

Foynes to Limerick Road (including Adare Bypass)

Request for HAWRAT assessment results from Inland Fisheries Ireland

11th February 2021

Comment

RODAM have undertaken the required HAWRAT assessment in line with current TII standards as outlined in the EIAR. The HAWRAT tool works by providing loadings for the first flush events, based on the AADT chosen in the tool, and the passing criterion is based on the event mean loading at 6hr and 24hr threshold levels for Copper and Zinc. The analysis is then combined with low flow conditions so as to represent severe conditions for passing or failing. As noted in the EIAR, Ch10, Para 10.4.10, all outfalls have been shown to pass the HAWRAT assessment, assisted in some cases by the mitigation measure of providing suitable treatment systems in the attenuation ponds which are included as part of the drainage design. . Cumulative impact assessments have also been undertaken for outfalls in close proximity to each other as specified in the tool. Further noted in the same section of the EIAR is that the AADT figure used in the assessment is likely to provide a conservative estimate given that the traffic flows are projected to be experienced are below or at the lower end of the AADT band used in the assessment.

The results of the HAWRAT assessment are appended.

Relevant extract from the EIAR is included overleaf.

10.4.10 Impact of Routine Road Runoff on Receiving Waters

Research has found that a broad band of potential pollutants are associated with routine runoff from road schemes arising from road traffic and road maintenance. These contaminants are generally associated with the particulate phase and are principally heavy metals, hydrocarbons and suspended solids and de-icing agents (salt and grit) and to a lesser extent nutrients, organics and faecal coliforms. In terms of potential impact to receiving watercourses research has found the first flush runoff (10 to 15mm) can produce elevated concentrations locally in the receiving water. The impact of contaminants within routine road runoff depends on the loading (associated with traffic numbers) and the available dilution in the receiving watercourse.

The high density of discharge points disperses and reduces the pollutant point load from road drainage waters. The design traffic volume in conjunction with the relatively small contributing road areas will not give rise to significant hydraulic or pollutant loads on the receiving waters. The potential impact of routine runoff represents a slight to moderate local impact on water quality in the receiving environment. The overall loading of heavy metals, sediment and hydrocarbons on the receiving waters will be significantly reduced through the provision of grassed channels, filter drains where permitted and storm attenuation/water quality improvement ponds.

TII DN-DNG-03065 gives guidance and assessment tools for the impact of road projects on the water environment, including the effects of runoff on surface waters. The Highways Agency Water Risk Assessment Tool (HAWRAT) is the tool used to assess the effects of road runoff on surface water quality and uses toxicity thresholds based on UK field research programmes which are consistent with the requirements of the WFD and appropriate for assessment of National Road Schemes in Ireland. The UK research programme has shown that pollution impacts from routine runoff on receiving waters are broadly correlated with Annual Average Daily Traffic (AADT).

A HAWRAT assessment has been carried out for all 32 proposed drainage outfalls along the proposed road development. The HAWRAT assessment has tested for the 10,000 - 50,000 vehicles/day range which is well above the projected traffic figures for the Foynes to Limerick Road and thus actual pollutant concentrations are expected to be considerably lower than the estimates from the HAWRAT assessment.

All of the outfalls passed the HAWRAT assessment. In general, the most likely impact of untreated road runoff from the proposed road development is the increased total suspended solids loading to receiving waters and associated trace amounts of heavy metals (Cu, Zn) and hydrocarbons. Anticipated traffic volumes on each section of the proposed road development are detailed in Chapter 5 Traffic Analysis.