



**Leixlip Water Treatment Plant, Co. Dublin Upgrade Works**

# Environmental Impact Assessment Screening Report



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<b>CLIENT</b>	Irish Water
<b>PROJECT NO.</b>	4041
<b>PROJECT TITLE</b>	Leixlip WTP Upgrades
<b>REPORT TITLE</b>	Environmental Impact Assessment Screening Report – Leixlip Water Treatment Plant

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REV.	STATUS	AUTHOR	REVIEWED BY	APPROVED BY	ISSUE DATE
0	Preliminary Design Stage	EG	GK	JB	02/03/2021
1	Preliminary Design Stage	EG	GK/JO	JB	23/04/2021
2	Planning	EG	GK/JO	JB	16/06/2021
3	Planning	EG	GK/JO	JB	13/07/2021
4	Planning	EG	MG	JB	22/09/2021
5	Planning	SN	MG	JB	27/09/2021
6	Planning	SN	MG	JB	30/09/2021

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## 1 INTRODUCTION

Ryan Hanley was commissioned by Glan Agua, on behalf of Irish Water, to prepare an Environmental Impact Assessment (EIA) Screening Report for the proposed upgrade works in Leixlip WTP, Co. Dublin.

Leixlip is a town in north-east Co. Kildare. The Leixlip Water Treatment Plant (WTP) is located along the banks of the River Liffey within the functional area of South Dublin County Council. The southern site boundary is beside the M4 and the northern site boundary is running adjacent to the R148 Leixlip Road. The proposed upgrade works at the Leixlip WTP involve the demolition of an existing workshop and activated carbon building, the construction of a new Sulphuric Acid Storage and Dosing Facility, Lime Storage & Dosing Facility, Workshop building and conversion of the disused Old High-Lift Pump Room into a proposed De-Alkalisation Plant.

An integral part of the planning process is to determine if a formal Environmental Impact Assessment (EIA) is required for the project.

The findings of the review of the requirement for an EIA Screening assessment undertaken by Ryan Hanley are presented in this report.

## 2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

### 2.1 Background

Leixlip WTP is situated adjacent to the River Liffey. An ESB station is located adjacent to the development to the north of the site. The ESB Hydroelectric Dam is located to the south west of the site on the River Liffey. Adjacent to the eastern side of the site is Cooldrinagh Lane and Beckett's Country House Hotel. Leixlip WTP is the second biggest water treatment plant in Ireland. It extracts raw water from the reservoir behind the ESB controlled dam on the River Liffey. The average daily production in 2018 was 191 ML/d, which it supplies to approx. 615,000 consumers. Treatment at the plant consists of screening, coagulation, flocculation, clarification, rapid gravity filtration, chlorination and fluoridation.

The treatment plant consists of two separate plants: the "New Plant" and the "Old Plant". The New Plant, which was built by Aecom and completed in 2014, has a production capacity of 92ML/d. The Old Plant, which is sub divided into two sections that are referred to by the names of the original Designers/Builders:

- Filters 1 to 12 which are referred to as the Patterson Candy International (PCI) filters. The PCI filters have a production capacity of 129ML/d and were first constructed in 1974 with an upgrade in the 1990s; and
- Filters 13 to 15 which are known as the Mahon McPhilips (MMP) filters. These were constructed in 1988 and have a production capacity of 39ML/d.

The operation of the plant is carried out by Fingal County Council on behalf of Irish Water under the Service Level Agreement (SLA).

## 2.2 Objectives

The proposed development will provide the necessary infrastructure to upgrade the treatment processes of Old and New Leixlip WTPs to safeguard the drinking water supply to enable Irish Water to meet the demands of its customers in the Greater Dublin Region, including Fingal, South Dublin, Dublin City and areas of Counties Meath and Kildare.

## 2.3 Proposed Project

- 1) Demolition of existing Workshop and (defunct) Activated Carbon Building adjacent the 'old' / northern Treatment Plant Building;
- 2) Construction of a Sulphuric Acid Storage and Dosing Facility Building (single storey up to approximately 8.7 metres in height) adjacent the 'new' / southern Treatment Plant Building;
- 3) Construction of a Lime Storage & Dosing Facility Building (single storey up to approximately 11 metres in height) adjoining the 'old' / northern Treatment Plant Building, associated external storage silos (2 no.) with external staircase (up to approximately 12.3 metres in height) partially enveloped with a perforated metal architectural screen, and ancillary plant and equipment;
- 4) Reconfiguration and repurposing for use as a De-Alkalisation Plant of existing (disused) High-Lift Pump Hall within the 'old' / northern Treatment Plant Building;
- 5) The construction of a new ancillary Workshop Building (single storey up to approximately 4.5 metres in height) to the rear / south of the 'old' / northern Treatment Plant Building;
- 6) Temporary and enabling works to facilitate construction and continued / uninterrupted operation of the Treatment Plant site;
- 7) Associated network of underground pipelines / connections, and redirection of existing where necessary, throughout the site; and,
- 8) Provision of additional car parking (to the rear / south of the 'old' / northern Treatment Plant Building), modification and extension of existing drainage, utility and services infrastructure and connections to serve and facilitate new and reconfigured buildings, and all other associated and ancillary development and works above and below ground level.

The following temporary works are envisaged in order to develop the outlined permanent works:

- Sheet piling and bracing at the Lime Building area may be required – the silos are to be placed in a depressed bund, approximately 1m below existing ground level, in order to reduce the visual impact of the height of the structures; this will be investigated through the detailed design of the project;
- Works Compound – there shall be 1 No. compound to be located at the location of the existing compound for the UV works. This shall be utilised for the future works including parking arrangements and pedestrian access;
- Temporary heras type security fencing shall be erected on all works zones and public interfaces;
- A Temporary Traffic Management Plan (TTMP) will be developed at construction stage to manage construction traffic access & egress from the site;

- Trench boxes may be required for ducting runs and pipelines. Localised dewatering of trenches may be required at construction stage. All dewatering arising from the excavations will be passed through siltation boxes and silt bags with the filtered water outlet discharging to the local sewer network; and
- Spoil will be removed off-site as required by a licensed haulier to a licensed waste facility.

### 3 EIA SCREENING PROCESS

#### 3.1 EIA Screening Methodology

This EIA Screening Report has been prepared to document the appraisal as to whether the proposed Leixlip WTP upgrade works would be likely to have significant effects on the environment. The information used to inform this report includes desk studies and site assessments.

In addition, the following legislation and guidance documentation has been used:

- Department of the Environment, Heritage and Local Government (August 2003), Environmental Impact Assessment (EIA) Guidelines for Consent Authorities regarding Sub-threshold Development;
- Department of Housing, Planning and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- Environmental Protection Agency (Draft - August 2017) Revised Guidelines on the Information to be contained in Environmental Impact Assessment Reports;
- Planning and Development Regulations 2001 – 2021;
- European commission (2015) Interpretation of definition of project categories of Annex I and II of the EIA Directive;
- EIA (Amendment) Directive 2014/52/EU; and
- European Commission (2017) Environmental Impact Assessment of Projects. Guidance on Screening.

EIA is required in one of three circumstances:

1. The proposed development is of a class specified in Part 1 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) and exceeds any specified relevant quantity, area or other limit specified; or
2. The proposed development is of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) and exceeds any specified relevant quantity, area or other limit as specified; or
3. The proposed development is of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended), does not exceed the relevant quantity area or other limit, but having conducted a screening it is determined that the proposed development would nevertheless be likely to have significant effects on the environment as determined by reference to criteria specified in Schedule 7 of the Planning and Development Regulations, 2001 (as amended).

### 3.2 Legislative Context

The *EIA Directive 2011/92/EU on the assessment of the effect of certain public and private projects on the environment* (codification), as amended by *EIA Directive 2014/52/EU*, sets out the process by which the likely significant effects of a project on the environment are assessed. The relevant requirements of the EIA Directive have been implemented into Irish law pursuant to the provisions of, inter alia, the *Planning and Development Regulations 2001*, as amended.

The provisions of Schedule 5 of the *EIA Regulations 2001 - 2015* identify the requirement of EIA for different project types.

Part 1 of Schedule 5 identifies projects of a class that have the potential for significant environmental effects and therefore will always require an EIA. Part 2 of Schedule 5 identifies projects that may have an environmental impact and, therefore, thresholds or criteria have been set by member states for the requirements of EIA.



#### 4 WATER RELATED PROJECTS THAT REQUIRE EIA

In respect of public realm and flood related projects, Schedule 5, Part 1 and Part 2 of the Planning and Development Regulations 2001, as amended, requires that the competent authority should carry out an EIA in respect of the following relevant projects:

TABLE 4.1: SCREENING MATRIX FOR EIA

Mandatory Threshold	Statutory Reference	Screening conclusion
Wastewater treatment plants with a capacity exceeding 150,000 population equivalents as defined in Article 2, point (6), of Directive 91/271/EECS.	<i>P&amp;D Regs 2001 - 2021</i> <i>Schedule 5 Part 1, Section 13</i>	The proposed works are for upgrade works at a Water Treatment Plant.  The proposed works does not align with this criteria and therefore, <b>mandatory EIA is not required.</b>
Groundwater abstraction or artificial groundwater recharge schemes, where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres as defined in Article 2, point (6), of Directive 91/271/EECS.	<i>P&amp;D Regs 2001 - 2021</i> <i>Schedule 5 Part 1, Section 11</i>	The proposed works are for upgrade works at a Water Treatment Plant and no groundwater abstraction or groundwater recharge are proposed.  The proposed works does not align with this criteria and therefore, <b>mandatory EIA is not required.</b>
(a) Works for the transfer of water resources between river basins, where this transfer aims at preventing possible shortages of water and where the amount of water transferred exceeds 100 million cubic metres per year.  (b) In all other cases, works for the transfer of water resources between river basins, where the multi-annual average flow of the basin of abstraction exceeds 2,000 million cubic metres per year and where the amount of water transferred exceeds 5 per cent of this flow as defined in Article 2, point (6), of Directive 91/271/EECS.	<i>P&amp;D Regs 2001 - 2021</i> <i>Schedule 5 Part 1, Section 12</i>	The proposed works are for upgrade works at a Water Treatment Plant and no transfer of water resources between river basins is proposed.  The proposed works does not align with this criteria and therefore, <b>mandatory EIA is not required.</b>
Infrastructure projects: Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts	<i>P&amp;D Regs 2001-2021</i> <i>Schedule 5, Part 2 Section 10 (b) (iv)</i>	The proposed works involve the upgrade of a Water Treatment Plant which is not considered urban development.



Mandatory Threshold	Statutory Reference	Screening conclusion
of a built-up area and 20 hectares elsewhere.		The proposed works does not align with this criteria and therefore, <b>mandatory EIA is not required.</b>
Wastewater treatment plants with a capacity greater than 10,000 population equivalents as defined in Article 2, point (6), of Directive 91/271/EEC not included in Part 1 of this Schedule.	<i>P&amp;D Regs 2001 – 2021</i> <i>Schedule 5 Part 2, Section 11 (c)</i>	The proposed works are for upgrade works at a Water Treatment Plant. The proposed works does not align with this criteria and therefore, <b>mandatory EIA is not required.</b>
Changes, extensions, development and testing  (a) Any changes or extensions of development already authorised, executed or in the process of being executed (not being a change or extension referred to in Part 1) which would:  (i) Result in the development being of a class listed in Part 1 or paragraphs 1 to 12 of Part 2 of this Schedule, and  (ii) Result in an increase in size greater than – 25 per cent, or - An amount equal to 50 per cent of the appropriate threshold. Whichever is greater.	<i>P&amp;D Regs 2001 - 2021</i>  <i>Schedule 5, Part 2, Section 13</i>	The proposed works do not align with any of the criteria of projects as listed in Schedule 5 Part 1.  Therefore, <b>does not require a mandatory EIA.</b>
Any project listed in this Part (Part 2) which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.	<i>P&amp; D Regs 2001 – 2021 Schedule 5, Part 2, Section 15</i>	The proposed works do not align with any of the criteria of projects as listed in Schedule 5 Part 2.  Therefore, <b>does not require a mandatory EIA.</b>

#### 4.1 EIA Screening

The proposed works do not fall into a class of development as listed in Schedule 5 Parts 1 and 2, and therefore does not require an EIA.

## 5 CONCLUSIONS

Having regard for the proposed works and in the context of previous studies undertaken, this report concludes that this proposal is not one which is likely to have significant effects on the environment, either by itself or in combination with other plans or projects, and that an Environmental Impact Assessment Report (EIAR) is not required under the Planning and Development Act 2000, as amended and incorporating the Planning and Development Regulations 2001, as amended.

The proposed Leixlip WTP upgrade does not comprise a class of project specified in either Part 1 or Part 2 of Schedule 5 to the Planning and Development Regulations 2001, as amended, and therefore neither a mandatory nor subthreshold EIA is required.

It is concluded that there is no requirement for the Planning Authority to conduct an EIA in respect of the project which comprises Leixlip WTP upgrade and there is no requirement on South Dublin County Council or the Applicant to either prepare or submit an EIA Report in relation to this project.