SECTION A – NON TECHNICAL SUMMARY

Attachment A.1

– **Non Technical Summary**

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NON-TECHNICAL SUMMARY

Meath County Council, County Hall, Railway Street, 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 Carlanstown Waste Water Treatment Works, serving the agglomeration of: Carlanstown, County Meath.

The agglomeration is served by the Carlanstown Waste Water Treatment Plant, Carlanstown, County Meath (Grid Reference 276723E, 279220N), as shown on Drawing No. 5270 - 2780.

Carlanstown Waste Water Treatment Plant (WWTP) is located to the south Carlanstown and was commissioned in 2002, treating municipal waste water from the village, with a design notional capacity in the order of 600 P.E. However the process tanks (aeration basin and final clarifier) are sized such that the actual capacity of the plant is significantly higher. Preliminary process design checks were undertaken using 'as constructed' dimensions combined with site specific influent flow and load data, which has revealed that biological loadings of up to at least 820 P.E. will be easily accommodated within the various design constraints at the current Carlanstown WWTP.

It is estimated that Carlanstown WWTP is currently serving an existing population equivalent of 604. The calculated population equivalent to be contributed to the waste water works as a result of pending development (planning permissions already granted) is 103 P.E. The project 2016 population equivalent for the Carlanstown Agglomeration is 731PE. The Carlanstown Waste Water Treatment Plant will be capable of accommodating the projected maximum population equivalent (2016) of 731 without posing an environmental risk to the receiving water habitat.

The Carlanstown Agglomeration has 2 no. existing discharge points: a Primary Discharge Point (SW1), at location 276742E - 279164N, which discharges into the Moynalty River (as shown on Drawing No. 5270-2784) and a Storm Water Overflow Discharge Point (SW2), at location 276742E - 279164N, which discharges into the Moynalty River (as shown on Drawing No. 5270-2786).

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 CaCo3 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:

- All discharge points are/will be below the water level of the Moynalty River, and as such do not pose any noise or dust impact on the surrounding environment.
- All 2 no. emission points discharge to the Moynalty River, which has no designation of ecological significance.
- There are no emissions to ground/groundwater from the Carlanstown 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 an improvement in surface water quality from the upstream sampling location (aSW-1u) to the downstream sampling location (aSW-1d), for concentrations of suspended solids, BOD, nitrite, phosphorous, orthophosphate, sulphate, chromium, copper, lead, nickel, zinc & barium. This improvement in water quality would indicate that the Carlanstown WWTP is not having a negative affect on the water quality of the Moynalty River.
- The EPA monitor water quality in the Moynalty River at stations upstream and downstream of the discharges from Carlanstown WWTP. The closest EPA station upstream of the agglomeration has a most recent Q-Value rating of Q3-4 (= moderate water quality (slightly polluted)) as does the EPA station downstream of the agglomeration. This consistency in water quality would indicate that the quality of the effluent discharged from the Carlanstown WWTP is not having a negative effect on the quality of the Moynalty River.
- There are 2 no. Meath County Council Drinking Water Abstraction Points (Liscarton & Roughgrange) located ca. 15.85km & 39.23km downstream (respectively) of the Carlanstown Agglomeration Primary Discharge Point. The quality of the final effluent being discharged from the Carlanstown WWTP, coupled with the very large distances (15.85km & 39.23km) between the Carlanstown Primary Discharge Point and the 2 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 Carlanstown 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 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, Meath County Council have carried out monthly monitoring upstream and downstream of Carlanstown WWTP discharges into the Moynalty River, at the EPA Station Locations 07M030800 and 07M030900, as shown on Drawing No. 5270-2795. 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 Moynalty River, but to replace the EPA sampling locations with locations aSW1u and aSW1d, as shown on Drawing No. 5270-2795.