



Submission

Submitter:	Mrs Arlene Ward
Organisation Name:	Health Service Executive
Submission Title:	Waste Water Discharge License D0437-02
Submission Reference No.:	S011004
Submission Received:	15 March 2023

Application

Applicant:	Uisce Éireann
Reg. No.:	D0437-02

See below for Submission details.

Attachments are displayed on the following page(s).



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Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
Johnstown Castle Estate
Co. Wexford

Date: 14th March 2023

Type of consultation: *Waste Water Discharge License*

EHIS Reference: 2962

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 10th January 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, Bernadine Scanlan principal Environmental Health Officer in the first instance.

Yours Sincerely

A handwritten signature in blue ink that reads "Bernadine Scanlan".

Bernadine Scanlan
Principal Environmental Health Officer



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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: 14/03/2023

Type of consultation: Waste water Discharge License

Planning Authority: Cork County Council

EPA Reference Number: D0437-02

EHIS Reference number: 2962

Applicant: Uisce Éireann, Colvill House, 24-26 Talbot Street, Dublin 1, Dublin

Location of development: The existing WwTP is located in north County Cork, 0.4km north of the village of Boherbue

Proposal: Irish Water has identified a need to carry out upgrade works to an existing Wastewater Treatment Plant (WwTP) at Boherbue, Co. Cork.

General Comments:

Details of the application were circulated to HSE stakeholders on the 10th January 2023.

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

Ms Muireann Chambers 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 Wastewater Treatment Plant (WwTP) at Boherbue, Co. Cork.

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 D0437-02. The EPA identified a need to carry out upgrade works to the existing Boherbue WwTP, Boherbue, Co. Cork prior to the formation of Irish Water. Due to the agglomeration growth, the WwTP is failing to meet the treatment standards specified in its current Wastewater Discharge License (WwDL). Irish Water are now proposing to carry out upgrade works to address this issue. The upgrade will provide for greater sludge storage capacity to bring the plant in line with Irish waters requirements due to operational issues with the current volume of sludge storage and to meet waste water discharge license requirements. The existing WwTP is located in north County Cork, 0.4km north of the village of Boherbue. It discharges into the Brogeen River, approximately 0.2km north of the WWTP.

The existing WwTP is designed for up to 800 Population Equivalent (PE). It is comprised of three forwarding pumping stations which convey sewage to the WwTP and from there through a constructed wetland system before discharging to the Brogeen River.

It is outlined that the entire construction phase of this project takes place within the boundaries of an existing WwTP. This area is comprised of the waste water treatment infrastructure (Administration buildings, and plant) situated in an area of hardstand and grassed areas. Towards the north of the site an area of constructed wetland (reed beds) lies adjacent to the Brogeen River which delimits the northern perimeter of the site.

The proposed development will involve the upgrade, decommissioning and construction of a number of new structures. In summary, the construction works will include the installation of an IFAS tank (14m x 8m x 4m deep), Sludge Reed Beds (32m x 32m x 3m deep), Settlement Tank (8m diameter x 4.5m deep), Storm Tank (11.5m diameter x 5m deep), Tertiary tank (13m x 11m x 2m deep). All associated pipework will be open trenched. All of the proposed works together with the construction compound will be located within the confines of the existing WwTP site boundary.

The existing constructed wetlands are considered to be not fit for purpose in relation to the control of BOD, ammonia and phosphorous discharge levels from the existing

treatment plant. Therefore, the proposed project will implement tertiary treatment to ensure compliance for the control of these parameters. Following tertiary treatment, the discharge will be diverted, through new pipework to the same location as the existing discharge point. The existing constructed wetlands will be left in situ and continue to receive any excess flow from the storm water holding tanks

Site Location

The entire project site is confined within an area that encompasses the existing WwTP. No additional land-take is required. The site layout will remain largely unaltered. The project site is confined to an area characterized by improved agricultural grassland with areas of wet grassland and scattered trees and parkland. It is delimited by hedgerows (WL1), tree lines (WL2), drainage ditches (FW4). It has been outlined that agricultural grassland is currently used for both grazing and tillage. The land in the immediate vicinity of the WwTP slopes downward towards the Brogeen River, the location of the WwTP discharge point. It has been outlined that some trees may need to be felled to facilitate the installation of solar panels this is not considered significant relative to the scale (2,200m²) and location of trees within the southeast corner of the site compound.

Hydrology and Hydrogeology

The EPA has carried out an assessment to determine which pressures are significant within each catchment in Ireland. No significant pressures have been identified for the Brogeen River which was recorded as “not at Risk” and “Good Status” in the 2012-2015 reporting cycle (EPA, 2019). The Brogeen River drains into the Allow River 13.4km (hydrologically) to the east of the WwTP discharge point. The following significant pressures have been recorded for the Allow River downstream of its confluence with the Brogeen River

- I. Impacts from hydromorphology: which include sediment/siltation pollution and alteration to the physical environment. Significant hydromorphology pressures are subcategorised into channelization, embankment, dams, barriers, weirs, locks, culverts, land drainage, overgrazing and bank erosion.
- II. Impacts from urban waste water: which include nutrient and organic pollution. Urban Waste Water pressures are subcategorised into combined sewer overflows, Agglomeration *PE >10,000, Agglomeration *PE 2001 to 10,000, Agglomeration *PE 1001 to 2000, Agglomeration *PE 500 to 1000 and Agglomeration *PE <500. *(population equivalence)

The Blackwater River (Cork/Waterford) SAC drains an extremely large catchment spanning three counties and draining a total area of 3,310km². As noted above impacts from hydromorphology and urban waste water are significant pressures on this watercourse. Without mitigation it is considered likely that the proposed project could act in-combination with these and possibly a variety of additional catchment wide

pressures to further impact the conservation status of the qualifying interests of this SAC.

The National River Basin Management Plan 2018 –2021 seeks to ensure full compliance with the Water Framework Directive (WFD). This requires restoring water quality to at least good status, the prevention of deterioration in water quality, implementation of objectives for designated protected areas and an overall focus on protection of water quality. In line with this requirement Cork County Councils Draft County Development Plan 2022-2028 notes that while existing waste water plants meet the Urban Waste Water Treatment Directive (UWWTD) standards, a number of plants discharging to sensitive waters do not meet the higher Emission Limit Values (ELVs) limits set by the Environmental Protection Agency (EPA) through their licensing system. This is currently the case with the Boherbue WwTP. An objective of the Draft County Development Plan 2022-2028 is to “upgrade the WwTP to protect environment and quality of receiving water and to facilitate growth”.

It has been identified that areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded. However, MERC Consultants have outlined that the proposed projects will address water quality standards laid down in legislation of the EU which have already been exceeded. Therefore, Discharge from the WwTP will be subject to tertiary treatment.

The NIS for the proposed project examined the potential for impact on the receiving water body during both the construction and operational phases of the project. The NIS proposed mitigation to avoid possible construction related impacts. No operation impacts were considered possible as the proposed project will improve the water quality of the receiving waterbody and subsequently any habitat and species which are connected to or dependent on it.

The Environmental Health department would recommend that Current Pollution Prevention Guidelines (PPGs) should 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 should provide a detailed Construction Environmental Management Plan for the said proposed project and will be required to adhere to the relevant guidelines.

Noise & Vibration

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

While limited construction related noise may arise during the construction phase of the project this is considered insignificant relative to the location of the project and temporary nature of the construction works.

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

- The best means practical will be used to minimize 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.

Air and Climate including odour

In terms of air quality, it is noted that MERC Consultants have outlined that the proposed development may have minor impacts during the construction phase to include dust generation. However, any such impacts would be temporary and localized to the immediate vicinity of the existing WwTP which is in a very low-density rural area. The WwTP is not located near any residential properties and the works will be of a temporary nature. The risk of odour at this location during construction is considered low by the consultant. The storm water holding tank will be covered and provided with odour control. No air issues during operation are considered likely.

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 Environmental Health service recommends that all construction activities must 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 Boherbue 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 license 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. There will be no land take outside of the confines of the existing WwTP. Excavated material will be reused as far as possible. Excavated material will be used to back fill trenching. Top soils will be used for

finishing where vegetation cover is to be reinstated as detailed in Irish Water ‘General Civil Engineering Specification’(IW-TEC-300-01). The reuse of excavated material will depend on its’ suitability. Unsuitable material will be removed from site for disposal in licensed facilities. Therefore, no impacts on land or soil are considered likely.

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

Conclusions

1. The Environmental Health Service supports the proposal to upgrade the existing Boherbue 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 Blackwater River is undertaken. A condition should be included in the license 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.

Emission limit values and monitoring frequencies specified in the EPA license 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

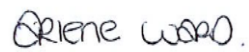
Sundays and Public Holidays - No noisy operations on site

5. The EH service recommends that an odour management plan is included as a condition of the license and that unannounced odour audits are undertaken.

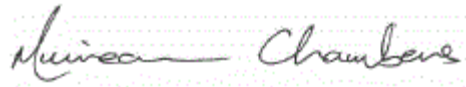
6. The EH service recommends that a complaints procedure is implemented and that a member of staff is designated as a point of contact to deal with any complaints or queries received from members of the public during the construction and operational phases of the development. The contact details of the nominated liaison person must be provided to the local community and at the site entrance.

7. The applicant may wish to consider a *‘dedicated pedestrian walkway to be provided along the western external to the Brogeen River. This could be an opportunity to provide an additional amenity to the village in accordance with the Kanturk LAP and Cork County Development Plan which would be dedicated access to the Brogeen River and knowledge on the Wetlands’*. This was proposed via a submission letter to the

Planning Authority Website. It may be an opportunity to develop this area for amenity use for the village.



Arlene Ward
Environmental Health Officer



Muireann Chambers
Environmental Health Officer

All correspondence or any queries with regard to this report including acknowledgement of this report should be forwarded to Bernadine Scanlan, PEHO, North Cork