

# Greater Dublin **Drainage** **Project Addendum**

**Environmental Impact Assessment Report Addendum**

**Volume 1A**

**Non-Technical Summary**



# Greater Dublin Drainage Project Addendum

**Environmental Impact Assessment Report Addendum:  
Volume 1A of 6**

**Addendum Non-Technical Summary**

**Uisce Éireann**

October 2023

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# Greater Dublin Drainage Project Addendum

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### Preface

An Bord Pleanála (ABP) previously made a decision to grant the planning application for the Greater Dublin Drainage Project (referred to as the Proposed Project throughout) 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 Planning and Development Act 2000 (as amended), Uisce Éireann should have the opportunity to update, where appropriate, the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) and any other information submitted. This Addendum has been prepared in response to that request from ABP to provide a full update in an Addendum Report. In the preparation of this Addendum Report, Uisce Éireann and its technical advisors have considered the extent to which each of the technical chapters of the EIAR and the NIS are required to be updated, with a particular focus on:

- 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.

In so far as relevant to this Addendum Report, Uisce Éireann 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 ultraviolet (UV) treatment at the proposed wastewater treatment plant (WwTP) and the extension to the River Mayne Culvert on the proposed access road to the WwTP, such that the Proposed Project description has been updated.

This Non-Technical Summary (NTS) to the Addendum Report presents a summary of any changes or updates to the EIAR. Where Uisce Éireann and its technical advisors have confirmed that no update is required, that is confirmed within the relevant Section.

## Non-Technical Summary

This document is the Non-Technical Summary (NTS) of the EIAR Addendum for the Greater Dublin Drainage Project (referred to as the Proposed Project throughout this NTS). The Proposed Project is to develop a new Wastewater Treatment Plant and associated infrastructure to serve the growing population of the Greater Dublin Area (GDA).

The Proposed Project continues to be required to ensure that there will be sufficient wastewater drainage and treatment capacity to allow for future development in certain parts of the GDA, including residential housing, schools, businesses and industry.

This NTS should be read in conjunction with Volume 1 Non-Technical Summary of the EIAR in the 2018 planning application.

### The Proposed Project

As set out in the EIAR in the 2018 planning application, the Proposed Project will 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. The elements of the Proposed Project comprise:

- A new proposed Wastewater Treatment Plant (WwTP) and Sludge Hub Centre on a 29.8 hectare (ha) site at Clonshagh (Clonshaugh);
- A proposed underground orbital sewer (a set of pipes and drains to transfer wastewater) from Blanchardstown to Clonshagh, including a new proposed pumping station (a building containing machinery for pumping wastewater along the orbital sewer) at Abbotstown;
- A proposed sewer to divert part of the North Fringe Sewer (NFS) to the new proposed WwTP;
- A proposed outfall pipeline (a pipe and discharge point of treated wastewater) from the new WwTP to discharge the treated wastewater to the Irish Sea; and
- Regional Biosolids Storage Facility (RBSF) (building(s) where solids created as a result of wastewater treatment which can be reused are stored) to be located on an 11ha site at Newtown, Dublin 11.

The Proposed Project will be able to treat wastewater for an estimated average daily load equivalent to a population of 500,000 people (also referred to as a 'population equivalent') at 2050 and provide sludge treatment for approximately 18,500 tonnes of dry solids per annum at 2050. The proposed RBSF will be able to store 35,400m<sup>3</sup> of biosolids.

The proposed orbital sewer route will divert wastewater from existing and newly developed areas in the north, west and north-west of the Ringsend catchment, including Blanchardstown, Mulhuddart, parts of east Meath and Leixlip. The diversion of part of the existing NFS will divert existing flows from that sewer to the proposed WwTP.

Following the Oral Hearing in 2019 and the subsequent planning conditions attached to the planning permission dated 11 November 2019, the following Proposed Project elements were incorporated into the planning design for the Proposed Project:

- The inclusion of ultraviolet (UV) treatment at the proposed WwTP in Clonshagh (Clonshaugh); and
- The extension of the River Mayne Culvert along the proposed access road to the proposed WwTP.

Aside from the above, the remaining elements of the Proposed Project included in the 2018 planning application remain unchanged.



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### Proposed Regional Wastewater Treatment Plant

The proposed location, treatment capacity, design basis and treatment standards remain unchanged for the WwTP. The design of the proposed WwTP has remained unchanged since the original 2018 planning application, with the exception of the inclusion of UV treatment as described briefly hereafter.

The UV treatment system proposed at the WwTP will be designed and operated to achieve a maximum of 20,000 cfu/100ml (millilitres), with an average concentration in the order of 5,000 to 6,000 cfu/100ml, in the final effluent. At this concentration, there will be no impact on the designated shellfish water. 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 (cumulation of primary, secondary, and tertiary treatment processes).

UV treatment will also reduce and control the spikes and variability of the concentrations of *E. coli* discharged from the proposed WwTP, thus providing greater protection to the receiving waters.

The UV system will control photo-reactivation (i.e. the process whereby bacteria recover after being inactivated by UV light in the presence of daylight), as the UV treatment reduces the ability of bacteria to photo-reactivate. Furthermore, at the proposed WwTP, the final effluent will not be exposed to daylight for approximately four hours after the UV treatment due to the length of the proposed outfall pipeline route. This will further inhibit the photo-reactivation process.

In addition to the inclusion of UV treatment, an extension of the River Mayne culvert proposed under the access road to the proposed WwTP off the R139 Road has been included. This change was proposed as a result of discussion and engagement during the Oral Hearing process and was stipulated in the initial grant of permission as Condition 13 (c). The culvert will be extended by 4m (metres) from the original 21m presented in the 2018 planning application to 25m, in order to meet the requirements of Condition 13 (c). The proposed culvert extension remains within the planning boundary submitted in 2018.

### Proposed Orbital Sewer Route, North Fridge Sewer Diversion Sewer Connection and Outfall Pipeline Route

There are no changes to the information presented in the EIAR in the 2018 planning application for the proposed orbital sewer route, North Fridge Sewer diversion sewer. During the 2019 Oral Hearing, further clarity was provided in relation to the alternative construction methodology considered for the proposed outfall pipeline route (marine section), and so for completeness, has also been outlined in the EIAR Addendum.

### Proposed Regional Biosolids Storage Facility

There are no changes to the description of biosolids provided in the EIAR in the 2018 planning application.

Due to changes in the design horizon and interim milestones for the development of Ringsend WwTP and the Proposed Project WwTP, and changes in the projected loadings for the Ringsend catchment, the estimated production of biosolids and storage volumes have been updated to reflect those changes. For the 2040 design horizon, the estimated storage requirement for the 'Most Likely Scenario' has reduced by approximately 1,200m<sup>3</sup> (cubic metres) (3.4%) since 2018. The remitted application notes that construction of the RBSF in compliance with the permission granted by An Bord Pleanála relative to the Ringsend Upgrade (PA29S.301798) will shortly commence, such that planning permission for this element of the Proposed Project is no longer required.

### What is Happening Now?

An Bord Pleanála (ABP) previously 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 Planning and Development Act 2000 (as

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amended), Uisce Éireann should have the opportunity to update, where appropriate, the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) and any other information submitted.

This Addendum Report has been prepared in response to that request from ABP to provide a full update in an Addendum Report. This Addendum Report presents any changes or updates to the Planning Report, EIAR and NIS, where appropriate. Where Uisce Éireann and its technical advisors have confirmed that no update is required, that is confirmed within the relevant Chapter.

### What Happens Next?

It is expected that ABP will provide further direction in relation to publication and circulation of the Addendum Report as soon as possible following submission.

## Need for the Proposed Project

The need for the Proposed Project has been reviewed with respect to any updates in the projections and requirements on which the 2018 planning application were based. The updated assessment reviewed:

- The Greater Dublin Strategic Drainage Study assessment of future growth;
- The upgrade of existing WwTPs;
- The projected future organic load on existing WwTPs;
- The Water Services Strategic Plan;
- The National Wastewater Sludge Management Plan;
- The projected treatment requirements at the proposed WwTP; and
- The proposed flow and load diversion to the new proposed WwTP.

The review identified some minor changes based on the updated data available since the 2018 planning application (e.g. 2022 Census summary data, and updated planning statuses for a number of WwTP upgrade works). These updates confirmed the projections made and concluded that the identified urgent need for the Proposed Project remains.

## Environmental Impact Assessment

Environmental Impact Assessment (EIA) is the legal process by which potential environmental impacts are identified, described and assessed arising from a project. It does this by anticipating how the future baseline may change when the development is assumed to begin construction; and predicting the potential impacts of constructing and operating the development across a range of environmental topics, and proposing design measures or other relevant mitigation measures can be taken to reduce or avoid those effects.

The EIAR included in the 2018 planning application has been updated in an Addendum format to ensure that any new or altered impacts arising as a result of the changes to the Proposed Project have been considered, together with any changes in the baseline environment, applicable law, guidance or standards since the 2018 planning application, with updated survey data collected and utilised to ensure it is up-to-date.

The structure of the EIAR Addendum largely follows the same structure as the EIAR in the 2018 planning application, and is as follows:

- Volume 1A: NTS;
- Volume 2A Part A: Introduction;
- Volume 2A Part B: Appendices relevant to Volume 2A Part A;
- Volume 3A Part A: Main Report for the Proposed Project;
- Volume 3A Part B: Appendices relevant to Volume 3A Part A;
- Volume 4A Part A: Main Report for the Proposed Regional Biosolids Storage Facility;
- Volume 4A Part B: Appendices relevant to Volume 4A Part A;
- Volume 5A: Proposed Project Figures; and



- Volume 6A: Proposed Project Photomontages.

### **Alternatives Considered**

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.

A review was carried out of the alternatives assessment as outlined in the 2018 planning application, reviewing the following:

- The 'Do Nothing' scenario;
- Alternative non-project approaches to address the shortfall in wastewater treatment;
- Strategic design scenarios;
- Alternative sites assessment and route selection;
- Consideration of outfall location; and
- Consideration of potential reuse of treated wastewater.

The review concluded that the alternatives assessment remained valid and robust, and it was confirmed that there were no material changes to the information presented in that Chapter of the EIAR in the 2018 planning application.

### **Scoping and Consultation**

As scoping is an ongoing process throughout the development of the EIAR, any required updates to the scope of the assessment have been factored in to this EIAR Addendum, with further specific detail provided in each relevant Chapter of the EIAR Addendum.

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), and was made available to view and download on a dedicated website ([www.gddapplication.ie](http://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.

An additional five-week consultation period was run between 13 September 2018 and 18 October 2018 due to the inadvertent omission of a number of the documents which formed part of the EIAR. During this additional period 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 Uisce Éireann and the Project Team, and responses were provided in A Response to Submissions Report which was published on the project website in January 2019.

Following an Oral Hearing process, ABP made a decision to grant this planning application for the Proposed Project by Order dated 11 November 2019 under reference number ABP-301908-18. However, 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 Planning and Development Act 2000 (as amended), Uisce Éireann should have the opportunity to update, where appropriate, the EIAR and Natura Impact Statement, and any other information submitted.

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In light of this, ABP contacted those who had made submissions as part of the original consultation process in 2018 advising that the case had been reactivated under a new reference number (ABP-312131-21) and 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 have been considered as part of the updates to the EIAR as part of this Addendum.

Given that this EIAR Addendum is an update to the original EIAR from the 2018 planning application, the scope of the EIAR Addendum follows the same scope of the original EIAR in the 2018 planning application.

### **Construction of the Proposed Project**

An updated estimated programme for the Construction Phase of the Proposed Project has been provided in the EIAR Addendum. The total Construction Phase will remain as approximately 48 months, including 12 months of commissioning. Individual activities will have shorter durations. It is proposed that the Construction Phase will commence in Quarter 4 of 2025 and commissioning will be completed in Quarter 4 of 2029.

There have also been changes to the programme presented for the proposed Regional Biosolids Storage Facility (RBSF) in the EIAR in the 2018 planning application. The initial phase of construction for the proposed RBSF will involve the construction of one storage building. This has been updated to commence in 2024 (originally 2020). The estimated construction works period has been considered further since the 2018 planning application, and based on this, the construction period has been amended to 18 months (from 12 months). This will bring completion of the initial phase to 2025. The second building is likely to be constructed in 2028. Both buildings will be constructed under the permission granted by An Bord Pleanála for the Ringsend Upgrade (PA29S.301798).

### **Operation of the Proposed Project**

The normal Operational Phase of the Proposed Project and its constituent elements, including the UV treatment system will be fully automated and will be monitored, controlled and managed from the control centre location at the proposed WwTP, as outlined in the 2018 planning application. 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.

### **Environmental Impacts and Mitigation**

The EIA process provides a valuable opportunity to reduce potential environmental impacts through design refinement, and this has formed an integral part of the design process for the Proposed Project.

The EIAR has been reviewed to consider whether there are any new or altered impacts arising as a result of the changes to the Proposed Project, in addition to any impacts arising from the publication of any new or updated guidance documents and legislation.

The environmental baseline of the Proposed Project, and its surroundings, has been updated for each environmental aspect under consideration, to account for any changes that have taken place since the original planning application was submitted on 20 June 2018. This has been achieved through desk-based reviews, updated modelling (as required) and detailed interpretation of specialist field surveys (as required), as outlined in the following sections.

The EIAR Addendum presents the updates of the EIAR for the Construction Phase and the Operational Phase of the Proposed Project since the 2018 planning application. The updated design, which has been developed for the Proposed Project, forms the current indicative design of the Proposed Project. This indicative design will be used by the future contractor(s), which will be appointed by Uisce Éireann, to prepare the detailed design for the construction of the Proposed Project. The future contractor delivering the Proposed Project shall address and meet the requirements of the EIAR and, where changes have been made, the EIAR Addendum.

## Population and Human Health

The assessment considered the effects on human beings in terms of both population and human health impacts with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

Since the submission of the EIAR in the 2018 planning application, a new Census was undertaken in 2022. New site visits, reviews of the latest development plans and the latest GeoDirectory data all fed into the updated assessment undertaken. Changes to the baseline since the 2018 planning application include:

- An increase in the number of residential buildings across the study area;
- The Holiday Inn Hotel has been built on Clonshaugh Road; and
- The Baldoyle to Portmarnock Greenway has been constructed within the study area.

### Population

Following consideration of the baseline changes, updated guidance and reference material and amendments to elements of the Proposed Project, the assessment concluded that there are no material or significant changes to the impact assessment as presented in the EIAR in the 2018 planning application.

The updates to the to the Construction Phase impact assessment, with respect to the baseline changes, updated guidance and reference material and amendments are:

- With respect to economic activity, there will be a Negative, Slight and Temporary impact on the Holiday Inn Hotel which has opened since the 2018 planning application submission;
- With respect to tourism, public amenities and community infrastructure, the Baldoyle to Portmarnock Greenway has now been included in the study area. It is to be crossed by the proposed outfall pipeline route, however this will be through trenchless / tunnel and microtunnelling techniques. The impact to surface activities will therefore be limited. Therefore the impact is assessed as being Negative, Slight and Temporary;
- With respect to important planning schemes and forthcoming developments:
  - The proposed orbital sewer route will pass through the Dardistown LAP lands, but will not impact any of the character areas set out in the LAP and therefore the impact on the LAP is Neutral and Imperceptible;
  - The proposed orbital sewer route will pass the route of the indicative proposed new MetroLink Project route. The scheduling of works in this area will avoid any adverse impacts on the MetroLink construction. The impact is assessed as Neutral and Imperceptible;
  - The proposed outfall pipeline route (land based section) will pass directly adjacent to Kinsaley LAP lands, however construction work in the area will not impact on development land reservations in the LAP. The impact is therefore considered to be Neutral and Imperceptible.

The updates to the Operational Phase impact assessment, with respect to the baseline changes, updated guidance and reference material and amendments, are:

- The operation of the Proposed Project will have a Positive, Significant and Long-Term impact in terms of facilitating future developments proposed within the Dublin Airport LAP and Kinsaley LAP lands, in addition to those LAPs listed in the EIAR for the 2018 planning applications.

The Chapter concludes that the mitigation measures as presented in the EIAR for the 2018 planning application are still valid and applicable to the new impacts identified.

### Human Health

There has been new guidance on the assessment of human health in EIA since the submission of the 2018 planning application, therefore the assessment undertaken at that time has been reviewed and updated based on the updated guidance.

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Following consideration of the baseline changes, updated guidance and reference material and amendments to elements of the Proposed Project, the assessment concluded that there are no material changes to the impact assessment as presented in the EIAR in the 2018 planning application.

There are no changes in the assessment with respect to the Construction Phase impacts since the 2018 planning application.

With respect to the Operational Phase, the updates to the assessment are all with respect to the proposed addition of the UV treatment which will have a beneficial impact on human health through the further reduction in microbial counts in the material to be emitted by the proposed WwTP.

The Chapter concludes that the mitigation measures as presented in the EIAR for the 2018 planning application remain relevant and no additional measures are required.

### **Marine Water Quality**

This assessment considered the potential impacts to marine water quality through from the Construction Phase and Operational Phase of the Proposed Project with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

The assessment used updated mathematical modelling to look at the discharge of treated wastewater through the outfall pipeline to the sea based on the most recent available data and Proposed Project changes. Most aspects of the modelling assessment carried out for the 2018 planning application have not changed. The exception to this is the modelling for the Operational Phase of the proposed outfall pipeline route (marine section) has been updated to account for the continuous discharge of secondary treated effluent with the inclusion of UV treatment into the receiving waters. The modelling inputs were also updated with more recent hydraulic flow, pollutant load, water quality standard and decay coefficient data which has been made available since the 2018 planning application.

With respect to the Construction Phase no changes have been made to the proposed construction methodology for the dredging of the proposed outfall pipeline route (marine section) since the submission of the 2018 planning application, and therefore, there are no changes to the predicted Construction Phase impacts as described in the EIAR in the 2018 planning application.

With respect to the Operational Phase, the updated modelling undertaken found that the results were in line with the modelling results described in the EIAR in the 2018 planning application. The exception to this is when it comes to Escherichia Coliform (COLI), which is now predicted to have no impact on receiving waters, an improvement over the previous modelling scenario for the 2018 planning application which predicted an imperceptible effect.

As a result of there being little to no change in the potential impacts of the Proposed Project on marine water quality when compared to the assessment in the EIAR in the 2018 planning application, no additional mitigation measures are required.

### **Hydrology and Hydrogeology**

The assessment considered the potential impacts on the hydrological (surface water) and hydrogeological (groundwater) environments during the Construction Phase and Operational Phases with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

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.

The review of the predicted impacts was undertaken in the context of the amended elements of the Proposed Project and the minor baseline changes and concludes that there is no material change to any of the impacts identified in the EIAR for the 2018 planning application. Therefore there are no requirements for changes or additional mitigation measures.

### **Biodiversity (Marine)**

The assessment considered the potential impacts on the flora and fauna found on the sea bed, marine mammals, marine birds, fish, plankton and water quality during the Construction Phase and Operational Phases with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A number of updated surveys were carried out as part of the assessment update, namely a benthic habitat survey, visual surveys at and around the proposed outfall pipeline route (marine section); an inter-tidal walkover survey of Baldoyle Estuary, visual surveys at the Ireland's Eye sublittoral reef, estuarine bird surveys, and coastal and marine vantage point surveys.

Since the 2018 planning application there have been a number of updates with respect to marine biodiversity, namely:

- Some of the guidance used has been updated;
- Site-specific conservation objectives have been published for a number of European sites considered in the EIAR;
- A new candidate Special Protection Area (SPA) was announced in July 2023, namely the North-West Irish Sea candidate SPA; and
- Some minor variations in the information recorded in the updated surveys when compared to the previous surveys.

The updated Proposed Project elements and the changes to the baseline environment have been considered against the previous assessment of potential Construction Phase impacts in the EIAR in the 2018 planning application. It is concluded that the Construction Phase impacts of the Proposed Project on marine biodiversity remain the same as reported in the 2018 planning application EIAR.

The updated Proposed Project elements and the changes to the baseline environment have been considered against the previous assessment of potential Operational Phase impacts in the EIAR in the 2018 planning application. It is concluded that the Operational Phase impacts of the Proposed Project on marine biodiversity remain the same as reported in the 2018 planning application EIAR.

Given that there are no changes to the impacts of the Proposed Project on marine biodiversity, the mitigation measures as described in the EIAR in the 2018 planning application remain valid and applicable for both the Construction and Operational Phases. One change is that a Revised Vessel Management Plan has been included in Appendix A10.2 in Volume 3A Part B of this EIAR Addendum. This revised plan further strengthens the measures for protecting bird species within both Ireland's Eye SPA and the new North-West Irish Sea cSAC.

### **Biodiversity (Terrestrial and Freshwater Aquatic)**

The assessment considered the potential impacts of the Proposed Project on terrestrial flora and fauna during the Construction and Operational Phases with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A desk-based review was carried out of the up-to-date legislative and policy context, as well as a review of any new guidance and any updated datasets since 2018. To complement the desk-based review, updated surveys were undertaken between 2021 and 2023, namely walkover surveys, bat surveys, badger surveys, bird surveys, newt surveys, and freshwater aquatic surveys. Updates since 2018 include:

- New County Development Plans (Dublin City and Fingal);

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- New Biodiversity Action Plans (Fingal County Council, Uisce Éireann, Ballymun Biodiversity Focus Group);
- Ireland's Eye Management Plan (Nairn, R. 2017);
- Site-specific conservation objectives have been published for a number of European sites considered in the EIAR;
- A new candidate Special Protection Area (SPA) was announced in July 2023, namely the North-West Irish Sea candidate SPA; and
- Some variations in the information recorded in the updated surveys when compared to the previous surveys.

The updated Proposed Project elements and the changes to the baseline environment have been considered against the previous assessment of potential Construction Phase impacts in the EIAR in the 2018 planning application. The Construction Phase impacts of the Proposed Project on terrestrial and freshwater aquatic biodiversity features remain largely the same as reported in the EIAR in the 2018 planning application, with some exceptions, namely:

- Addition of North-West Irish Sea cSPA into the impact assessment;
- Potential for spread of Giant Hogweed near Northpoint NCT Centre;
- Change in categorisation of potential bat roost trees;
- Impacts on additional badger sets; and
- Potential for impact on additional water bodies containing Newt in Coldwinters.

The updated Proposed Project elements and the changes to the baseline environment have been considered against the previous assessment of potential Operational Phase impacts in the EIAR in the 2018 planning application. The impacts of the Operational Phase of the Proposed Project on terrestrial and freshwater aquatic biodiversity features remain the same as reported in the EIAR in the 2018 planning application, except for the addition of North-West Irish Sea cSPA into the impact assessment.

Based on the comparative assessment of impacts on terrestrial and freshwater biodiversity identified in the EIAR in the 2018 planning application and the present day, the previously proposed mitigation measures still remain valid and applicable. Additional measures, as a result of baseline changes, updated guidance and reference material and amendments, are now proposed following this Addendum assessment, including:

- A specification for measures to protect all habitats within the redline boundary which are to be retained will be prepared, implemented and maintained during the Construction Phase by the appointed contractor and appointed Ecological Clerk of Works;
- A Biodiversity Implementation and Monitoring Plan will be prepared by the appointed contractor and appointed Ecological Clerk of Works;
- All measures will include specifications for the creation and restoration of all habitats identified;
- Prior to removal of hedgerows the appointed Ecological Clerk of Works will identify hedgerows suitable for transplanting or use in restoration;
- A specification for the restoration / re-planting of all hedgerows to be temporarily removed will be prepared by the appointed Ecological Clerk of Works;
- An Invasive Species Management Plan will be required;
- Artificial bat roosting structures / bat boxes and bird nesting structures / bird boxes will be erected at the end of the Construction Phase in suitable locations; and
- Wildlife disturbance licence to be obtained for the exclusion and closure of additional badger setts.

Residual impacts on terrestrial and freshwater biodiversity will largely remain unchanged compared to those reported in the EIAR in the 2018 planning application, with no new adverse effect pathways or effects of a greater magnitude or greater adverse significance having been identified. Following the implementation of the additional mitigation measures outlined, the residual impact on three habitat categories will improve from 'no impact' to 'minor beneficial'.



### Landscape and Visual

The assessment considered the potential impacts of the Proposed Project on the surrounding landscape and views during the Construction Phase and Operational Phase of the Proposed Project with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

An updated desk-based review was undertaken for this Addendum, with the main consideration in relation to landscape and visual policy change being in the publication of the new Fingal County Development Plan. The Current Fingal Development Plan contains six landscape policies and objectives to the Previous Fingal Development Plan's seven, with the only difference (other than number reference) being that 'Objective NH37' to '*Ensure that new development meets high standards of siting and design*' from the Previous Fingal Development Plan has not been included in the Current Fingal Development Plan. There are no new 'Views and Prospects' that are relevant to the Proposed Project.

An addition to the desk-based review, updated baseline photography was taken and new photomontages prepared to allow for comparison of the previous photomontages with the new ones. The most noticeable changes to the baseline setting of the Proposed Project since 2018 occur in the vicinity of the proposed WwTP, where a second hotel (Holiday Inn Dublin Airport) has been constructed immediately to the north of the Clayton Hotel Dublin Airport. These both lie around 500m to the west of the proposed WwTP site. There is also a recently completed residential estate running between Malahide Road and Belcamp College which is around 900m to the east of the proposed WwTP site at its nearest point.

The updated Proposed Project elements and the changes to the baseline environment have been considered against the previous assessment in the 2018 planning application.

The only material variation in respect of Construction Phase impacts is that the additional visual receptor of the Baldoyle Portmarnock Greenway will afford close views of proposed temporary construction compound no. 9 at the western end of the proposed outfall pipeline route that will run under Baldoyle Estuary. This will lie inland adjacent to the road / greenway, and it should be noted that this section of road is a designated scenic route, albeit with the main source of visual amenity in the opposite direction out across the estuary to the east. It is not considered that the greenway is of any greater visual sensitivity than the designated scenic route (High-Medium in the original assessment) and the viewing context is the same. Thus, it is not considered that the significance of Construction Phase visual impact is any greater than was previously assessed in respect of the designated scenic route (Slight and Temporary) in the EIAR in the 2018 planning application.

The only potential variation in respect of Operational Phase impacts relative to the 2018 assessment is in the context of the proposed WwTP, where the addition of a new hotel and residential developments, to the west and east of the site respectively, have altered the baseline context to a minor degree. These developments are consistent with the general description of the varied and dynamic baseline context of this area provided in the 2018 assessment. Furthermore, they only serve to reduce the sensitivity of the receiving environment by reinforcing the transition from rural to urban of this interface area in a manner that is consistent with development plan land use zoning objectives. The 2018 assessment judged the Operational Phase significance of landscape impact from the proposed WwTP to be 'Moderate to Slight' on balance of a 'High' impact magnitude and a 'Low' landscape sensitivity. This is still deemed a reasonable judgement on the basis that the sensitivity has not reduced beyond 'Low', as the recent developments have just further reinforced the 'Low' sensitivity of the receiving landscape.

With respect to the updated photomontages, it is considered that the only material change is a marginal reduction in impact for the viewpoint at Springhill House (VP5) due to the maturing of intervening vegetation.

Based on the comparative assessment of the impacts it is not considered that additional mitigation measures are required or that the previously proposed measures should be altered or removed.

## Traffic and Transportation

The traffic and transportation assessment considered the potential impacts during the Construction Phase and Operational Phase of the Proposed Project on the capacity of the existing road network with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A desk-based review was undertaken in order to determine if there have been any updates to legislation and/or guidance governing the assessment of traffic and transport since the 2018 planning application. There have been a number of updates in the intervening period, including:

- Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (TII 2021);
- Fingal Development Plan 2023-2029 (Fingal County Council 2023); and
- Greater Dublin Area Transport Strategy 2022-2024 (NTA 2022).

In addition there have been updates in the computer programs used to analyse junctions.

Given the time that had passed since the traffic surveys were carried out, the surveys were redone in November 2022. In order to determine the magnitude of the updated existing traffic flows, classified Junction Turning Count surveys were carried out at the same eight junctions that were surveyed for the traffic assessment undertaken for the 2018 planning application. Three two-way counts were also undertaken at the same three locations that were surveyed for the traffic assessment undertaken for the 2018 planning application.

The updated surveys and analysis, along with the assessment of the changes to the Proposed Project found slight variations when compared to the 2018 planning application, however none of these slight variations were of a magnitude that would change the significance of impacts which were assessed for the Construction Phase of the Proposed Project. Similarly, when compared to the assessment in the 2018 planning application, the predicted Operational Phase impact ratings are unchanged.

Based on the comparative assessment of Construction and Operational Phase impacts identified in the EIAR in the 2018 planning application and the updated assessment for the EIAR Addendum, it is not considered that additional mitigation measures are now required, or that the previously proposed mitigation measures should be altered or removed. Therefore, there are no changes required to the information presented in this Section of the EIAR in the 2018 planning application.

## Air Quality, Odour and Climate

This assessment considered the potential emissions to air and odours that may arise as a result of the Proposed Project, and the likelihood of these emissions and odours having an impact on nearby sensitive receptors with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

An updated desk review was undertaken to consider changes in legislation, policy, standards and industry guidance, and whether such changes would require an update or amendment to the assessment approach in the 2018 planning application. The review also considered updated published sources of information in relation to the existing environment in the study area. Baseline air quality surveys were also repeated in 2022, in order to provide an update to the data collected in 2016 and 2017.

The assessment review and update found that, despite the changes to the Proposed Project, no new sources of emissions will be introduced during the Construction Phase and therefore the predicted Construction Phase impacts remain unchanged from those described in the EIAR in the 2018 planning application. Similarly there were no material changes identified during the review and modelling of the Operational Phase impacts, and therefore there are no changes to the impact assessment. As a result, the mitigation measures included in the EIAR in the 2018 planning application remain valid and applicable, and do not require any changes.

With respect to the climate impact of the Proposed Project, a full assessment of the impact of greenhouse gas emissions from the Proposed Project has been undertaken in recognition and response to developments in

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climate-related legislation, policy and guidance which have emerged since the submission of the original 2018 planning application. The greenhouse gas assessment considered greenhouse gas emissions both during the Construction Phase and the Operational Phase.

The Construction Phase assessment took a conservative approach and considered greenhouse gas emissions as a result of embodied carbon, construction traffic and land use change. The assessment found that the unmitigated potential impact to climate of the Construction Phase of the Proposed Project will be Moderate Adverse, Significant and Short-Term. Additional mitigation measures have been proposed above those laid out in the 2018 planning application in order to support the reduction of embodied carbon and transport emissions. With implementation the residual Construction Phase impacts reduce to Moderate Adverse, Not Significant and Short-Term.

The Operational Phase assessment considered process / fugitive emissions, energy emissions and biosolids emissions. The assessment found that the unmitigated potential impact to climate of the Operational Phase of the Proposed Project will be Moderate to Major Adverse, Significant and Long-Term. Additional mitigation measures have been proposed above those laid out in the 2018 planning application in order to support the reduction of emissions associated with the Operational Phase. With implementation the residual Operational Phase impacts reduce to Minor to Moderate Adverse, Not Significant to Significant and Long-Term.

While the GHG emissions from the Proposed Project are predicted to be generally significant, the co-benefits of the Proposed Project extend beyond the impact of the emissions. 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.

### **Noise and Vibration**

This assessment considered the potential impacts of noise and vibration generated during the Construction and Operational Phases of the Proposed Project with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

An updated desk-based review was carried out which considered changes in legislation, policy, standards and industry guidance, as well as reviewing updated published sources of information in relation to the existing environment. Given the passage of time since the surveys carried out in 2017 for the previous planning application, updated noise and vibration surveys were carried out.

The updated noise survey found that, when compared with the 2017 survey the results at most locations were generally the same or higher. This is not surprising since developments have progressed and activities in various spheres have increased in the period since 2017. The updated vibration survey at Connolly Hospital showed no significant change when compared with the previous survey.

The assessment described within the EIAR in the 2018 planning application was re-evaluated to consider the new baseline noise and vibration survey data and the changes to the Proposed Project for the Construction Phase. It was determined that the Construction Phase noise and vibration impacts remain unchanged.

The assessment described within the EIAR in the 2018 planning application was re-evaluated to consider the new baseline noise and vibration survey data and the changes to the Proposed Project for the Operational Phase. It was determined that the Operational Phase noise and vibration impacts remain unchanged.

Given that the results of the impact assessment have not changed since the 2018 planning application, the mitigation measures presented within that application remain valid and applicable with respect to mitigation of potential noise and vibration impacts.

### **Archaeology and Cultural Heritage**

This assessment considered the potential impacts of the Proposed Project on archaeological, architectural and cultural heritage resources during the Construction and Operational Phases of the Proposed Project with

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respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A desk-based review has been undertaken to assess any changes to the baseline environment with regards to archaeological, architectural and cultural heritage since the original 2018 planning application. The review found that there have been some changes since the 2018 submission as outlined below:

- A total of 29 additional recorded sites have been identified within the study area of the Proposed Project;
- Three additional recorded shipwrecks within the study area of the Proposed Project have been added to the Shipwreck Inventory;
- One additional structure from within the study area was added to the Fingal County Council Record of Protected Structures;
- Three of the 21 Areas of Archaeological Potential identified in the 2018 planning application have been reclassified as recorded monuments; and
- 14 additional excavations and archaeological fieldwork records were available for locations within the study area.

Based on the review of the changes to the existing baseline data as outlined above, the updated impact assessment concludes that there are no additional significant impacts predicted upon features of heritage importance during either the Construction Phase or the Operational Phase of the Proposed Project when compared to the impact assessment undertaken for the EIAR in the 2018 planning application. The main difference was that a ring ditch (AH 44) which was previously identified as having a Direct, Negative, Significant impact has now been preserved in-situ by another development, and as such will no longer be subject to a direct impact.

As a result of there being minimal change in the impact assessment results, there are no additional mitigation measures required above those identified within the 2018 planning application. Given that AH 44 will no longer be subject to a direct impact, the archaeological mitigation is no longer required for this site.

In summary, the impact assessment and mitigation measures detailed in the EIAR in the 2018 planning application remain unchanged, with the exception that there will no longer be any direct negative impacts on a recorded ring ditch site (AH 44).

## Soils and Geology

The assessment considered the potential impacts during the Construction and Operational Phases of the Proposed Project on soils and geology with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A review of the policy, guidance and datasets used to inform the impact assessment for the EIAR in the 2018 planning application was undertaken to identify any changes or updates since that assessment. There were no changes in the available desktop sources of information or historic ground investigations since the previous impact assessment was undertaken. A ground investigation was carried out post planning, in 2020, in order to inform the detailed design of the Proposed Project. The factual report for this survey was reviewed as part of the updated impact assessment.

Based on the more recent ground investigation survey, a number of updates to the baseline were required, namely:

- One area of made ground was encountered in close proximity to the R139, where the previous baseline assessment stated that no made ground had been identified along the Proposed Orbital Sewer Route;
- The thickness of glacial till derived from limestone was found to be greater at the Proposed Orbital Sewer Route, the Proposed WwTP and North Fringe Sewer Diversion Sewer and the Proposed Outfall Pipeline Route (Land Based Section) than had been previously reported;

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- The thickness of fluvio-glacial sands and gravels was found to be greater at the Proposed WwTP and North Fringe Sewer Diversion Sewer and the Proposed Outfall Pipeline Route (Land Based Section) than had been previously reported;
- Differences in the descriptions of the limestone bedrock at the Proposed Abbotstown Pumping Station site; and
- The depth to bedrock at the Proposed WwTP and North Fringe Sewer Diversion Sewer was confirmed at 29.15m and 29.8m below ground level in two boreholes in the more recent ground investigation. The previous ground investigation had not encountered bedrock at this location having only gone to a depth of 18m below ground level.

Following a review of the changes in the description of the baseline, the conceptual site model was reviewed and the impact assessment considered against both the updates to the baseline and the changes to the Proposed Project. Based on a review, no additional Construction or Operational Phase impacts were identified. The impacts outlined in those Sections of the EIAR in the 2018 planning application therefore remain unchanged.

There is therefore no requirement for additional mitigation measures, above the measures outlined in the original EIAR in the 2018 planning application.

### **Agronomy**

The assessment considered the potential agricultural impact of the Construction Phase and the Operational Phase of the Proposed Project with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

An assessment of the current agricultural environment was carried out through desk-based studies of relevant data, engagement of affected parties by Uisce Éireann's Land and Wayleaves Team and roadside surveys. This information was subsequently used to determine the need for targeted surveys and alterations to the assessment. A desktop review was carried out to review the amendments to the Proposed Project and review any updated data available (i.e. Census of Agriculture 2020). Updated surveys were carried out in 2022 and 2023, involving both telephone surveys and roadside surveys.

The desk-based review and surveys noted some changes to receptors since the 2018 planning application, comprising changes in ownership, land tenure and land uses. However none of these changes were deemed to result in material changes to the impact assessment as presented in the EIAR in the 2018 planning application.

No changes to farm infrastructure or additional alterations to holding composition (e.g., amalgamation of adjacent holdings, which may alter practices) were noted for any of the receptors. Changes to land use and alterations to enterprise types on Agricultural Land Parcels did not increase the impact sensitivity of any agricultural receptors considered, and the Construction Phase mitigation measures presented in the EIAR in the 2018 planning application are still considered valid and appropriate. There were no additional potential Construction Phase impacts identified from those listed in the EIAR in the 2018 planning application.

No changes to farm infrastructure or additional alterations to holding composition (e.g., amalgamation of adjacent holdings, which may alter practices) were noted for any of the receptors. Changes to land use and alterations to enterprise types on Agricultural Land Parcels did not increase the impact sensitivity of any agricultural receptors considered, and the Operational Phase mitigation measures presented in the EIAR in the 2018 planning application are still considered valid and appropriate. There were no additional potential Operational Phase impacts identified, above those listed in the EIAR in the 2018 planning application.

### **Waste**

The assessment considered the anticipated types of waste that will arise as a result of the construction and operation of the Proposed Project, and the potential impacts of its generation and management with respect



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to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

A review was undertaken in order to determine if there have been any updates to the legislation and/or guidance governing the assessment of waste in the intervening period between the 2018 planning application and now. A number of updates and changes were identified by this review including legislation changes, regional and national plan updates, publication of a number of new circular economy plans and strategies, and publication of new guidance documents.

A review of the estimated waste material to be created by the Proposed Project was also carried out. There will be only minor changes to the waste volumes arising as a result of the Proposed Project, when compared to the 2018 planning application. The majority of construction will still occur on greenfield sites and this will result in predominantly inert soil and stone material making up the bulk of the C&D waste generated.

A review of the baseline waste data was undertaken and waste management statistics were updated based on the most recent data available from the Environmental Protection Agency. An updated review of the waste management capacity within the Eastern Midlands Region was also undertaken. The baseline data has been updated to describe the current waste management baseline based on that updated data.

Based on the updated policy, legislation and guidance, as well as the changes to the Proposed Project and the updated baseline data, a review was done of the impact assessment as outlined in the EIAR in the 2018 planning application. The changes do not necessitate any change in the assessment. As with the original 2018 planning application, the majority of excess material generated throughout the Construction Phase of the Proposed Project will be soil, clay and rock as a result of excavation. Where possible, as was previously proposed in the EIAR in the 2018 application, these materials will be reused on-site. This is entirely in keeping with new policy requirements which seek to minimise the volume of waste being generated and that materials should be reused where possible.

With respect to the Operational Phase, the operation of the UV chamber would be the only additional source of operational waste, however this will be minor in the overall context of the waste generated and therefore no changes to the Operational Phase impact assessment are required since the 2018 planning application.

The updates to the Proposed Project elements were assessed and deemed not to result in any materially additional impacts, above those identified in the original EIAR in the 2018 planning application. As such, aside from the requirements in the new Waste Action Plan (Department of Communications, Climate Action and Environment 2020) and the Draft National Waste Management Plan (Regional Waste Management Planning Offices 2023) for a strong focus on Article 27 and the end-of-waste decision-making process throughout the Construction Phase of the Proposed Project, there are no further requirements to update the mitigation measures presented in this Section of the 2018 planning application as a result of the changes in legislation, policy and best practice.

### **Material Assets**

This assessment considered the physical and technical impacts of the Proposed Project during the Construction and Operational Phases on material assets with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

As with the EIAR in the 2018 planning application, material assets were considered in the EIAR Addendum in terms of:

- Major utilities;
- Natural features; and
- Raw materials.

A desk-based review was undertaken to identify any material changes to the impact assessment as a result of the changes in the Proposed Project or changes in the baseline environment. Changes to the baseline environment since the 2018 planning application include:



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- Changes to the planned MetroLink project, however the proposed crossing of the proposed orbital sewer route remains unchanged;
- Construction has commenced on the aviation fuel transmission pipeline, however the crossing point with the proposed orbital sewer route is not affected due to the proposed differences in depth of both pipes, with the proposed sewer to be tunnelled under the roadway at the crossing location;
- Baldoyle to Portmarnock Greenway has been constructed, and will be crossed by the proposed outfall pipeline route (marine section), however there will be no impact on the greenway as the proposed pipe will be tunnelled at this location; and
- Updated quarry locations within the Greater Dublin Region.

The above changes do not result in additional Construction or Operational Phase impacts, therefore the assessment of material asset impacts remains the same as carried out for the 2018 planning application. Given that the impacts have not changed since the 2018 planning application, the mitigation measures included therein remain valid and applicable.

### **Risk of Major Accidents and/or Disasters**

Following a review of the assessment and updates, a new risk category has been added which recognises and responds to developments in climate-related legislation, policy and knowledge base, which have evolved since the submission of the original planning application in 2018, namely risk of extreme weather events.

This assessment considered the potential impact of major accidents and/or disasters to the Proposed Project, during both the Construction and Operational Phases with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission.

The assessment undertaken in the EIAR in the 2018 planning application has been reviewed against the changes to the Proposed Project and any intervening updates to policy, guidance or the baseline environment. A number of updated guidance and reference materials have been considered in reviewing and updating the assessment.

This new risk is assessed as part of both the Construction and Operational Phase and is given a 'Low risk' rating for both phases. Despite the low rating, additional mitigation is recommended and provided for in response to the additional risks identified. This additional mitigation requires the preparation of Severe Weather Management Plans as part of the Environmental Incident Response Plans for both the Construction and Operational Phases.

### **Cumulative Impacts and Interactions**

The assessment of environmental impacts associated with the Proposed Project considered interactions between environmental aspects, for example interactions between traffic and air quality, and cumulative impacts with other developments with respect to the changes to the Proposed Project and baseline environment since the 2018 planning application submission. Developments have been considered between the original cut-off date of 15 March 2018, applied into the cumulative assessment in the 2018 planning application, 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.

In addition, any of the proposed developments previously considered 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, are now considered in the updated baseline environment throughout this EIAR Addendum, as relevant and applicable.

The cumulative impact assessment considered the way in which an environmental resource, such as surface water, could be impacted by more than one development. The impacts from multiple developments may potentially overlap or act in combination, leading to potentially more significant environmental impacts than if the impacts were considered in isolation.

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The updated assessment considered a long list of 187 'other developments' considered to have the potential to overlap with the Proposed Project, with 156 of those developments assessed for potential cumulative impacts with the Proposed Project.

The environmental factors for which there were considered to be potential cumulative impacts with the Proposed Project, in the absence of mitigation, were population, marine water quality, biodiversity (freshwater aquatic), traffic and transport, air quality, noise, landscape and visual, agronomy and waste. There is limited potential for cumulative impacts during the Operational Phase, on the basis that fewer impacts are anticipated during this phase.

No additional mitigation measures other than those provided in the EIAR in the 2018 planning application and those additional mitigation measures outlined in this EIAR Addendum, are required to mitigate the identified cumulative impacts. The only exceptions are the need for additional consultation and coordination with respect to the following projects:

- For dredging and development at Howth Harbour (F21/0368);
- CP1021 East Meath – North Dublin EirGrid Project; and
- A park development project in Racecourse Park (311315).

With the implementation of the specified mitigation measures, there will be no significant residual cumulative impacts anticipated. The potential interactions between environmental aspects arising from the Proposed Project remain as outlined in this Section of the EIAR in the 2018 planning application.

### **Conclusion**

This NTS has provided a summary of the updated EIAR for the Proposed Project. As the above demonstrates, 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.

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.