

Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Wexford

02/12/2021

IW-ER- LT0545

Dear Inspector,

Re: Youghal Wastewater Discharge Licence Application D0139-03

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In response to the Regulation 18(3)(b) request for information notice dated 30th September 2021, and in accordance with Regulation 17C of the European Union (Waste Water Discharge) Regulations 2007 to 2020, Irish Water is requesting the Agency to provide its opinion in writing on the scope and level of detail of the information required to be included in the EIAR.

In accordance with Regulation 17D (1), Please note the following;

(a) the name and address, and telephone number and e-mail address if any, of the water services authority,

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24 – 26 Talbot Street
Dublin 1
01 8925000
WasteWaterLicensingSouthern@water.ie

(b) the location, townland or postal address of the land or structure to which the request relates (as may be appropriate), and shall include a location map marked so as to clearly identify—

Youghal WWTP
Mudlands
Youghal
Co. Cork

(i) the land or structure to which the request relates and the boundaries thereof in red, Please refer to the Attachment B.2 and Attachments B.3a of the WWDL Review application submitted to the Agency on 18/06/2021.

(ii) any land which adjoins, abuts or is adjacent to the land to be developed and which is under the control of the water services authority in blue, and

Not applicable

(iii) any wayleaves in yellow,

Not applicable

(i) the nature of the proposed development,

In accordance with Regulation 17 of the European Union (Waste Water Discharge) Regulations 2007 to 2020 IW is required to prepare an Environmental Impact Assessment (EIA) Report for the proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge outfall at Youghal Waste Water Discharge Licence (Reg. No. D0139-03).in Co. Cork.

There is no demolition, construction phases associated with the proposed usage of Dunn's Park outfall. Youghal WwTP is currently using the Dunn's Park discharge outfall as a temporary discharge location

(ii) the development's specific characteristics, including its location and technical capacity, and

The new Youghal wastewater treatment plant is located approximately 1.3km north of the town centre, in an area called the Mudlands. Construction and commissioning were completed in December 2017 under Design Build Operate (DBO) Contract. The plant has been designed and built to allow for expansion for anticipated future growth. The current plant has a biological treatment capacity of 16,000 PE.

The existing outfall (SW000) serving the WWTP is the Dunn's Park Outfall which comprises a 750mm diameter outfall to the Blackwater Estuary (210513E, 078480N).

(iii) the development's likely impact on the environment.

In order to fully assess the potential for effects on the Lower Blackwater Estuary/Youghal Harbour from the treated wastewater, Irish Water has undertaken a modelling assessment. The modelling study concluded that the existing level of treatment at Youghal WWTP and the existing primary discharge location at Dunn's Park are sufficient to support the achievement of WFD objectives for receiving waters under current and future loading (16,000 p.e) scenarios.

Furthermore, the study concluded there is no impact on WFD Protected Areas including Designated Bathing Waters, Designated Shellfish Waters and European sites, under both existing and future loading scenarios.

In addition to the above information, the Agency should consider the following, to determine the scope and level of detail of the information required to be included in the EIAR

- EIAR Scoping Report – Appended
- WWDL review application submitted to the Agency on 18/06/2021
- A Natura Impact Statement has been prepared. A copy of this report can be found in Attachment D.2. of the WWDL Review application submitted to the Agency on 18/06/2021
- Marine Modelling Study Report included as Attachment D.1 of the WWDL Review application submitted to the Agency on 18/06/2021

I trust the above is satisfactory but please contact me if you require any further information or have any further queries in relation to this.

Yours sincerely,

sheelagh flanagan

Sheelagh Flanagan

Asset Strategy

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Youghal Waste Water Discharge Licence (Reg. No. D0139-03)

EIAR Scoping Report

Irish Water

November 2021

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Notice

This document and its contents have been prepared and are intended solely as information for Irish Water and use in relation to proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge location at Youghal Waste Water Discharge Licence (Reg. No. D0139-03).

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 23 pages including the cover.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft for comment	JL	JL	CW	MF	29/10/2021
Rev 1	Draft for comment	JL	JL	POD	MF	16/11/2021
Rev 2	Final	JL	JL	POD	MF	29/11/2021

Client signoff

Client	Irish Water
Project	The proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge location at Youghal Waste Water Discharge Licence (Reg. No. D0139-03).
Job number	5204549
Client signature / date	

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1. Introduction

WS Atkins Ireland Limited (Atkins) have been commissioned by Irish Water to prepare an Environmental Impact Assessment (EIA) Scoping Report for the proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge outfall at Youghal Waste Water Discharge Licence (Reg. No. D0139-03), in Co. Cork.

There is no demolition, construction or decommission phases associated with the proposed project. Youghal WwTP is currently using the Dunn's Park discharge outfall as a temporary discharge location. Refer to Figure 1.1 for the location of Dunn's Park discharge outfall (SW000).

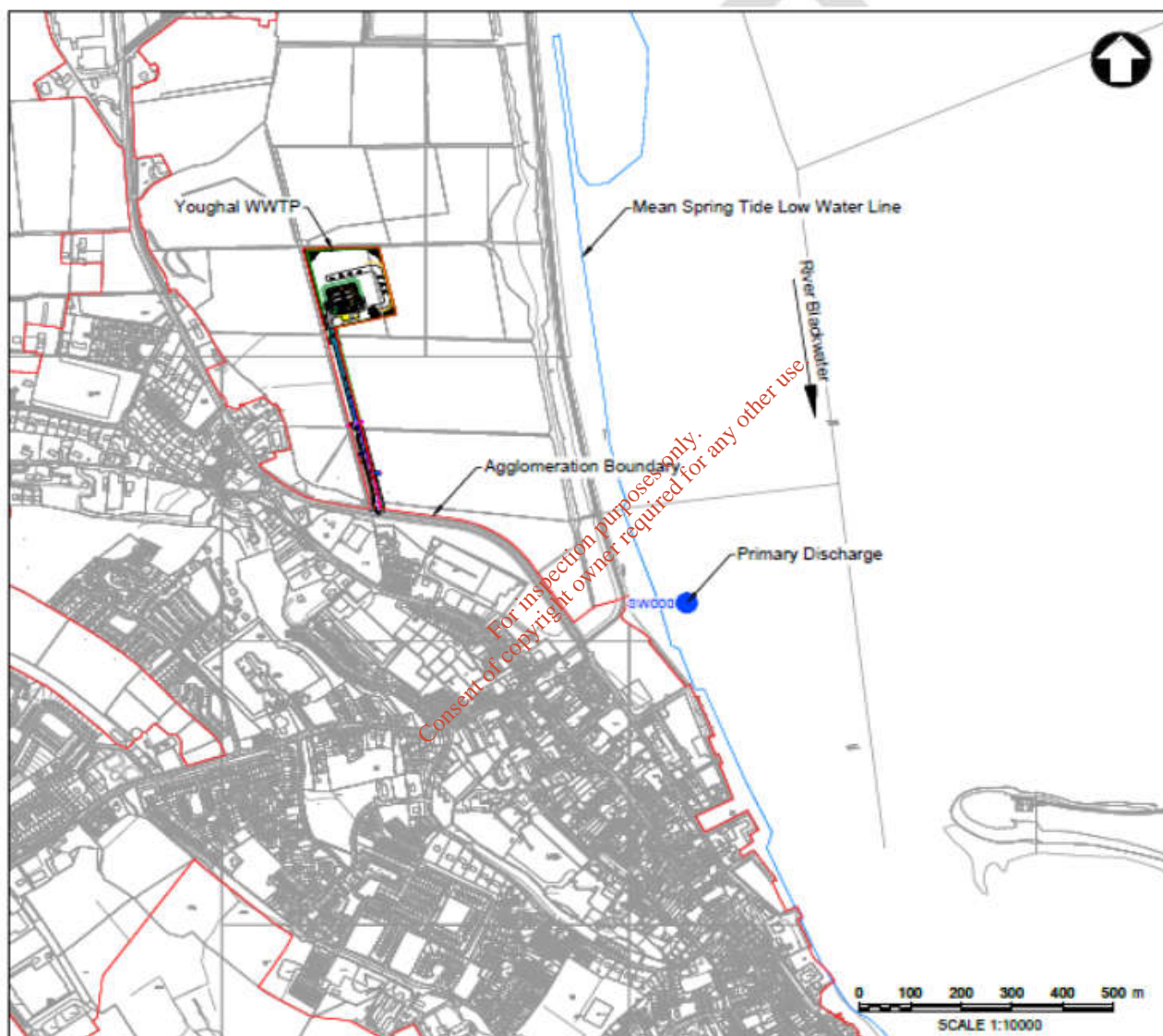


Figure 1-1 - Location of the primary discharge point.

1.1. Background Information

1.1.1. Urban District Council Scheme, 2002

Prior to the commissioning of the WwTP, wastewater from Youghal was untreated, and was discharged through a primary outfall located at Dunn's Park, which was constructed at some point in the 1970s. There were also two secondary outfalls, six storm water overflows and one emergency overflow.

In 2001, Youghal Urban District Council (UDC) prepared a "Main Drainage Scheme" (UDC Scheme), which proposed construction of the WwTP to treat wastewater from Youghal. The UDC Scheme envisaged that the primary outfall of treated effluent from the WwTP into the Blackwater estuary would be via a new outfall pipe emerging into a deep trench at Ferry Point. The UDC Scheme also intended that the existing outfalls at Dunn's Park, Paxes Lane, Foxhole and The Strand would remain as stormwater overflows or emergency overflows (in other words, those outfalls would only emit discharges on an intermittent basis).

Accordingly, in 2002 Youghal UDC prepared an Environmental Impact Statement (EIS) for the UDC Scheme. An Bord Pleanála certified that the UDC Scheme would not have significant adverse effects on the environment on 20th of March 2002 and was granted consent.

1.1.2. Wastewater Discharge Licence

In 2008, prior to commencement of construction of the then-proposed WwTP, Cork County Council applied to the EPA for a Wastewater Discharge Licence (WwDL). The WwDL application outlined the following: -

- Discharges of untreated wastewater at Dunn's Park would continue until the WwTP was commissioned;
- On commissioning of the WwTP, the primary outfall for discharges of treated effluent would need to be relocated to Ferry Point; and
- The remaining outfalls were to be rationalised.

The EPA granted the WwDL on the 13th of June 2012, with conditions. The conditions provided that discharges of untreated wastewater could continue from Dunn's Park until completion of the WwTP. Following that point, the primary outfall for discharges of treated wastewater was to be relocated to Ferry Point. The WwDL presupposed that Irish Water would commission both the WwTP and the new Ferry Point outfall at the same time.

Construction of the WwTP was completed in November 2017 and commissioned on 8th of December 2017. Dunn's Park then became the primary discharge point for treated effluent from the WwTP, pending commissioning of the Ferry Point outfall. Ferry Point outfall has not been constructed.

1.2. Legislation

Irish Water (IW) are seeking to authorise the use of the Dunn's Park discharge outfall (SW000) as the primary outfall, on a permanent basis.

IW have submitted a licence review of the existing Wastewater Discharge Licence (WwDL) (Reg No. D0139 02) for the Youghal Agglomeration in accordance with regulation 14(1)(b) of the Waste Water Discharge (Authorisation) Regulations, 2007- 2020 (as amended) to the Environmental Protection Agency (EPA).

The project involves a wastewater discharge licence application from a wastewater treatment plant with a capacity of greater than 10,000 population equivalents.

Therefore, a mandatory Environmental Impact Assessment Report (EIAR) is required for this particular project, as per Regulation 17 of the relevant Waste Water Discharge Regulations, 2007- 2020.

Regulation 17C (1) of the Waste Water Discharge Regulations, 2007- 2020 outlines the scope and level of detail required during EIAR Scoping process and states the following: -

17C. (1) EIAR Scoping Request

'(a) Subparagraph (b) applies where, before a water services authority submits an EIAR to the Agency, the authority requests the Agency to give the authority an opinion in writing on the scope and level of detail of the information required to be included in the report.

(b) Subject to subparagraph (c), the Agency shall, taking into account the information provided by the water services authority, in particular on the specific characteristics of the proposed waste water discharge, including its location and likely impact on the environment and the technical capacity of its associated waste water works, give an opinion in writing on the scope and level of detail of the information to be included in an EIAR, subject to consultations prescribed in Regulation 17D to be carried out by the Agency in relation to such opinion.

(c) The Agency shall give the opinion before the submission by the water services authority of the EIAR.

(2) Where an opinion referred to in paragraph (1) has been provided, the EIAR shall be based on that opinion, and include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects on the environment of the proposed development, taking into account current knowledge and methods of assessment.'

This EIAR Scoping report will be issued to the Environmental Protection Agency (EPA), as the competent authority, to obtain their Scoping opinion.

1.3. Environmental Constraints

The project is for the proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. There is no demolition, construction or decommission phases associated with the proposed project. Youghal WwTP is currently using the Dunn's Park discharge outfall as a temporary discharge location. The EIAR is therefore only concerned with the potential operational impacts associated with the current discharge from the agglomeration. Demolition and construction related impacts are not therefore relevant to this EIAR scoping process.

There are a number of environmental constraints associated with the proposed project that will be taken into account as part of the EIAR process. These include, but are not limited to, the following at this preliminary juncture (and based on available information): -

- There are 6 no. European Sites within the zone of influence of the project 3 no. Special Areas of Conservation (SACs) and 3 no. Special Protection Area (SPAs). The primary discharge from the Youghal WwTP is at Dunn's Park (SW000) with outfall into the Lower Blackwater Estuary / Youghal Harbour which accommodates Blackwater Estuary SPA (Site Code: 004028) and Blackwater River (Cork/Waterford) SAC (Site Code: 002170). Ballymacoda Bay SAC (Code Site: 000077) is located ca. 6km south west, Ballymacoda Bay SPA (Code Site: 004023) is located ca. 6km south west and Helvick Head to Ballyquin SPA (Site Code: 004192) is located ca. 12km east of the project and Ardmore Head SAC (Site Code: 002123) is located ca. 10km south east of the project. These European sites may be indirectly impacted by the project;
- The Blackwater Estuary (Youghal) is a Ramsar Site;
- The Blackwater Estuary is designated as 'sensitive' under the Urban Treatment Regulations 2001 (as amended);
- There are a number of aquaculture and fishing practices within the Estuary;
- Inshore waters running south of Youghal to (including Ballymacoda Bay) are designated as a Bivalve Mollusc Production Area (i.e. from Knockaderry, Youghal to Knockadoon head, ca. 7km south of the outfall)¹;

¹ Marine Atlas – <https://atlas.marine.ie>

- A number of shellfish aquaculture sites are located in Ballymacoda Bay;
- Aquatic habitats fauna and flora; e.g. the estuarine waters also accommodate several E.U. Habitats Directive Annex I habitats and Annex II species (e.g. Otter (*Lutra lutra*) and Porpoise (*Phocoena phocoena*).
- Capel Island and Knockadoon Nature Reserve is located ca. 8km south of the project;
- There are 8 no. proposed Natural Heritage Parks located within 15km of the project; Blackwater River and Estuary pNHA (Site Code: 000072) is located within the Youghal harbour, Ballyvergan Marsh pNHA (Site Code 000078) is located 3km south of the site, Ballymacoda (Clonpriest and Pillmore) (Site Code: 000077) is located 6km south west of the site, Capel Island and Knockadoon pNHA (Site Code: 000083) is located 9km south west of the site, Ballycotton, Ballynamona and Shanagarry (Site Code: 00076) is located 14km south west of the site, Clasharinka Pond (Site Code: 001183) is located 13km south west of the site, Ballyquirk Pond (Site Code: 001235) is located 11km south west of the site and Ballyeelinan Wood (Site Code: 001692) is located 11km east of the site.
- There are 3no. beaches; Youghal Claycastle, Front Strand and Redbarn beaches; all located south east of the project; and,
- Users of the Lower Blackwater M Estuary / Youghal Harbour for recreational activities.

This concise report has therefore been prepared as part of the initial scoping stage of the EIAR in order to provide all consultees with a concise overview of the project, and to clearly set out the proposed structure of the EIAR, the list of topics which will be assessed by experienced EIAR specialists / Subject Matter Experts (SMEs), specifically in the context of the receiving environment and the extent and detail of the topics to be assessed in the EIAR and the assessment methodology to be applied. The overall objective of this scoping document is to elicit any relevant feedback which the EPA may have regarding the project, specifically in the context of the receiving environment. Any comments received from this consultation will be incorporated into the EIAR where relevant. As per Regulation 17C (1) of the Waste Water Discharge Regulations, 2007- 2020 *'the EIAR shall be based on that opinion and include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects on the environment of the proposed development, taking into account current knowledge and methods of assessment.'*

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2. Description of the Project

2.1. Nature and Extent of the Project

IW propose to seek a new licence review of the existing Wastewater Discharge Licence (WwDL) (Reg No. D0139 02) for the Youghal Agglomeration in accordance with regulation 14(1)(b) of the Waste Water Discharge (Authorisation) Regulations, 2007 (as amended).

The project is for the proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. There is no demolition, construction or decommission phases associated with the proposed project. Youghal WwTP is currently using the Dunn's Park discharge outfall as a temporary discharge location.

2.2. Current Youghal WwTP

The WwTP has been designed and built to allow for expansion for anticipated future growth. The current plant has a biological treatment capacity of 16,000 population equivalents (PE). The treatment process comprises the following: -

- Inlet works providing screening, grit removal, and fat, oil and grease (FOG) removal;
- A screened stormwater overflow (2no. storm tanks);
- Four Sequence Batch Reactor (SBR) tanks for Biochemical oxygen demand (BOD) removal and Nitrification;
- Balance tank for treated wastewater;
- Final effluent pumps;
- Sludge treatment facilities include a picker fence thickener, a sludge dewatering system and a sludge storage tank; and,
- UV treatment of the final effluent.

The WwTP has been designed for the future provision of phosphorus removal. The Emission Limit Value (ELV's) for Youghal WwTP are as follows. Refer to Table 2.1.

Table 2-1 - Current ELVs for Youghal WwTP.

Parameter	Emission Limit Value
Biological Oxygen Demand	25 mg/l
Chemical Oxygen Demand	125 mg/l
Suspended Solids	35 mg/l
Total Nitrogen (as N)	15 mg/l
pH	6-9

The current design of the WwTP is as follows: -

Inlet Pumping Station

Dunn's Park Pumping Station consists of 3 no. low level foul pumps and 2 no. high flow pumps which convey the wastewater to the inlet works. Flows of up to 300 l/s are pumped to the inlet works and undergo preliminary treatment (screening and grit removal). Flows in excess of flow to full treatment (125 l/s) are spilled to two storm

tanks following grit removal with the first storm tank acting as a blind tank (to capture the first storm flush). When the storm water tank capacity has been reached, a signal is automatically generated at Dunn's Park pumping station to reduce flow to the WwTP to the Flow to Full Treatment (FFT) rate. Storm flows are recycled to the main process flow upstream of FFT measurement when the flow decreases below FFT minus Dry Weather Flow (DWF) with flow being returned at an appropriate rate likely to be equivalent to DWF.

Preliminary Treatment

Flows entering the treatment plant undergo screening, de-gritting and grease removal. This unit consists of screens, screening compactors operating in a duty / assist / common stand-by mode. Each combined unit is fitted with a 6mm manual bypass screen. The tank is aerated to assist grit removal. A slow rotating screw drains the screenings and transports the waste to a collection sump. Gross solids are removed using a minimum of duty/standby automatic 6 mm screens (in 2 directions) capable of treating all flows up to 300 l/s. Fat Oil Grease (FOG) removal is provided at the plant. A maximum of 20 mg/l FOG is permitted to pass through to full treatment.

Sequential Batch Reactors (SBRs)

There are 4 no. identically sized SBR tanks at the treatment plant and they are operated on a predetermined schedule consisting of the following phases: Fill/Anoxic, Fill/Aerate, Aerate, Settle and Decant. The SBR tanks provide the following functions:

- Balance Tank;
- Anoxic Tank;
- Aeration Basin; and,
- Settlement Tank.

The SBR cell contents are mixed (tanks are installed with mixers) without aeration, to provide an anoxic environment to facilitate nitrification. After a short period, aeration is provided by fine bubble diffusers and blowers to achieve BOD removal. Only two tanks can be in "Aerate" mode at any given time. Once aeration has finished, the Settlement phase begins, followed by Decanting of the clarified effluent.

Final Effluent Balance Tank

Treated effluent from the SBRs enters the final balance tank and from there it is pumped to the discharge at the outfall. The pumps operate in duty/standby mode.

Final Effluent

The final effluent currently outfalls to the existing sea outfall (SW000) which comprises a 750mm diameter outfall to the Blackwater Estuary.

Sludge Treatment

Towards the end of the decant phase, Waste Activated Sludge (WAS) is removed from each of the SBR cells via WAS pumps which operate continuously during the waste period and conveyed to the picket fence thickener. Sludge is then pumped to the centrifuge for dewatering. The pumps are positive displacement and operate in a duty / standby mode. The sludge cake then enters a skip to be removed off site.

Secondary Discharges

The secondary discharge SW003 (TPEFF0500DO139SW003) from Foxhole Pumping Station, as listed in the current waste water discharge authorisation has been decommissioned. There are no secondary discharges in the agglomeration.

Storm Water Overflows

The stormwater overflows associated with pumping stations in the agglomeration are as follows: -

- Dunn's Park Pumping Station;
- Front Strand Pumping Station;
- Greenpark Pumping Station;
- Summerfield Pumping Station; and,
- Foxhole Pumping Station - note this does not have an associated SWO but operates as an emergency overflow.

2.3. Consideration of Alternatives

One of the consideration of alternatives was to construct a new permanent primary outfall pipe emerging into a deep trench at Ferry Point, in the Blackwater Estuary / Youghal Harbour as per the 2002 EIS. However this outfall pipe was never constructed and following completion of the WwTP, the Dunn's Park outfall has remained in use as the primary outfall for discharges of treated waste water.

Irish Water commissioned AECOM to complete a Marine Modelling Study Report in October 2020 to assess the discharge of treated wastewater from Youghal Wastewater Treatment Plant (WwTP) to the tidal River Blackwater Estuary for the existing outfall pipe (Dunn's Park) and the Ferrypoint outfall pipe in both summer and winter.

The purpose of the Marine Modelling Study was to investigate the dispersion of effluent from the Dunn's Park and Ferry Point discharge points from the Youghal WwTP in the receiving waters of Youghal Harbour, the Blackwater Estuary and wider area. The assessments of the resulting concentrations of Biological Oxygen Demand (BOD), Dissolved Inorganic Nitrogen (DIN), Molybdate-Reactive Phosphorous (MRP), ammonia (and inferred unionised ammonia), Escherichia Coli and Intestinal Enterococci were undertaken using both absolute and relative methods. The model examined the following scenarios: -

- *'Scenarios 1 and 2 were used in model development and calibration;*
- *'Baseline of the summer and winter (scenarios 3 and 4) using the existing influent loading and outfall at Dunn's Park;*
- *Future influent loading of 16 000 PE for summer and winter (scenarios 5 and 6) and the existing outfall at Dunn's Park; and.*
- *Future influent loading of 16 000 PE and a new outfall location' (AECOM, 2020).*

As part of the marine modelling study, the impact of discharges at Ferry Point and Dunn's Park were assessed on the applicable receiving environmental quality standards as set out in the legislation (Water Framework Directive Waterbodies; Designated Bathing Waters and Designated Shellfish Waters) and by reference to the potential impact on Classified Bivalve Mollusc Production Areas as delineated by the Sea Fisheries Protection Authority (SFPA). AECOM (2020) also considered water quality within the wider Youghal Estuary within which aquaculture and fishing practices also take place (as shown Figures illustrating modelling output within the report).

The study concludes that *'none of the scenarios modelled (listed above) indicate a degradation of the overall water quality of any of the receiving waterbodies, nor any degradation of the indicative quality of any WFD supporting quality element for any of the water bodies'* (AECOM, 2020). The study also concludes *'that during summer when the UV system is operational, there will be no measurable impact from the treated effluent from the Youghal WWTP on the microbiological water quality of Designated Shellfish Waters or Classified Production Areas, nor any measurable impact on Bathing Water Quality at the Designated Bathing Waters, under both existing and future (16,000PE Loading) scenarios irrespective of whether the existing Dunnes Park or the proposed outfall are used. Under the existing winter scenario, when the UV system is not operating, there is no modelled impact on the Designated Shellfish Water (Ballymacoda Bay) under both existing and future (16,000PE Loading) scenarios. Winter modelled concentrations are in the region of 10-20 cfu/100ml and meet requirements for Excellent Bathing Water Quality at Designated Bathing Waters and the Classified Production Area under the*

existing and future (16,000PE Loading) scenarios. The magnitude of the modelled concentrations is close to laboratory limits of detection (10cfu/100ml)' (AECOM, 2020).

The marine modelling study indicates there is no measurable differences or impacts from discharges at Dunn's Park or Ferry Point upon the WFD Designated Shellfish Areas and the modelled impact upon both Designated Bathing Waters and Classified Bivalve Mollusc Protection Areas are close to laboratory limits of detection and meet the requirements for Excellent Bathing Water Quality (noting that the Bathing Water Regulations do not apply in winter). The Marine modelling study concluded that the '*existing level of treatment at Youghal WWTP and the existing primary discharge location at Dunnes Park are sufficient to support the achievement of WFD objectives for receiving waters under current and future loading scenarios*'.

Following commissioning of the WwTP in December 2017, Irish Water began monitoring waste water discharges from the WwTP as required by the WwDL. The WwDL set a number of Emission Limit Values (ELVs) as follows: The ELVs set for Dunn's Park and Ferry Point are the same: -

- pH;
- Carbonaceous Biochemical Oxygen Demand (with nitrification suppression);
- Chemical Oxygen Demand;
- Suspended Solids; and
- Total Nitrogen (as N).

As the Dunn's Park outfall has been found to be meeting the relevant environmental standards and due to the results of the Marine Modelling Study, Irish Water considered it appropriate to review its plans for the construction of the Ferry Point outfall and propose to have Dunn's Park outfall as the primary outfall for discharges of treated waste water.

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3. EIA Process

'The Environmental Impact Assessment Report (EIAR) is the principal document that the EIA process is based on' (EPA, 2017). An EIAR is defined in the EIA regulations as: -

'A statement of the effects, if any, which proposed development, if carried out, would have on the environment.'

The EIAR is prepared by the developer and is submitted to a competent authority as part of a consent process. The competent authority uses the information provided to assess the environmental effects of the project and, in the context of other considerations, to help determine if consent should be granted. The information in the EIAR is also used by other parties to evaluate the acceptability of the project and its effects and to inform their submissions to the competent authority (EPA in this instance).

The main elements of the EIA process are as follows: -

- Screening: Is an EIAR required?;
- Scoping: What should the EIAR cover?;
- Consideration of Alternatives: The presentation and consideration of the various reasonable alternatives investigated;
- Project Description: A description of the whole proposed project, comprising information on the site, design, size and other relevant features of the project, within the EIAR;
- Description of Receiving Environment: After the description of the proposed project, the description of the baseline scenario is the second of the two factual foundations of the EIAR. The baseline scenario refers to the current state of environmental characteristics. It involves the collection and analysis of information on the condition, sensitivity and significance of relevant environmental factors which are likely to be significantly affected by the project;
- Identification and Assessment of Impacts: The main purpose of an EIAR is to identify, describe and present an assessment of the likely significant impacts of a project on the environment;
- Monitoring and Mitigation Proposals: A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements;
- Scrutiny and Consent: The competent authority will assess the EIAR to ensure that it is compliant with the requirements of the Regulations and determine whether the proposed project should be granted consent; and,
- Enforcement and Monitoring: If consent has been granted and the project proceeds, then the developer is obliged to adhere to the specific mitigation measures and monitoring commitments contained in the EIAR, as modified by any conditions attached to the consent.

3.1. EIA Screening Phase

This proposed project has been screened in accordance with the Environmental Impact Directive (85/337/EEC) and subsequent amendments (including 97/11/EC, 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU), and S.I. No. 214/2020 - European Union (Waste Water Discharge) Regulations 2020.

The screening process focuses in the first instance on whether the proposed project (i.e. the proposed use of Dunn's Park discharge outfall (SW000) as a permanent discharge location at Youghal WwTP) represents a project as understood by the EIA Directive and Waste Water Discharge Regulations, and if a mandatory EIAR is required. Developments which require a mandatory EIAR are defined in Article 4 of the EIA Directive and set out in Annexes I and II of the Directive, and under Regulation 17 of the Waste Water Discharge Regulations.

The project has been screened against the list of developments (as per the Environmental Impact Directive (85/337/EEC) and all subsequent amendments), which have a high likelihood of impacting on the receiving environment and therefore require the mandatory preparation of an EIA.

The project does not fall within the list of Annex I projects (which require the mandatory preparation of an EIA) (under Directive 2011/92/EU as amended, 2014). However, it is noted that the wastewater treatment plant to which the waste water discharge licence application relates, is of a project type specified within Annex II (under Directive 2011/92/EU as amended, 2014).

The project has been screened against Regulation 17 of the Waste Water Discharge Regulations (S.I. No. 214/2020) which states the following: -

'17. The principal Regulations are amended by substituting the following Regulation for Regulation 17 -

"Certain applications to be accompanied by an EIAR

17. An application in respect of the waste water discharge from—

(i) a waste water treatment plant with a capacity of greater than 10,000 population equivalent as defined in Article 2, point (6), of the Urban Waste Water Treatment Directive, and

(ii) a waste water treatment plant specified in accordance with paragraph (6)(c) or (8)(b)(ii) of Regulation 18 or paragraph (3)(c) or (5)(b)(ii) of Regulation 25,

shall, subject to and in addition to compliance with the requirements of Regulation 16, be accompanied by a copy of an EIAR, which shall be submitted in electronic form (which shall be searchable by electronic means as far as practicable) and such other form as may be specified by the Agency".

The project involves a wastewater discharge licence application (albeit a licence review application) from a wastewater treatment plant with a capacity of greater than 10,000 population equivalents as defined in Article 2, point (6), of the Urban Waste Water Treatment Directive. Therefore, the proposed project screens in. The mandatory preparation of an EIAR is required.

The EIA screening has been carried out in accordance with the Environmental Impact Assessment Directive (85/337/EEC, and all subsequent amendments) and the Waste Water Discharge Regulations 2020 (S.I. No. 214/2020).

The project involves a wastewater discharge licence application from a wastewater treatment plant with a capacity of greater than 10,000 population equivalents.

Hence a mandatory EIAR is required, as per Regulation 17 of the relevant Waste Water Discharge Regulations (S.I. No. 214/2020), for this particular project.

3.2. EIAR Scoping Phase

The scoping study is a key element of the EIAR process and signifies commencement of the development of an EIAR. 'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in the European Commission Guidance as: -

'determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR'.

The EPA (2017) document 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' states that 'All parties should be aware of the need to keep the EIAR as tightly focussed as possible. This focusses the effort and resources of all parties on the key significant issues. Scoping is usually guided by the following criteria: -

- Use ‘Likely’ and ‘Significant’ as the principal criteria for determining what should be addressed. Any issues that do not pass this test should be omitted (scoped out) from further assessment. A section of the EIAR should describe the scoping process explaining why such issues have been scoped out and they are not being considered further. All the prescribed environmental factors need to be listed in the scoping section of the EIAR. It is important to note that the environmental factors themselves cannot be scoped out and must feature in the EIAR. Only topics and headings related to each factor can be scoped in or out. Each environmental factor should be clearly covered by one or more specific section headings in the EIAR. If scoping determines that no likely significant issues arise under any heading, then an explanatory text should be included;
- Precedence - where EIARs for similar projects on similar sites or for other project proposals for the same site are available, these can be useful references; and,
- Interactions – assessors need to be vigilant for pathways – direct and indirect – that can magnify effects through the interaction or accumulation of effects – for instance the potential for cumulative significant effects to arise from multiple non-significant impacts.

As part of the scoping process, a preliminary environmental scoping exercise has been carried out, to define the preliminary scope of the EIAR. It has been determined during this exercise that the following key topics will require assessment within the EIAR.

- Population & Human Health;
- Biodiversity;
- Water; and,
- Material Assets.

An overview of the proposed scope of the EIAR is presented in Table 3.1. The EIAR will consider the operational phase of the proposed project and will take into consideration the potential for cumulative impacts with other projects / developments, where relevant, which have been granted planning permission, within the surrounding area and within Youghal. The EIA will not consider demolition and construction phases of the proposed project as no demolition or construction works will be occurring as part of the project.

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Table 3-1 - Overview of Scoping Exercise

Environmental Aspect	Scoped in / out	Explanation
Population & Human Health	In	The operational phase of the proposed project has the potential to impact on population and human health within the vicinity of the proposed project. The potential that water quality might impact upon aquaculture / fishing through will also be assessed as part of the EIAR process. The following 2 no. approaches will be assessed: - <ul style="list-style-type: none"> • Preparation of a Health Impact Assessment (HIA); and, • Preparation of a Human Health Risk assessment via. Source-Pathway-Receptor (S-P-R) model.
Biodiversity	In	The operational phase of the proposed project may impact on existing aquatic flora, fauna and habitats in the vicinity of the proposed project. The primary discharge from the Youghal WwTP is at Dunn's Park (SW000) which discharges into the Lower Blackwater Estuary / Youghal Harbour which accommodates Blackwater Estuary SPA and Blackwater River (Cork/Waterford) SAC.
Landscape and Visual	Out	The operation phase of the proposed project will not alter the nature of the existing views and landscape, the project is the proposed continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation.
Air Quality, Odour & Climate	Out	The operation phase and, operational traffic will not have an impact on air quality. The operation of the proposed project will not have the potential to generate odour as the proposed project is the proposed continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation.
Noise & Vibration	Out	The operation phase and operational traffic will not generate additional noise and vibration, as the project is the proposed continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation.
Traffic	Out	The operation phase will not have an impact on the existing traffic within the vicinity of the proposed project, as the project is the proposed continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation.
Land, Soils & Geology	Out	There is no construction phase associated with the proposed project. The project is the proposed continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation. There is no potential for operational impacts in relation to land, soils and geology associated with the continued use of the Dunn's Park outfall.
Water	In	Given the nature of the operation activities, the proposed project may impact on existing hydrological conditions.
Cultural Heritage	Out	There is no construction phase associated with the proposed project. There is no potential for operational impacts in relation to cultural heritage associated with the continued use of the Dunn's Park outfall. The project is the proposed

Environmental Aspect	Scoped in / out	Explanation
		continued use of Dunn's Park discharge outfall (SW000) as a permanent discharge location. This discharge outfall is already constructed and is currently in operation.
Material Assets	In	The proposed project may have an impact on the existing material assets during operation. The proposed project will continue to discharge treated effluent in accordance with the Waste Water Discharge Licence (Reg. No. D0139-03). Aquaculture and fishing practise will be assessed as part of the EIAR process.
Cumulative	In	The location and nature of the proposed project may have cumulative impacts with completed or granted applications within the vicinity of the proposed project.
Interactive	In	There is potential for interactions between impacts on different factors for direct or indirect effects to result in an accumulation or magnified effects from the proposed project. The following interactions will be assessed, but not limited to: <ul style="list-style-type: none"> • Potential impacts on the receiving water environment could also result in associated human health impacts; • Potential impacts on the receiving hydrology environment could also result in associated biodiversity impacts; and, • Potential impacts on the receiving hydrology environment could also impact on biodiversity conditions present.
Transboundary	Out	The nature and scale of the proposed project would not result in any significant transboundary effects.
Radiation	Out	It is concluded that the operation of the proposed project does not pose a risk with regard to potential radiation impacts, as no existing plant or equipment on site contains or emits radiation. Therefore, potential radiation impacts do not warrant consideration within the EIAR.

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3.2.1. Consultations

This EIAR Scoping report will be issued to the Environmental Protection Agency (EPA), as the competent authority, to obtain their Scoping opinion.

Consultees will be consulted by letter or email regarding any environmental interests that they may have in relation to the proposed project. Please see full comprehensive list of consultees provided below. Can you please review this list and advise who this EIA Scoping report should be issued to;

- An Chomhairle Ealaíon (Arts Council)
- An Taisce - the National Trust for Ireland
- Bord Iascaigh Mhara
- BirdWatch Ireland
- Cork County Council (CCC) - Planning
- CCC – Environment
- CCC - Heritage
- CCC - Traffic
- CCC - Water Services
- Commission for Electricity Regulation
- Department of Agriculture, Food and the Marine
- Department of Environment, Climate and Communications
- Development Applications Unit
 - National Parks and Wildlife Service (NPWS)
 - Department of Housing, Local Government and Heritage
- Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media
- Department of Transport
- Environmental Protection Agency
- Fáilte Ireland
- Geological Survey of Ireland
- Inland Fisheries Ireland (IFI)
- Irish Wildlife Trust
- National Monuments Service / Architecture
- National Transport Authority (NTA)
- Marine Institute
- Office Public Works (OPW)
- The Health and Safety Authority
- The Health Services Executive, Environmental Health
- The Heritage Council
- Transport Infrastructure Ireland (TII)
- Waterways Ireland

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All relevant comments from the various consultees, will be fully addressed as required within the EIAR.

4. Proposed EIAR Structure and Methodology

4.1. Structure of the EIAR

The EIAR will include all necessary technical studies to address the likely environmental impacts of the operation of the proposed project. The disciplines identified for inclusion in the EIAR, along with the technical content, have been determined based on a review of all available baseline information, including the completion of the scoping exercise undertaken by Atkins within this EIA Scoping report.

The EIAR will be presented in three volumes as follows: -

- Volume 1 - Non-Technical Summary;
- Volume 2 - EIAR; and,
- Volume 3 - EIAR Appendices.
- Within the main body of the EIAR (Volume 2), Chapter 1 will set out the introduction, identify the information required in an EIAR and methodology, while Chapter 2 will describe the project and characteristics of the proposed project, identify the reasonable alternative, cumulative effects with other projects and developments. The environmental topics where there is potential for significant impacts to arise will be addressed in Chapters 3 to 8 as follows;
 - Chapter 3 Population and Human Health;
 - Chapter 4 Biodiversity;
 - Chapter 5 Water; and,
 - Chapter 6 Material Assets.
- Interactions between disciplines will be addressed in Chapter 7, Cumulative Impacts will be addressed in Chapter 8 and the Schedule of Environmental Commitments will be presented in Chapter 9.

Where appropriate, each of the main sections of this report will be structured in the same general format, as follows: -

- An introduction describing the purpose of the section;
- A description of the methodology used in the section;
- A description of the aspects of the existing environment relevant to the environmental topic under consideration;
- Characteristics of the proposed project under consideration;
- An assessment of the impact of the proposed project on the environmental topic (including impacts operational phases, cumulative impacts, and interactions etc.);
- Recommendations for mitigation measures to reduce or eliminate any significant negative impacts identified; and,
- An assessment of the residual impact that will remain, assuming that recommended mitigation measures are fully and successfully implemented.

Sources of information mentioned in the text will be either i) listed in full in the bibliography or ii) referenced in full in the text.

4.2. Information within the EIAR

As outlined in Annex IV of the EIA Directive identifies that the following information must be provided in an EIA Report. This information will be included with the EIAR.

1. Description of the project, including in particular: -

a) a description of the location of the project;

b) a description of the physical characteristics of the whole project, including, where relevant, and the land-use requirements during operational phases;

c) a description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;

d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases.

2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

4. A description of the factors specified in Article 3(1) likely to be significantly affected by the project: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.

5. A description of the likely significant effects of the project on the environment resulting from, inter alia: -

b) the use of natural resources, in particular water and biodiversity, considering as far as possible the sustainable availability of these resources;

d) the risks to human health or the environment (for example due to accidents or disasters);

e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;

f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

g) the technologies and the substances used.

The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project.

6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover operational phase.

8. A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council (*) or Council Directive 2009/71/Euratom (**) or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

9. A non-technical summary of the information provided under points 1 to 8.

10. A reference list detailing the sources used for the descriptions and assessments included in the report.

The Environmental Protection Agency (2017) 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports states that EIAR content should include the following. Which will be included within the EIAR.

- i) key alternatives considered
- ii) proposed project
- iii) receiving environment
- iv) likely significant effects
- v) mitigation and monitoring measures and
- vi) residual effects.

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A non-technical summary must also be provided.

The receiving environment and the effects of the project are explained by reference to its possible effects on a series of environmental factors:

- Population and Human Health
- Biodiversity
- Water Quality
- Material Assets
- Interactions

As outlined in Regulation 17A of the Waste Water Discharge Regulations 2007-2021 the following information must be provided in an EIA Report. This information will be included with the EIAR.

'Content of EIAR'

17A. An EIAR shall be prepared by experts with the competence to ensure its completeness and quality, shall take into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessments and shall contain —

- (a) the information specified in paragraph 1 of Schedule 6 to the Regulations of 2001,
- (b) any additional information specified in paragraph 2 of Schedule 6 to the Regulations of 2001 relevant to the specific characteristics of the development or type of development concerned and to the environmental features likely to be affected,
- (c) a summary in non-technical language of the information required under paragraphs (a) and (b),
- (d) a reference list detailing the sources used for the descriptions and assessments included in the report, and
- (e) a list of the experts who contributed to the preparation of the report, identifying for each such expert—
 - (i) the part or parts of the report which he or she is responsible for or to which he or she contributed,
 - (ii) his or her competence and experience, including relevant qualifications, if any, in relation to such parts,
 and
 - (iii) such additional information in relation to his or her expertise that the person or persons preparing the EIAR consider demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality.

4.3. Methodology

The EIAR will be prepared in accordance with Waste Water Discharge Regulations 2007-2020 and with due regard to the following EIAR guidance;

- Environmental Protection Agency (EPA) 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft' published in 2017; EPA 'Advice Notes for Preparing Environmental Impact Statements Draft' published in September 2015'.
- Department of Housing, Planning and Local Government (DoHPLG) 'Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment' published in August 2018;
- European Commission 'Environmental Assessments of Plans, Programmes and Project – Rulings of the court of Justice of the European union' published in October 2020;
- European Commission 'Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report' published in 2017;
- European Commission 'Environmental Impact Assessment of Projects – Guidance on Scoping' published in 2017; and,
- European Commission 'Environmental Impact Assessment of Projects – Guidance on Screening' published in 2017.

Additionally, discipline specific best practice guidance will be consulted by each specialist for each of the topics (Population & Human Health, Water, Biodiversity and Material Assets) during the preparation of the EIAR. The receiving environment, surveys/site walkovers, methodology, potential impacts and mitigation measures will be incorporated and included within each disciplines chapter within the EIAR. The methodology for each discipline is outlined below and will be included in detail within the EIAR report.

4.3.1. Population and Human Health

The assessment of effects on population and human health will involve a desk study of the relevant policies and other demographic information relevant to the area from the Central Statistics Office (CSO). Population aspects of relevance to this assessment include social considerations, traffic and accessibility, land use and economic activity. Human health aspects are primarily considered through an assessment the environmental pathways by which health may be affected (i.e. the determinants of health) such as water. The assessment on human health will therefore draw on the findings of other sections of the EIAR as necessary to ensure that the likely significant effects that have the potential for significant effects on human health are considered herein.

The assessment of the likely significant effects of the proposed project on population and human health will take account of the relevant policy and legislative, particularly Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment and the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

The term human health was introduced in the amended 2014 EIA Directive. However, no definition or advice on how this new factor should be considered is provided in the Directive. Subsequent Guidance from the European Commission in 2017 (EC, 2017a) stated the following: -

“Human health is a very broad factor that would be highly Project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation, and decommissioning of a Project in relation to workers on the Project and surrounding population.”

This section of the EIAR will also have regard to the guidance provided in recent national publications on the EIA Directive by the European Commission (EC, 2017b²), the Department of Housing Planning and Local Government (DHPLG, 2018³) and the EPA (EPA, 2017⁴).

The identification of the sensitive receptors to the proposed project will be identified based upon the EPA Guidelines (EPA, 2017b and 2002) and Advice Notes (EPA, 2015 and 2003). These documents identify sensitive receptors as neighbouring landowners, local communities and other parties which are likely to be directly affected by the proposed project. In particular, homes, hospitals, hotels and holiday accommodation, schools and rehabilitation workshops and commercial premises are noted. Regard will also be given to transient populations including drivers, tourists and walkers.

4.3.2. Biodiversity

A Stage 2 Appropriate Assessment (AA) was completed by Irish Water (2020) to assess the project with regards to likely significant effects (either alone or in combination) on European sites. This will be reviewed and updated by Irish Water as appropriate and will be included as part of the submission for the proposed project. submitted with the EIAR

The Biodiversity section will include a formal Ecological Impact Assessment (in accordance with CIEEM guidelines).The Biodiversity Chapter of the EIAR will be undertaken in accordance with relevant legislation, policies and plans, and the following guidance: -

- *EPA Guidelines on the Information to be Contained in Environmental Impact Statements (EPA, 2017);*
- *EPA Advice Notes of Current Practice (in the Preparation of Environmental Impact Statements (EPA, 2003) (and revised advice notes 2015);*

² EC (2017b). Commission Implementing Decision (EU) on greenhouse gas emissions for the year 2015 covered by Decision No 406/2009/EC of the European Parliament and of the Council.

³ DHPLG (August 2018). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

⁴ EPA (August 2017). Guidelines on the information to be contained in Environmental Impact Assessment Reports.

- *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment* (European Commission, 2013);
- *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (2018);
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009);
- Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1 (CIEEM, 2018; 2019 reprint);
- Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017);
- European Commission (EC) Habitats Directive 92/43/EEC;
- European Commission (EC) Birds Directive 2009/147/EC;
- European Communities (Birds and Natural Habitats) Regulations, 2011-2015;
- Flora (Protection) Order, 2015;
- EIA Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014;
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018);
- The Wildlife Act 1976 as amended by the Wildlife (Amendment) Act 2000;
- The Planning and Development Acts (2000, as amended);
- Third National Biodiversity Plan 2017 – 2023 (Department of Culture, Heritage and the Gaeltacht, 2017);
- Cork County Development Plan 2022-2028; and,
- Irish Water's Biodiversity Action Plan 2021.

Data sources reviewed will include online databases, online mapping systems, and published and unpublished reports. Habitat and species-specific surveys will be conducted in accordance with relevant survey guidelines within the appropriate survey seasons. The detailed results of site surveys and assessments, including all plates, figures and tables, will be provided within the Biodiversity Chapter of the EIAR. Technical reports will be appended to the EIAR, such as Marine Modelling Study Report (AECOM, 2020) to assess the discharge of treated wastewater from Youghal Wastewater Treatment Plant (WwTP) to the tidal River Blackwater Estuary for the existing outfall pipe (Dunn's Park) and the Ferrypoint outfall pipe in both summer and winter.

4.3.3. Water

The following scope of works will be carried out in order to complete this assessment: -

- Desk-based study including review of available historical information;
- Site Walkover Survey; and,
- Surface water sampling on the Lower Blackwater M Estuary / Youghal Harbour upstream and downstream of the outfall.

The purpose of the desk-based task is to characterise the current hydrological and hydrogeological setting of the Site. Relevant background information will be compiled, specifically from the following data sources (but not exclusively): -

- Environmental Protection Agency (EPA) web mapping;
- Geological Survey of Ireland (GSI) Datasets Public Viewer and Groundwater web mapping;
- Office of Public Works National Flood Hazard mapping web Site ;
- Ordnance Survey of Ireland (OSI) web mapping to assess the surface topography and landforms;
- National Parks and Wildlife Service (NPWS) Map Viewer; and,
- Water Framework Directive (WFD) Ireland web mapping.

The information obtained during the surveys will be supplemented by data gathered during the desk-based review of all available relevant Site-specific and regional data. This assessment will be completed in accordance with relevant best practice guidance from the Institute of Geologists of Ireland (IGI) 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements' (IGI, 2013). This assessment will also be prepared with regard to the guidelines prepared by the Environmental Protection Agency outlined in 'Revised Guidelines on the Information to be contained in Environmental Impact Statements' published in 2015, 'Advice Notes on Current Practice (in the Preparation of Environmental Impact Statements)' published in 2015, and also 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft' published in August 2017.

Separately, Water quality modelling (AECOM, 2020) was undertaken in accordance with Irish Water technical standards (Irish Water Marine Modelling Technical Standard, Version 2, December 2019) and will be detailed in the water chapter.

4.3.4. Material Assets

The methodology used to prepare the built services and waste management section of the EIAR will be in accordance with the EPA 'Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EIAR)' (2017), and 'Advice Notes for Preparing Environmental Impact Statements Draft September 2015'. The main enterprises to be considered includes aquaculture / fishing activities within the estuary and surrounding waters. The proposed project will continue to discharge treated effluent in accordance with the Waste Water Discharge Licence (Reg. No. D0139-03).

4.3.5. Interactions

This chapter describes interactions between impacts on different environmental factors. All potential interactions will be addressed as required throughout the EIAR. During the scoping, baseline assessment and impact assessment stages of this report, contributors will liaise with each other where relevant to ensure that all such potential interactions have been robustly addressed.

5. Scoping Request

In accordance with best practice guidance and based on the information presented within this scoping report, we would welcome all feedback or opinions in relation to the proposed content and methodology of the EIAR. We would therefore appreciate a response within 4 weeks of 30th of November 2021, or earlier if possible.

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