



Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
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22/12/2022

IW ref: LT0623

Dear Inspector,

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Re: Dripsey Waste Water Discharge Licence Reg. No. D0426-02

In response to the Regulation 18(3)(b) request for information notice dated 14th November 2022, please see below outstanding information.

Having regard to the WFD objective for High status in the Dripsey River (Dripsey_020) justify or update, with an impact assessment that aims to achieve the relevant Environmental Quality Standard (EQS) for high status, the proposed emission levels, in particular for ortho-phosphate and ammonia. Please note the WFD objective was reported as to protect Good status at the grant of the existing licence.

To address the above and supplement the impact assessment report submitted as part of the licence review application, the following waste assimilation capacity calculations were completed based on the Notional Clean River background concentrations and the actual mean background concentrations based on January 2019 to October 2022 ambient monitoring data, and the EPA Flow Estimation of 0.4m³ /s (Flow data confirmed by the EPA Hydrometric & Groundwater Section on the 12th November 2021). The assessment was made against the high-status objective for the Dripsey_020.

It is important to reiterate that the Dripsey WwTP is not listed as a significant pressure in At Risk waterbodies in the 3rd cycle catchment assessments. The significant pressure for the Dripsey_020 has been determined as Hydromorphology (overgrazing). The discharge from the Dripsey WwTP has not and will not contribute to this significant pressure, and its resultant adverse effects on this waterbody.

An assessment of 18 upstream ambient monitoring results for the period between January 2019 to October 2022 demonstrates that,

- the mean concentration for BOD is within the mean EQSs for High status.
- In terms of Ortho-P, the mean concentration only meets the mean EQS for Good status
- In terms of Ammonia, the mean concentration only meets the mean EQS for Good status.

Ambient Background (January 2019 to October 2022 Data)

Parameter	cBOD	Total Ammonia	Ortho-P (MRP)
Max	2.5	0.702	0.084
Min	0.1	0.01	0.01
Mean	0.844	0.059	0.032
Mean EQS High Status	1.30	0.04	0.025

Based on the mean actual background concentrations, the WAC calculations shows that there would be sufficient assimilative capacity in the receiving water to receive flows and loads in terms of BOD.

For both Ammonia and Ortho-P however, resultant concentrations of 0.098 mg/l and 0.052mg/l respectively are predicted downstream, both of which are above the relevant High status EQSs. This is due to the mean background concentration being above the mean High Status EQSs for the relevant parameters.

WAC for 600 PE - Mean Ambient Background (January 2019 to October 2022 Data) & High Status EQSs

Parameter	Upstream River Conc ^{Note 1}	Proposed ELV	Contribution from Primary Discharge mg/l	Predicted D/S Conc mg/l	EQS High Status 95%ile ^{Note 2}
cBOD	0.844	25	0.097	0.0942	≤ 2.2
Total Ammonia	0.059	10	0.039	0.098	≤ 0.09
Ortho-P (MRP)	0.032	5	0.019	0.051	≤ 0.045

Note 1: Based on grab sampling carried out between 2019-2021.

Note 2: European Union Environmental Objectives (Surface Waters) as amended.

It is important to determine (for the purpose of Ammonia and Ortho-P) if the discharge from the new Dripsey WwTP on its own is likely to cause a deterioration in the current status of the Dripey_020, or if the discharge will impede the river achieving its High WFD status Objective by 2027. Given that mean upstream nutrient background concentrations are above the relevant High status EQSs the mass balance calculation below was carried out using the 'notional clean river' approach.

The ‘notional clean river’ approach which was formulated and used by the EPA for circumstances where other sources of upstream pollution, in the case of Dripsey_20 it is Hydromorphology (overgrazing), should be dealt with separately.

Utilising the Notional Clean River approach for nutrients, the proposed ELVs for Ammonia (10 mg/l N) and Ortho-P (5 mg/l P) will ensure that the discharge from the Dripsey WwTP will not prevent the achievement of the High WFD status Objective by 2027 in accordance with the European Union Environmental Objectives (Surface Waters) as amended and will ultimately ensure that there is no environmental risk posed to the receiving water environment as a result of the discharge from the new WwTP.

WAC for 600 PE – Notional Clean & High Status EQSs

Parameter	Notional Clean River Conc	Proposed ELV	Contribution from Primary Discharge mg/l	Predicted D/S Conc mg/l	EQS Status 95%ile ^{Note 1} High –
cBOD	0.260	25	0.097	0.36	≤ 2.2
Ammonia	0.005	10	0.039	0.047	≤ 0.09
Ortho-P (MRP)	0.005	5	0.019	0.024	≤ 0.045

Note 1: European Union Environmental Objectives (Surface Waters) as amended.

The proposed effluent standards for the new Dripsey WwTP, BOD 25mg/l, Total Ammonia 10mg/l and Ortho-P 5mg/, will give effect to the principle of the Combined Approach as defined in Waste Water Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations and the achievement of the status of the receiving waterbody, the Dripsey River (Dripsey_020).

Furthermore the conclusions of the AA Screening Report, Priority Substances Assessment Report and Impact Assessment Report, which were submitted to support the licence review application demonstrate that the operation of the Dripsey WwTP in accordance with the proposed standards will not have any significant effects on the receiving aquatic environment, alone or in combination with other plans and projects.

Yours sincerely,

Sheelagh Flanagan

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Wastewater Strategy