

## SECTION A – NON TECHNICAL SUMMARY

---

### Attachment A.1

#### – Non Technical Summary

For inspection purposes only.  
Consent of copyright owner required for any other use.



**ATTACHMENT A.1**  
**NON-TECHNICAL SUMMARY**

Meath County Council, County Hall, Navan, County Meath is making an application to the Environmental Protection Agency (the Agency), in accordance with the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) for a Waste Water Discharge Licence, authorising the waste water discharges from the Crossakeel Waste Water Treatment Works, serving the agglomeration of: Crossakeel, Kells, County Meath.

Under Schedule 2 of the above regulations, the prescribed date for submission of Waste Water Discharge Licence Applications for agglomerations (with discharges with a population equivalent of between 500 - 1,000 pe) is 22 June 2009. The Crossakeel Agglomeration falls under this category, presently serving a population equivalent of 292pe, with the capabilities to cater for a project possible loading 414pe, by the year 2015.

The agglomeration is served by the Crossakeel Waste Water Treatment Plant, Crossakeel, County Meath (Grid Reference 264551E, 274285N), as shown on Drawing 5270-2740. Crossakeel Waste Water Treatment Plant (WWTP) is located to the west of the village of Crossakeel. The plant was constructed in 1978, treating municipal waste water from the village, with a design capacity in the order of 500 P.E. Crossakeel Waste Water Treatment Plant utilises biological processes in conjunction with physical settlement (i.e. Secondary Treatment) to provide treatment to incoming waste water for compliance with the relevant legislative effluent treatment standards, as shown on Drawing No.s 5270-2748 and 5270-2749.

It is estimated that Crossakeel WWTP is currently serving an existing population equivalent of 275P.E. The calculated population equivalent to be contributed to the waste water works as a result of pending development (planning permissions already granted) is 104P.E. The project 2016 population equivalent for the Crossakeel Agglomeration is 391P.E. The Crossakeel Waste Water Treatment Plant will be capable of accommodating the projected maximum population equivalent (2016) of 391 without posing an environmental risk to the receiving water habitat.

At present, Crossakeel Agglomeration has 1 no. existing discharge point: a Primary Discharge Point (SW1), at location 263902E, 274483N, which discharges into a tributary just upstream of its convergence with the Athboy River (as shown on Drawing No. 5270-2741).

Based on the once-off analysis of Effluent (Primary Discharge Point) Analysis presented on Table D.1(i)(c), it is concluded that Fluoride alone and none of the other substances listed in Annex X of the Water Framework Directive (2000/60/EC) or any of the Relevant Pollutants listed in Annex VIII of the Water Framework Directive (2000/60/EC) are seen to be present in

the effluent from the works, at concentrations above the standards set in the Water Quality (Dangerous Substances) Regulations, 2001 (S.I. 12 of 2001). Fluoride concentrations in the treated effluent were recorded at 666µg/l, which is above the standard of <500µg/l set by the above regulations (where the hardness of the water measured in mg/l CaCo<sub>3</sub> is >100mg/l).

Based on the analysis of water upstream and downstream of the Primary Discharge Point (Tables F.1(i)(a) & F.1(i)(b)), it is concluded that none of the substances listed in Annex X of the Water Framework Directive (2000/60/EC) or any of the Relevant Pollutants listed in Annex VIII of the Water Framework Directive (2000/60/EC) are seen to be present in the receiving water environment upstream or downstream of the discharge from the works, at concentrations above the standards set in the Water Quality (Dangerous Substances) Regulations, 2001 (S.I. 12 of 2001).

The emissions from the agglomeration are not expected to have any significant impact on the surrounding environment:

- The discharge point from the Crossakeel WWTP is below the water level in the stream tributary of the Athboy River, and as such does not pose any noise or dust impact on the surrounding environment.
- There is 1 no. emission point discharging from the Crossakeel WWTP to the stream tributary of the Athboy River, which has no designation of ecological significance.
- The 1 no. existing emission point (SW-1) discharges to a stream tributary of the Athboy River. The stream itself has no designation of ecological significance. However, the stream runs into the Athboy River 800m downstream of the discharge point. The Athboy River is designated a SAC at this location. The existing discharge (SW1) is in existence for some time and does not appear to be having a negative effect on the water quality in the Athboy River. It is therefore not expected that the discharge is having any negative affect on the surrounding ecology (aquatic).
- There are no emissions to ground/groundwater from the Crossakeel Sewerage Agglomeration; therefore any impact on ground/groundwater is unexpected.
- The results of water quality analysis presented in Tables F.1(i)(a) & F.1(i)(b) of this application show that there is little or no difference in water quality between the sampling location upstream of the streams confluence with the Athboy River (aSW1u) and the sampling location downstream of the streams confluence with the Athboy River (aSW1d).
- The EPA monitor water quality in the Athboy River at stations upstream and downstream of the Crossakeel Agglomeration. The closest EPA station upstream of the agglomeration (07A010020) has a most recent Q-Value rating of Q4 (waters have good water quality (unpolluted)), whilst the closest EPA station downstream of the agglomeration (07A010050) has a most recent Q-Value rating of Q3-4 (moderate water quality (slightly polluted)). This deterioration in water quality in the Athboy



River from upstream of the Crossakeel WWTP, to downstream of the Crossakeel WWTP may be related to many influences, namely agricultural activities in the area, as will be discussed in Section G.2 of this application. With the Crossakeel WWTP producing treated effluent of the quality it is presently achieving, it is not expected to have a negative effect on quality of the Athboy River, which is located 800m downstream of the only discharge point from the agglomeration (SW-1).

- There are 3 no. Meath County Council Drinking Water Abstraction Points (Trim, Kilcarn & Roughgrange) located ca. 34.5km, 47.9km & 70.55km downstream (respectively) of the Crossakeel Agglomeration Primary Discharge Point. The quality of the final effluent being discharged from the Crossakeel WWTP, coupled with the very large distances (34.5km - 70.55km) between the Crossakeel Primary Discharge Point and the 3 no. Meath County Council Drinking Water Abstraction Points, indicate that the Drinking Water Abstraction Points are adequately protected.

Once the Waste Water Discharge Licence is issued for Crossakeel Agglomeration, the 'Programme for Environmental Monitoring' is proposed to continue in much the same way as it has done for the last 2 years. This will involve monitoring of the Influent to the Waste Water Treatment Plant and the Effluent from the Waste Water Treatment Plant (i.e. Primary Discharge Outlet Effluent Sampling Location) on a monthly basis for the following parameters: BOD, COD, Total Suspended Solids (TSS), Total Phosphorus as P & Total Nitrogen as N.

The Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) requests water sampling of the aquatic environment into which the Primary and Secondary Discharges occur, in order to monitor the impact of the discharges on the ambient environment.

For the last number of years, the County Council have carried out monthly monitoring upstream and downstream of the stream confluence with the Athboy River, at the EPA Station Locations 07A010020 and 07A010050, as shown on Drawing No. 5270-2755. This sampling includes analysis for: Dissolved Oxygen (DO), Temperature, pH, Electrical Conductivity, BOD, Suspended Solids, Ammonia, Total Nitrogen, Nitrate, Chloride, Alkalinity, Hardness & Colour.

It is proposed to continue this monitoring upstream and downstream of the discharge points in the Athboy River, but to replace the EPA sampling locations with locations aSW1u and aSW1d, as shown on Drawing No. 5270-2755.