened out. It is fully assessed in the original 2018 NIS and the 2023 Revised NIS. Both the 2018 NIS and 2023 Revised NIS conclude that the conservation objectives of the Howth Head Coast SPA will be unaffected and there is no adverse effect on the integrity of the site, in compliance with the test established by the CJEU in Case C-258/11.

3.2.21.2.2 Baseline Data

This submission stated that all baseline data must be included in the screening assessment in keeping with NPWS guidance to enable a scientifically robust consideration of the report.

The Applicant would like to note that the 2023 Revised NIS includes additional baseline scientific data at Appendix A and Appendix B, which was collected in the field since the submission of the original NIS in the 2018 planning application. The Applicant confirms that, between the 2018 NIS, and the 2023 Revised NIS, all baseline data collected in support of the screening assessments carried out for the Proposed Project has been provided to ABP.

3.2.21.2.3 In-Combination Assessment

This submission stated that there is a lack of consideration given to the 'in-combination' impact of other projects that interact with the construction and operational elements of the activity. The submission also stated that the findings in this assessment are not complete, precise and definitive.

Section 6.5 of the Revised NIS contains an appraisal of in-combination effects and includes all applicable projects that have sought consent since the submission of the original NIS in the 2018 planning application. The Applicant is satisfied that the findings in the NIS, including the Revised NIS, are complete, precise and definitive, and notes that no evidence to the contrary has been provided.

3.2.21.2.4 AA Screening Approach

This submission stated that the judgement in the Court of Justice of the European Union (CJEU) Case C-323/17 states that the Applicant's approach in that case, on AA Screening and assessment, is unacceptable.

The Applicant would like to note that, in Case C-323/17, the CJEU determined that:

> "*Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site*".

The Applicant has not, at any stage, sought to screen out on the basis of mitigation measures. The Applicant notes that the 2023 Revised NIS does not attempt to reformulate any measures previously described as mitigation measures in the original NIS in the 2018 planning application in light of the emerging case law from the CJEU by now describing them as features that have been incorporated into the Proposed Project as 'standard features' for the purposes of screening for appropriate assessment.

The changes made between the 2018 NIS, and the 2023 Revised NIS, are identifiable as blue text with light grey background shading in the Revised 2023 NIS, and these clearly show that no mitigation measures have been modified or adapted to circumvent the requirements of case C-323/17.

Section 4.1.3 of the 2023 Revised NIS clearly states that screening is to be undertaken in accordance with the approach cited in C-323/17 and European Commission guidance documents advocating that approach.

3.2.21.2.5 Proposed Project Description

This submission stated that the Proposed Project description is incomplete as there is no indication of biogas storage at the Clonshaugh site or that spreading of sewage on agricultural land is proposed. The submission also stated that there is no identification of the land that sewage sludge will be spread, despite the data being available to the Applicant via county council sludge registers. The submission continued that all baseline data must be included in the screening assessment in keeping with the NPWS guidance to enable a scientifically robust consideration of the report, and stated that there is a lack of consideration of in-combination impact of other projects that interact with the construction and operational elements of the activity. The submission continued that the findings of the assessment are not complete, precise and definitive

3.2.21.2.5.1 Biogas Storage

The storage and utilization of biogas on the Proposed Project site was referenced in both the planning documents, and the environmental assessments that were submitted in support of the original 2018 Application. The Applicant set out clearly the intention of the Proposed Project to include a biogas storage as a fundamental element of the Proposed Project's design, and this remained unchanged in the 2023 Addendum Planning Report, and 2023 EIAR Addendum. The 2018 Planning Report notes, in the Outline Description of the Proposed Project at Section 1.2, that *the proposed Project will have the capacity to provide sustainable treatment for municipal wastewater sludge and domestic septage, generated from within Fingal's municipal*

WwTPs and septage, to produce a 'biosolid' end product and ***will utilise the biogas produced during the treatment process as an energy source on site*** (emphasis added)

> *the proposed Project will have the capacity to provide sustainable treatment for municipal wastewater sludge and domestic septage, generated from within Fingal's municipal WwTPs and septage, to produce a 'biosolid' end product and* ***will utilise the biogas produced during the treatment process as an energy source on site*** (emphasis added)

Further, at Section 3.2.8, in response to the National Wastewater Sludge Management Plan (NWSMP), the Application underlines that:

> "*the project will also provide sustainable treatment with the bio-gas produced during the treatment process of the represents the commitment on Irish Water's part, as stated within the Irish Water Business Plan, to provide the necessary critical waste water treatment infrastructure. Planning Report for Proposed Greater Drainage (GDD) Project AOS Planning Page 40 wastewater sludge and domestic septage being utilised as an energy source, on site".*

Likewise, the 2023 Addendum Planning Report reiterates this description, and further references, at Section 4.1.5, that the Proposed Project will contribute to the achievement of Ireland's Climate targets with the:

> *"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*. "

The environmental assessments carried out in respect of both the 2018 Application, and 2023 EIAR Addendum reflect that biogas production and storage was always envisaged for the Proposed Project. Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR outlined that there will be biogas storage, under Section 4.4.6 which provides a description of the proposed Sludge Hub Centre. Section 4.9 of Chapter 4 in the 2018 EIAR details how the biogas generated on-site during the anaerobic digestion of sludge will be used to generate electricity and recover heat through the Combined Heat and Power (CHP) system.

This is reiterated in the 2023 EIAR Addendum, which confirms that there are no changes to the information presented in Sections 4.4.6 (Description of the Proposed Sludge Hub Centre), and 4.9 (Energy Generation).

3.2.21.2.5.2 Landspreading of Sewage Sludge

Uisce Éireann's wastewater sludge is managed in accordance with our National Wastewater Sludge Management Plan. UÉ wastewater sludge is treated to comply with the requirements of the Sewage Sludge Directive 86/278/EEC on the protection of the environment, and in particular soil. UÉ utilises our Sludge Framework Contractors to support this. The reuse of biosolids in agriculture is managed in accordance with the associated Nutrient Management Plans. These Nutrient Management Plans are approved and monitored by the Environment Section of the Local Authority. The management and disposal of wastewater sludge is covered by separate environmental assessments.

3.2.21.2.6 Modelling

This submission stated that modelling should be based on a worst-case scenario include accurate emissions. The submission further stated that the data, modelling and surveys seem too dated to be considered precise and definitive, with some data dating back a far as the early 2000s.

As the Applicant has noted in previous responses, in the preparation of the Remittal Application, the Applicant and its technical advisors carried out an extensive exercise to determine the extent to which each of the technical chapters of the EIAR and the NIS were required to be updated, having particular regard to:

- Changes to the baseline environment;
- The requirement for updated surveys; and
- Changes to the applicable law, policy, industry standards and guidance in the intervening period.

Insofar as relevant to the Remittal Application, the Applicant has also had regard to the information presented at the Oral Hearing for application ABP-301908-18 and the High Court proceedings in respect of that application, including the addition of UV treatment and the extension to the River Mayne Culvert, such that the Proposed Project description has been updated.

The Applicant would like to note that extensive modelling of the receiving waters was undertaken and reported in Chapter 8 (Marine Water Quality) in Volume 3 Part A of the 2018 planning application, and this Chapter examined the potential for impact of the Proposed Project. As part of the 2023 EIAR Addendum, Chapter 8A (Marine Water Quality) in Volume 3A Part A of the 2023 EIAR Addendum considered any requirements for updated modelling. That updated modelling incorporated the inclusion of UV treatment in the treatment process and examined potential impacts on the designated Malahide Shellfish Waters at the designated sampling point and along the southern boundary of Malahide Shellfish waters. Both the 2018 EIAR and 2023 EIAR Addendum modelling considered worst-case WwTP process failure scenarios based on best available information. However, it should be noted that, as outlined in Section 2.2.1.2.53 above, a discharge of untreated sewage to the marine environment as a result of a total failure of the WwTP cannot occur.

Appendix A8.1 (Model Development and Calibration) in Volume 3 Part B of the 2018 EIAR contains details of the development of the modelling studies which ranged from preliminary modelling in 2011, the adoption of a new modelling system and the extension of the modelling domain in 2014, updates to bathymetry in 2014, followed by calibration of model predictions against 2012 datasets, and verification of model predictions against 2015 datasets. Qualitative comparison of model predictions against independent data sources provided by Howth Yacht Club was also undertaken during the 2019 Oral Hearing and can be found in Appendix A8.1 in Volume 3A Part B of the 2023 EIAR Addendum.

This extensive marine monitoring determined that, with the inclusion of UV treatment:

- The receiving water will meet good status criteria and will meet the environmental quality objectives for transitional and coastal water nutrients levels, as applicable. The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not impact on achieving the goals of the WFD of reaching good status in all water bodies;
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated bathing water beaches nor Blue Flag beaches; and
- The Proposed Project will have an Imperceptible residual impact on the water quality of the coastal waters off Dublin and will not influence any designated shellfish waters.

The Applicant is satisfied that it has provided ABP with reliable data, modelling and surveys to allow ABP to carry out lawful assessment.

3.2.22 Transport Infrastructure Ireland (TII)

3.2.22.1 Overview of the Submission

The submission from TII raised points in relation to the following topics, on which the Applicant has provided clarification in Section 3.2.22.2 of this Report:

- Luas, Metro and BusConnects Projects;
- National Road Network Crossings; and
- Proposed Conditions for Major Road Crossings.

3.2.22.2 Response to the Submission

3.2.22.2.1 Luas, Metro and BusConnects Projects

This submission noted that future Luas, Metro and BusConnects alignments are a matter for the NTA.

The Applicant notes that the NTA are the designated body to consult in relation to future Luas, Metro and BusConnects projects. The Applicant wrote to the NTA, as a prescribed body for the Proposed Project, during the design development and is committed to continued engagement with the NTA throughout the next phases of the Proposed Project, should a grant of planning be received (please refer to the response to the NTA submission in Section 3.2.18 above).

3.2.22.2.2 National Road Network Crossings

This submission outlined that Horizontal Directional Drilling (HDD) or other appropriate measures shall be utilised for all crossings of the national road network with appropriate plans and details to be agreed with the relevant road authority who will coordinate with TII. The submission stated that any crossing will require consultation with TII and compliance with all relevant TII standards.

The Applicant would like to note that Chapter 4 (Description of the Proposed Project) in Volume 2 Part A of the 2018 EIAR outlines that the crossing of physical, natural and manmade obstructions, such as significant watercourses, significant topographical features, major roads, railways and major infrastructure, will necessitate the use of suitable trenchless techniques, such as pipe jacking and microtunnelling methods. The locations where trenchless techniques will be employed are indicated on Planning Drawing Nos. 32102902 – 2100 to 32102902 – 2107 in the 2018 planning application pack. An updated assessment was completed for the 2023 remittal application and determined that there were no changes to these proposed crossings, as outlined in the 2018 planning application.

The Applicant has liaised with TII during the design development and is committed to continued engagement with TII throughout the next phases of the Proposed Project, should a grant of planning be received.

3.2.22.2.3 Proposed Conditions for Major Road Crossings

This submission recommended that conditions be attached to any grant of planning for the N2 / M2 and N1 / M1 crossings. TII recommended that, prior to construction, a Construction Management Plan shall also be submitted for the written agreement of the relevant planning authority subject to the written agreement of TII. TII also recommended that, prior to construction, a Construction Traffic Management Plan shall also be submitted for the written agreement of the relevant planning authority subject to the written agreement of TII.

The Applicant would like to note that, as outlined in Chapter 24 (Summary of Mitigation Measures) in Volume 3 Part A of the 2018 EIAR (as supplemented by Chapter 24A (Summary of Mitigation Measures) in Volume 3A Part A of the 2023 EIAR Addendum), a detailed CEMP will be established prior to construction. This will be adapted from the Outline CEMP which is included in the 2018 planning application as a standalone document, and as supplemented by the Addendum to the Outline CEMP included as a standalone document in the 2023 remittal application. In addition, Chapter 24 in the 2018 EIAR states that the Outline Construction Traffic Management Plan (submitted as part of the 2018 planning application) will be required to be further developed by the appointed contractor(s), following their appointment and prior to commencement of construction.

In relation to all other conditions proposed in the submission from TII, the Applicant acknowledges the recommended conditions and accepts the principle, spirit, and intent of the suggested conditions. The Applicant will comply with such conditions as are attached to any grant of planning approval, in addition to those already included as mitigation or monitoring measures in the 2018 EIAR, 2023 EIAR Addendum, the 2018 NIS, 2023 Revised NIS, plus the 2018 CEMP, as supplemented by the 2023 Addendum to the CEMP, which are all included in the planning application documentation.

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Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

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Number 46 of 2015 - Climate Action and Low Carbon Development Act 2015 (as amended)

Number 52 of 2019 - Microbeads (Prohibition) Act 2019

Number 50 of 2021 - Maritime Area Planning Act 2021

Number 39 of 2022 - Water Services (Amendments) Act 2022

Proposal for a Directive of the European Parliament and of the Council concerning urban wastewater treatment (recast)

Regulation (EU) 2023/851 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2019/631 strengthening the CO2 emission performance standards for new passenger cars and new light commercial vehicles

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S.I. No. 99/2023 - European Union (Drinking Water) Regulations 2023

Appendix A: Newspaper Notices

AN BORD PLEANÁLA
Planning and Development Acts 2000 to 2023
NOTICE OF FURTHER INFORMATION IN RESPECT OF A DIRECT PLANNING APPLICATION REMITTAL TO AN BORD PLEANÁLA IN RESPECT OF A STRATEGIC INFRASTRUCTURE DEVELOPMENT: GREATER DUBLIN DRAINAGE PROJECT
(A Proposed Wastewater Treatment Plant, Orbital Sewer, Outfall Pipeline, Sludge Hub Storage Centre and Regional Biosolids Storage Facility – ABP REF. 312131-21)
Fingal County & Dublin City

In accordance with Section 37F(2)(b) of the Planning and Development Act 2000, as amended, following a request made by An Bord Pleanála under Section 37F(1)(a) and (c) of the Act, Uisce Éireann gives notice of the submission of further information (the "Further Information") addressing changes to the baseline since the original 2018 application (lodged on the 20th of June, 2018) which together ensure the following:

(i) That all surveys requiring to be updated have been incorporated and the results assessed, such that both the Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement (NIS) are complete as required by law;
(ii) That any changes to the planning context have been fully considered, in particular the Fingal Development Plan 2023-2029 which is now adopted;
(iii) That An Bord Pleanála has the information necessary to allow it to comply with its legal obligations under s.15 of the Climate Action and Low Carbon Development Act 2015, as amended.
As requested, the Further Information also addresses the query raised i.e., *"whether the discharge of waste water from the proposed development, in conjunction with existing discharge to the receiving waters, would cause or exacerbate breaches of the combined approach (as described in the Waste Water Discharge (Authorisation)Regulations 2007 as amended)."*
The Further Information consists of the following:

Document Category	Document Type	Document Title
Planning Documents	Technical Reports	Addendum Planning Report GDD Addendum Engineering Design Report GDD Addendum Outline Construction Environmental Management Plan GDD Addendum Outline CEMP Appendix 1 Addendum Planning Drawing Register GDD Addendum Outline CEMP Appendix 2 Addendum Surface Water Management Plan GDD Revised Flood Risk Assessment Report Water Framework Directive Assessment Report RBSF Addendum Engineering Design Report RBSF Addendum Flood Risk Assessment
	Planning Drawings	GDD Addendum Planning Drawings Cover and Contents 32102902-2120_Regional WwTP Plan ASP Option (Round) 32102902-2121_Regional WwTP Plan ASP Option (1 of 6) 32102902-2122_Regional WwTP Plan ASP Option (2 of 6) 32102902-2123_Regional WwTP Plan ASP Option (3 of 6) 32102902-2124_Regional WwTP Plan ASP Option (4 of 6) 32102902-2125_Regional WwTP Plan ASP Option (5 of 6) 32102902-2126_Regional WwTP Plan ASP Option (6 of 6) 32102902-2127_Regional WwTP Elevations ASP Option-Elevation (Sheet 1 of 8) 32102902-2128_Regional WwTP Elevations ASP Option-Elevation (Sheet 2 of 8) 32102902-2129_Regional WwTP Elevations ASP Option-Elevation (Sheet 3 of 8) 32102902-2130_Regional WwTP Elevations ASP Option-Elevation (Sheet 4 of 8) 32102902-2131_Regional WwTP Elevations ASP Option-Elevation (Sheet 5 of 8) 32102902-2132_Regional WwTP Elevations ASP Option-Elevation (Sheet 6 of 8) 32102902-2133_Regional WwTP Elevations ASP Option-Elevation (Sheet 7 of 8) 32102902-2134_Regional WwTP Elevations ASP Option-Elevation (Sheet 8 of 8) 32102902-2135_Regional WwTP Sections ASP Option- Sectional Elevation Cut (Sheet 1 of 3) 32102902-2136_Regional WwTP Sections ASP Option- Sectional Elevation Cut (Sheet 2 of 3) 32102902-2137_Regional WwTP Sections ASP Option- Sectional Elevation Cut (Sheet 3 of 3) 32102902-2148_Proposed Culvert at Mayne River Crossing - WwTP Access Road (Sheet 1 of 2) 32102902-2149_Proposed Culvert at Mayne River Crossing - WwTP Access Road (Sheet 2 of 2)
Environmental Documents	Revised Natura Impact Statement	Revised Natura Impact Statement
	EIAR Addendum Volume 1A	Addendum Non-Technical Summary
	EIAR Addendum Volume 2A Part A	Volume 2A Part A Cover, Preface, Content and Glossary 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
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	EIAR Addendum Volume 4A Part A	RBSF EIAR Addendum
	EIAR Addendum Volume 4A Part B	Volume 4A Part B Cover and Contents Appendix 3A Receptors List Appendix 6B RBSF Terrestrial Baseline Report Appendix 8A Ambient Air Quality Standards Appendix 8C Greenhouse Gas Assessment Appendix 10A Odour Contours Appendix 14A Photomontages Appendix 17A Outline Construction Environmental Management Plan Addendum
	EIAR Addendum Volume 5A	Volume 5A Cover and Contents Figure 4.1 Zonal Arrangement at the Proposed Wastewater Treatment Plant Figure 6.1 Residential Buildings Within the Proposed Project Study Area Figure 6.2 Economic Activity Within the Proposed Project Study Area Figure 6.3 Commercial Clusters Within the Proposed Project Study Area Figure 6.4 Healthcare Facilities Within the Proposed Project Study Area Figure 6.5 Primary Schools Within the Proposed Project Study Area Figure 6.6 Tourism, Public Amenities, Sporting and Community Figure 12.1 WwTP Landscape Mitigation Plan Figure 12.2 Abbotstown Pumping Station Landscape Mitigation Plan Figure 16.1 Proposed Project (Blanchardstown) Showing Surrounding Sites Figure 16.2 Proposed Project (M50 Junction 5) Showing Surrounding Sites Figure 16.3 Proposed Project (Silogue) Showing Surrounding Sites Figure 16.4 Proposed Project (Clonshaugh) Showing Surrounding Sites Figure 16.5 Proposed Project (St Doolaghs) Showing Surrounding Sites Figure 16.6 Proposed Project (Baldoyle Estuary) Showing Surrounding Sites Figure 20.1 Location of Active Waste Facilities in the Study Area Figure 21.1 Quarry Locations Figure 23.1 Other Developments Considered – Study Area Overview Figure 23.2 Other Developments Considered (Sheet 1 to 38)
	EIAR Addendum Volume 6A	GDD Addendum Photomontages

- The information contained on the project website: www.gddapplication.ie has already been updated.
- The Further Information highlighted above may be inspected free of charge or purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such copy) during public opening hours at the following locations:

(i) The offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1, between the hours of 9.15 a.m. to 5.30 p.m. Monday to Friday;
(ii) The offices of Fingal County Council, Planning Counter, County Hall, Main Street, Swords, Co. Dublin, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Thursday and between the hours of 9.00 a.m. to 4.30 p.m. on Friday;
(iii) The offices of Fingal County Council, Planning Counter, Grove Road, Blanchardstown, Dublin 15, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Thursday and between the hours of 9.00 a.m. to 4.30 p.m. on Friday; and
(iv) The offices of Dublin City Council, Planning Counter, Ground Floor, Civic Offices, Wood Quay, Dublin 8, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Friday.

- Any objections or submissions on the Further Information may be made in writing to An Bord Pleanála, 64 Marlborough Street, Dublin 1 in the manner detailed below, from 07 May 2024, for a period of 32 days up to 5.30pm on 07 June 2024, both dates inclusive.
- Any submissions / observations on the Further Information must be accompanied by a fee of €50 (except for certain prescribed bodies, and as detailed below in relation to previous submitters), and must be received by An Bord Pleanála not later than 5.30pm on 07 June 2024. Such submissions / observations must also include the following information:

(i) the name of the person making the submission or observation, the name of the person acting on his or her behalf, if any, and the address to which any correspondence relating to the application should be sent,
(ii) the subject matter of the submission or observation, and
(iii) the reasons, considerations and arguments on which the submission or observation is based in full (Article 217 of the Planning and Development Regulations refers).

- Any submissions or observations which do not comply with the above requirements cannot be considered by An Bord Pleanála.
- Submissions requiring a fee may be submitted by hand, by post or through the portal on the An Bord Pleanála website.
- Any person who has already paid the observer fee of €50 for a previous submission on the Greater Dublin Drainage Project need not do so again in respect of a subsequent submission/ observation. Such submissions may be submitted by hand, by post or email to laps@pleanala.ie

An Bord Pleanála may give approval to the above application with or without conditions or may refuse the application. A person may question the validity of a decision of An Bord Pleanála by way of an application for judicial review under Order 84 of the rules of the Superior Courts (S.I. No. 15 of 1986). Practical information on the review mechanism can be found on the Citizen Information Board website (www.citizensinformation.ie) and on the An Bord Pleanála website (www.pleanala.ie).

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• The information contained on the project website: www.gddapplication.ie has already been updated.
• The Further Information highlighted above may be inspected free of charge or purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such copy) during public opening hours at the following locations:
(i) The offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1, between the hours of 9.15 a.m. to 5.30 p.m. Monday to Friday;
(ii) The offices of Fingal County Council, Planning Counter, County Hall, Main Street, Swords, Co. Dublin, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Thursday and between the hours of 9.00 a.m. to 4.30 p.m. on Friday;
(iii) The offices of Fingal County Council, Planning Counter, Grove Road, Blanchardstown, Dublin 15, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Thursday and between the hours of 9.00 a.m. to 4.30 p.m. on Friday; and
(iv) The offices of Dublin City Council, Planning Counter, Ground Floor, Civic Offices, Wood Quay, Dublin 8, between the hours of 9.00 a.m. to 5.00 p.m. Monday to Friday.
• Any objections or submissions on the Further Information may be made in writing to An Bord Pleanála, 64 Marlborough Street, Dublin 1 in the manner detailed below, from 07 May 2024, for a period of **32 days** up to 5.30pm on 07 June 2024, both dates inclusive.
• Any submissions / observations on the Further Information must be accompanied by a fee of €50 (except for certain prescribed bodies, and as detailed below in relation to previous submitters), and must be received by An Bord Pleanála not later than 5.30pm on 07 June 2024. Such submissions / observations must also include the following information:
(i) the name of the person making the submission or observation, the name of the person acting on his or her behalf, if any, and the address to which any correspondence relating to the application should be sent,
(ii) the subject matter of the submission or observation, and
(iii) the reasons, considerations and arguments on which the submission or observation is based in full (Article 217 of the Planning and Development Regulations refers).
• Any submissions or observations which do not comply with the above requirements cannot be considered by An Bord Pleanála.
• Submissions requiring a fee may be submitted by hand, by post or through the portal on the An Bord Pleanála website.
• Any person who has already paid the observer fee of €50 for a previous submission on the Greater Dublin Drainage Project need not do so again in respect of a subsequent submission/ observation. Such submissions may be submitted by hand, by post or email to laps@pleanala.ie.
An Bord Pleanála may give approval to the above application with or without conditions or may refuse the application. A person may question the validity of a decision of An Bord Pleanála by way of an application for judicial review under Order 84 of the rules of the Superior Courts (S.I. No. 15 of 1986). Practical information on the review mechanism can be found on the Citizen Information Board website (www.citizensinformation.ie) and on the An Bord Pleanála website (www.pleanala.ie).