

An Bord Pleanála
Strategic Infrastructure Development Section
64 Marlborough Street
Dublin 1 D01 V902



Iascach Iníre Éireann
Inland Fisheries Ireland

14.02.2020

Re.: Foynes to Limerick Road (including Adare Bypass)

Dear Sir/Madam,



In respect of the above named planning application, Inland Fisheries Ireland (IFI) has considered the application and has the following observations and recommendations to make. IFI acknowledge that extensive pre-planning consultation has taken place between the project proponents and Inland Fisheries Ireland and that the outcome of this consultation is reflected in the current planning application.

IFI further draws attention to the requirements of the Water Framework Directive (WFD) that all waters, whether or not they are modified, should meet the quality elements to comply with good ecological status for unmodified waters or good ecological potential for modified waters. The WFD requires that member states protect inland surface waters and shall implement the "necessary measures to prevent deterioration of the status of all bodies of surface waters". It is clear that without adequate mitigation, aspects of this planning application have the capacity to cause deterioration in the status of the rivers in the vicinity of scheduled works.

IFI is a statutory body with responsibility under the provisions of the Fisheries Acts for the management, conservation and protection of Ireland's fishery resource. The chief concern of IFI is the protection of this resource and in particular reference to this application, both the instream and riparian habitat and the water quality of the downstream Lower River Shannon SAC, and the important spawning and nursery habitat for salmonids, lamprey eels and crayfish available throughout the works area. The EIAR and NIS are unclear as to whether sea lamprey occur in the Maigne, IFI can confirm they have been recorded in the vicinity of Adare Manor and thus should have been screened in for the purposes of the NIS. However, it is likely that any mitigation measures would be similar to those adopted for river lamprey. River lamprey and brook lamprey also utilise this area of the lower Maigne for spawning from March to May. Juvenile lamprey have also been recorded in this area. Suitable habitat for lamprey spawning exists throughout the catchment but it likely the series of weirs present on the river present a partial or total barrier to migration. The Maigne also sees a significant run of the catadromous European eel, a species that is IUCN red-listed as critically endangered. As part of a pan-European research programme, IFI operate a monitoring station at Adare Manor. While the station is outside of the works footprint, eels will be travelling through the works area and vulnerable to the same impacts as salmonids and lamprey.

Culverts, whether they are temporary or permanent structures, must not pose a barrier to fish migration. IFI is of the view that all culverts must be embedded. While less preferable to box or bottomless culverts, embedded pipe culverts should, where installation is agreed, maintain the natural channel gradient, stream width and substrate configuration and be of a minimum size of 900mm.



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They should be buried to a minimum of 300mm (preferably 500mm) below the stream bed at the natural gradient, and sized to maintain the natural stream channel width. The usable gradient range recommended for embedded pipe culverts is less than three per cent (3%). Box culverts should be embedded to a minimum of 500mm. Stone pitching or rock armour is required at the end of each culvert to prevent scour and provide for transition from the culvert to the realigned stream channel.

Embedment of the culvert and back-filling with clean gravel/cobble is the most preferable approach to establish fish passage. The sizing and availability of washed cobble or boulder-sized material to fill the culvert is thus important. IFI require that the detail of construction methods and any necessary habitat/fishery protection/enhancement works associated with culverts are agreed in advance. IFI further require a layer of stone of 40 to 50mm depth is placed on the bed of any temporary stream alignment to prevent scour and silt loss. Both permanent and temporary river crossings can only be installed during the open season for fisheries works, the months of July to September inclusive.

Silt traps should be constructed at locations that will intercept run-off to streams. Traps should not be constructed immediately adjacent to natural watercourses. A sufficiently sized and protected buffer zone should remain between the silt trap and the watercourse with natural vegetation left intact so as to assist silt interception. The design of silt traps or settlement ponds should facilitate the bypassing of individual cells for maintenance/solids removal if and when required. The silt traps/settlement ponds should have turbidity monitors at the inflow to allow advance warning of silt-laden waters entering. In constructing and designing silt traps, particular attention should be paid to rainfall levels and intensity. The silt traps should be designed to minimise the movement of silt especially during intense precipitation events where the trap maybe become hydraulically overloaded. It is essential that they are located with good access to facilitate monitoring sampling and maintenance. IFI requests that settlement ponds are sized to allow for a minimum 24 hour retention time. All drainage should be designed to achieve a discharge to surface waters with a suspended solid concentration of no more than 25mg/L. This should be noted in the CEMP and any associated Works Method Statements. The pH of receiving waters should remain in the range of 6-9 unless baseline monitoring shows it is normally outside of this range. IFI would require daily visual inspections of all settlement ponds, surface water and drainage systems with checks twice daily in periods of heavy rainfall. Final design of drainage and silt trapping systems should be agreed with IFI.

In relation to pre-works water quality monitoring, IFI recommend that the sampling period is extended to 12 months to capture any seasonal variation in parameters.

The recommendations included in the both the IFI document *Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters* (IFI, 2016) and the *Biosecurity Protocol for Field Survey Work* (IFI, 2010) should be implemented in full.



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During construction, IFI require that:

- All discharges to and through the surface water collection and disposal system to groundwater and thence to surface water shall not be of environmental significance.
- All mitigation measures identified in the EIAR are implemented in full.
- IFI recommend that all piling activities begin with a ramp-up or 'soft-start' procedure to more fully mitigate the impact of any noise on the movement of fish species through the works area.
- There shall be no permitted discharges to surface water resources of contaminated water or surface water run-off from the development.
- Servicing including refuelling of plant and equipment shall only be undertaken on impermeable hard standing areas.
- All plant and equipment used within the subject site shall carry spill clean-up kits and not be used or operated if there is evidence of leakage or damaged oil seals.
- There shall be no discharge during the construction period of cementitious materials or residues thereof to the surface water or drainage network.
- When cast-in-place concrete is required, all works shall be undertaken in the dry and effectively isolated from entering any receiving surface or foul sewers for a period sufficient to cure the concrete.
- Concrete delivery vehicles shall be precluded from washing out at locations that could result in a discharge to the surface or foul sewers.
- Where cement or lime is stored on site, it shall be held in a dry secure area.
- All oils and fuels used on or within the site shall be stored in secure bunded areas and servicing including refuelling of plant and equipment shall only be undertaken on impermeable hard standing areas.
- Where temporary diesel or petrol driven pumps are used within the site, they shall be positioned within portable bunded units.
- Any silt curtains to be deployed should comply with the relevant European Standard CE 1137-CPR-0613/29.



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In relation to the Emergency Response Plan, IFI suggest that all staff working in the vicinity of watercourses are aware of procedures to prevent silt or other pollutants from reaching watercourses. Sufficient materials to aid in diversion/containment on any such spillage should be readily available and stored at close distance. Contact details for local IFI staff can be supplied to the contractor once appointed to be added to the Emergency Response Manual.

The timing for any instream works is strictly July to September in any one year.

IFI will require consultation on the final CEMP, EOP and specific works method statements with the contractor as appointed.

Please do not hesitate to contact IFI should you require further detail or clarification on any matter.

Yours sincerely,

Jane Gilleran

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Jane Gilleran
Fisheries Environmental Officer
Inland Fisheries Ireland - Limerick