Inspector's Report

ABP-306099-19

Development	Proposed replacement of existing bridge.
Location	Brook Lodge, Borris, Co. Carlow.
Planning Authority	Carlow County Council
Type of Application	Section 177AE(1) of the Planning and Development Act 2000, as amended
Date of Site Inspection	28/03/2020
Inspector	Gillian Kane

Contents

1.0 Introduction

1.1. This is an application to the Board for approval for a bridge replacement development at Brook Lodge, Borris, County Carlow. The proposed development comprises the replacement of the existing bridge with a clear span bridge. The application is made pursuant to Section 177 AE (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended.

1.2. Carlow County Council issued notice of the proposed development in The Nationalist newspaper on 26th November 2019. The notices advised that a Natura Impact Statement has been prepared in respect of the proposed development and that submissions / observations could be made to An Bord Pleanála up to and including 5.30 p.m. on Wednesday 15th January 2020. Submissions received by the Board are summarised in Section 6 below.

2.0 Site Location and Description

2.1.1. The subject site refers to a bridge across the Mountain River, on the local road L3006-2, in the townland of Spahill, approx. 2km north-east of the village of Borris.

2.1.2. The surface bridge (13.5m length), at grade with the adjoining road, is bound on both sides by light steel fencing (see drawing no. DRG02 for details). On the date of my site visit, some sections of the concrete on the southern side had come away and were covered with metal sheeting and traffic cones. As described in the Planning Authority documentation, the bridge comprises a series of 11 no. precast concrete pipes overlain with concrete.

2.1.3. The wider area is rural in nature, with some residential / agricultural development.

3.0 Proposed Development

3.1.1. The application was received by the Board on 27th November 2020. The proposed development seeks to replace the existing bridge with a clear span bridge of 14.40m with a soffit height of 1.37m. It is stated that the current bridge does not convey the river during flood conditions and the site is prone to flooding. The proposed six-week project during the months July to September, comprises:

- Creation of a fenced site compound of 1,500sq.m. 10m from the riverbank,

- Re-routing of the Mountain river with the provision of temporary damming along the centre of the river channel, tying into the riverbanks.
- Demolition of the left (eastern) side of the bridge, with a new reinforced concrete abutment installed along with riverbank protection works. Demolition of right (western) side with installation of abutment.
- Installation of bridge deck and parapet.
- Full width of river channel restored.

3.1.2. The application was accompanied by the following:

- Cover Letter
- Natura Impact Statement
- Bryophyte Survey
- Ecological Impact Assessment
- Preliminary Hydrology Report
- Public Notice
- Copies of letters to prescribed bodies

4.0 Legislation and Guidelines

4.1. **The EU Habitats Directive (92/43/EEC):** This Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) and 6(4) require 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 (SAC or SPA).

4.2. **European Communities (Birds and Natural Habitats) Regulations 2011:** These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgements. The Regulations in particular require in Reg 42(21) that where an appropriate assessment has already been carried out by a 'first' public authority for the same project (under a separate code of legislation) then a 'second' public authority considering that project for appropriate assessment under its own code of legislation is required to take account of the appropriate assessment of the first authority.

4.3. **National nature conservation designations:** The Department of Culture, Heritage and the Gaeltacht and the National Parks and Wildlife Service are responsible for the designation of conservation sites throughout the country. The three main types of designation are Natural Heritage Areas (NHA), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and the latter two form part of the European Natura 2000 Network.

4.3.1. The subject site is located within the River Barrow and River Nore SAC (002162), and is 5km from the Blackstairs Mountain SAC (000770).

4.4. **Planning and Development Acts 2000 (as amended):** Part XAB of the Planning and Development Acts 2000-2017 sets out the 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) requires a local authority to prepare, or cause to be prepared, a Natura impact statement in respect of the proposed development.
- Section 177(AE) (2) states that a proposed development in respect of which an appropriate assessment is required shall not be carried out unless the Board has approved it with or without modifications.
- Section 177(AE) (3) states that where a Natura impact assessment 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.
- Section 177AE (6) (a) states that 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.

5.0 Development Plan Policy Context

5.1.1. The subject site is within an area to which the Carlow County Development Plan 2015-2021 applies.

5.1.2. **Section 5.2.7** of the plan refers to Bridges, stating that over 250 bridges are dispersed throughout County Carlow which support the non-national road network. The Council continues to adopt a proactive role in maintaining, preserving and strengthening these bridges as necessary. The majority of the structures are of considerable age. The Council must have due regard to the historical value of this component of the built heritage of the county in the manner and methods engaged in maintaining the bridge stock and associated structures.

5.1.3. **Trans – Policy 3**, states that it is the policy of Carlow County Council to:

- Protect its transport network against development that would have a serious adverse effect on the capacity or operational efficiency and create serious traffic congestion or potentially give rise to traffic hazard
- Request Traffic and Transport Assessments (TTA's) on new developments where they may have traffic implications
- Safeguard the strategic role of national roads including associated junctions
- Be mindful of further development of established farm activity along national roads, also extensions to commercial or industrial development or new / intensification of equine related industries outside the speed limits on such roads where a road safety hazard is created
- Require all proposed developments in urban and rural areas accessing the road networks to comply with the requirements of Design Manual for Roads and Bridges (DMRB) or Design Manual for Urban Roads and Streets (DMURS)
- Avoid the creation of additional access points from new development or the generation of increased traffic from existing accesses to national roads to which speed limits greater than 50 kph apply. This prohibition will not necessarily apply

to developments of national and regional strategic importance in accordance with the National Spatial Strategy and Regional Planning Guidelines, which by their nature are most appropriately located outside urban areas. Exceptions to this policy would only be brought forward in a plan led manner, as indicated in the Spatial Planning and National Roads Guidelines and be with the agreement of the National Roads Authority

- Presume against large scale retail development adjacent to or close to existing, new or planned national roads
- Apply the requirements of the NRA TTA Guidelines (2014) including sub-threshold requirements, where development proposals may impact on National Roads

5.1.4. **Heritage Policy 2** of the plan, states that it is the policy of Carlow County Council to

- Strive to protect and maintain the favourable conservation status and conservation value of all natural heritage sites designated or proposed for designation in accordance with European and National legislation and in other relevant international conventions, agreements and processes. This includes sites designated or proposed as Special Areas of Conservation (SACs) and proposed Natural Heritage Areas (pNHAs), wild bird species and their habitats, especially rare or vulnerable species and regularly occurring migratory species.
- Screen all projects and plans arising from this plan for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project (e.g. proposed development) within the Plan Area will only be authorised after the competent authority (Carlow County Council) has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and an Appropriate Assessment where necessary, that:

  1. The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects) or

  2. The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be

a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000 or

3. The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000

- Promote the maintenance and, as appropriate, the achievement of favourable conservation status of protected habitats and species in association with the NPWS
- Assess, in accordance with the relevant legislation, all proposed developments which are likely to have a significant effect (directly or through indirect or cumulative impact) on designated natural heritage sites, sites proposed for designation and protected species
- Comply fully with Article 6 of the EU Habitats Directive (as transposed into Irish Law by the EU Habitats Regulations 1997 and subsequent amendments) and assess whether the plan or project is likely to have a significant impact upon the integrity, conservation objectives and qualifying interests of any Natura 2000 site, when considering any plan or project prepared or assessed on the basis of this development plan
- Promote development that would not conflict with maintaining favourable conservation status and the meeting of the conservation objectives for designated sites, especially sites in the Landscape Character Assessment within this Plan
- Permit projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation

requirements, duration of construction, operation, decommissioning or from any other effects on the basis of this Plan (either individually or in combination with other plans or projects[1])

- Support the recommendations of the Site Specific Conservation Objectives (SSCO's) for Natura 2000 sites. This is in order to examine how the Conservation Objectives of the sites can be achieved in the context of the proper planning and sustainable development of the county. It shall be the policy of the Council to ensure that development in takes into account the relevant Management Plans for SACs and SPAs in the county
- Ensure all proposed agricultural projects and any associated improvement works or associated infrastructure, individually or in combination with other plans and projects shall be subject to Appropriate Assessment to ensure that there are no likely significant effects on the integrity of any Natura 2000 sites in the County
- Implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such planning applications would need to be supported by an Appropriate Assessment where relevant
- Ensure that all of the following proposed projects and any associated improvement works or associated infrastructure are subject to Appropriate Assessment: renewable energy projects; water supply and abstraction; wastewater and discharges; flood alleviation and prevention; new infrastructure, particularly roads, powerlines and telecommunications; and amenity and recreation provision where this could impact European Sites
- Ensure the recommendations of the Landscape Character Assessment contained within Appendix 6 of this plan be adhered to at all times during the lifetime of this plan

6.0 Prescribed Bodies

6.1. Inland Fisheries Ireland

6.1.1. The submission of the Senior Fisheries Environmental Officer of the IFI can be summarised as follows:

- The Mountain River is one of the more important salmon spawning tributaries of the Barrow River SAC. The Barrow River SAC supports several Annex II species. Because of the Barrow navigation there is limited spawning or nursery habitat in the main channel and almost all salmon production occurs in tributaries such as the Mountain.
- The IFI welcome the proposal to replace the existing Bridge. The structure comprises a series of undersized culverts, formed in concrete, parallel to each other.
- The culverts have inadequate conveyance capacity during high flow events and are prone to blockage. When blocked the structure acts as a dam and the Mountain River flows over, forcing migratory fish to swim over the inundated river.
- Blockages also cause a build-up of sand and gravel upstream. Regular removal by the Local Authority allows the structure to function as a road crossing.
- IFI welcome the proposed clear-span bridge as it will facilitate the free passage of all age classes of fish species and will mitigate against blockages.
- The IFI requests the incorporation of soft engineering measures to maximise environmental gain.
- The river acts as a contributory to downstream habitat for juvenile salmonids, lampreys and other species, macrophytes, algae and macro-invertebrates which comprise a food supply to the downstream fisheries.
- The proposed works have the potential to convey deleterious material such as concrete, silt, fuel, lubricating and hydraulic oils unless proper safeguards are in place.
- Uncured concrete can kill fish and macro-invertebrates by altering the pH of the water. When cast-in-place concrete is required, the concrete must be allowed to dry and cure away from any water that may enter the drainage network. Concrete

delivery vehicles must not wash out at locations that would result in entry to the water. Bagged concrete must be securely stored.

- The discharge of silt-laden waters to fisheries streams can cause the clogging of salmonid spawning beds. Juvenile salmonids are particularly sensitive to siltation of gill structures. If plant and micro-invertebrate communities are covered, it can lead to loss of habitat.
- Best practice in construction methods and strategies is required.
- Care is required during refuelling and maintenance. Oils & fuels must be stored in secure bunded areas. Bunding must be 110% capacity of the largest stored tank or 25% of the total volume of substance stored.
- All plant & equipment should carry oil / fuel spill kits. Temporary oil interceptor should be installed. Waste and hazardous wastes should be disposed of in accordance with the Waste Management Act 1996.
- The concerns of the IFI include the pollution threat from concrete, the discharge of suspended solids or other deleterious matter, the discharge of fuels, oils, greases and hydraulic fluids into the watercourse.

6.2. **Department of Culture, Heritage & the Gaeltacht, DAU:**

6.2.1. **Underwater Archaeology**: There is a fording point and a stepping-stone feature on the 1838-1840's OS maps at or in proximity to Brook Lodge bridge. Forting points were the traditional location for ritual deposition of artefacts, scenes of battles or known crossing points. There is the potential that underwater heritage may be impacted. Recommendation that an Underwater Archaeological Impact Assessment (UAIA) be carried out. It shall be under licence, include bank and in-river visual survey and a photographed record.

6.2.2. The **National Parks and Wildlife Service of the Department of Culture, Heritage and Gaeltacht** did not make a submission on the proposed development to the Board. However, the NPWS was consulted with by the applicant and this consultation framed the approach to ecological assessment and NIS.

7.0 Assessment

7.1.1. Under the provisions of Section 177AE (6) the Board is required to consider the following in respect of this type of application:

(i) The likely effects on the environment,

(ii) The likely consequences for the proper planning and sustainable development of the area, and

(iii) The likely impact on any European sites (i.e. Appropriate Assessment).

7.2. The likely effects on the environment:

7.2.1. There is no provision under Section 177AE of the Planning and Development Act, 2000 as amended, to require Environmental Impact Assessment or to carry out a formal EIA Screening Determination for a Local Authority project, which was submitted under this section of the Act.

7.2.2. Having regard to the nature, scale and characteristics of the proposed development, I consider that the main environmental effects to be assessed, other than those that covered under the Appropriate Assessment are as follows:

- Water quality
- Biodiversity

7.2.3. In their submission to the Board, the Local Authority provided an **Ecological Impact Assessment**. The EcIA provides a description of the proposed project, the requirement for an EcIA and the methodology used in preparing the assessment. The status of the following habitats and species were assessed:

- Habitats: River vegetation, woodland, bryophyte habitats
- Species: Freshwater pearl mussel, Salmon, brown trout, sea trout, three species of lamprey (brook, river and sea), otter, crayfish, bat, badger, red squirrel, kingfisher, dipper, grey wagtail, grey heron, passerine bird species,

7.2.4. In terms of the existing environment Otter has been recorded in the Mountain River, 3.5km upstream of the bridge and upstream of the confluence with the River Barrow. A possible otter slide was identified 30m from the bridge. Stoat has been recorded at Spahill Cross Roads, 700m from the site. Hedgehog, Irish Hare, Badger and Red Squirrel, all of which are protected under the Wildlife Acts have been recorded

between one and three km of the site. Kingfisher was recorded on the Barrow and both Dipper and Grey Wagtail have been recorded on the Mountain River. Habitats within the vicinity of the bridge are bridge & road, river and riverbanks. Treeline is found on the left bank upstream with improved grassland adjoining the wider area. No uncommon or rare higher plant species were recorded on site. 57 no. bryophytes (46 no. mosses and 11 no. liverworts) were recorded as part of a specialist survey for these lower plant species.

7.2.5. Aquatic Surveys found that no rare or uncommon invertebrates were present in the Mountain River at this location Records of Biological water quality for the Mountain River ranged from high ecological quality (Q4-5) in 2014, good ecological quality (Q4) in 2017, down to moderate (Q3-4) in 2018 and back to Q4 (good) in 2019. The report notes that surveys were undertaken in June 2018 to establish the location of freshwater pearl mussel in this watercourse and again in May 2019. Freshwater Pearl Mussel was found 1.3km downstream of the bridge. Appendix 13 of the EcIA shows the numbers and locations of mussels found. 69 no. live mussels were found in the Mountain River The report notes that the recorded deterioration of the biological water quality since 2014 indicates that water quality conditions are not suitable for the species. Brook lamprey and salmonids were recorded in the Mountain River. Results of the bird surveys recorded a single heron, grey wagtail, chaffinch, robin, blackbird, coal tit and wren. No nests were found in trees and bushes proposed for removal. While three bat species were recorded in May 2019, the lack of significant peaks of activity at sunset indicate that the area does not support a bat roost of significance.

7.2.6. Section 4 of the report assesses the unmitigated impacts during the construction phase. It notes that there will be a small amount of treeline habitat lost with the possibility of bryophytes on silty boulders being lost. Dewatering, demolition, bankside vegetation clearance and silt runoff from the site compound are listed as possible sources of particulate matter pollution to the watercourse. These sediments could settle on spawning areas and smother fish eggs and alevins. Suspended sediment can reduce water clarity, impact food sources, displace fish and cause abrasions or infections in fish. The impact of siltation is noted as being particularly significant for juvenile freshwater pearl mussel. The risk of contamination from petrochemical is deemed to be slight. The possible impacts include prevention of

gaseous exchange leading to reduced dissolved oxygen, the contamination of fish gills leading to toxicity and reduced respiratory capacity and impacts on otter. The highly alkaline nature of raw cement would have a localised impact on aquatic life should it enter the water. The report notes that disturbance is inevitable during the construction phase. This would impact migrating fish, otter, bats and passerine birds. Local biodiversity would be negatively impacted should invasive plant species be introduced or should the Himalayan balsam from the site be brought to an uninfested site. Each of these impacts are rated from minor to severe native impact significance.

7.2.7. During the operational phase the reduction of treeline on the left bank upstream of the bridge will have a very minor negative impact. The removal of the serious obstacle to fish passage will have a significant positive impact for Atlantic Salmon, which in turn will have a secondary positive impact on freshwater pearl mussel as they rely on salmonids at one stage of their life-cycle. The concluding statement of the report is that there will be a significant major positive ecological impacts resulting from the free passage of migratory species past a point on the Mountain Rover at which there is currently a serious obstacle.

7.2.8. Mitigation measures are addressed fully in the applicants EcIA. They are divided into pre-works measures such as a site-specific Construction Environmental Management Plan and the appointment of an Ecological Clerk of Works and specific measures to mitigate against particulate matter, hydrocarbon / chemical or concrete contamination, disturbance, the spread of invasive alien plant species, waste management emergency response procedures, and site restoration / rehabilitation measures. Monitoring measures are proposed. The EcIA states that if all mitigation measures are fully implemented there will be no significant loss of or degradation of higher value habitats, no disturbance of birds or protected species and no deterioration of water quality.

7.2.9. The Applicant also submitted a **Bryophyte Survey** with the application to the Board. The May 2019 a bryophytes survey of the bridge and adjacent area, included aquatic species in the channel and river banks, saxicolous species on the bridge and terrestrial species of farmland in the diversion channel area. A total of 57 no. bryophytes were recorded during the survey, stated to be a relatively high species diversity for a small lowland site with limited habitat diversity. The report states that

Co. Carlow has less than 1500 bryophyte records and therefore species that are relatively widespread and common in Ireland can appear rare in Carlow. Only species for which this was a new site / recent record for the county were therefore considered to be of conservation interest. These are shown in figure 3.1 of the survey report, with accompanying photographs.

7.2.10. The survey report concludes that there whilst are no species that are on the Flora (Protection) Order, two species are listed as 'Near Threatened' on the Irish Bryophyte List (*Orthotrichum rivulare* and *Hygroamblystegium*) and three are recorded as being new to Carlow (*Fissidens viridulus, Hygroamblystegium tenax* and *Schistidium apocarpum*). In addition, three species recorded a post 1970 record *Hygrohypnum luridum, Lejeunea cavifolia* and *Orthotrichum rivulare*. In order to protect this diversity, the survey report recommends that where silty boulders or stonework are to be removed, that they be retained and replaced when work has finished. Where it is not possible for boulders or stonework to be replaced in the same location, they should be translocated to a nearby location in a similar position on the same riverbank side. While the bridge itself does not currently support any rare / bryophyte species, it is nonetheless recommended that as much of the existing stonework as possible remain in situ. Noting that this is a dynamic bryophyte community which is regularly subject to fast water levels and flooding, rare species may fluctuate at the site. Should proposed works not occur within the next 1-2 years, the survey may need to be repeated.

7.2.11. Regarding proposed construction works and the impact on hydrology, the applicant submitted a **Preliminary Hydrology Report**. The report notes that in order to carry out the proposed demolition works and construct the replacement structure in a safe and dry environment, it is necessary to install temporary works within the river channel. These temporary works will involve damming one half of the river at a time, to allow the demolition of the existing structure and construction of new reinforced concrete abutments, riverbed protection and bank protection. This will result in localised and temporary slight increases of water levels and flow velocities in the vicinity of the site. following completion of the construction works, the full width of the river channel will be restored.

7.2.12. The report refers to recorded water levels in the channel, available hydrometric data from OPW stations upstream and the use of a flow duration curve model to estimate the average daily flow and water depth of the river at the Brooklodge bridge. No damming will be undertaken during flood conditions and to avail of lowest mean flows, works will be undertaken around the middle of the fisheries closed season, namely middle August. Temporary damming will be at the level of at least 1.30m above the waterbed or to the level of the adjacent riverbank, whichever is higher. Section 6 of the report outlines the processes to be undertaken should weather and / or flow conditions change.

7.2.13. In conclusion, the report states that the impact of the temporary, partial and localised damming of the river on the hydrological regime is low and that the temporary increase in flow velocity is small. Recommendations include the installation of a large attenuation / siltation tank to be used as a settling basin and the use of rainfall forecasts to advise of rainfall events in excess of 15-200mm in any 24-hour period to allow a 4-hour period to facilitate the removal of all plant and equipment. The report notes that while no alterations to the river channel slope or cross-sectional area will be undertaken, localised regrading of scour holes and gravel deposits at the bridge site will be undertaken. A proposed mitigation measure is that the river channel is monitored for scour, erosion and suspended solids on a daily basis for the duration of the construction phase.

7.2.14. It is considered that adequate information has been submitted regarding the baseline ecological conditions and potential impacts and that subject to the proposed mitigation measures, no significant impacts are likely to occur.

7.2.15. The recommendation of the DAU of the Department that an Underwater Archaeological Impact Assessment form part of any grant of the Board is reasonable, noting the location of a fording point and a stepping-stone feature on the 1838-1840's OS maps. Should the Board decide to grant permission, such a condition should be attached.

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

7.3.1. The existing bridge provides a vehicular and pedestrian link across this section of the Mountain River, a continuation of the L3006-2. Details of the volumes of traffic using the bridge are not presented. Given the nature and scale of development on either side of the bridge however, it is reasonable to presume that the volume of traffic is low and local is nature. The documentation submitted with this application states that in times of flood water overtops the existing bridge "rendering it unsuitable for vehicular traffic". The proposed clear span bridge, with a proposed height to soffit of the deck of 1.37m would allow greater flow capacity, thereby reducing the likelihood of flood waters making the bridge unpassable for traffic.

7.3.2. It is considered that the proposed development would address the existing traffic safety issue and will not give rise to significant adverse impacts on the visual or other amenity of the area. The proposed development is in keeping with the policies and objectives of the Carlow County Development Plan 2015-2021 and is considered to be in accordance with the proper planning and sustainable development of the area.

7.4. **Likely Effects on any European sites (Appropriate Assessment)**

7.4.1. The requirements of Article 6(3) as related to appropriate assessment of a project considered under 177AE of the Planning and Development Act 2010 (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.
- Appropriate Assessment.

Compliance with Articles 6(3) of the EU Habitats Directive:

7.4.2. 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.

Screening the need for Appropriate Assessment

7.4.3. The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site. This is considered Stage 1 of the appropriate assessment process i.e. screening. The screening stage is intended to be a preliminary examination. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect and Appropriate Assessment carried out. European sites considered for screening for appropriate assessment (Stage 1) by the applicant were the River Barrow and River Nore SAC (002162) and the Blackstairs Mountain SAC (000770). The applicants screening assessment found that the there are no pathways (physical or hydrological) which could act as a route for potential impacts between the subject site and the Blackstairs Mountain SAC and therefore this site was screened out from the need for appropriate assessment. The report found that the proposed works unless adequately mitigated, could potentially negatively impact on eight of the qualifying interests of the River Barrow and River Nore SAC. As significant effects could not be ruled out an NIS is required to inform the AA process.

7.4.4. I note the screening report submitted with the applicant and I concur with the Carlow County Council AA Screening Determination that there is no possibility of any other European site being affected. I agree that significant effects on the River Barrow / River Nore SAC (002162) would be likely in the absence of detailed mitigation measures.

7.5. The Natura Impact Statement

7.5.1. The application was accompanied by an NIS, which contained a Stage 1 Screening Assessment which concluded that a Stage 2 Appropriate Assessment was required for the River Barrow and River Nore SAC. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within the European Sites that have the potential to be affected by the proposed development. It

predicted the potential impacts for these sites and their conservation objectives, it detailed and assessed mitigation measures, assessed in-combination effects with other plans and projects and it identified any residual effects on the European sites and their conservation objectives.

7.5.2. The report concluded that, subject to the implementation of best practice construction methods and the recommended detailed mitigation measures designed to avoid adverse effects on the qualifying interest species and habitats, the proposed development would not individually or in combination with other plans or projects adversely affect the integrity of the River Barrow River Nore SAC.

7.5.3. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge. Details of mitigation measures are provided and they are summarised in Section 6 of the NIS and in the CEMP. I am satisfied that the information is sufficient to allow for a complete assessment of all aspects of the proposed bridge replacement i.e. appropriate assessment of the proposed development (see further analysis below).

7.6. Appropriate Assessment of implications of the proposed development

7.6.1. The development site is located within the boundaries of the River Barrow and River Nore SAC (002162), which consists of the freshwater stretches of the Barrow and Nore River catchments and also includes the tidal elements and estuary. It is of significant ecological importance and hosts a range of species and habitats, including priority habitat.

7.6.2. Detailed site specific conservation objectives have been published for the site, with the overall objective being to maintain or restore the favourable conservation condition of the Annex I habitats(s) and the Annex II species for which the SAC is selected.

7.6.3. The NPWS site synopsis describe the River Barrow and River Nore SAC as comprising the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains. The SAC also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass,

Boherbaun and Stradbally Rivers of the Barrow, and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains before passing through a band of Carboniferous shales and sandstones. The Nore, for a large part of its course, traverses limestone plains and then Old Red Sandstone for a short stretch below Thomastown. Before joining the Barrow it runs over intrusive rocks poor in silica. The upper reaches of the Barrow also run through limestone. The middle reaches and many of the eastern tributaries, sourced in the Blackstairs Mountains, run through Leinster Granite. The southern end, like the Nore runs over intrusive rocks poor in silica. Waterford Harbour is a deep valley excavated by glacial floodwaters when the sea level was lower than today. The coast shelves quite rapidly along much of the shore.

7.6.4. The site is an SAC for the following qualifying interests:

- [1130] Estuaries
- [1140] Tidal Mudflats and Sandflats
- [1170] Reefs
- [1310] *Salicornia* Mud
- [1330] Atlantic Salt Meadows
- [1410] Mediterranean Salt Meadows
- [3260] Floating River Vegetation
- [4030] Dry Heath
- [6430] Hydrophilous Tall Herb Communities
- [7220] Petrifying Springs*
- [91A0] Old Oak Woodlands
- [91E0] Alluvial Forests*
- [1016] Desmoulin's Whorl Snail (*Vertigo moulinsiana*)
- [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*)
- [1355] Otter (*Lutra lutra*)
- [1421] Killarney Fern (*Trichomanes speciosum*)
- [1990] Nore Freshwater Pearl Mussel (*Margaritifera durrovensis*)

7.6.5. According to the NPWS the main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing within the woodland areas, and invasion by non-native species, for example Cherry Laurel (*Prunus laurocerasus*) and Rhododendron (*Rhododendron ponticum*). The water quality of the site remains vulnerable. Good quality water is necessary to maintain the populations of the Annex II animal species listed above. Good quality is dependent on controlling fertiliser applications of the grasslands, particularly along the Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

7.6.6. The applicants NIS notes that a Conservation Objective Target for Atlantic Salmon in the relevant SAC is “100% of river channels down to second order accessible from estuary”. The proposed development is considered to be relevant to the management of the River Barrow and River Nore SAC as it will aid the upstream migration of salmon which is a qualifying interest for the site. The report notes that in addition, this impact will help maintain sufficient juvenile salmonids to host glochidial larvae of the freshwater pearl mussel another qualifying interest of the SAC.

7.7. Potential Adverse Effects during Construction on qualifying interests

7.7.1. Potential risks identified in the report include a list of likely sources of particulate matter, petrochemical contamination, raw cement contamination, and disturbance. The potential impacts of particulate matter, petrochemicals and raw cement on all aquatic qualifying interests of the SAC cannot be screened out. Disturbance is not relevant to floating river vegetation, eutrophic tall herbs, brook lamprey, freshwater pearl mussel and thus is screened out. Disturbance is a likely significant effect for

Atlantic salmon, sea and river lamprey and otters. The NIS identified the following potential adverse impacts on the following habitats and species:

- **Particulate matter impacts :** Floating river vegetation, Eutrophic tall herbs, Atlantic salmon, Sea lamprey, River lamprey, Brook lamprey, Freshwater pearl mussel, Otter
- **Petrochemical Impacts**: Floating river vegetation, Eutrophic tall herbs, Atlantic salmon, Sea lamprey, River lamprey, Brook lamprey, Freshwater pearl mussel, Otter
- **Raw Cement Impacts**: Floating river vegetation, Eutrophic tall herbs, Atlantic salmon, Sea lamprey, River lamprey, Brook lamprey, Freshwater pearl mussel, Otter
- **Disturbance Impacts**: Atlantic salmon, Sea lamprey, River lamprey, Otter

7.7.2. In assessing the potential unmitigated aquatic implications from particulate matter, the NIS states that suspended sediment can settle on spawning areas, infill the intragravel voids and smother the eggs of salmon and lamprey species and salmon alevins. Juvenile freshwater pearl mussel are particularly sensitive to siltation impacts. Suspended sediment can impact visibility, impairing the sourcing of food, while settled sediment can smother food items and displace habitat. Suspended solids can clog fish gill and cause abrasions which lead to infections.

7.7.3. The NPWS in responding to the applicant (appendix 6 of the NIS), notes that the applicants 2018 survey for freshwater pearl mussel was carried out to 1.3km downstream. The NPWS notes that freshwater pearl mussel are found up to 3.5km downstream – to the confluence with the River Barrow, with 93 mussels found in one section in 2009 and therefore recommends that the applicant's NIS why a 1.3km survey was deemed sufficient "when impacts could potentially affect the entire downstream population".

7.7.4. In addressing this, the applicants NIS states that during the construction phase, the area of potential impact is the bridge site and 5km downstream aquatic habitat. Section 3.2.4 of the NIS states that a preliminary survey was undertaken in 2018 to establish the location of the nearest mussel downstream of Brook Lodge bridge. On the 14th May 2019, a further survey was undertaken from 100m upstream of the

bridge to the confluence with the River Barrow. The NIS notes that the riverbed was searched visually, using Perspex bottomed viewers where wading was possible and snorkelling in deeper parts.

7.7.5. Impacts from petrochemicals are considered slight but serious for the Mountain River and the Barrow downstream. Such impacts could arise from spillages and direct contact which would impact otter, fish species and macroinvertebrates. Petrochemicals could get trapped in sediment deposit, could result in reduced dissolved oxygen and could get trapped in fish gills. The high alkalinity of raw cement could have a localised effect on pH, with subsequent effects on aquatic life. Disturbance impacts through human and construction activities will impact those species on site at the time of works. A 10m terrestrial buffer strip along river banks is critical for otters. The potential impacts from invasive plants are new species introduced to the subject SAC such as the Himalayan balsam which is present in close proximity to the subject site.

7.7.6. The NIS states that the proposed development will not result in any loss of or fragmentation of habitats for which the SAC is designated. Impacts on floating river vegetation, Eutrophic tall herbs, Atlantic salmon, lamprey species, freshwater pearl mussel and otter would be significant and negative. Cumulative impacts are not expected or predicted.

7.7.7. I note that the submission of the NPW to the applicant (appendix 6 of the NIS) states that should a delay occur between initial survey work and construction, then an ecological survey of the site should be undertake immediately prior to construction to ensure that no significant changes in the baseline ecological survey have occurred. If any significant changes are recorded, such as the presence of an otter holt for example, mitigation measures may require amendment and new licences may be required. The consultation document does not define “well before”. To that end, I note that the applicants Bryophyte Survey indicates that a time period of 1-2 years between survey and construction is sufficient. Given the current Government restrictions on works etc, it is likely that a delay will arise between the studies undertaken for the AA, the decision of the Board and the start of construction. The applicant notes that construction works will be confined to the months July-September. As works cannot be undertaken before July 2021, the Board must satisfy itself that the baseline ecological conditions of the survey undertaken in 2019 are still

relevant. Should the Board decide to grant permission, a condition requiring a pre-construction baseline ecological survey should be attached.

7.8. Mitigation Measures

7.8.1. It is proposed by the applicant, that all work to be undertaken be tendered to contractors with proven experience. A site specific Construction Environmental Management Plan is to be prepared and agreed in advance with the statutory authorities. All instream works and riverbank works will be subject to the method statement. In order to eliminate any uncertainty as to the application of mitigation measures, the applicant should be requested to provide a statement about the direct application of mitigation measures into the CEMP.

7.8.2. Detailed measures to mitigate the potential impacts are listed in section 5.5 of the NIS and are specific to each of the identified risks to the qualifying interests. The measures listed refer to mitigation of impacts from the mobilisation of particulate matter, hydrocarbon / chemical or raw concrete contamination, disturbance, the spread of invasive species, waste management, emergency response, site restoration and rehabilitation and monitoring. The NIS states that a fully qualified and competent Ecological Clerk of Works will be appointed in order to undertake supervision of all approved works in accordance with ecologically related conditions outlined in the NIS.

7.8.3. In addition to standard best practice as provided for in the “Guidelines on the Protection of Fisheries during Construction works in and Adjacent to Waters”, a brief summary / outline of the main mitigation measures is as follows:

Measures to mitigate against mobilisation of particulate matter:	• Monitoring of rainfall to predict flood events, • Carrying out of works at times of low water levels • Designated area for site storage, away from existing bridge • Bankside vegetation to be carried out in dry weather • Instream works to be carried out in cells within the channel, suing flood barriers to direct flow to the opposite side • Temporary damming to be 300mm above water level • Silt curtains in s staggered format on either side of the downstream channel

	• Secondary silt traps downstream of the silt curtains • No direct pumping from the dewatered site to the river. Pumped water to be held in a settlement tank to allow settlement of solids, then discharged to temporary grass-banked ponds 50m from the river • Monitoring of suspended solids and turbidity during construction. If results exceed 25ppm, works are to be halted and a solution found.
Measures to mitigate against hydrocarbon / chemical contamination	• Designated chemical storage area • Clearly marked spill kits and bunded fuel kits in the site compound • Careful handling of all fuels, lubricants and hydraulic fluids • No fuelling of machinery within 50m of bank • Immediate containment of spillages
Measures to mitigate against contamination by raw concrete	• No disposal of raw or uncured concrete within 30m of river • Washing of tools only permitted in a lined & watertight skip located above the level of flood zone. Washwater to be brought below pH9 and discharged to ground 30m from river, on completion of works
Measures to mitigate against disturbance	• Works during July to September and daylight hours only • Electrofishing of channel to remove any salmonids and lamprey, translocation to a suitable habitat upstream • Maintenance of an open channel for fish passage during works • Site compound minimum 10m from riverbank to avoid otter disturbance
Measures to mitigate against Invasive Alien Plant Species (IAPS)	• IAPS Management Plan to include worksite footprint mapping, prescriptive measures to prevent spread of IAPS. • Contractor to strictly adhere to control strategy in the Management Plan • Storage of infested material in a separate area

	• Power washing of all machinery in a bunded area • Certified clean stone from a quarry with a bio-security management plan only
Waste Management	• Temporary portable toilet facilities, maintained regularly and waste disposed of by an appropriate haulier • Waste to be segregated into clearly labelled suitable receptacles on site • Waste to be collected by a licensed haulier

7.8.4. The NIS also provides procedures for emergency response for site restoration and rehabilitation. The NIS notes that as the Fresh Water Pearl Mussel is in decline in the Mountain River, a survey should be carried out immediately prior to the commencement of works to establish the baseline. A post works ecological survey on the FWPM, should be undertaken to a point 100m upstream if the bridge and downstream to the Borris WWTP outfall. The survey data is to be shared with the NPWS.

7.8.5. Any residual impacts should be slight and temporary. There will be a major and permanent positive impact for Atlantic Salmon and a positive impact for freshwater pearl mussel. The residual ecological impact of the proposed development is considered to range from slight negative (bryophytes) to major positive (Atlantic salmon). No negative impact on species or habitats that are listed as qualifying interest for the River Barrow and River Nore SAC (002162) are predicted.

7.8.6. It is considered that the measures proposed, which involve standard best practice and environmental controls, are sufficient to address the potential adverse effects of the development and to ensure the protection of the integrity of the River Barrow and River Nore SAC (Site Code 002162), and the conservation status of the habitats and species it supports.

7.9. Residual Impacts

7.9.1. No significant residual impacts following mitigation are predicted for the qualifying interests of the River Barrow River Nore SAC. Temporary disturbance during the construction phase is not significant in terms of the overall conservation objectives of

the site. This temporary negative impact is not significant in terms of the conservation objectives of the site.

7.9.2. The applicants NIS notes that a Conservation Objective Target for Atlantic Salmon in the relevant SAC is “100% of river channels down to second order accessible from estuary”. The proposed development is considered to be relevant to the management of the River Barrow and River Nore SAC as it will aid the upstream migration of salmon which is a qualifying interest for the site. The report notes that in addition, this impact will help maintain sufficient juvenile salmonids to host glochidial larvae of the freshwater pearl mussel another qualifying interest of the SAC. There will be a major and permanent positive impact for Atlantic salmon which will on turn have a secondary positive impact on freshwater pearl mussel.

7.10. Issues Raised by the IFI

I note the submission of the IFI that the proposed development is welcomed, noting that the proposed clear-span bridge will facilitate free passage of all age classes of fish species. The applicants NIS, in identifying the need for the proposed development, the report states that Inland Fisheries Ireland are concerned that the regular blocking of the pipes with debris is obstructing upstream movement of fish, a situation which is non-compliant with section 116 of the 1959 Fisheries (Consolidation) Act.

7.11. Conclusion on Appropriate Assessment

7.11.1. Having regard to the nature of the proposed development and the mitigation measures proposed, the scientific information presented with the application, including the Natura Impact Statement, which I consider adequate in order to carry out a complete assessment of the implications of the proposed development on the integrity of European Sites, I consider it reasonable to conclude that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the River Barrow and River Nore SAC (site code: 002161) in view of the sites’ Conservation Objectives. There is no reasonable doubt as to the absence of such effects.

8.0 Recommendation

8.1.1. On the basis of the above assessment, I recommend that the Board approve the proposed development subject to the reasons and considerations below and subject to conditions requiring compliance with the submitted details, and with the mitigation measures set out in the Natura Impact Statement and the Ecological Impact Assessment

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, qualifying interests and special conservation interests for the River Barrow and River Nore SAC (site code: 002161),

(e) the nature and extent of the proposed works as set out in the application for approval,

(f) the information submitted in relation to the potential impacts on habitats, flora and fauna, including the Natura Impact Statement, and the Ecological Impact Assessment,

(g) the submissions and observations received in relation to the proposed development,

(h) 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 report that the River Barrow and River Nore SAC (site code: 002161), 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, the submissions and observations on file. The Board completed an appropriate assessment of the implications of the proposed development for one European Site, namely the River Barrow and River Nore SAC (site code: 002161), 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 Sites.

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 Sites, 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 footbridge development would not have significant negative effects on the environment or the community in the vicinity, would not give rise to a risk of pollution, would not be detrimental to the visual or landscape amenities of the area, 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 not interfere with the existing land uses in the area. The proposed development is in accordance with the stated objectives of the Carlow County Development Plan 2015-2021. It would constitute a significant improvement in terms of traffic safety and the riparian and fisheries ecology of this section of the Mountain River and 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 proposals, mitigation and commitments set out in the Construction and Environmental Management Plan, and in the Natura Impact Statement shall be implemented in full as part of the proposed development.

   Reason: In the interests of protecting the environment, the protection of European Sites and in the interests of public health.

3. Prior to commencement of development, the local authority, or any agent acting on its behalf, shall prepare/update in consultation with the relevant statutory agencies, the Construction Environmental Management Plan (CEMP), incorporating all mitigation measures indicated in the Natura Impact Statement and Ecological Impact Assessment and demonstration of proposals to best practice and protocols.

   Reason: In the interests of protecting the environment, the landscape, European Sites, sensitive receptors and in the interest of public health.

4. No site investigation, excavation or construction shall take place between October 1st and June 30th in any year.

   Reason: In the interest of nature conservation and to ensure the protection of the European sites

5. Prior to commencement of development, details of measures to protect fisheries and water quality of the river systems shall be outlined and placed on the file as part of the public record. In channel works shall adhere to the timing restrictions to avoid damage to spawning and juvenile fish. Full regard shall be had to Inland Fisheries Ireland's published guidelines for construction works near waterways (Guidelines on Protection of Fisheries during construction works in and adjacent to waters, 2016). A programme of water quality monitoring shall be prepared in consultation with the contractor, and relevant statutory agencies and the programme shall be implemented thereafter. Details of such monitoring shall be maintained on file as part of the public record.

   Reason: In the interest of the protecting of receiving water quality, fisheries and aquatic habitat.

6 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) undertake an Underwater Archaeological Impact Assessment in advance of any works. The assessment shall be carried out in accordance with the requirements of the Department of Culture, Heritage and the Gaeltacht and shall include the following: detailed desktop study and archaeological assessment to include intra-riverine assessment and if necessary, a dive survey. The assessment shall include survey and recording of the area of the river that will be impacted and adjacent areas,

i. a metal detection survey,

ii. the nature and location of any archaeological material on the site,

iii. the impact of the proposed development on such archaeological material

A report containing the results of the assessment and any recommendations to mitigate any negative impacts shall be submitted to the Underwater Archaeological Unit for consideration in advance of any works commencing on the site.

c) provide arrangements, acceptable to the Department of Culture Heritage and the Gaeltacht for the recording and removal of any archaeological material which it is considered appropriate to remove.

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

7. The local authority and any agent acting on its behalf shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: In the interest of the proper planning and sustainable development of the area and to ensure the protection of the European sites.

8. A suitably qualified ecologist shall be retained by the local authority to oversee the site set up and construction of the proposed development and implementation of mitigation measures relating to ecology set out in NIS, CEMP. The ecologist shall be present during site construction works. Upon completion of works, an ecological report of the site works shall be prepared by the appointed ecologist to be kept on file as part of the public record.

Reason: In the interest of nature conservation and the protection of terrestrial and aquatic biodiversity.

9. The construction of the development shall be managed in accordance with a Construction and Traffic Management Plan, which shall be placed on the file and

retained as part of the public record. The plan shall provide details of the intended construction practice for the development, including

(a) Location of the site and materials compounds(s) including area(s) identified for the storage of construction waste;

(b) Location of areas for construction site offices and staff facilities;

(c) Details of security fencing and hoardings;

(d) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;

(e) Measures to obviate queuing of construction traffic on the adjoining road network;

(f) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;

(g) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of the public road or footpath during the course of site development works;

(h) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

(i) Containment of all construction related fuel and oil within specifically constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;

(j) Details of how it is proposed to manage excavated soil;

A record of daily checks that the works are being undertaken in accordance with the Construction and Traffic Management Plan shall be maintained on file as part of the public record.

Reason: In the interests of amenity, public health and safety.

Gillian Kane

Senior Planning Inspector

08 June 2020