



An  
Bord  
Pleanála

## Inspector's Report ABP-310659-21

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<b>Development</b>	N72/R579 Ballymaquirk Junction Upgrade Scheme
<b>Location</b>	Ballymaquirk, Co. Cork.
<b>Local Authority</b>	Cork County Council
<b>Type of application</b>	Application for approval made under Section 177AE of the Planning and Development Act, 2010
<b>Observers</b>	None
<b>Date of site inspection</b>	15 October 2021
<b>Inspector</b>	Mairead Kenny

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## 1.0 Overview

- 1.1. This report concerns the N72/R579 Ballymaquirk Junction Upgrade Scheme. The proposed development involves replacement of the existing junction with a roundabout and the associated realignment of all existing approach roads.
- 1.2. The application for approval is being made under section 177(AE) of the Planning and Development Act 2000 as amended.

## 2.0 Site Location and Description

- 2.1. The N72 is a national secondary road, and the relevant section is located between Mallow and Rathmore, 17km west of Mallow. The R579 regional road connects Kanturk which is 5km to the north of Ballymaquirk junction and Banteer which is 1km to the south. Both the national and regional roads are single carriageway, and the speed limits are 100kph and 80 kph respectively.
- 2.2. The landscape character, land uses, and settlement pattern are rural in nature at the northern end of the site. The key significant features in the area include Ducon a concrete processing facility to the north. The N72 crosses the River Allow at Leader's Bridge and the R579 crosses the River Blackwater at Ballymaquirk Bridge. Both bridges are protected structures. A large proportion of the site is under immature woodland.

## 3.0 Proposed Development

- 3.1. The **application documentation** includes the following:
  - Natura Impact Statement
  - Preliminary Design Report
  - Public notices and letter of application .
- 3.2. The **proposed development** comprises works to replace the existing crossroads with a roundabout. The roundabout would be located in the north-east quadrant of the existing junction.

3.3. The **scheme objective** relates to improved safety. The upgraded junction will have sufficient capacity to cater for future traffic levels.

3.4. The **works involved comprise:**

- Replacement of the existing crossroads with a roundabout of 38 m inscribed circle diameter.
- Single lane entries.
- Landscaping at the centre of the proposed roundabout.
- Perimeter footpaths to provide for pedestrian crossings.
- Upgrade of approach arms to Type 2 single carriageway including 3.5 m wide lanes, 0.5 m hard strips, 2.5 m wide grass verges.
- A maintenance layby to the north of the roundabout on the east side of the R579.
- Road drainage system discharging to a proposed attenuation pond located in the northeast quadrant of the revised junction.
- Public lighting, traffic signs and road markings.
- Protection and diversion of utilities.
- All site development and landscaping works.

3.5. The **landtake and accommodation works** include:

- Permanent landtake of 3.48 hectares and temporary landtake of 0.94 hectares. This is to be subject of a compulsory purchase order.
- Improvement of existing accesses from fields and 2 no. dwellinghouses.

## 4.0 Planning History

4.1. ABP-300148-17 relates to a referral case regarding works at Ducon Concrete.

4.2. Reg. ref. 306120 relates to an application for permission to retain demolition and construction of a factory building at the Ducon Concrete facility. The application is undecided.

4.3. Reg. ref. 174316 – this relates to an application to retain a dwellinghouse north of the N72 road carriageway.

4.4. There is no other recent relevant planning history of significance.

## 5.0 **Observations**

### 5.1. **Prescribed Bodies**

The prescribed bodies notified by the applicant are:

- An Taisce
- Arts Council
- Failte Ireland
- Inland Fisheries Ireland
- Irish Water
- Environmental Protection Agency
- National Parks and Wildlife Service
- The Heritage Council
- Waterways Ireland
- Office of Public Works

No submissions were received.

### 5.2. **Third-Party Observations**

No third-party observations were received.

## 6.0 **Legislative, Guidance and Policy Context**

### 6.1. **The EU Habitats Directive (92/43/EEC):**

Article 6(3) and 6(4) of this requires an appropriate assessment of the likely significant effects of a proposed development on its own and in combination with other plans and projects which may have an effect on a European Site.

## 6.2. **European Communities (Birds and Natural Habitats) Regulations 2011:**

These Regulations are relevant in terms of the transposition of the Directive in Ireland.

## 6.3. **Planning and Development Acts 2000 (as amended):**

Part XAB of the Planning and Development Acts 2000-2017 presents requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.

- 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
- Section 177(AE)(1) refers to preparation of a Natura Impact Statement in respect of proposed local authority developments.
- Section 177(AE)(3) states that where a Natura Impact Statement has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply to the carrying out of the appropriate assessment.
- Section 177(V)(3) states that a competent authority shall give consent for a proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.
- Under section 177AE(6)(a) before making a decision in respect of a proposed development the Board shall consider the NIS, any submissions or observations received and any other information relating to:
  - The likely effects on the environment.
  - The likely consequences for the proper planning and sustainable development of the area.
  - The likely significant effects on a European site.

## 6.4. **Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities**

The guidance addresses the requirement to consider the possible nature conservation implications of plans and projects on the Natura 2000 site network and

sets out the process known as appropriate assessment. The guidance emphasises the avoidance of mitigation in the screening phase, the need to record the process and to rely on best scientific knowledge.

#### **6.5. The Planning System and Flood Risk Management Guidelines**

The guidance addresses the requirement to assess flood risk in applications for development and sets out the level of assessment warranted in particular situations. In considering proposals for development which may be vulnerable to flooding a number of criteria may be considered under a Justification Test. These include that the proposal has been subject to a flood risk assessment that demonstrates measures to ensure that residual risks can be managed to an acceptable level.

#### **6.6. Road Safety Authority Road Safety Strategy 2013-2020**

This sets out targets to be achieved in terms of road safety and the policy to achieve these targets. The primary target is a reduction of road collision fatalities on Irish roads to 25 per million population or less by 2020 and a provisional target for the reduction of serious injuries to 61 per million population or less by 2020.

#### **6.7. National Planning Framework – Project Ireland 2040**

National Strategic Outcome 2 refers to Enhanced Regional Accessibility particularly relating to connectivity between centres of population of scale. This will support the objectives of the NPF. NSO2 references maintaining the strategic capacity and safety of national roads including planning for future capacity enhancements and improving journey times targeting an average inter-urban speed of 90kph.

National Strategic Outcome 3 relates to strengthening rural economies and communities. Investing and maintaining regional and local roads and strategic road improvement projects in rural areas will ensure access to critical services.

#### **6.8. National Development Plan 2018 – 2027.**

Arising from the NPF the National Development Plan identifies the national road network as one of its strategic investment priorities.



There is no listing for this section of the N72 under the associated Capital Investment Tracker.

#### **6.9. Regional Spatial and Economic Strategy for the Southern Region 2020.**

RPO 167 sets out priorities for identified strategic road network improvements that are not included in the NDP. Improvements to national roads identified at regional and local level will be done in consultation with and subject to agreement with TII. A number of projects are supported as strategic regional priorities to achieve the NPF objective NSO2 (Enhanced Regional Accessibility).

Improvements to the N72 corridor are identified as a project of relevance in this respect. The focus in the document includes the section of the N72 between Mallow and Dungarvan – there is no specific mention of the section west of Mallow.

#### **6.10. Cork County Development Plan 2014-2020**

TM 3-1 sets out various objectives relating to the national road network. There is no specific mention of this particular road junction or this section of the N72. The general objectives set out include to support and provide for improvements to the national road network.

TM 3-2 recognises the strategic role of regional roads.

### **7.0 Assessment**

#### **7.1. Introduction**

7.1.1. The Board in making a decision in respect of an application under Section 177AE shall consider:

- The likely effects on the environment,
- The likely consequences for the proper planning and sustainable development in the area, and
- The likely significant effects of the proposed development upon a European site.

7.1.2. The structure of my report follows the above three topics.

## 7.2. **The likely effects on the environment**

7.2.1. Having regard to the nature of the proposed development on the site context I consider that the likely effects of the proposed development on the environment can be assessed under the following headings:

- Hydrology and Hydrogeology
- Biodiversity
- Population, Air and Noise
- Cultural heritage
- Other issues.

### 7.2.2. **Hydrology and Hydrogeology**

7.2.3. The Allow and the Blackwater dominate the local hydrology and both watercourses are proximate to the proposed development. The existing road culverts provide a potential route connecting the proposed works with the Blackwater. The site is also within a flood risk zone. I address the relevant aspects relating to hydrology and hydrogeology under the following headings:

- Scheme drainage
- Construction mitigation
- Flood risk
- Groundwater.

#### **Scheme drainage**

7.2.4. The existing surface water quality is impacted by five existing drainage outfalls to the River Blackwater. Ducon Concrete discharges clean settled water to a drainage ditch to the north of the site under EPA licence. This discharged water flows into the drainage to the east of the regional road and onto the existing masonry arch culvert which will take the receiving water from the completed junction upgrade. The existing local drainage network within and adjacent the site is shown on figure 6 of the NIS;

the N72 drains diffusely to the River Blackwater by way of a tree plantation. The total greenfield run-off directly and indirectly into the River Blackwater is estimated to contribute 0.02% of the average flow within the River Blackwater as measured at the nearest downstream station. A portion of the north-east of the site drains diffusely out falling to the River Allow.

7.2.5. Figure 7 of the NIS shows the proposed drainage layout for the scheme. The operational stage drainage will be by way of a single network which is described in section 2.5.4. All surface water will be collected by either grass surface water channels or combined kerb and drainage systems and conveyed in a closed carrier pipe system to the north-east of the proposed roundabout. At this point the surface water drainage will discharge by way of a petrol interceptor to an online impermeable lined attenuation pond of 582 m<sup>3</sup> capacity. Surface water will be controlled prior to discharge by way of the flow control chamber containing a flow control device into the adjacent open channel road/land drain. The latter outfalls to the River Blackwater through an existing masonry arch culvert, stilling basin and 300 mm diameter concrete outlet pipe. In the event of spillage on the complete scheme the surface water run-off can be isolated from the attenuation storage by a penstock valve, limiting the spread and preventing downstream contamination. The operational stage discharge rate will equate to a 3.1% increase of surface water run-off during construction. The applicant states that the increased operational stage discharge will be a zero percent change in the overall average flow.

7.2.6. I consider that the information provided by the applicant demonstrates that due consideration has been given to the background conditions influencing local hydrology. I am also satisfied that the site drainage proposals have been formulated with due regard to the sensitive nature of the environment and that there is evidence that appropriate expertise has been utilised. I consider that the inclusion in the scheme of an attenuation pond to which the scheme will drain constitutes an improvement over the existing conditions whereby most of the run-off is not subject to attenuation. This feature also provides an option for dealing with operational phase spillages. I conclude that the scheme includes a surface water drainage design which is appropriate and indeed will constitute an upgrade over existing conditions.

7.2.7. Having regard to the proximity of the road to the Blackwater, I consider that it would be appropriate that a maintenance plan for the surface water drainage system be put in place to ensure long-term protection of the environment. This can be addressed by condition.

7.2.8. **Construction mitigation**

7.2.9. The overarching construction phase mitigation measures include a CEMP incorporating surface water management measures and emergency response procedures. Specific aspects of the CEMP relating to the protection of water resources involve processes to mitigate and remedy impacts from silt and concrete, which are described in section 2.8.5 and section 5.4.3 of the NIS. The management of excavation and storage of spoil and the contractor's responsibility in this regard are set out in section 2.8.6. This includes a requirement to implement the surface water management plan prior to excavation. The contractor's responsibility with respect to the excavation and waste management in general are set out in section 2.8.7 and include requirements relating to permits and licenses. The site compound will be located on improved grassland to the north-west of the crossroads and approximately 210 m from the SAC. It is to be fitted with a temporary sustainable urban positive drainage system which will be installed prior to commencement of works. Wastewater from holding tanks will be collected by an appropriate licence contractor.

7.2.10. Regarding the proximity of the site to the Blackwater it is relevant to note the extensive measures which are presented in the application to ensure that silt run-off is controlled. Some of these measures will be in place for the construction phase. I note in particular the proposal that at the earliest stage of the works, two permanent geotextile lined silt traps and stilling basins will be installed above the most downstream point of all watercourses/drainage ditches leading to the River Blackwater. The existing drainage basin south of the existing masonry arch culvert on the N 72 (south-east of the crossroads) is to be permanently upgraded to a geotextile lined silt trap and stilling basin of approximate capacity of 16.6 m<sup>3</sup>. A permanent sandbag check dam wrapped with geotextile to create a lined silt trap and stilling basin will be installed south-east of the existing diagonal masonry box culvert underneath the junction with an approximate capacity of 15.9 m<sup>3</sup>. The applicant states that the proposed silt traps/stilling basins upstream of the existing/proposed

drainage outfall points to the river Blackwater will have ample capacity to cater for the potential suspended solids generated by the construction stage drained area with a 1.75 average factor of safety and residual storage capacity to cater for a silt incident.

- 7.2.11. I consider that the measures present in the application are critical in the context of the environmental sensitivity of the area. I am satisfied that the mitigation measures are appropriate and sufficiently detailed for the purposes of this application and do not pose any particular likelihood of difficulty in their implementation.

### **Flood Risk**

- 7.2.12. The existing road floods on occasion due to fluvial flooding from the Blackwater and the Allow. The Site-Specific Flood Risk Assessment Report is provided in appendix F of the Preliminary Design Report and referenced in the NIS.

- 7.2.13. I consider that the construction phase poses potential for adverse water quality effects in the event that it coincides with a flood. The proposed site compound location is well outside the 1% and 0.1% AEP flood event extents and would not be affected. The construction phase mitigation measures proposed include flood events within the category of measures which will be subject to the environmental emergency response procedures. The construction phase set up also will address the appropriate locations for spoil storage and for activities which could give rise to pollution in the context of a significant flood event. I consider that due to the mitigation measures described it may be concluded that the proposed development would not give rise to adverse water quality effects as a result of river flooding or high rainfall events during the construction of the scheme.

- 7.2.14. The operational phase flooding measures which are incorporated in the design include the fitting of a non-return flap valve on the downstream face of the attenuation pond to prevent surcharging during flood events. I consider that this is necessary and sufficient to mitigate the potential for adverse surface water quality effects due to flooding in the operation phase.

- 7.2.15. The levels of the proposed roundabout and approach roads will exclude a flood risk in future. I consider that it is demonstrated that the completed road scheme will not be subject to flooding and that there would be no adverse consequences for other lands.

7.2.16. In conclusion I agree with the applicant that there are no significant residual impacts associated with the scheme in terms of flood risk.

### **Groundwater**

7.2.17. There is no reference in the submitted documentation to any private wells in the area and on that basis, I conclude that there are no potential impacts on a significant number of private water sources. I note that the description of public utilities in the PDR references Irish Water infrastructure in relation to which there is ongoing consultation. It may be concluded based on the submitted information that there is no likelihood of significant impact on water supplies.

7.2.18. The nature of the works is mainly in fill and as such would not be likely to result in increased groundwater vulnerability. The pollution prevention measures will be protective of the groundwater resources in addition.

7.2.19. I conclude that the development would not result in significant effects on groundwater resources.

### **7.2.20. Conclusion**

7.2.21. In conclusion I consider that the proposed development would not give rise to adverse water quality impacts on the River Blackwater, the River Allow or on groundwater resources.

### **7.2.22. Biodiversity**

The application documents report ecological habitat surveys undertaken and note the key receptors include the woodlands, freshwater habitats, an abandoned badger sett, some mature trees which may have bat roosting potential, bats and red squirrel. The CEMP sets out mitigation in the form of adherence to the recommendations of this report. The application documents do not include the full report but do contain a summary of the findings. I have considered whether to request that the full report be submitted and concluded in the circumstances where the issues arising are not related to appropriate assessment and taking into account the nature and limited scale of the proposed development and lack of any recommendations from prescribed bodies or other observers, that the information on file is sufficient. I note in this regard that the removal of trees and woodlands in particular may give rise to potential requirements relating to re-location of species including bats and I consider

that this may be addressed by condition having regard to the laws affording protection to these species. In the circumstances I consider that a specialist bat survey is an appropriate precautionary measure. I also recommend that the standard dates regarding removal of trees and hedgerows be reiterated by condition in the interest of the protection of breeding birds. I note the requirements set down in section 4.2.8.1 which relate to the spread of non-native invasive species.

Regarding the long-term impacts of the proposed development, I note the proposed planting which will include species rich native grass seed mixes on road embankments, on infill areas and at the edges of the attenuation pond. A similar approach will be taken to the planting of existing wetland areas and the proposed attenuation pond wetted area. I agree with the applicant's submission that in time these will result in a net gain in biodiversity as the habitat which is to be replaced does not appear to be of high diversity. The flower rich habitat could benefit the bee *Bombus barbutellus* and the landscaping will have regard to the All-Ireland Pollinator Plan Guidance. There will be small losses of woodland and hedge which will be mitigated by the planting of species rich native low canopy wood land/hedgerow mix pockets. All woodland will be native and species rich.

In conclusion I am satisfied that the protection of ecological receptors identified, (excluding those which are qualifying interests of European sites which are later considered) has been sufficiently assessed and that all issues arising can be addressed by planning condition.

### 7.2.23. **Population, Air and Noise**

With respect to the topics addressed in the Preliminary Design Report I note that there is no reference to the topics of air or noise and the consequences for human beings as a result of the construction phase impacts. The proposed development context is a sparsely populated rural location dominated by the existing road network. There are only a handful of residential properties within the vicinity and this population would be accustomed to some level of impacts related to the heavily trafficked roads. While consideration might have been given to these topics in view of the requirements of the Board to consider *inter alia* the proper planning and sustainable development of the area, I consider that in the circumstances the documentation provided is adequate. Having regard to the existing environmental

context and pressures, I am satisfied that no significant additional impacts are likely and that any relevant issues can be implemented by the adoption of a Construction and Environmental Management Plan. Accordingly, I have set out a recommendation below that the proposed CEMP be made available on the public file.

#### **7.2.24. Cultural Heritage**

Section 6 of the Preliminary Design Report addresses the topic of archaeology, architectural and cultural heritage. It briefly identifies a limekiln, Leader's bridge, Ballymaquirk Bridge, a railway abutment and an abandoned railway line as being relevant in terms of this topic area. The full report is not provided but the summary indicates that the protected structures would not be impacted as the works at these locations are to the existing road surface only. Furthermore, it is stated that the limekiln, abandoned railway line and its features including the abutment are all outside the area of the works. Following consideration of the application documentation and the relevant drawings I accept this overall conclusion.

The applicant has set out some recommendations relating to measures to be implemented to ensure that archaeological and heritage impacts are mitigated. These include advanced trench testing, protection of the limekiln by ensuring that it is fenced and appropriately sign posted and finally archaeological monitoring of topsoil stripping. As the full AIA is not presented, I have set out a planning condition to ensure that archaeological mitigation is properly closed off.

#### **7.2.25. Conclusion**

I conclude that the proposed development would not give rise to significant residual effects on the environment having regard to the nature and scale of the proposed development and subject to the mitigation measures presented and to the conditions included in the recommendation below.

### **7.3. The likely consequences for the proper planning and sustainable development of the area**

I address this topic below with reference to the scheme need and the consequences for road safety. I also briefly reference policy provisions.



- 7.3.1. The scheme need is related to road safety and the poor collision record at this junction. This type of junction layout whereby both minor arms intersect the mainline at the same location is not recommended on national roads. I accept that the existing layout could lead to overshoot which in the context of the high speeds and high volumes of traffic on the national road could have serious consequences in the event of collision. The narrow cross-section width at the junction reduces the scope for evasive action and increases the risk of collisions. Any resulting accidents would involve high speed collision and potential for serious injury. I consider that the existing junction layout is such that a road improvement scheme is clearly warranted.
- 7.3.2. Further detail of the existing situation is set out in section 2 of the Preliminary Design Report. The traffic data from the nearest TII traffic counter and from a traffic survey undertaken shows peak hourly turning flows in the order of 900 vehicles. The design speed calculation was derived and was determined to be 100 kph on the N 72 and 70 kph on the R597. The collision history is reported in table 2.4 and figure 2.2 of the Preliminary Design Report. The recorded level of collisions is described as being well above average and almost all collisions resulted from the interaction of conflicting vehicles at the junction. I consider that the information provided supports the need for the scheme.
- 7.3.3. Lighting is proposed in the scheme for reasons of safety as the proposed roundabout would be the only such intervention on a long stretch of national road. I accept the argument that there are safety benefits associated with the provision of public lighting in the circumstances. I consider that the proposed lighting of the junction is appropriate.
- 7.3.4. With respect to design alternatives the options considered included:
- A ghost island staggered priority junction was considered in an earlier report, but it was rejected on the basis that there would be insufficient capacity for future traffic flows and potentially pose a safety problem.
  - The possible alternative of installing traffic lights was rejected. I accept that traffic signals would be more appropriate as a form of junction control in urban areas. There is no reason why they would be beneficial at this rural location.
  - The applicant describes the disadvantages which would be associated with a grade separated junction alternative. In this case the raising of road levels

would impact Ballymaquirk Bridge and Leader's Bridge, which are protected structures and impact significantly on the European site. For these reasons I consider that this option would not constitute a viable alternative to be pursued.

- I note that the percentage of accidents which occurred during wet conditions or at night was not disproportionate. Therefore, there is nothing to indicate that upgrading of the road surface or installation of lighting would resolve existing safety issues.

7.3.5. With respect to the alignment design, this is described in section 3.3 of the Preliminary Design Report. Details are provided of the roundabout and the approach road alignment as well as the proposed upgrades to the accesses. It is noted that despite the relocation of some of the existing accesses there are still relaxations and departures from TII geometry standards and locations where improvement cannot be made due to environmental constraints or land take impacts. I accept the conclusion presented that the proposed development will nevertheless result in a very significant upgrade and improved safety.

7.3.6. Having regard to the above it is reasonable to conclude that the proposed development constitutes a suitable approach to the upgrading of this deficient junction. It is clear from the above that there has been a thorough investigation of the causes of accidents at this junction and that the proposed development has emerged following consideration of a range of alternatives. I am satisfied that the proposed development will provide a suitable long-term solution which will address the public safety issues at this junction.

7.3.7. In terms of the policy context, I refer to the earlier section of my report which outlines a range of national, regional and county policy provisions which are relevant. I would refer in particular to the Regional Policy Objectives in the RSES for the Southern region, notably RPO 167 and the development plan objectives relating to the national and regional roads infrastructure. The proposed development would not detract from the setting or directly impact on any protected structures or monuments which are listed under the development plan. There would be no significant impact on landscape character.

7.3.8. I conclude that there is a clear need for the scheme, that it is appropriate in terms of its design and that it accords with planning policy.

## 7.4. Conclusion

- 7.4.1. Having regard to all of the above I am satisfied that the proposed scheme will provide for a significant upgrade to this road junction resulting in improved road safety.
- 7.4.2. There will be no residual effects on the environment once mitigation measures are adhered to. The nature of the works does not pose any particular complexities and there is no likelihood of difficulties being encountered in the implementation of mitigation and taking into account the provisions relating to emergency response procedures.
- 7.4.3. I consider that the selected option and the design details including with respect to surface water are appropriately described and sufficient. The scheme will improve safety for road users and thereby enhance regional connectivity.
- 7.4.4. I conclude that the development would constitute a positive intervention and would be in accordance with the proper planning and sustainable development of the area.

## 8.0 Appropriate Assessment

### 8.1. Introduction

- 8.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and S 177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:
- Compliance with Article 6(3) of the EU Habitats Directive
  - Screening the need for appropriate assessment
  - The Natura Impact Statement and associated documents
  - Appropriate assessment of implications of the proposed development on the integrity each European site

## **8.2. Compliance with Article 6(3) of the EU Habitats Directive**

- 8.2.1. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.
- 8.2.2. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).

## **8.3. Appropriate Assessment- Screening**

- 8.3.1. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.
- 8.3.2. **Background on the Application**
- 8.3.3. The applicant has submitted a Screening Report which is presented as section 4 of the document entitled 'Natura Impact Statement – In Support of Appropriate Assessment –Ballymaquirk Junction Upgrade'. This was prepared by Moore Group Environmental Services and is dated 16 June 2021.
- 8.3.4. I consider that the screening undertaken is in line with current best practice guidance. It takes into account a 15km zone of impact noting that the relevant zone of impact may be determined by connectivity to the proposed development. Table 3 of the report sets out the relevant European sites and their qualifying interests and assesses connectivity to these sites.
- 8.3.5. The applicant's AA Screening Report concluded that:

Potential source vector pathways were addressed in considering the hydrological connectivity between the proposed road development and the Blackwater River (Cork/Waterford) SAC. Were development to proceed, there would be no direct impact on the Blackwater River (Cork/Waterford) SAC and so potential indirect impacts are then considered.

The potential for indirect significant adverse effects on the Blackwater River (Cork/Waterford) SAC is uncertain in the absence of control of potential pollution on surface water during construction. The Project will require a Construction Environmental Management Plan to avoid potential impacts on the River Blackwater and it is concluded that a Natura Impact Statement be prepared for the purpose of Article 6[3] of the Habitats Directive and Part XAB of the Planning and Development Act, 2000, as amended.

8.3.6. Having reviewed the documents and submissions, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

**8.3.7. Screening for Appropriate Assessment- Test of likely significant effects**

8.3.8. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on a European site.

8.3.9. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.

**8.3.10. Description of the development**

8.3.11. The applicant provides a description of the project in section 2 of the NIS. The information provided includes a particular focus on aspects of the development which are likely to be relevant for the purposes of Appropriate Assessment including construction practices and drainage arrangements. I have addressed hydrology and hydrogeology earlier and reference this in support of this appropriate assessment.

8.3.12. The proposed development it is as described earlier in this report as supplemented by the further detail is set out below.

- The **overall layout** of the proposed development is presented in Figure 3.
- The **construction works site** will be within the existing road corridors and mainly north of the N72 and east of the R579. No works are proposed to the bridges both of which have been recently re-pointed and maintained.
- In terms of **earthworks**, it is noted that the proposed scheme is primarily characterised by fill. Side slopes of embankments have a maximum gradient of 1 in 3 and in general embankment heights do not exceed 2 m. There are significant amounts of soft silt underlying the proposed carriageways and replacement of such material will be required.
- The **management of excavation and storage of spoil** and the contractor's responsibility in this regard are set out in section 2.8.6. This includes a requirement to implement the surface water management plan prior to excavation. The contractor's responsibility with respect to the excavation and waste management in general are set out in section 2.8.7 and include requirements relating to permits and licenses.
- The **duration of works** will be nine months.
- The **landscaping** proposed is as described earlier.
- A **Construction Environmental Management Plan (CEMP)** has been prepared to manage the impacts of the construction activities. This is described in section 2.8 of the NIS. The contractor will have responsibility to implement the specific control measures. The process will be overseen by Cork County Council. Site environmental training including inductions and ongoing training will be provided for the purposes of communicating the main provisions of the environmental plan. Environmental emergency response procedures will be set down and specific measures relating to concrete control and fuel and oil management will be incorporated.
- Specific aspects of the CEMP relating to the **protection of water resources** involving processes to mitigate and remedy impacts from silt and concrete are described.

### 8.3.13. Submissions and Observations

The following prescribed bodies/stakeholders were notified in relation to the application:

- The Heritage Council
- Waterways Ireland
- Office of Public Works
- National Parks and Wildlife Service (Development Applications Unit)
- Irish Water
- Inland Fisheries Ireland
- Failte Ireland
- Environmental Protection Agency
- An Taisce
- An Chomhairle Ealaíon

No responses were received from any of these bodies.

No third-party observations were received.

### 8.3.14. European Sites

8.3.15. The development site is immediately adjacent to a European site, River Blackwater (Cork/Waterford) SAC (002170).

8.3.16. The other nearby European sites which are identified in the NIS are:

- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161)
- Mullaghanish to Musheramore Mountains SPA (004162)
- Blackwater Callows SPA (004094)
- Blackwater Estuary SPA (004028).

8.3.17. I also note the European sites Lower River Shannon SAC (002165) and Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365).

These are not explicitly referenced in the NIS which notes that the process of consideration of potential significant effects and the selection of relevant sites relies on there being connectivity. Both of these European sites are upstream from the site of the proposed development. I have examined their conservation objectives and consider that there is no possible connection between the proposed development and these European sites.

### **River Blackwater (Cork/Waterford) SAC**

8.3.18. The boundary of the designated area of this European site adjoins the scheme boundary at a location in the south-west of the proposed development. There are no proposed works to Ballymaquirk Bridge or Leader's Bridge. There is no landtake proposed along the SAC boundary. There are no direct impacts. The survey work undertaken included a nearby downstream survey for freshwater Pearl mussel, which is present in the River Allow upstream of the proposed development. There is potential for indirect effects which would arise in relation to construction and operation phase impacts including water quality impact.

8.3.19. I refer to the following European sites which are within the general region of the scheme.

- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161)
- Mullaghanish to Musheramore Mountains SPA (004162)
- Blackwater Callows SPA (004094)
- Blackwater Estuary SPA (004028).

Having regard to the conservation interests of those sites and the separation or absence of pathways, these European sites are ruled out from further consideration. I agree with this assessment.

### **8.3.20. Mitigation measures**

No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

### **8.3.21. Screening Determination**



The proposed development was considered in light of the requirements of 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could have a significant effect on the European Site River Blackwater (Cork/Waterford) SAC (002170) in view of the site's Conservation Objectives, and Appropriate Assessment is therefore required.

#### **8.4. Appropriate Assessment – Stage 2**

- 8.4.1. Following the screening process, it has been determined that Appropriate Assessment is required as it cannot be excluded on the basis of objective information that the proposed Ballymaquirk Junction Upgrade individually or in combination with other plans or projects will have a significant effect on the River Blackwater (Cork/Waterford) SAC (002170).
- 8.4.2. **The Natura Impact Statement**
- 8.4.3. The application included a NIS entitled 'Natura Impact Statement – In Support of Appropriate Assessment –Ballymaquirk Junction Upgrade', dated 16 June 2021. The Stage 2 Screening incorporated examines and assess potential adverse effects of the proposed development on River Blackwater (Cork/Waterford) SAC (002170).
- 8.4.4. I am satisfied that the report was prepared by a suitably qualified and experienced specialist with expertise relevant to the ecological receptors. The specialist survey on Freshwater Pearl Mussel presented as Appendix 1 is noteworthy. I consider that the information supplied is adequate.
- 8.4.5. I note the approach to the screening stage which excludes certain qualifying interests of River Blackwater (Cork/Waterford) SAC at Stage 1. I consider that the purpose of the screening stage is to identify European sites to be brought forward to Stage 2. In screening out potential impacts on any qualifying interests below I have relied on the information provided by the applicant in Stage 1, which I consider is adequate.
- 8.4.6. **Appropriate Assessment of implications of the proposed development**

- 8.4.7. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.
- 8.4.8. In the foregoing I have regard to relevant guidance including the publication of DoEHLG (2009), Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. Dublin and the document of EC (2002), Assessment of Plans and Projects significantly affecting Natura 2000 sites. Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC.

## 8.5. European Sites

### **River Blackwater (Cork/Waterford) SAC**

The conservation objectives for the River Blackwater (Cork/Waterford) SAC (002170). are as set out in the publication of NPWS of 31 July 2012 (Version 1.0).

The qualifying interests of the River Blackwater (Cork/Waterford) SAC (002170). are as follows.

[1029] Freshwater Pearl Mussel *Margaritifera margaritifera*

[1092] White-clawed Crayfish *Austropotamobius pallipes*

[1095] Sea Lamprey *Petromyzon marinus*

[1096] Brook Lamprey *Lampetra planeri*

[1099] River Lamprey *Lampetra fluviatilis*

[1103] Twaite Shad *Alosa fallax*

[1106] Atlantic Salmon *Salmo salar* (only in fresh water)

[1130] Estuaries

[1140] Mudflats and sandflats not covered by seawater at low tide

[1220] Perennial vegetation of stony banks

[1310] *Salicornia* and other annuals colonizing mud and sand

[1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

- [1355] Otter *Lutra lutra*
- [1410] Mediterranean salt meadows (*Juncetalia maritimi*)
- [1421] Killarney Fern *Trichomanes speciosum*
- [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
- [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
- [91E0] \*Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
- [91J0] \**Taxus baccata* woods of the British Isles

The **site-specific conservation objectives** are:

**To maintain the favourable conservation condition of**

- [1092] White-clawed Crayfish (*Austropotamobius pallipes*)
- [1096] Brook Lamprey (*Lampetra planeri*)
- [1099] River Lamprey (*Lampetra fluviatilis*)
- [1106] Atlantic Salmon (*Salmo salar*)
- [1130] Estuaries
- [1140] Tidal Mudflats and Sandflats
- [1220] Perennial vegetation of stony banks
- [1310] *Salicornia* and other annuals colonizing mud and sand
- [1410] Mediterranean salt meadows (*Juncetalia maritimi*)
- [1421] Killarney Fern (*Trichomanes speciosum*)
- [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
- [91E0] \*Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

which is defined by a list of attributes and targets.

**To restore the favourable conservation condition of**

- [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)
- [1095] Sea Lamprey (*Petromyzon marinus*)

[1103] Twaite Shad (*Alosa fallax*)

[1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

[1355] Otter (*Lutra lutra*)

[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

which is defined by a list of attributes and targets.

With respect to the qualifying interest

[91J0] \**Taxus baccata* woods of the British Isles

the status of the species and the conservation objective is under review.

This is an extensive site which is selected for a range of habitats including priority habitats and species. It is relevant at this time to provide further description of the location of qualifying interests in the context of the potential impact pathways and based on that information to identify the conservation objectives which may be excluded from further consideration.

<p>[1130] Estuaries [1140] Tidal Mudflats and Sandflats [1220] Perennial vegetation of stony bank [1310] Salicornia Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows</p>	<p>These qualifying interests are coastal / estuarine habitats which are located significantly downstream of the proposed development and may be excluded from further consideration notwithstanding the hydrological pathway. The distances involved are over 67 km in all cases. It is reasonable to conclude that any potential pollutants will be absorbed and diluted to an extent that they will not be perceptible at these habitats.</p>
<p>[3260] Floating River Vegetation</p>	<p>Surveys for this habitat were undertaken within the area between Ballymaquirk Bridge and the confluence of the River Allow. It is reported that the habitat is not</p>

	<p>present within this 300m stretch. The NIS discounts any potential effects on the site on the basis that any potential pollutants would be absorbed and diluted to an extent that they will not be perceptible. I consider that there is a need for a more robust assessment of this matter and as a precautionary measure I propose to discuss this qualifying habitat further below.</p>
<p>[91A0] Old Oak Woodlands  [91E0] Alluvial Forests*  [91J0] *<i>Taxus baccata</i> woods of the British Isles</p>	<p>These terrestrial habitats are not found in the vicinity of the scheme and there is no connectivity and no potential for effects. The detailed conservation objectives and associated mapping identifies a 5.1 hectare at nearby Banteer and another 3.8 hectare woodland over 20km downstream both of which are described as Alluvial woodland which is confirmed not to be ancient or long established.</p> <p>With respect to the woodland habitats immediately adjacent the site to the southwest of the crossroads, it is confirmed in the NIS following surveys that there are no Annex I habitats. The terrestrial habitats which are present are described in section 3.2 of the NIS. They are confirmed to be mixed broadleaf woodlands and which do not correspond to the annexed habitats Old oak woodlands or Alluvial forests.</p>

	<p>I note in addition that [91J0] *<i>Taxus baccata</i> woods of the British Isles is no longer listed as a qualifying interest for this European site under the NPWS website. However, the detailed conservation objectives (version 1) have not been amended. The associated mapping shows that the nearest record of [91J0] *<i>Taxus baccata</i> woods of the British Isles is over 60km away downstream of Cappaquin. I have taken this habitat into account and consider that it can be excluded from further consideration.</p>
<p>[1029] Freshwater Pearl Mussel  [1095] Sea Lamprey  [1096] Brook Lamprey  [1099] River Lamprey  [1106] Atlantic Salmon</p>	<p>There is potential for effects on all of these species.</p> <p>Freshwater Pearl Mussel is present upstream in the Allow. The dedicated surveys undertaken which are reported in Appendix 1 indicate the species was present in the vicinity of the scheme.</p> <p>Juveniles of all lamprey species have been recorded in the Blackwater and Allow Rivers in the vicinity of the proposed development. Spawning areas of Sea Lamprey are downstream of the site.</p> <p>Atlantic salmon is considered likely to be present in the study area. The Blackwater adjacent to the proposed project is registered in the Regulations.</p>

<p>[1103] Twaite Shad [1092] White-clawed Crayfish</p>	<p>There is an indirect hydraulic connection between the proposed development and these species. The location of the species is over 12.5km. It is reasonable to conclude that any potential pollutants will be absorbed and diluted to an extent that they will not be perceptible at these locations and would not affect the species.</p>
<p>[1355] Otter</p>	<p>Both the Blackwater and Allow rivers are recognised otter habitats. There is potential for effects on all of this species.</p>
<p>[1421] Killarney Fern</p>	<p>This is not present in the area and is reported as being located 66km minimum from the proposed development. There is no potential for effects.</p>

Based on the above I conclude that the potential for significant effects on the following conservation objectives may be excluded:

- White-clawed Crayfish
- Estuaries
- Mudflats and sandflats not covered by seawater at low tide
- Perennial vegetation of stony banks
- *Salicornia* and other annuals colonizing mud and sand
- Atlantic salt meadows
- Mediterranean salt meadows
- Twaite Shad
- Killarney Fern

- Old oak woods
- \*Alluvial forests
- \**Taxus baccata* woods of the British Isles

I consider that the potential for significant effects on the following conservation objectives cannot be excluded:

- Floating river vegetation
- Freshwater Pearl Mussel
- Sea Lamprey
- Brook Lamprey
- River Lamprey
- Atlantic Salmon
- Otter

## 8.6. Aspects of the proposed development.

8.6.1. Before proceeding to individually examine the relevant habitats and species I provide some comment on the potential for direct effects on qualifying interests of the European site. The designated SAC boundary defined overlaps with the site to the southwest of the existing crossroads. It is confirmed in the NIS that following surveys of the lands there are no Annex I habitats under the footprint of the proposed works area. The terrestrial habitats which are present are described in section 3.2 of the NIS. They are confirmed to be mixed broadleaf woodlands and which do not correspond to the annexed habitats Old oak woodlands or Alluvial forests. The topographical survey drawing sheets 2 and 3 which are presented support the description of the habitats. The drawings contained in the Preliminary Design Report also support the applicant's statement that there will be no land take along the SAC boundary on the southwestern extent of the scheme. I accept applicant's case that there will be no direct impacts on habitats which are qualifying interests for the European site.

8.6.2. I consider that the likely significant potential impact pathways relevant to the above conservation objectives relevant in the construction and operation phases are:



- Potential for run-off during construction works. The establishment of temporary working compound and topsoil stripping and the storage of construction materials are relevant in this regard. Potential for adverse water quality effects including leakage or spillage of hydrocarbons and other chemicals and increases in turbidity as a result of siltation.
- Earthworks and vegetation clearance. This will take place throughout the site including lands proximate to the boundary of the SAC. It has potential to cause direct damage to sediments and increase the risk of introducing pollutants and siltation. Potential therefore for adverse water quality effects including spillage of hydrocarbons/concrete and increases in turbidity.
- Indirect effects on all species in the event of instream works or other water quality effects arising from working close to watercourses.
- Disturbance effects during the construction phase.
- Long-term water quality effects.
- Direct impacts during construction phase including disturbance of otters using the area would not be likely to be significant as there are no holts close to the works and due to the existing busy road environs, there is likely to be a degree of customisation to noise and lighting. It can be concluded that there would be no perceptible impacts on otter related to noise and disturbance during construction or operation of the scheme.
- There is no potential for direct impacts on mammals during the operational phase. The change to the road alignment is not significant in the sense of crossing routes.

## 8.7. Potential for impacts on the individual qualifying interests

### Freshwater Pearl Mussel

- 8.7.1. Dedicated in-stream surveys of the River Blackwater downstream of Ballymaquirk show several small clusters of the species on the southern banks. This includes a total of 19 live mussels recorded in the 150m downstream of the bridge. Sets of dead shells are also reported.

- 8.7.2. The pressures and threats to the species are reported in section 5.3.3 of the NIS. The proposed development does not involve works to the riverbanks and therefore there will be no direct impacts on the species. There will be no hydrological changes in the absence of changes to the surface water runoff rates. Water quality changes from events such as accidental spillage of pollutants or discharges of silt are identified as the only relevant concern. In the absence of appropriate mitigation, the proposed development has the potential to affect the qualifying interest.

### **Sea Lamprey, Brook Lamprey and River Lamprey**

- 8.7.3. There are records from the River Blackwater downstream from the proposed development for all species of lamprey. The species could be impacted by settlement and formation of deposits on the riverbed reducing oxygenation of surface water, by chemical spills, spills of concrete and cement and in the event of high levels of suspended solids being released fish gills could be clogged. In the absence of mitigation, the proposed development has the potential to cause serious pollution to watercourses which could affect lamprey.

### **Atlantic Salmon**

- 8.7.4. The Blackwater is a designated salmonid river. Elevated and suspended solids can potentially cause mortality. Reductions in oxygenation of surface waters result in conditions which are unfavorable to the species. Spillages of chemicals, concrete or cement have the potential to cause serious pollution to watercourses resulting in reduced oxygen levels and affecting fish life. In the absence of mitigation, the proposed development could result in significant adverse effects on salmon.
- 8.7.5. Salmonids have a role in the life cycle of freshwater pearl mussel and adverse effects on salmon would be relevant to the qualifying interest FPM.

### **Otter**

- 8.7.6. Both the Blackwater and Allow rivers provide excellent habitat for otter which utilise the entire study area within the river corridor. There are several records for otter from Leader's Bridge. Direct impacts can be ruled out as no signs of the species (including spraints or holts) were recorded in surveys of the woodlands within the footprint of the proposed development area. I consider that it may reasonably be concluded that there will be no impact on otter due to noise and disturbance having regard to the character of the existing roadside environment. There is potential for

impacts on otter due to indirect water quality effects which could give rise to a reduction in prey. The proposed development will not result in any impediments to terrestrial animal movement including otter.

### **Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation**

- 8.7.7. This habitat was amongst the qualifying interests which were screened out in the applicant's screening report. I consider that this qualifying interest requires further consideration.
- 8.7.8. The information presented by the applicant is as follows. The surveys undertaken demonstrate that the habitat is not present within a 300m stretch of the river between Ballymaquirk Bridge to the confluence of the River Allow downstream. Elsewhere it is stated that the receiving environment does not have 'habitats corresponding to Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation'. The applicant's case is that indirect potential effects on this habitat can be ruled out on the basis of a freshwater buffer between the site and the habitat and the absorption and dilution effect which is considered sufficient so that the effect would not be perceptible.
- 8.7.9. Following examination of the conservation objectives and supporting information on the NPWS website I note that there is uncertainty regarding the location of this habitat. It is however clearly stated that there is potential for effects on this qualifying interest including in the event of water quality deterioration. I therefore conclude that in the absence of mitigation the proposed development could result in significant adverse effects on this habitat, which may be present within the zone of influence.

### **8.8. Mitigation**

- 8.8.1. The proposed mitigation measures include the over-arching measure of implementing a Construction and Environmental Management Plan, which is presented as appendix 3 to the NIS.
- 8.8.2. The CEMP will incorporate the following:
- An Environmental Emergency Response Plan which will enable rapid response to any releases of hazardous substances, flood events and will

include stop orders in the event of environmental issues concerns involving entrenched to ecological features.

- Measures to protect the SAC for the duration of the construction period. This will include creating exclusion zones involving the erection of visible fencing and suitable notices. The exclusion zone fencing will include a geotextile fencing to prevent washout of suspended solids which might otherwise drain diffusely to the river. There will also be frequent road sweeping and cleaning to prevent direct or indirect pollution of adjacent water courses and drains. The exclusion zone and silt fencing will be retained until landscaping works is complete.
- Measures to reduce potential environmental impacts on habitats and species of ecological value. This will include timing of cutting of vegetation and removal of trees. Relevant to the qualifying interests are the measures relating to the erection of silt screens / fences downstream of all drainage ditches to prevent silt laden water from entering the river. Also, there will be measures implemented during the construction phase which will prevent the release of sediments and contaminants to the adjacent water courses. Storage of materials at the site compound and refuelling will be separated from water courses by 10 m buffer.
- Sediments, erosion and pollution management measures including with respect to delivery and use of concrete, design and operation of the construction site compound and its associated surface water drainage and measures to prevent and remedy spillages and to control silt are set out in more detail in section 5.4.3. Noteworthy is the proposed temporary sustainable urban positive drainage system which will be installed at the construction site compound prior to commencement of works. I also reference the proposals relating to stockpiled and features of the drainage infrastructure and the proposed monitoring by way of discharge licences and other measures described.
- The CEMP sets out roles and responsibilities for key personnel. This includes a description of roles for the construction manager, environmental officer, project ecologist and site supervisors. All personnel will be expected to

participate fully in environmental training and to provide management with any necessary feedback and adhered fully to the site environmental rules. A range of environmental control measures will be adopted to ensure that environmental commitments are met.

- 8.8.3. I note that the construction and operation phase mitigation measures presented are referenced in the context of having been drawn up using guidelines and best practice which is listed and which I consider is appropriate and comprehensive. The appendices included in the CEMP include a habitat map.
- 8.8.4. Preparation and implementation of an Invasive Species Management Plan is proposed. Within the site there one specimen of Giant hogweed was recorded - only the winter stem was visible as the plant had been out during woodlands maintenance. The species was not recorded on subsequent site visits. There were two stands of Japanese knotweed which are outside the works. I consider that it is acceptable that the ISMP be formulated prior to the construction of development.
- 8.8.5. The applicant notes that the nature of the measures proposed in this case have been implemented and improved for many years and that a high degree of success would be anticipated. I agree with this statement. The development does not give rise to any particular circumstances or involved any processes which would give rise to concern relating to the success of mitigation. I consider that sufficient information has been provided for the purposes of appropriate assessment and that it is appropriate and acceptable that more detailed site-specific information will be incorporated in the updated CEMP once the contractor is appointed.

## 8.9. **Predicted Effects on Qualifying Interests**

- 8.9.1. This section considers the relevant qualifying interests and the predicted effects on the qualifying interests having regard to the site-specific conservation objectives and in light of the proposed mitigation measures described above. Table 5 of the NIS provides a detailed examination of the qualifying interests and their attributes and targets and supplements this information with notes provide a wealth of background detail.

### **Freshwater Pearl Mussel**

8.9.2. The relevant targets and attributes for FPM include maintaining the distribution of 161 km of length of river, restoring the population size to 35,000 adult mussels, limiting adult mortality, restoring water quality to high ecological status for two biological quality elements, restoring substratum quality and oxygen availability and maintaining hydrological regime. I consider that the proposed development will have no impact on river flow. I note that there are no works in stream. I am satisfied that the proposed mitigation measures which are presented will ensure that the proposed development will not affect the attributes which rely on water quality including with respect to the population size, structure and mortality and the substratum. The maintenance of good water quality status will ensure there are no effects on host species such as salmonids and will thereby allow for recruitment and habitat expansion. The target of maintenance of sufficient juvenile salmonids to host glochidial larvae is not undermined. I consider that the potential indirect impacts on freshwater Pearl mussel and their host fish will be controlled by silt control and other construction management and mitigation measures which are outlined in the CEMP.

### **Sea Lamprey**

8.9.3. The detailed conservation objectives for Sea lamprey include attributes and targets which are dependent on maintenance of good water quality status. These include that there is availability of juvenile habitats and no decline in the extent and distribution of spawning beds. I consider that the potential indirect impacts on Sea lamprey will be controlled by silt trapping and the appropriate construction management and mitigation measures which are outlined in the CEMP.

8.9.4. I note that one of the attributes relates to the distribution of barriers which will be achieved by maintaining the length of river accessible from the estuary. The proposed development does not give rise to barriers to movement.

### **Brook Lamprey and River Lamprey**

8.9.5. These species share attributes and targets. The proposed development would not result in the introduction of barriers and there would be no effect on the percentage of river which is accessible to these species. Otherwise, the detailed conservation objectives for these two qualifying interests relate to the distribution, population structure of juveniles, juvenile density and extent and distribution of spawning habitat and availability of juvenile habitats. I agree with the applicant's assessment and

conclusions - I consider that the potential indirect impacts on brook lamprey and river lamprey will be controlled by silt trapping and the appropriate construction management and mitigation measures which are outlined in the CEMP.

### **Atlantic Salmon**

- 8.9.6. The proposed development would not result in the introduction of barriers and there would be no effect on the percentage of river channels which would be accessible to the species and no barriers to upstream migration. The proposed development would not give rise to potential indirect impacts on the number of adult spawning fish, the abundance of fry or result in significant declines in the number and distribution of spawning redds, subject to effective mitigation of adverse water quality effects. I agree with the applicant's assessment and conclusions - I consider that the potential indirect impacts on Atlantic salmon will be controlled by silt trapping and the appropriate construction management and mitigation measures which are outlined in the CEMP.

### **Otter**

- 8.9.7. There will be no direct impacts on the species and in particular no significant decline in the availability of holts or resting places within or adjacent to the site. The proposed scheme does not result in the introduction of barriers to commuting otters.
- 8.9.8. I consider that it can be concluded that there would be no impact on the distribution, extent of habitat or on the availability of fish biomass subject to maintenance of good water quality. I consider that the potential indirect impacts on otter, which relate to maintenance of otter prey, will be controlled by silt trapping and the appropriate construction management and mitigation measures which are outlined in the CEMP.

### **Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation**

- 8.9.9. This habitat was amongst the qualifying interests which were screened out in the applicant's screening report. I do not consider that this point is demonstrated and I have concluded that in the absence of mitigation the proposed development could result in significant adverse effects on this habitat.
- 8.9.10. I consider that the relevant attributes and targets may be summarized as follows:
- No decline in the habitat distribution –apart from natural processes.

- No reduction in the area of the habitat - apart from natural processes.
- Maintenance of appropriate hydrological regimes – the requirement is for a natural flow regime including high flows and flow variation.
- Maintenance of natural tidal regime.
- Maintain substratum composition which is dominated by the particle size ranges appropriate to the habitat subtype.
- Requirement that concentration of nutrients in water column is sufficiently low to prevent changes in species composition or habitat condition. The emphasis is on nutrients, but suspended solids and minerals are also relevant.
- Typical species of the relevant sub-type should be present and in good condition. The sub-types are stated to be poorly understood and their typical species not yet defined.
- Maintenance of the area of active floodplain at and upstream of the habitat.

8.9.11. Having regard to the nature and scale of the proposed development I consider that there is no possibility of any affect on the attributes as a result of the proposed development as measured by the relevant attributes and targets with the possible exception of water quality effects in relation to which mitigation measures may be required. The proposed development does not involve instream works which could give rise to direct impact and there would be no impact on river flows are sub strata as a result of the proposed development.

8.9.12. I consider that the potential indirect impacts from water quality effects will be controlled by silt trapping and the appropriate construction management and mitigation measures which are outlined in the CEMP.

## 8.10. In combination effects

8.10.1. The potential for significant in combination / cumulative effects is considered in section 5.6 of the NIS. This notes a number of licensed facilities and discharge licensed operations in the vicinity of the proposed development. Noteworthy is the licensed discharge from nearby Ducon concrete. The facility discharges clean settled water to the drainage data at the southern boundary under license and the discharge



water flows onwards east of the regional road and onto the masonry arch culvert which will take the receiving water from the completed junction upgrade. Two licensed discharges to the River Allow are also described.

8.10.2. The recent planning applications in the vicinity are reported in the NIS. These relate to developments of small scale. I have reviewed the planning history presented and can confirm that it is up to date. I note the live application under reg. ref. 216765, which relates to retention of demolition and construction of a factory building at Ducon Concrete. Having regard to the fact this is an application to retain the development I suggest that it will not be relevant for cumulative effects associated with the proposed development a result of the absence of a temporal overlap.

8.10.3. The conclusion presented in the NIS is that there are no predicted in combination impacts given the required licensed discharge of clean water from the upstream operations and taking into account the nature of permitted developments and the determination by the local authority that there would be no significant impacts. I consider that this conclusion is reasonable and I agree with the assessment that there would be no predicted in combination/cumulative impacts.

#### **8.11. Integrity test**

8.11.1. Following the appropriate assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of the River Blackwater (Cork/Waterford) SAC (002170) in view of the Conservation Objectives of this site.

8.11.2. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

#### **8.12. Appropriate Assessment Conclusion**

8.12.1. The N72 /R579 Ballymaquirk Junction Upgrade has been considered in light of the assessment requirements of Sections 177U and 177AE of the Planning and Development Act 2000 as amended.

8.12.2. Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on the River Blackwater (Cork/Waterford) SAC (002170). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the sites in light of their conservation objectives.

8.12.3. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the River Blackwater (Cork/Waterford) SAC (002170), or any other European site, in view of the site's Conservation Objectives.

8.12.4. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to the Conservation Objectives of River Blackwater (Cork/Waterford) SAC (002170).
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of River Blackwater (Cork/Waterford) SAC (002170).

## 9.0 Recommendation

On the basis of the above assessment, I recommend that the Board approve the proposed development subject to the reasons and considerations set out below and subject to the conditions requiring compliance with the submitted details and the mitigation measures set out in the NIS and overall documentation.

### Reasons and Considerations

In coming to its decision, the Board had regard to the following:

- (a) the EU Habitats Directive (92/43/EEC),
- (b) the European Union (Birds and Natural Habitats) Regulations 2011-2015,
- (c) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European site,

- (d) the conservation objectives of the European site River Blackwater (Cork/Waterford) SAC (002170),
- (e) the policies and objectives of the Cork County Development Plan 2014-2021,
- (f) the nature and extent of the proposed works set out in the application for approval,
- (g) The report and recommendation of the person appointed by the Board to make a report and recommendation on the matter.

### **Appropriate Assessment**

The Board agreed with and adopted the screening assessment and conclusion reached in the Inspector's report that the European site River Blackwater (Cork/Waterford) SAC (002170) is the only European Sites in respect of which the proposed development has the potential to have a significant effect.

The Board considered the Natura Impact Statement and associated documentation submitted with the application for approval, the mitigation measures contained therein and the submissions and observations on file. The Board completed an appropriate assessment of the implications of the proposed development for European site River Blackwater (Cork/Waterford) SAC (002170), in view of the site's conservation objectives. The Board considered that the information before it was adequate to allow for a complete assessment of all aspects of the proposed development and enable them reach complete, precise and definitive conclusions for appropriate assessment.

In completing the appropriate assessment, the Board considered, in particular, the following:

- i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- ii. the mitigation measures which are included as part of the current proposal, and
- iii. the conservation objectives for the European Site.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the

potential effects of the proposed development on the integrity of the aforementioned European Site, having regard to the site's conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Site, in view of the site's conservation objectives and there is no reasonable scientific doubt remaining as to the absence of such effects.

**Proper Planning and Sustainable Development/Likely effects on the environment:**

It is considered that, subject to compliance with the conditions set out below, the proposed development would not contribute to downstream flooding, would not seriously injure the amenities of property in the vicinity, would not adversely impact on the cultural, archaeological and built heritage of the area and would be acceptable in terms of traffic safety and convenience. The proposed development is in accordance with the stated objectives of the Cork County Development Plan 2014-2021. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

**Conditions**

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application and the information contained in the Natura Impact Statement, except as may otherwise be required in order to comply with the following conditions. Where any mitigation measures or any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

**Reason:** In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment.

2. The local authority and any agent acting on its behalf shall comply with the mitigation measures contained in the application documentation including the Natura Impact Statement submitted with the application.

**Reason:** In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the European sites and the appropriate protection of flora and fauna.

3. Prior to commencement of development, the local authority or any agent acting on its behalf shall prepare a detailed Construction Environmental Management Plan (CEMP) incorporating all measures set out in the application documentation including the mitigation measures indicated in the Natura Impact Statement and demonstration of proposals to ensure best practice.

The plan shall address *inter alia* measures relating to emergency environmental response, preventing the spread of invasive species, construction stage traffic management, waste management and water quality.

The plan shall be placed on the file and retained as part of the public record.

**Reason:** In the interests of protecting the amenities of the area and the environment.

4. Prior to the commencement development the local authority shall commission a specialist report prepared by a recognised and experienced bat expert. The report shall include measures to mitigate impacts on bats arising from the removal of trees and from the lighting and works in the construction and operation phase.

**Reason :** To ensure the protection of bats.

5. Removal of any trees and hedgerows shall be prohibited outside the period of September to February inclusive.

**Reason :** To ensure the protection of breeding birds.

6. A suitably qualified ecologist shall be appointed by the local authority to oversee the site set-up and construction of the proposed development and the ecologist shall be present on-site during construction works. Upon completion of works, an audit report of the site works shall be prepared by the appointed ecologist and submitted to the local authority to be kept on record.

**Reason:** In the interest of nature conservation, to prevent adverse impacts on the European sites and to ensure the protection of the Annex I habitats and Annex II species and their Qualifying Interests for which the sites were designated.

7. The local authority shall prepare and implement a long-term plan for the maintenance of the surface water drainage infrastructure associated with the road upgrade scheme.

**Reason :** To ensure that the surface water drainage measures which are part of the proposed development operate effectively.

8. The detailed design of the proposed development shall have regard to the provisions of NRA publication 'Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes' and the Eastern Regional Fisheries Board publication 'Requirements for the Protection of Fisheries Habitat during Construction and Development Work at River Sites'.

**Reason:** In the interests of ecological protection.

9. The local authority and any agent acting on its behalf shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. In this regard, the County Council shall:
  - a) employ a suitably qualified archaeologist prior to commencement of the development who shall assess the site and monitor all site investigations and other excavation works, and
  - b) provide suitable arrangements acceptable to the Department of Culture, Heritage and the Gaeltacht for the recording and removal of any archaeological materials which is considered appropriate to remove.

**Reason:** In order to conserve the archaeological heritage of the site and secure the preservation and protection of any remains that may exist within the site.



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Mairead Kenny  
Senior Planning Inspector

25 January 2022