



### Submission

Submitter:	Miss Doireann Fitzgerald
Organisation Name:	Environmental Health Department
Submission Title:	HSE Submission_D0134-02
Submission Reference No.:	S010963
Submission Received:	03 March 2023

### Application

Applicant:	Uisce Éireann
Reg. No.:	D0134-02

See below for Submission details.

Attachments are displayed on the following page(s).



North Lee Environmental Health Service,  
Floor 2, Block 1 St Finbarr's Hospital,  
Douglas Road,  
Cork,

Phone: 021 4921801  
E-Mail: ehonl@hse.ie

Environmental Licensing Programme  
Office of Environmental Sustainability  
Environmental Protection Agency

**Date:** 2nd March 2023

**Type of consultation:** Waste water Discharge License

**EHIS Reference:** 3026

Dear Sir/Madam

Please find enclosed the HSE consultation Report in relation to the above proposal.

The following HSE departments were made aware of the consultation request for the proposed development on the 8<sup>th</sup> February 2023

- HSE South Emergency Management – David O'Sullivan
- Estates – Helen Maher / Stephen Murphy
- Director of National Health Protection – Eamonn O' Moore
- CHO – Michael Fitzgerald

If you have any queries regarding this report please contact Ms. Kathleen Clifford, Principal Environmental Health Officer in the first instance.

Yours sincerely

Cian McSweeney  
Senior Environmental Health Officer

## **Environmental Health Service Consultation Report**

*(as a Statutory Consultee under the Planning and Development Acts 2000 (as amended) & Regulations made thereunder)*

**Report to:** Environmental Licensing Programme  
Office of Environmental Sustainability  
Environmental Protection Agency

**Date:** 02/03/2023

**Type of consultation:** Waste water Discharge License

**Planning Authority:** Cork County Council

**EPA Reference Number** D0134-02

**EHIS Reference number:** 3026

**Applicant:** Irish Water

**Location of development:** Castlemartyr, Co. Cork.

**Proposal:** The proposal consists of the expansion and upgrade of the existing Castlemartyr WWTP to facilitate an increased treatment capacity and capability.

### **General Comments:**

Details of the application were circulated to HSE stakeholders on the

- HSE South Emergency Management – David O’Sullivan
- Estates – Helen Maher / Stephen Murphy
- Director of National Health Protection – Eamonn O’ Moore
- CHO – Michael Fitzgerald

Ms Doireann Fitzgerald Environmental Health Officer visited the location of the proposed development to assist with the preparation of this Report. This report only comments on Environmental Health impacts of the licence application.

The Environmental Health Service has no records of any complaints received regarding the existing Castlemartyr WWTP.

All commitments to future actions, including mitigation and further testing have been taken as read and all data has been accepted as accurate. No additional investigation/measurements were undertaken in the review of this application.

## General

The applicant has applied for a review of the waste water discharge license (D0134-02). The WwTP is proposed to be upgraded to include nutrient removal to accommodate the additional load that would be created by an increased population. As identified in the publicly available EPA license details a number of submissions have previously been made (between 2011 and 2013) advising that the WwTP was discharging untreated wastewater into the Kiltha River. The existing WwTP does not have a storm retention tank.

Therefore, during storm events there is a risk of overflow resulting in untreated wastewater discharging directly to the Kiltha River. This event also occurs when the WwTP is over capacity. The proposed development consists of works to upgrade the WwTP to increase its capacity and its capability, providing secondary treatment to achieve Urban Waste Water Treatment Directive (UWWTD) standards and be Water Framework Directive 2000/60/EC (WFD) compliant. It will also provide storm water storage on the site adjacent to the existing WwTP. In conclusion, this project is essential to facilitate the future growth of Castlemartyr, reduce the potential for significant environmental impacts and improve the water quality of the Kiltha River.

The development will consist of the demolition of the existing: aeration tank; inlet works; forward feed pumping station; picket fence thickener; and site boundary post and wire fence. The development will also consist of works to upgrade the existing Castlemartyr WwTP including provision of: secondary / biological treatment facilities (including: 2 no. anoxic tanks (circa 115 cubic metres), 3 no. aeration tanks (circa 342 cubic metres); 2 no. 8 metre diameter settlement tanks); a forward feed pumping station (circa 19 cubic metres); above-ground storm tank with circa 255 cubic meters of storage; tertiary treatment for phosphorus removal (comprising chemical dosing and filtration including 1 no. disc filter); a sludge management system (including the re-purpose of the existing clarifier tank to new picket fence thickener); an emergency stormwater overflow chamber; provision of circa 32 metres of below ground inlet sewer; circa 15 metres of below ground outfall pipeline (to discharge flows to the existing outfall location at the Kiltha River); a surface water drainage interceptor; a treated effluent outfall headwall to the Kiltha River (discharging to existing outfall location); and the upgrade of the existing inlet works including 2 no. fine screens and grit removal facility. The works will also consist of: provision of a new control building (circa 79 square metres); an ESB sub-station (circa 22 square metres); a permanent back-up generator and associated fuel tank; access gates and boundary fencing; all hard and soft landscaping; manholes; and all other associated site excavation, infrastructural and site development works above and below ground.

The applicant has outlined that the construction of the proposed plant will be phased. The existing plant will operate throughout the offline construction of the new main process. Once completed, flows can be switched to the new process with temporary shutdown and switchover facilitated with tankering of flows offsite if necessary to reduce the risk of effluent spillage. Once the new WwTP is near completion and in operation, the existing inlet works and picket fence thickener will be decommissioned.

### **Site Location**

Castlemartyr Wastewater Treatment Plant (WwTP) is located at a site of circa 0.34 hectares at Ladysbridge Road (R632), Castlemartyr, Co. Cork. The site is situated c.380m south of the village centre of Castlemartyr, Co. Cork and c.700m east of the Castlemartyr Resort. The Castlemartyr Wastewater Treatment Plant is generally bounded by: Castlemartyr Resort access road to the north; Castlemartyr Woods to the south; Ladysbridge Road (R632) to the east; and Kiltha River to the west.

### **Public Consultation**

Whilst Castlemartyr Waste Water Treatment Plants has been in operation for a number of years, it is strongly recommended that early and meaningful public consultation with the local community should be carried out to ensure all potentially significant impacts have been adequately addressed.

All parties affected by the proposed development must be fully informed of what the proposal entails especially with regard to potential impacts on surrounding areas.

Sensitive receptors and other stakeholders should be identified to ensure all necessary and appropriate mitigation measures are put in place to avoid any complaints regarding potential impacts arising from the amalgamation of the agglomerations.

The Environmental Health Service expects that meaningful public consultation, where the local community is fully informed of the proposed development, will be undertaken. Members of the public should be given sufficient opportunities to express their views on the proposed development.

### **Hydrology and Hydrogeology**

The proposed development does not cross any designated watercourses (water features which are classified and monitored by the EPA under the Water Framework Directive). The discharge will therefore not result in a deterioration or prevent the required Water Framework Directive environmental objectives of 'good' ecological status for this water body.

According to GIS data, the groundwater recharge for the majority of the subject site is categorised as "Moderate permeability subsoil overlain by well drained soil", with a small portion in the south of the site being categorised as "High permeability subsoil (sand & gravel) overlain by well drained soil".

The proposed upgrade of the WwTP to increase its capacity and its capability will provide secondary treatment in order to achieve Urban Waste Water Treatment Directive (UWWTD) standards and be Water Framework Directive 2000/60/EC (WFD) compliant. Works in close proximity to the Kiltha River will be managed. Treated effluent will combine with stormwater overflow (SWO) from the storm tanks and the emergency overflows from the SWO chamber in an outfall chamber downstream of the final effluent flowmeter and discharge into the adjacent Kiltha River.

The Kilttha River is a tributary of the Womagh River which flows into the Celtic Sea at Youghal Harbour, c.15km east of the proposed development. Works in close proximity to the Kilttha River will be managed. Treated effluent will combine with stormwater overflow (SWO) from the storm tanks and the emergency overflows from the SWO chamber in an outfall chamber downstream of the final effluent flowmeter and discharge into the adjacent Kilttha River.

The Flood Risk Assessment report states that a review of the OPW flood maps indicated the site is located in Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). The subject site is located c.450m west of the Public Supply Source Protection Area of Whitegate Dower RWSS.

The assessment of the change in runoff rates indicates that the extended land use and any resulting increase in runoff rates are considered minimal due to the proposed surface being predominantly granular.

Current Pollution Prevention Guidelines (PPGs) shall be adhered to as standard practice for all work around watercourses to prevent pollution (including muddy runoff) for construction of the proposed development and future maintenance work.

The applicant will provide a detailed Construction Environmental Management Plan which will be prepared by the contractor for the proposed development and will be required to adhere to the relevant guidelines. During the operational phase, surface water from the development will directly infiltrate into underlying sub-soil as the majority of the proposed works will be on soil and gravel.

### **Noise & Vibration**

**Construction phase:** The EIA screening documents provides a brief description of the existing noise environment.

The construction phase of the development may result in short term increases in noise and vibration in the vicinity of these works. The applicant has outlined a number of mitigation measures to control noise emissions during this phase and intends to implement best practice measures based on British Standard 5228: Code of Practice for Noise Control on Construction and Demolition Sites and Safety, Health and Welfare at Work (General Application) Regulations 2007).

This Environmental Health Service welcomes that, standard noise prevention measures will be incorporated into the construction works.

The report outlines the following Noise prevention measures include:

- Noise monitoring stations, which will be monitored daily, will be located on site and at recommended locations in the vicinity of the site to record background and construction noise activity;
- The best means practical will be used to minimise the noise produced by all on site operations;
- Proper maintenance of all operating plant to ensure noise emission compliance;

- All operating plant will be selected on the basis of incorporating noise reducing systems, and at a minimum be fitted with effective exhaust silencers;
- Compressors will be fitted with acoustically lined covers, which will remain closed while the machines are in operation;
- Plant such as pumps and generators which are required to work outside of normal working hours will be enclosed with acoustic enclosures; and
- There will be strict adherence to the site working hours stipulated in the Planning Condition

The EH service recommends that construction activities are limited as follows in order to minimise the impact of noise on local residents:

Monday to Friday 08:00 – 18:00

Saturday 09:00 – 13:00

No operations are permitted on Sunday or public holidays. This should continue to be a condition of any consent given.

**Operational Phase:** The applicant states that any potential noise impacts during operation would not have any significant effect. The perception of noise is subjective and may cause annoyance/nuisance to local receptors even when levels comply with limits set at site boundaries. The applicant should implement a public complaints procedure which ensures a member of the public can make a complaint and that it will be investigated in a timely manner. The name and contact details of the designated person must be provided to the local community prior to commencement of works on site, their details should also be provided at the entrance to the site. Further to this the applicant shall ensure that all noise levels comply with the limits of the British Standard BS4142: 2014.

#### **Air and Climate including odour**

In terms of air quality, it is noted that the proposed development is located in an area defined by the EPA as 'Region: Rural West' and it is also noted that at the interactive Air Quality Index for Health accessible at <https://gis.epa.ie/EPAMaps/> states that the air quality for this region is '3 - Good'4 .

**Construction Phase:** The EIA screening document outlines the short term impacts on air quality during the construction phase of the proposed development including dust generation. The applicant advises that all construction activities will be carried out according to best practice and guidelines for the management of dust generation. A number of mitigation measures are described in the application documents and must be implemented on site to ensure that construction activities do not give rise to a nuisance in the vicinity of the development.

**Operational Phase:** The EIA screening document advises that the baseline air conditions at the Castlemartyr WWTP will remain the same following installation and operation of the new equipment.

#### **Odour**

The applicant advises that the construction phase of the proposed development will have no impact on odour emissions from the site.

The applicant advises that the upgrade works will improve current operations at the site and they do not foresee any issues with odour.

Notwithstanding the above, the EH service recommends that an odour management plan is included as a condition of the licence and that unannounced odour audits are undertaken.

### **Dust**

The most likely impact on air quality is from dust arising during the construction of the proposed development and emissions associated with construction vehicles.

The primary generators of traffic in the construction stage will be contractor staff and the delivery of construction materials.

The CEMP must address air within this application provides measures for good practice during the construction phase and should be adhered to in full.

Examples of good practice during this phase are:

- Water spraying of exposed earthworks and site haul road during dry weather using mobile bowser units
- Provision of a power washing at the site access road to remove dirt from vehicles prior to exiting the site
- Control of vehicle speeds, and
- Material drop heights from plant to plant or from plant to stockpile will be minimised.

The Environmental Health Service welcomes that the proposed development shall continuously monitor dust over the variation of weather and material disposal to ensure the limits are not breached throughout the project.

### **Land, Soils and Geology**

The potential impacts on the geological environment was considered by the consultant in terms of sensitive geological receptors. The soils and geology information were obtained from spatial mapping published by GSI. No geological heritage areas were found within the surrounding area.

This department accepts there is no indication of existing landfills, contaminated land or quarries identified within the surrounding area. The Dairygold Co-Operative Society, located c.2.5km to the north of the subject site, is an EPA Licensed Integrated Pollution Prevention Control (IPPC) Facility. There are no previous industries which could have potentially contaminated land found within the area. According to the Bedrock Polygons 100k data, the subject lands are made up of Waulsortian Limestones which are described as massive unbedded lime-mudstone. This form of limestone forms part of the Carboniferous system

The lands to the north of the subject site are Cork Red Marble Formation which are described as red brecciated calcilutite limestone. The lands further north are labelled Little Island Formation which are described as massive and crinoidal fine limestone. The



consultant has outlined that minimal earth works are required as part of the works. Minor localised areas of cut and fill will be required to provide mains to the existing outfall. Therefore, the EAI screening report has considered that the proposed development will not likely result in any significant adverse environmental impacts on the land and soil of the area.

### **Waste**

Waste will be generated during the demolition, construction and operation of the proposed development. The Environmental Health Service welcome that the appointed Contractor will implement a Construction and Environmental Management Plan (CEMP). The CEMP will ensure that all waste generated by the proposed will be removed off-site and disposed of appropriately. All excess construction materials will be returned to the suppliers.

### **Conclusions**

1. The Environmental Health Service supports the proposal to upgrade the existing Castlemartyr WwTP to facilitate an increased treatment capacity and capability. The proposal will be beneficial to the receiving environment and to public health.
2. In order to ensure dilution and dispersal of treated effluent, the receiving water should have a consistently adequate assimilative capacity. The EH Service recommends that regular monitoring of water levels and flow within the Kiltha River is undertaken. A condition should be included in the licence to require the implementation of an emergency plan should water levels drop to an extent which may impact on dispersal and dilution of treated effluent discharge. This is recommended for the protection of water quality and public health.
3. Emission limit values and monitoring frequencies specified in the EPA licence shall be strictly complied with to ensure the maintenance of surface and ground water quality and the protection of public health.
4. The EH service recommends that construction activities are limited as follows in order to minimise the impact of noise on local residents:

Monday to Friday	08:00 – 18:00
Saturday	09:00 – 13:00
Sundays and Public Holidays - No noisy operations on site	
5. The EH service recommends that an odour management plan is included as a condition of the licence and that unannounced odour audits are undertaken.
6. The EH service recommends that a complaints procedure is implemented and that a member of staff is designated as a point of contact to deal with any complaints or queries received from members of the public during the construction and operational phases of the development. The contact details of the nominated liaison person must be provided to the local community and at the site entrance.

Arlene Ward.

**Arlene Ward  
Environmental Health Officer**

**All correspondence or any queries with regard to this report including acknowledgement of this report should be forwarded to Kathleen Clifford Principal Officer HSE Environmental Health Service, Floor 2 Block 1, St. Finbarr's Hospital, Douglas Road, Cork, T12 XH60**