

**Appendix F**  
**Intermittent Discharges**



## **APPENDIX F**

### **INTERMITTENT DISCHARGES**

#### **F1. CSO Discharges in the Greater Dublin Area**

## F1. CSO DISCHARGES IN THE GREATER DUBLIN AREA

There are intermittent discharges of all types within the GDSDS. The greatest concentration of CSOs is in Dublin City where older combined sewer systems predominate and there are numerous discharges to the Tolka, Liffey and Dodder rivers. In the City Centre, the North and South Quays sewers, constructed at the beginning of the last century, intercepted many previous crude discharges to the Liffey. However, the original outfalls were retained for discharge of excess flow in storm conditions and CSOs were created as a result.

The concentration of CSOs is significantly lower in the 'new town' areas such as Blanchardstown, Lucan, Clondalkin and Tallaght which saw extensive development after the introduction of separate sewerage in the 1960s. Similarly, in towns outside Dublin, CSOs tend to be found predominantly in the older parts of town centres.

Of the existing CSOs, simple examples include high level pipes in manholes, often located at historical flooding locations, e.g. at low points in streets or upstream of sewer lengths with a particularly slack gradient. More complex structures include large purpose built chambers with weirs, penstocks and screens. It is reasonable to assume that the majority of CSOs exist for hydraulic control / flood relief.

Although new developments are designed with separate sewer systems, new intermittent discharges will continue to be introduced in the form of pumping station emergency overflows. Furthermore, new CSOs are still created when existing crude discharges are intercepted and transferred for treatment elsewhere – an example of this is the existing continuous crude discharge at Howth which will become an intermittent discharge when North Dublin flows are transferred to Ringsend for treatment.

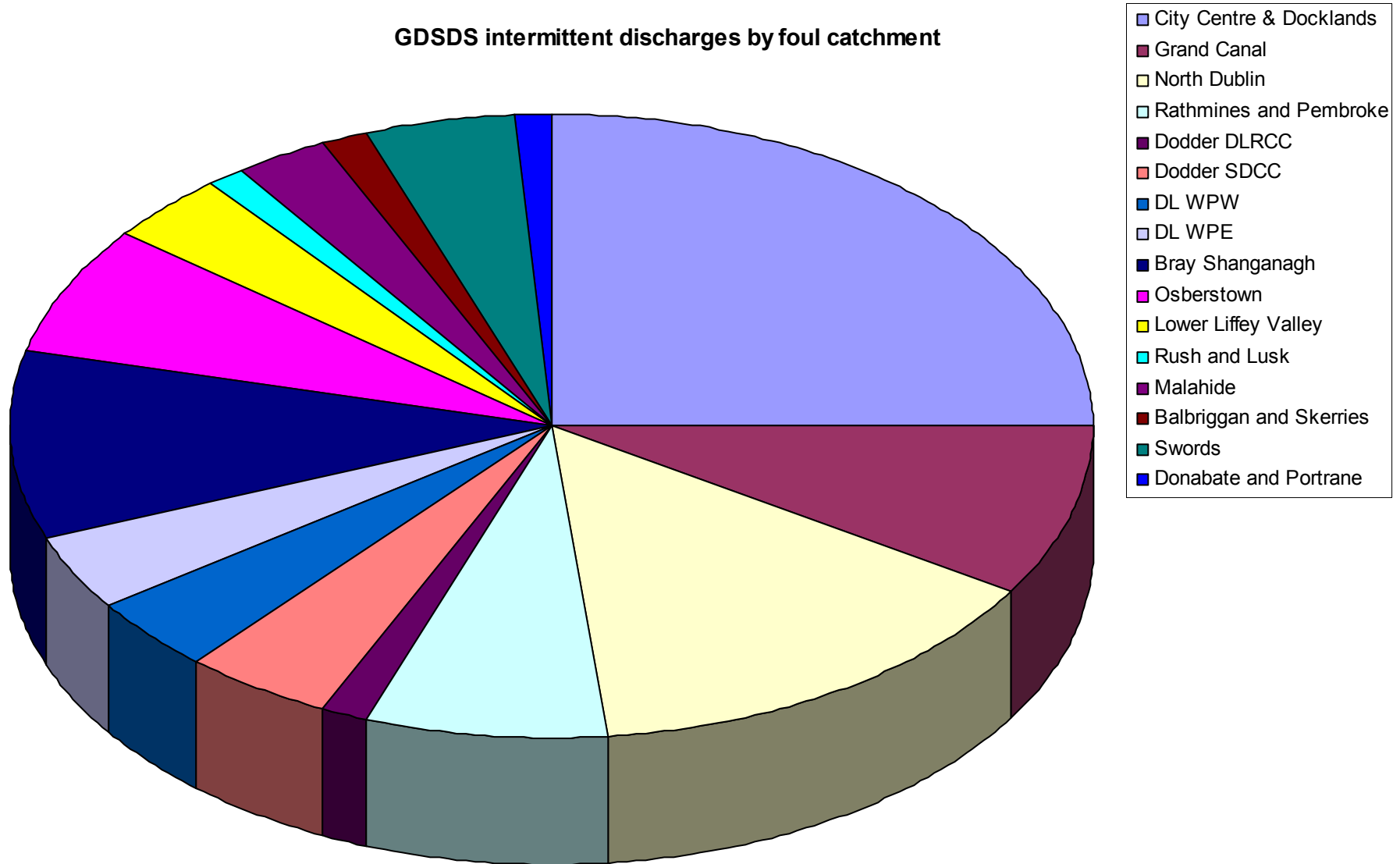
The Greater Dublin Strategic Drainage Study investigated some 85% of the total GDSDS developed area. The tables and charts on the following pages provide an analysis of intermittent discharges by foul catchment, WwTW catchment, receiving water and river system/coastal area. *(NB: The source data for this analysis was obtained from the initial planning stage of the GDSDS, i.e. prior to any site surveys or detailed investigations, and must be regarded as preliminary only.)*

Over 250 intermittent discharges were identified in the study area, of which:

- 64 (25%) are in the City Centre & Docklands Foul/Combined catchment;
- 95 (37%) discharge to the River Liffey and its tributaries;
- 152 (60%) discharge to the Liffey / Grand Canal / Dodder / Tolka systems which converge in Dublin Harbour; and,
- 205 (80%) discharge to Dublin Bay, either directly or via rivers and streams.



**GSDSDS intermittent discharges by foul catchment**



**Figure F1 GSDSDS Intermittent Discharges by Foul Catchment**

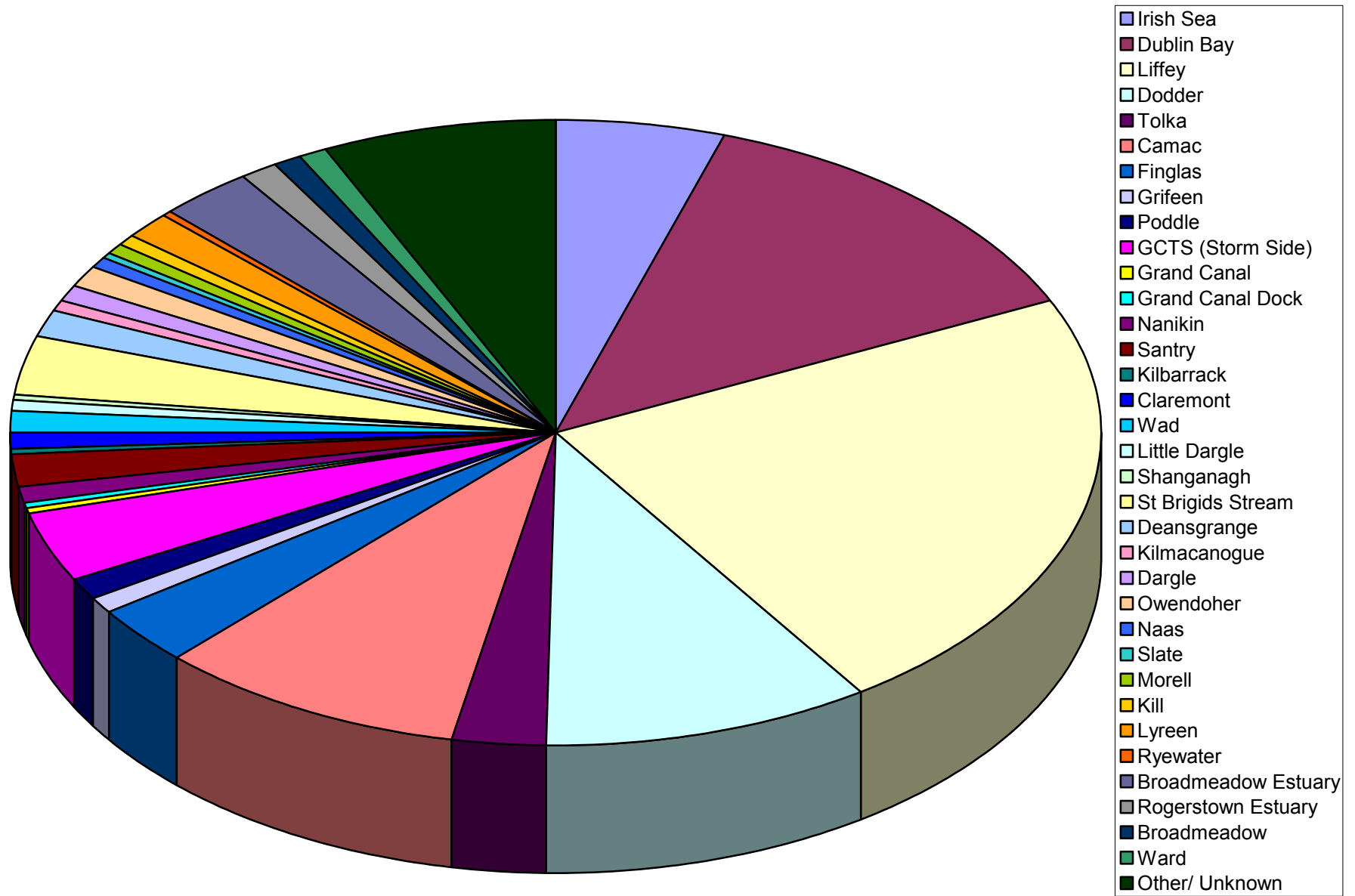
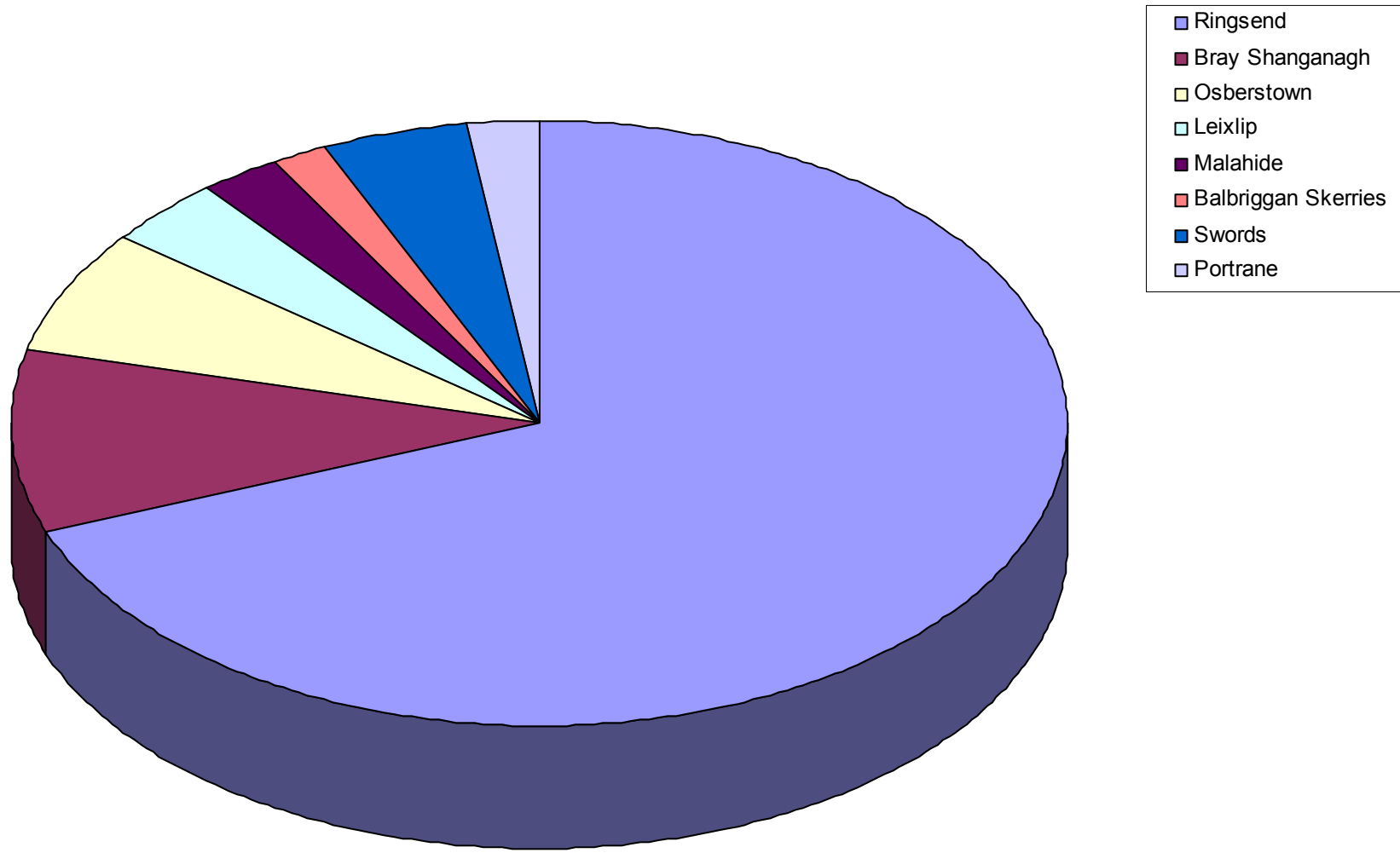


Figure F2 GSDS Intermittent Discharges by Receiving Water

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*Table F2 Intermittent Discharges in the GSDS Area (by WWTW catchment)*



**Figure F3 GSDS Intermittent Discharges by WWTW Catchment**

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*Table F3 Intermittent Discharges in the GSDS area (by river system / coastal area)*