

## SECTION A: Non Technical Summary

### Description of Catchment

This application for discharge licences relates to the foul sewer network, serving a catchment

The attached catchment drawing, (titled Ringsend Treatment Works, Agglomeration Map) illustrates the extent of the catchment.

The catchment caters for a population equivalent of 1.2 million people and the drainage network ultimately carries the wastewater to Ringsend Treatment Works where it undergoes treatment (both physical and biological) so that the final effluent will achieve the standards specified in the Urban Wastewater Treatment Directive and in the Bathing Water Directive.

This treatment comprises preliminary treatment (initial screening of all flows to remove solids larger than 6mm in size); primary treatment (in settlement tanks), followed by biological treatment within sequential batch reactors. During the bathing season, the final effluent stream is subjected to ultraviolet treatment to ensure compliance with the requirements of the Bathing Water Directive. .

The treated effluent is ultimately mixed with the cooling waters from the ESB's Poolbeg Generating plant, thus providing for further dilution of the effluent. Both flow streams are then discharged together to the lower Liffey estuary. The location of the treatment plant and outfall are also shown on the attached drawing.

All of the associated sludge from the treatment process is removed, dried, sterilised and eventually recycled as a land fertiliser.

It should be noted that since the opening of the modern expanded treatment works in 2003, DCC have achieved Blue Flag water quality on the Bull Island beach in two of the past three years. The sandy shoreline area known as Shelly Banks, adjacent to the South Wall in Poolbeg has also received a Green Coast award for water quality.

### Catchment Characteristics

The catchment itself covers an extensive area that extends through all of Dublin City Council and parts of Fingal County Council, South Dublin County Council, Dun Laoghaire-Rathdown County Council and Co Meath.

The older parts of the network such as Dublin city centre are drained on a combined system that means both foul wastewater and stormwater run-off from rainfall are carried in the same system. A necessary element of this system is the provision of Combined Sewer Overflows whereby, in times of excessive rainfall and in order to prevent flooding of property, the system is designed to overflow to watercourses.

Where possible all modern developments are drained on the completely separate system with foul wastewater in one pipe and stormwater run-off from rainfall in a separate pipe, thus limiting the need for spills to watercourses from the foul system.

Spills from the Combined Sewer Overflows to receiving waters have the potential to cause a negative impact on those waters and hence the need for continuous management of the drainage network to minimise both the occurrence and the effect of spills.

The flows in the network are made up of domestic wastewater, stormwater, trade discharges, commercial discharges (offices, etc) and infiltration. In general the trade effluents come from the food/drink industries and are characterised by high organic loadings. There would be very few “heavy” industries – emitting metals/dangerous substances - in this catchment.

Hence, any emissions from a CSO would, in general, contain more diluted quantities of these organic loadings.

### **Management Of the Network**

Management of the network involves the implementation of drainage planning policies (covering all new developments) and operational/maintenance programmes which deal with day-to-day issues.

Following the completion of the Greater Dublin Strategic Drainage Study in 2005, a set of planning policies covering all drainage matters, have now been introduced by all the local authorities in the Dublin region. These are mandatory and are applied at the planning stage to cover all new developments. These includes a requirement for all new development to be designed and constructed on the completely separate system; the use of Sustainable Drainage Systems (Suds) and storm water attenuation is mandatory for new development; a standard Code of Practice has been drawn up and adopted by the local authorities in the region to cover all aspects of drainage works.

All of the operational/maintenance programmes reflect the complexity of carrying out such works within a heavily trafficked urban environment where it is not possible to access some city centre locations during normal working hours. In response to this we have instigated extended working hours for our staff that provides staff on the ground for up to sixteen hours per day.

These programmes include:

- **Gully Cleaning Programme:** dedicated fleet of gully tankers operated on a shift basis to ensure access to both the heavily trafficked and the pedestrianised areas.
- **Monitoring of Pumping Stations:** Pumping stations have been linked via a telemetry system and are continuously monitored from a central control point. Stand-by generators have been installed in the most environmentally sensitive locations to protect against power interruptions.

- Fats Oils and Grease Programme: A programme to control the discharge of FOG from 2000 Food Service Establishments in the city centre has commenced.
- Standardised Drainage Planning Policies with an emphasis on Sustainable Drainage systems, (SuDS), have also been introduced and are mandatory for all new developments.
- A programme of separation of foul from stormwater flows has been developed to target areas where it is considered cost effective to do so.
- River Cleaning Crews: a dedicated maintenance programme covering all the rivers in Dublin City Council area

### **Improvement projects**

Like all local authorities, DCC rely on the DoEHLG for approval and funding of large projects.

The department publishes the Water Services Investment Programme, which is the approved list of capital projects for each Local authority. DCC have got several large drainage projects on the most recent WSIP, such as the extension to Ringsend Treatment Works; Upgrading of City Centre Catchment; Rathmines and Pembroke Catchment Upgrade;

These projects will benefit the environment insofar as cumulatively, they will allow more wastewater to be conveyed and treated at RTW, thus reducing spills to waters. While we are subject to timeframes set by the DoEHLG, as the funding agency, we are obviously trying to fasttrack the delivery of these essential projects.

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