



**Kinsale WWDL D0132-01**  
**RI001418, 1419, 1420, 1421, 1424, 1449**

**8<sup>th</sup> November 2013.**

In response to the each of the above further information requests, please note the following;

**Question:** Describe under what circumstances an overflow occurs for each of the overflows SW2 to SW9, in the agglomeration. Confirm if these overflows are secondary overflows, storm water overflows or emergency overflows. Your application states that you have '5 Stormwater O/Fs and a number of discreet foul discharges', explain what these are and if they still exist in the agglomeration.

When replying bear in mind the definitions as outlined below:

- Secondary Discharge: A potential, occasional or continuous discharge from the waste water works other than a primary discharge or a storm water overflow.
- Stormwater Overflow: A structure or device on a sewerage system designed and constructed for the purpose of relieving the system of excess flows that arise as a result of rain water or melting snow in the sewered catchment, the excess flow being discharged to receiving waters.
- Emergency overflows: Overflows whereby a power failure, essential maintenance or other similar interruption in normal operations results in a discharge of untreated waste water from the sump as a consequence of the pumps being disabled - discharges resulting from insufficient hydraulic capacity within the system are not regarded as emergency discharges.

**Answer:**

Overflow	Secondary/Storm Water/Emergency	Circumstances
SW2 (Summercove PS)	No Overflow after upgrade	N/A
SW3 (Scilly PS)	No Overflow after upgrade	N/A
SW4 (Scilly PS)	No Overflow after upgrade	N/A
SW5 (Pier Road PS)	PS Decommissioned	N/A
SW6 (Pier Road PS)	PS Decommissioned	N/A
SW7 (Pier Road PS)	Emergency Overflow	Loss of power/ mechanical failure
SW8 (Compass Hill)	Storm Water overflow	Storm weather event
SW9 (Scilly Walk)	Emergency Overflow	Loss of power/ mechanical failure

**Question:** Clarify the design population equivalent (p.e.) of the WWTP and the current p.e. to the plant, indicating the p.e. for winter and summer loadings. Provide the percentage p.e. contributed by non-domestic activities. Also provide the projected p.e. to be contributed to the waste water works over the next six years, bearing in mind planning permission that has been granted for development but where development has not been completed to date, and provide the percentage p.e. to be contributed by non-domestic activities.

**Answer:** The design population equivalent for the entire Kinsale Main Drainage Scheme is 9,800 p.e.

**Category Population Equivalent**

Current Domestic	3,390
Future Domestic	2,624

**Total Design Domestic 6,014**

Current Non-Domestic	3,316
Future Non-Domestic	470

**Total Design Non-Domestic 3,786**

**TOTAL DESIGN P.E. 9,800**

**CURRENT P.E 6,706**

**% P.E Non- Domestic 34%**

**Question:** Confirm if there are pumping stations in the agglomeration or at the plant.

Include details of • the number of duty and stand by pumps,  
 • storage capacity at pump station,  
 • measures to be taken in the event of a power failure,  
 as required in section C.1.2 Pumping Stations of the application

**Answer:** There are four pumpstations in the agglomeration. EPS operate four of these. They are as follows:

Denis Quay PS, Scilly PS, Summercove PS, Worlds End PS

Denis Quay PS Details	3 no. foul pumps (Duty/Assist/Standby)
	1 no. storm drainage pump
	3 no. storm pumps (Duty/Assist/Standby)

Regarding the storage capacity,

Foul Sump Actual Tank Volume	101.4 m3
Foul Sump Working Volume	29.25 m3
Overflow Chamber No.1 Actual Tank Volume	225.6 m3
Overflow Chamber No.1 Working Volume	125 m3
Overflow Chamber No.2 Actual Tank Volume	203 m3
Overflow Chamber No.2 Working Volume	113 m3
Storm Sump Tank Volume	32 m3

Regarding power outages, there is no standby generator. However, there is a dial out system in place plus there are 2 no. overflow tanks and an extra storm tank for storage capacity while pumps are not operating.

Worlds End PS Details 2 no. foul pumps (Duty/Duty)

Regarding the storage capacity,

Foul Sump Actual Tank Volume 9 m<sup>3</sup>

Foul Sump Working Volume 5.67 m<sup>3</sup>

Regarding power outages, there is no standby generator. However, there is a dial out system in place

Scilly PS Details 2 no. foul pumps (Duty/Duty)

Regarding the storage capacity,

Foul Sump Actual Tank Volume 10.3 m<sup>3</sup>

Foul Sump Working Volume 8.3 m<sup>3</sup>

Regarding power outages, there is no standby generator. However, there is a dial out system in place

Summercove PS Details 3 no. foul pumps (Duty/Assist/Standby)

Regarding the storage capacity,

Foul Sump Actual Tank Volume 20.8 m<sup>3</sup>

Foul Sump Working Volume 9.2 m<sup>3</sup>

Regarding power outages, there is no standby generator. However, there is a dial out system in place.

**Question:** Confirm if there are pumping stations in the agglomeration or at the plant.

Include details of

- the number of duty and stand by pumps,
- storage capacity at pump station,
- measures to be taken in the event of a power failure,

as required in section *C.1.2 Pumping Stations* of the application

**Answer:** As Above

**Question:** Provide a revised drawing clearly detailing the boundary of the agglomeration to which this application relates. Please note that the agglomeration boundary shall include all areas serviced by the sewer network and shall include the waste water treatment plant. All areas of the agglomeration shall be within the agglomeration boundary.

**Answer:** See attached

**Question:** Provide updated figures for the daily normal and daily maximum effluent volumes emitted from the primary discharge, expressed as m<sup>3</sup>/day.

**Answer:** At Kinsale WWTP, the maximum effluent volume is 9000 m<sup>3</sup>/day. The average for the year so far is 3092 m<sup>3</sup>/day.

**Question:** Provide details of the current situation at the Kinsale agglomeration in relation to any upgrades carried out at the Waste Water Treatment Plant or to the network since the application was made in September 2008. Update the Non-technical Summary as appropriate. Provide the date of commission of the upgraded plant.

**Answer:** The Works have been designed to produce an effluent standard of 20mg BOD/l, 30 mg/l TSS/l, 125 mg COD/l on a 95 percentile basis.

The screenings, grit, fats and oils produced by the Works are subject to disposal to secure outlets. The sludges produced are thickened and dewatered to a dry solids content of 18% for disposal by the Employer.

In summary:

Parameter	Value
BOD <sub>5</sub>	≤ 20 mg/l
COD	≤ 125 mg/l
Total Suspended Solids	≤ 30 mg/l
Total N	≤ 15 mg/l
Total P	≤ 2 mg/l
pH	6.0 – 8.5
Temperature	< 30° C
Faecal Coliforms (CFU/100ml)	≤ 200 (at least 95% of the time)
	> 1,000 (less than 5% of the time)
% Dry Solids of the Treated Sludge	> 18%

Sludge: Storage volumes equivalent to 4 days production can be stored on site

**Installed Works:**

Inlet Pumping Station: 4 pumps – 3 duty + 1 standby 253 l/s

Inlet Works (mechanical) 2 streams – 1 duty + 1 standby

Screening

Grit Removal

FOG Removal

Inlet Works (non-mechanical) 1 stream 253 l/s

Stormwater Tanks: 1 Tank 750 m<sup>3</sup>

Septicity Treatment: Yes

Biological Treatment Sequencing Batch Reactors:

750 kg/d BOD

1,500 kg/d COD

130 kg/d TKN

Aerobic/Anoxic Reactors: 4 SBRs 720 m<sup>3</sup> each cell

Sludge Treatment: 2 streams – gravity belt thickening/centrifuge dewatering

45 m<sup>3</sup>/hr WAS

Disinfection: Ultraviolet Open Channel

Odour Control: 2 x Biofilters + 1 x Carbon Filter

The Date of the Provisional Taking Over Certificate was 1<sup>st</sup> February 2011

**Question:** Provide the design specification for the WWTP as it currently operates for BOD, COD, Suspended Solids, Ammonia and ortho phosphate.

**Answer:**

Parameter	Value
BOD <sub>5</sub>	≤ 20 mg/l
COD	≤ 125 mg/l
Total Suspended Solids	≤ 30 mg/l
Total N	≤ 15 mg/l
Total P	≤ 2 mg/l
pH	6.0 – 8.5
Temperature	< 30° C
Faecal Coliforms (CFU/100ml)	≤ 200 (at least 95% of the time)
	> 1,000 (less than 5% of the time)
% Dry Solids of the Treated Sludge	> 18%

Your reply to this notice should include a revised non-technical summary which reflects the information you supply in compliance with the notice, insofar as that information impinges on the nontechnical summary.

See attached.

Helena O’Riordan,  
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Cork Co. Council.

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