

**Beatty's Cottage
12th Lock
Co. Dublin**

**Water Supply and Wastewater
Management Report**

February 2024

2405

Issue No. 21

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1 Introduction

1.1 General

This report addresses the water supply and wastewater discharge from the proposed refurbishment of the group of protected structures at Beatty's Cottage, Lucan Co. Dublin.

A description of the proposed development is as follows:

- The refurbishment of a group of existing protected structures to provide a mixed use including a childcare facility, café, events space, artists studios and clubhouse.
- A redevelopment of the external ground areas and courtyard space.
- All associated site work.

The site is currently occupied by the buildings and an impermeable courtyard area.

1.2 Proposed Water Services Summary

The site is currently a group of derelict agricultural buildings surrounding a courtyard. There is an exiting wastewater connection to the Uisce Eireann network.

A new water supply will be required to serve the new facilities within the development site.

1.3 Reference Publications used in the production of this Report

Greater Dublin Strategic Drainage Study – Volumes 1 to 6
Greater Dublin Regional Code of Practice for Drainage Works – Version 6.0
Technical Guidance Documents – Part C and H
OPW National Flood Hazard Mapping
Irish Water Codes of Practice for Wastewater
Irish Water Codes of Practice for Water services.
South Dublin Co Co Development Plan 2022-2028

2 Wastewater Discharge

The total wastewater discharge from the residential site is calculated using the Irish Water Codes of Practice for Waste Water for the varies uses of the site.

Wastewater discharge from the new building is proposed via a new connection to the 150mm Uisce Eireann Asset within the site.

Details of the proposed foul drainage are detailed on CORA Drawing no. 2405/C0002.

3 Water Supply

The proposed new water supply will be taken from the Uisce Eireann network at Grange Castle Business Park

The water supply layout is shown on CORA drawing 2405/C002.

Appendix A – Wastewater Calculations (Beatty's Cottage)

Creche – 50 persons

Wastewater Loading = 50 litres per person per day @ 50 persons

Average Discharge = $50 \times 50 = 2500$ litres per day

Café – 100 customers per day

Wastewater Loading = 15 litres per person per day @ 100 persons

Average Discharge = $100 \times 15 = 1500$ litres per day

Studios/ Shop/ Kayak Centre – 20 persons (Staff/ Artists)

Wastewater Loading = 100 litres per person per day @ 20 persons

Average Discharge = $100 \times 20 = 2000$ litres per day

Total Discharge = $2500 + 1500 + 2000 = 6000$ litres per day

Dry weather flow (DWF) = $6000 / (24 \times 60 \times 60) = 0.071$ l/s (DWF)

Peak discharge = $6 \text{ DWF Peak} = 6 \times 0.07 = 0.42$ l/s