

TO 334 Munster Bridges Team Maintenance

Ticknock Seawall Repair – AA Screening

Transport Infrastructure Ireland

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1. Introduction

1.1. Background

Atkins have been commissioned by Transport Infrastructure Ireland (TII) to prepare a Stage 1 Appropriate Assessment Screening Report for the repair of a sea wall at Tiknock, Co. Waterford. The proposed works fall under the TII Munster Bridges Term Maintenance Contract TO 334.

This report comprises the Appropriate Assessment Screening Report in respect of the proposed works and is intended to assist TII, in its capacity as the competent authority in this case, by providing it with sufficient evidence to make a properly informed determination as to whether or not Appropriate Assessment under Article 6(3) of the Habitats Directive (92/43/EEC) is required in respect of the proposed works.

1.2. Legislative Context

1.2.1. Natura 2000

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) is a legislative instrument of the European Union (EU) which provides legal protection for habitats and species of Community interest. Article 2 of the Directive requires the maintenance or restoration of such habitats and species at a favourable conservation status, while Articles 3 to 9, inclusive, provide for the establishment and conservation of an EU-wide network of special areas of conservation (SACs), known as Natura 2000, which also includes special protection areas (SPAs) designated under Article 4 of Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (“the Birds Directive”). Both SACs and SPAs are commonly referred to as “European sites” or “Natura 2000 sites”.

SACs are selected for natural habitat types listed on Annex I to the Habitats Directive and the habitats of species listed on Annex II to the Habitats Directive. SPAs are selected for species listed on Annex I to the Birds Directive, other regularly occurring migratory species and other species of special conservation interest. The habitats and species for which a Natura 2000 site is selected are referred to as the “qualifying interests” of that site and each is assigned a “conservation objective” aimed at maintaining or restoring its “favourable conservation condition” at the site, which contributes to the maintenance or restoration of its “favourable conservation status” at national and European levels.

1.2.2. Appropriate Assessment

Article 6 of the Habitats Directive deals with the management and protection of Natura 2000 sites. Articles 6(3) and (4) set out the decision-making process, known as “Appropriate Assessment” (AA), for plans or projects in relation to Natura 2000 sites. Article 6(3) states: -

“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. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

The first sentence of Article 6(3) provides a basis for determining which plans and projects require AA, i.e., those “not directly connected with or necessary to the management of [one or more Natura 2000 sites] but likely to have a significant effect thereon, either individually or in combination with other plans or projects”. In *Waddenzee* (C-127/02), the Court of Justice of the European Union (CJEU) ruled that significant effects must be considered “likely” if “it cannot be excluded, on the basis of objective information”, that they would occur. This clearly sets a low threshold, such that AA is required wherever there is a reasonable possibility of significant effects on a Natura 2000 site. In the same judgment, the CJEU established that the test of significance relates specifically to the conservation objectives of the site concerned, i.e., “significant effects” are those which, “in the light, inter alia, of the characteristics and specific environmental conditions of the site”, could undermine the site’s conservation

objectives. In addition to the effects of the plan or project on its own, the combined effects arising from the plan or project under consideration and other plans and projects must also be assessed (see Section 7.1 for more details).

The last part of the first sentence of Article 6(3) defines AA as an assessment of the “*implications [of the plan or project] for the site in view of the site’s conservation objectives*”. In the second sentence, Article 6(3) requires that, prior to agreeing to a plan or project, the competent authority must “ascertain” that “*it will not adversely affect the integrity of the site concerned*”. In *Sweetman v. An Bord Pleanála* (C-258/11), the CJEU ruled that a plan or project “*will adversely affect the integrity of that site if it is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site in the list of sites*”. On that basis, EC (2018) described the “integrity of the site” as “*the coherent sum of the site’s ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated*”. As such, the “integrity” of a specific site is defined by its conservation objectives and is “adversely affected” when those objectives are undermined. In *Waddenzee*, the CJEU ruled that the absence of adverse effects can only be ascertained “*where no reasonable scientific doubt remains*”.

The “precautionary principle” applies to all of the legal tests in AA, i.e., in the absence of objective information to demonstrate otherwise, the worst-case scenario is assumed. Where the tests established by Article 6(3) cannot be satisfied, Article 6(4) applies (see explanation in Section 1.3 below).

1.2.3. Competent authority

The requirements of Articles 6(3) and (4) are transposed into Irish law by, inter alia, Part 5 of the European Communities (Birds and Natura Habitats) Regulations, 2011 (as amended) (“the Habitats Regulations”) and Part XAB of the Planning and Development Act, 2000 (as amended) (“the Planning and Development Acts”). As per the second sentence of Article 6(3), it is the “competent national authorities” who are responsible for carrying out AA and, by extension, for determining which plans and projects require AA. The competent authority in each case is the authority responsible for consenting to or licensing a plan or project, e.g., local authorities, An Bord Pleanála, the Environmental Protection Agency (EPA) or a Government Minister. In all cases, it is the competent authority who is ultimately responsible for determining whether or not a plan or project requires AA and for carrying out the AA, where required.

1.3. Appropriate Assessment Process

The AA process can be described as being made up of three distinct stages, as described below, the need to progress to each stage being determined by the outcome of the preceding stage.

Stage 1: Screening – This stage involves a determination by the competent authority as to whether or not a given plan or project required AA. As explained in Section 1.2 above, AA is required in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but for which the possibility of likely significant effects on one or more Natura 2000 sites cannot be excluded. In *People Over Wind* (C-323/17), the CJEU ruled that measures intended to avoid or minimise harmful effects on a Natura 2000 site cannot be considered in making this determination. Consideration of the potential for in-combination effects is also required at this stage.

Stage 2: Appropriate Assessment – This stage involves a detailed assessment of the implications of the plan or project, individually and in combination with other plans and projects, for the integrity of the Natura 2000 site(s) concerned. This stage also involves the development of appropriate mitigation to address any adverse effects and an assessment of the significance of any residual impacts following the inclusion of mitigation. In *Kelly v. An Bord Pleanála* (IEHC 400), the High Court ruled that a lawful AA must contain complete, precise and definitive findings based on examination and analysis, and conclusions and a final determination based on an evaluation of the findings. In the same judgment, the High Court stressed that, in order for the findings to be complete, precise and definitive, the AA must be carried out in light of best scientific knowledge in the field and cannot have gaps or lacunae. In *Holohan v. An Bord Pleanála* (C-461/17), the CJEU clarified that AA must “*catalogue the entirety of habitat types and species for which a site is protected*” (i.e. the qualifying interests of the site) and assess the implications of the plan or project for the qualifying interests, both within and outside the site boundaries, and other, non-qualifying interest habitats and species, whether inside or outside the site boundaries, “*provided that those implications are liable to affect the conservation objectives of the site*”. The proposer of a plan or project requiring AA is furnishes the competent authority with the scientific evidence upon which to base

its AA by way of a Natura Impact Statement (NIS) or Natura Impact Report (NIR). If it is not possible to ascertain that the plan or project will not adversely affect one or more Natura 2000 sites, authorisation can only be granted subject to Article 6(4).

Stage 3: Article 6(4) – If a plan or project does not pass the legal test at Stage 2, alternative solutions to achieve its aims must be considered and themselves subject to Article 6(3). If no feasible alternatives exist, authorisation can only be granted where it can be demonstrated that there are imperative reasons of overriding public interest (IROPI) justifying its implementation. Where this is the case, all compensatory measures must be taken to protect the overall coherence of Natura 2000.

The three stages described above are illustrated in Figure 1-1 **Error! Reference source not found.**

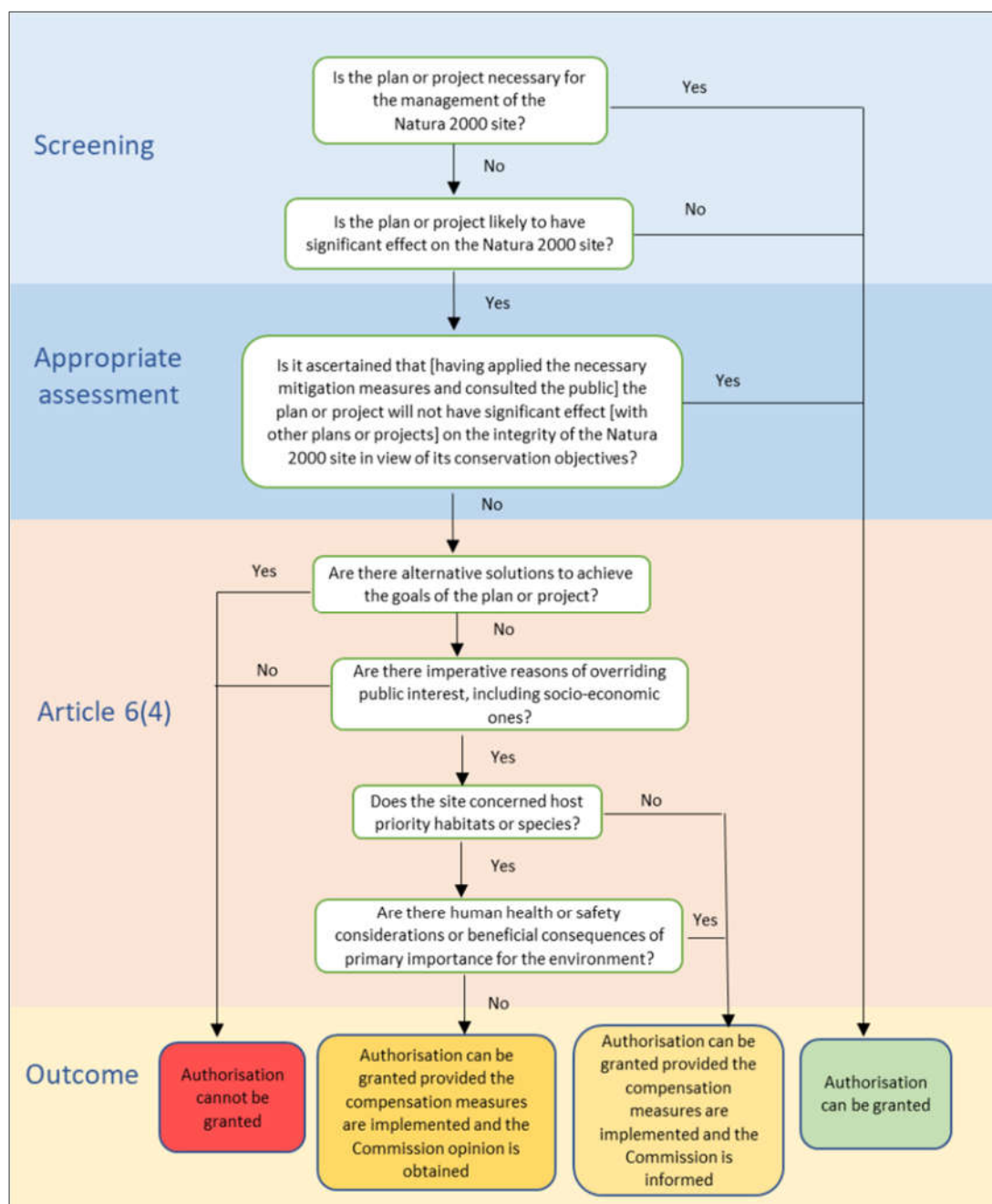


Figure 1.1 - Stages of the Appropriate Assessment process (EC, 2021).

2. Methodology

2.1. Sources of Guidance

This report was prepared with due regard to the relevant European and Irish legislation, case law and guidance, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna. *Official Journal of the European Communities* L 206/7-50.
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. *Official Journal of the European Union* L 20/7-25.
- European Communities (Birds and Natural Habitats) Regulations, 2011. *S.I. No. 77/2011* (as amended) (“the Habitats Regulations”).
- Planning and Development Act, 2000. *No. 30 of 2000* (as amended) (“the Planning and Development Acts”).
- National Parks & Wildlife Service: *Development Consultations* webpage (NPWS, 2022b)
- EC (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC*. European Commission, Brussels.
- EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC*. European Commission, Brussels.
- DEHLG (2010a) *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Revised 11/02/2010*. Department of the Environment, Heritage and Local Government, Dublin.
- DEHLG (2010b) *Circular NPW 1/10 & PSSP 2/10. Dated 11/03/2010*. Department of the Environment, Heritage and Local Government, Dublin.
- NPWS (2012) *Marine Natura Impact Statements in Irish Special Areas of Conservation. A Working Document. April 2012*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.
- OPR (2021) *Appropriate Assessment Screening for Development Management. OPR Practice Note PN01*. Office of the Planning Regulator, Dublin.
- Case law, including *Waddenzee* (C-127/02), *Sweetman v. An Bord Pleanála* (C-258/11), *Kelly v. An Bord Pleanála* (IEHC 400), *Commission v. Germany* (C-142/16), *People Over Wind* (C-323/17), *Holohan v. An Bord Pleanála* (C-461/17), *Eoin Kelly v. An Bord Pleanála* (IEHC 84), *Heather Hill* (IEHC 450) and *Eco Advocacy v. An Bord Pleanála* (C-721/21).

2.2. Desk Study and Consultation

Baseline data regarding the receiving environment, including Natura 2000 sites, was gathered through desk study and consultation with relevant bodies, most importantly the National Parks & Wildlife Service (NPWS).

The locations and boundaries of Natura 2000 sites in relation to the proposed works were reviewed on the *NPWS Designations Viewer*. Information on the qualifying interests and the structures and functions of the relevant Natura 2000 sites was found in the Site Synopsis, Natura 2000 Standard Data Form, Conservation Objectives and supporting documents for each site. Reporting under Article 17 of the Habitats Directive (NPWS, 2019a-c;

ETC/DB, 2023a) and Article 12 of the Birds Directive (NPWS, 2023c; ETC/BD, 2023b) provided further information on the habitats and species concerned at the national level.

Spatial and other data regarding rivers and other waterbodies were obtained from the Environmental Protection Agency (EPA) using its online facility *EPA Maps: Water*.

2.3. Impact Assessment

The assessment detailed in this report was undertaken in the following steps, following the best practice guidance highlighted in Section 2.1 above: -

1. Description of the proposed works, including their locations, nature, scale, duration, and potential impacts on the natural environment.
2. Description of the baseline conditions in the receiving environment, focussing on habitats, species, ecological corridors, and any known threats, pressures and activities.
3. Establishment of a Zone of Influence, and identification and description of Natura 2000 sites therein.
4. Identification of source-pathway-receptor chains between the proposed works and the qualifying interests of Natura 2000 sites, and evaluation of effects in view of the relevant conservation objectives.
5. Consideration of the potential for significant effects in combination with other plans and projects.
6. Conclusion and recommendation.

Further details of the methodology and the rationale behind it are provided in the relevant sections.

2.4. Statement of Authority

This report has been prepared by Kevin Mc Caffrey and peer-reviewed by Paul O'Donoghue.

Kevin Mc Caffrey has a BSc (Hons) in Applied Freshwater and Marine Biology and a MSc in Environmental Sustainability. He is a Senior Ecologist with over 10 years' experience in freshwater and marine ecology, environmental surveying, impact assessment and as an Ecological clerk of Works. He has prepared and reviewed a wide range of technical reports including Environmental Impact Assessment, AA screening, Natura Impact Assessment and sanitary surveys.

Paul O'Donoghue is an Associate Director at Atkins. Paul holds a BSc (Zoology), MSc (Behavioural Ecology) and a PhD (Avian Ecology and Genetics). Paul is a Chartered member of the Society for the Environment (CEnv) and a Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 18 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e., Appropriate Assessment under Article 6(3) of the EU Habitats Directive).

3. Proposed Works

3.1. Overview

Following recent flood events, the parapet to a section of Ticknock retaining wall along the N25 has collapsed over a length of 34m. There are also two areas of damage to the retain wall structure which also require repair. The works are urgent as there is now no barrier between the N25 and the greater than 2m drop to the estuary. As such the works fall under Non-routine Maintenance and need to be carried out urgently. The works, including any preparatory or ancillary works required, are described in detail in Section 3.3 below.

3.2. Location and Context

The site of proposed works is located on the N25 in Co. Waterford, northeast of Youghal town as N25 road continues westward towards Cork. The road is protected from the sea by a stone seawall which, in places, is over 2m in height (see e.g. Plate 3-1). The parapet wall was damaged by recent flooding event shown on Plate 3-1. The site adjoins the River Blackwater Estuary at the northern end of Youghal Harbour.

The estuary at Tiknock is part of Blackwater River (Cork/Waterford) SAC (site code: 002170); the SAC at this location also includes some areas on the landward side of the N25 (Figure 3-1). It is also within the Blackwater Estuary SPA (site code: 004028) (Figure 3-1). The estuary at Tiknock is also designated as Blackwater River and Estuary a proposed Natural Heritage Area (pNHA; 000072).

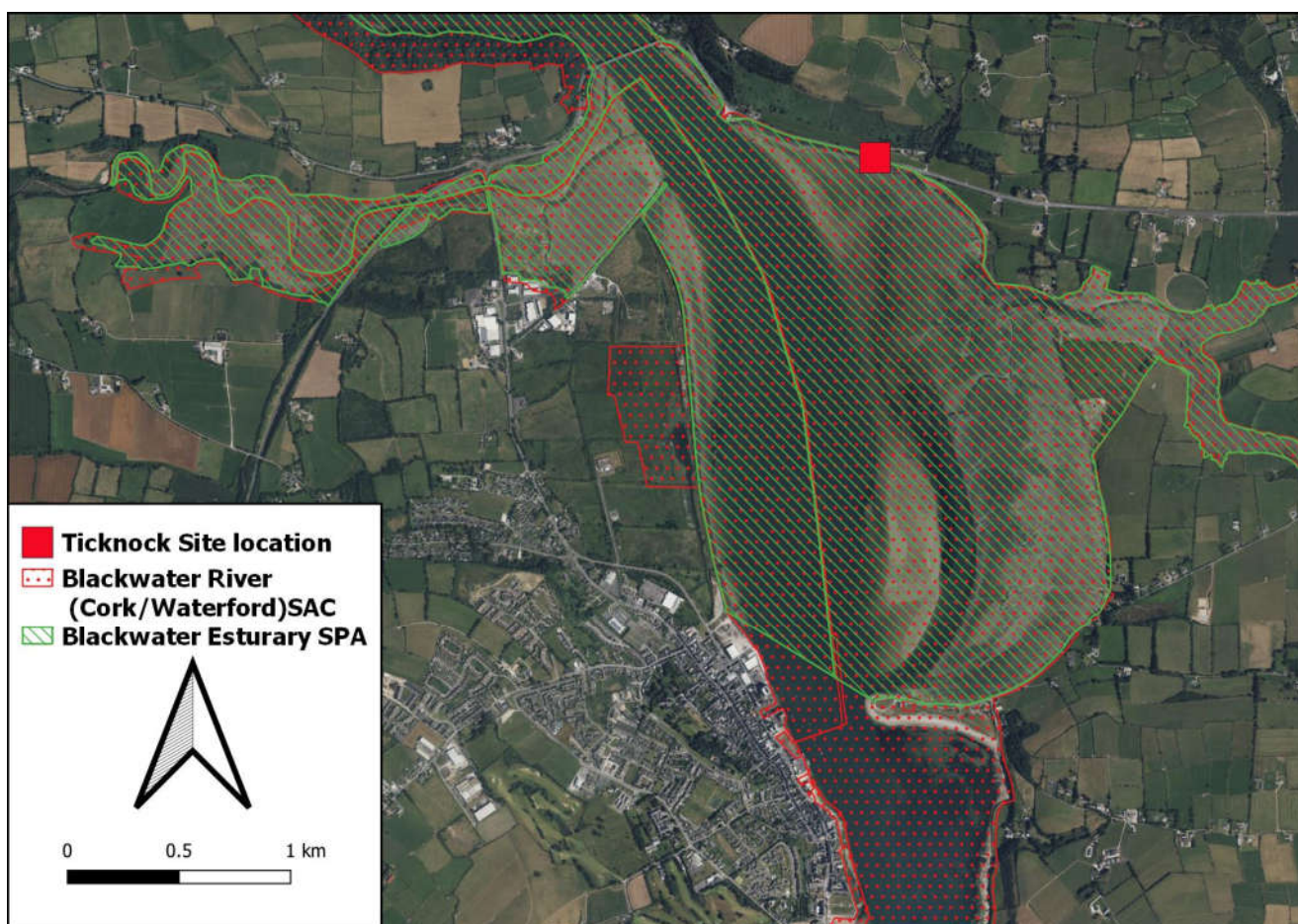


Figure 3.1 - Locations of the proposed works along Ticknock seawall on the N25.

3.3. Detailed Description

The works are to be carried out by Cumnor Construction. The works include 33.5m of collapsed parapet, along with two damaged section of the retaining wall 1.27m high x 1.4m long x 1.1m deep and 0.8m long x 0.5m high x 0.6m deep. Detailed description of the works can be seen below. The works are expected to take 12 days to complete.

3.3.1. Traffic Management

1. Traffic management will be set up as set out below.

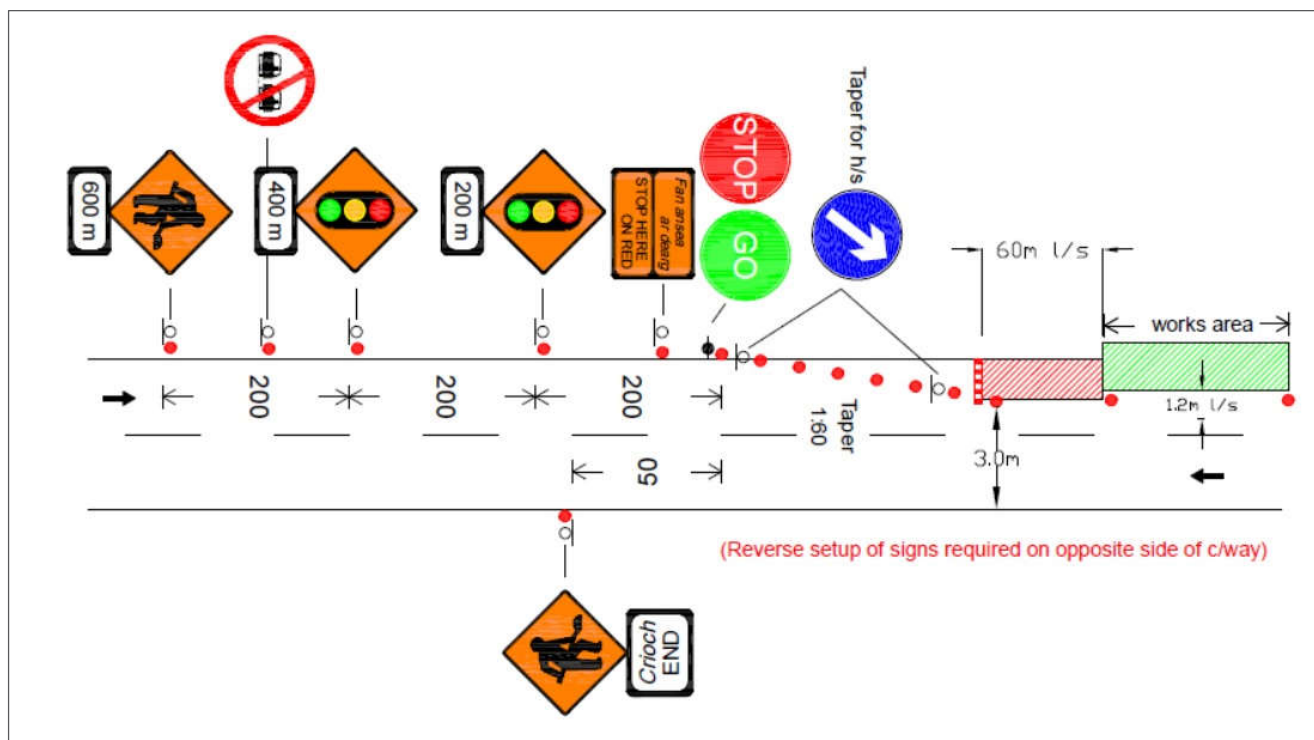


Figure 3.2 – CUMNOR traffic management plan for Ticknock seawall.

2. Site vehicles will park within the temporary traffic management set up on the hard shoulder.
3. All Materials will be stored within the traffic management set up.
4. The road will be reduced to one lane over the area of the works.
5. The closed off lane will be used to temporarily store materials for the duration of the works.
6. A mobile welfare unit will also be set up in this area.

3.3.2. Site compound location

- Site compound to be set up in the area to the west of the site (Figure 3-3).
- No Plant to access the shorefront.
- All materials to be kept either in the site compound or on the roadside above the works area.
- Scaffold to be passed down from the roadside to the works area.



Figure 3.3 – Site compound location.

3.3.3. Weather/Tides

- The weather will be monitored prior to commencing with the works.
- Tide times will be monitored prior and during the duration of the works. Works will only take place during low tide hours.
- Any materials which are stored on site will be kept in a secure designated area away from the watercourse.

Note: Tools, scaffold tower, boots, wellingtons, etc will be sprayed with Virkon before and after entering a watercourse.

3.3.4. Sequence of works

- Set up TTMP as per plan. The road will be reduced to one lane over the area of works. The closed off lane will be used to temporarily store materials for the duration of the works. A mobile welfare unit will also be set up in this area.
- Safety barriers to be placed around the works area.
- All works to be planned so that working day is maximised in relation to tide times.
- Life jackets will be used by all workers on site when working over or near the water.
- Set up scaffold around works area (CSCS certified). Scaffold will be supported by rakers from the shore and will not have to be attached to the wall.

- Starting at the top of wall remove stone in sections by hand in controlled manner. Old stone will be retained and re-used where possible.
- Stone will be stored on site in tonne bags.
- All stone and mortar which has fallen into the riverbed will be removed by hand at low tide.
- Access to the shore will be achieved via a gateway within 300m of the works area.
- Workers will track along the foreshore close to the base of the wall.
- All seaweed within the works area on the stonework will have to be removed to facilitate works.
- Once collapsed area has been removed re-construction works can begin. The damaged section measures 33.5m x 0.9-1.1m x 0.51m. The repair will be carried out to match existing.
- Re-instate damaged section of wall.
- Between CH325m and CH348 there is an additional repair of 1.27m x 1.4m x 1.1m and 0.8m x 0.5m x 0.6m.
- Once the damaged sections of the wall have been re-built repointing works will then be complete.
- De-mobilisation will begin after the repointing has been completed.
- Materials will be removed off site.
- Scaffolding will then be removed.
- TTMP to be removed when works are fully complete.
- Site clean-up.

3.3.5. Repointing and Masonry Repair

1. Masonry repair and repointing is required over a 33.5m stretch.
2. Access to repairs to be via scaffolding
3. Scaffolding to be set up by certified CSCS scaffolder.
4. When repairs or repointing is being carried out a plywood platform wrapped in geotextile will stop mortar droppings from having any chance in contaminating the nearby watercourse.
5. Loose and cracked pointing shall be raked out to sound material and the joint cleaned.
6. All repointing is to be done using NHL 5, manufacturer's instructions to be followed.
7. All repointing shall be undertaken with lime mortar in accordance with the contents of CCSPW- 02400 and CC-SCD-02407
8. Missing or deteriorated pointing to be carefully raked out by hand to a depth of twice the joint thickness and the joint dampened down.
9. Mortar for new and repointing existing masonry work shall be NHL5 lime mortar Mix Reference (a) in accordance with Table 24/4 of Transport Infrastructure Ireland Publication CC-SPW-02400.
10. If the masonry structure to be repaired is dry, dampen it down before the mortar is Applied (otherwise the dry structure may suck moisture from the mortar)

11. If it rains after the mortar is applied, cover the masonry structure to protect it.
12. If the temperature is likely to drop below 5°, cover the masonry structure with hessian/frost blanket to protect it from frost penetration/damage.
13. If the temperature is below 4° no work with lime mortar should be carried out (preparation work such as cleaning/hacking out of joints can still be done).
14. All joints to be tamped with stiff brush once mortar is stiff
15. For parapet reconstruction works, all mortar beds shall be of a thickness to match the adjacent stonework as closely as possible.
16. Particular care shall be taken in respect of the finished appearance of the mortar joints in accordance with Clause 2456.
17. The colour of the mortar shall match the existing to the reasonable satisfaction of the Engineer.
18. All stonemasons to have attended 'Masonry Arch Bridge Repair Workshop' or be members of the Guild of Master Craftsmen



Plate 3-1 – View of the collapsed parapet looking northwest.



Plate 3-2 - Close up of collapsed parapet.



Plate 3-3 – Larger section of retaining wall to be repaired.



Plate 3-4 – smaller section of retaining wall to be repaired.

3.4. Potential Impacts

Given the nature, small scale and short duration of the proposed works, the potential impacts on the receiving natural environment are considered to be limited to the following: -

Disturbance to habitats

During the proposed works, there will be some disturbance to habitats along the Blackwater Estuary associated with the main works items and access and egress by personnel. This disturbance will include noise and visual disturbance and possibly some minor removal of seaweed on the section of the structure to be repaired. The duration of disturbance will be limited to the duration of the works which is estimated at 12 days.

Water quality

Due to the nature of the proposed works, they give rise to potential impacts on water quality through potential spillage of lime mortar during masonry construction/repointing and input of hydrocarbons, as follows: -

- Sources of potential mortar input includes spillage of wet mortar when carrying out masonry construction and repointing. Prior to repairs works some damage sections of masonry will need to be removed and grout joints will need to be raked prior to repointing. There is potential for material to be lost to the intertidal area during the process of these works.
- Sources of hydrocarbon input include leaks of substances such as fuel, e.g. petrol or diesel, or lubricating oil from vehicles, plant or equipment. Hydrocarbons can have direct toxic effects on the flora and fauna of contaminated waters and soils.

Given the small scale and short duration of the proposed works, and the methods detailed in section 3.3, the probability of any pollution incident occurring is low and such incident would likely be localised and of a small magnitude and short duration.

Disturbance to fauna

Due to the nature of the proposed works, they will involve some noise and visual impacts to fauna in the receiving environment. However, they do not involve any physical disturbance to breeding or resting places of any species of conservation concern. There is the potential for disturbance of wading birds species feeding on the mudflats at low tide. Given the scale and duration of the works, any disturbance impacts will be localised, of low magnitude and brief duration. The works are to take place along the N25 which is a busy road and so there are existing levels of disturbance and the mudflats within the SPA are extensive reducing the potential impact of the short term disturbance. Therefore, there will be no significant effects on fauna arising from such disturbance.

Invasive alien species

Any works in and adjacent to rivers carry a risk of the introduction or spread of invasive alien species, which can negatively affect native ecosystems. Given the nature and location of the proposed works, the following species are considered to be of the most concern in this regard: Japanese Knotweed (*Fallopia japonica*), Himalayan Balsam (*Impatiens glandulifera*), and Wireweed (*Sargassum muticum*). Japanese Knotweed and Himalayan Balsam have records in the area (NBDC, 2023). There are also records of Wireweed however these are located some distance away at the mouth of the estuary 4.5km by water. However, there is no evidence of these species in the immediate works area.

Therefore, the main risk is the import of such species to the area. However, given the scale and duration of the proposed works, and the biosecurity protocol to be followed, the risk from invasive alien species is considered to be low.

4. Receiving Natural Environment

This section provides an overall description of the natural environment in the vicinity of the proposed works and is not limited to Natura 2000 sites.

4.1. Habitats, Species and Ecological Corridors

The area adjoining the sea wall includes the Annex I habitats Estuaries [1130] (Figure 4-1) and Mudflats and sandflats not covered by seawater at low tide [1140] (Figure 4-2).

The Conservation Objectives supporting document (NPWS, 2012c) describes the benthic habitat along the sea wall as Intertidal estuarine sandy mud community complex. Further down shore this grades into either Sand and mixed sediment with polychaetes and crustaceans community complex or subtidal estuarine fine sand with *Bathyporeia* spp. Community complex. There are also recorded areas of *Mytilus edulis* – dominated community (NPWS, 2012c). *Zostera* and *Mytilus* dominated communities within the estuary will not be impacted by proposed works.

The only habitat within close proximity of the proposed works is the Intertidal estuarine sandy mud community complex. This is recorded from within annexed habitats, Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140] and from within the SPA.

NPWS (2012c) describes the habitat as follows: - “The gastropod *Hydrobia ulvae* occurs in high to moderate abundances within this complex; the bivalve *Scrobicularia plana*, the oligochaete *Tubificoides benedii* and the polychaete *Hediste diversicolor* have a patchy distribution and are most abundant in the more estuarine areas of the Tourig River and Kinsalebeg. The polychaetes *Pygospio elegans* and *Arenicola marina* are recorded in moderate to low abundances within this complex”. The fucoid beds at the upper extent of this habitat (see e.g. Plate 3-1), close to the wall are not specifically referenced in the conservation objective supporting document. The objective is to conserve this community type in a natural condition.

Terrestrial habitats are represented by the wall (BL1; stone walls and other stonework) and the road surface (BL3; buildings and artificial surfaces) (after Fossitt, 2000).

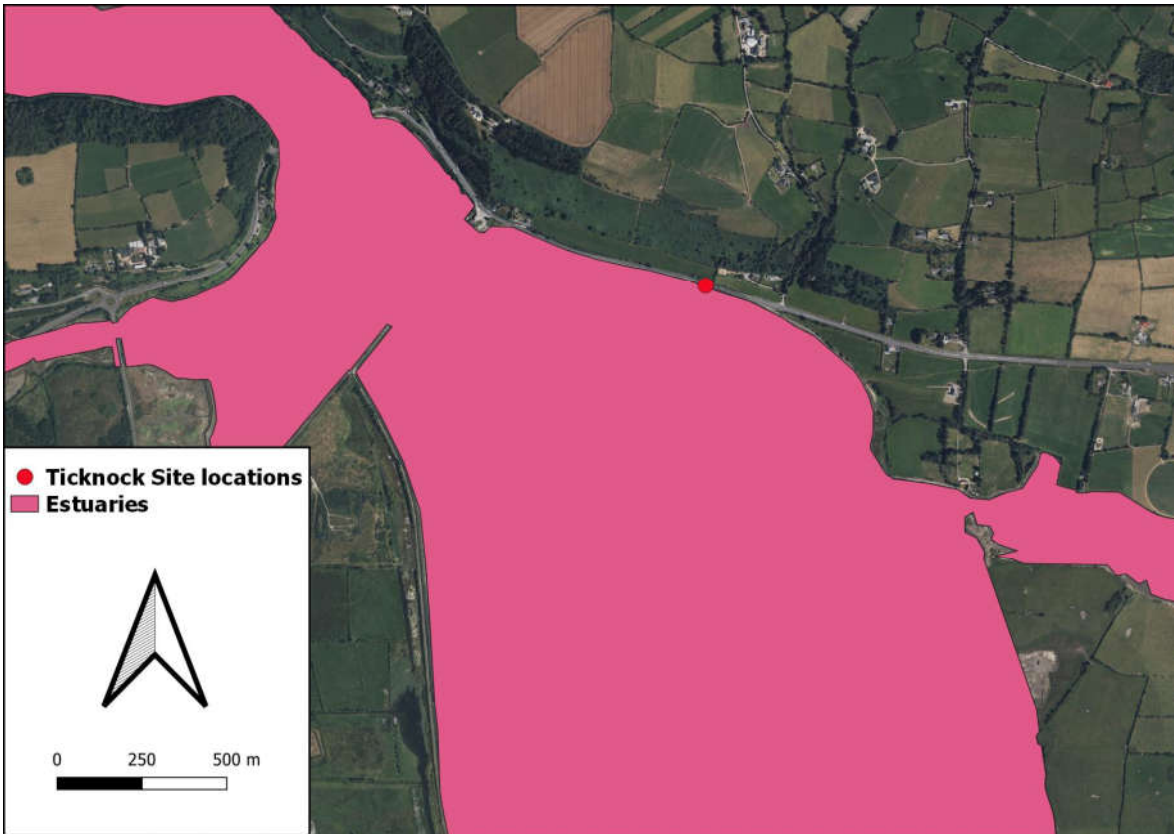


Figure 4.1 - Estuaries habitat adjacent to the works area.

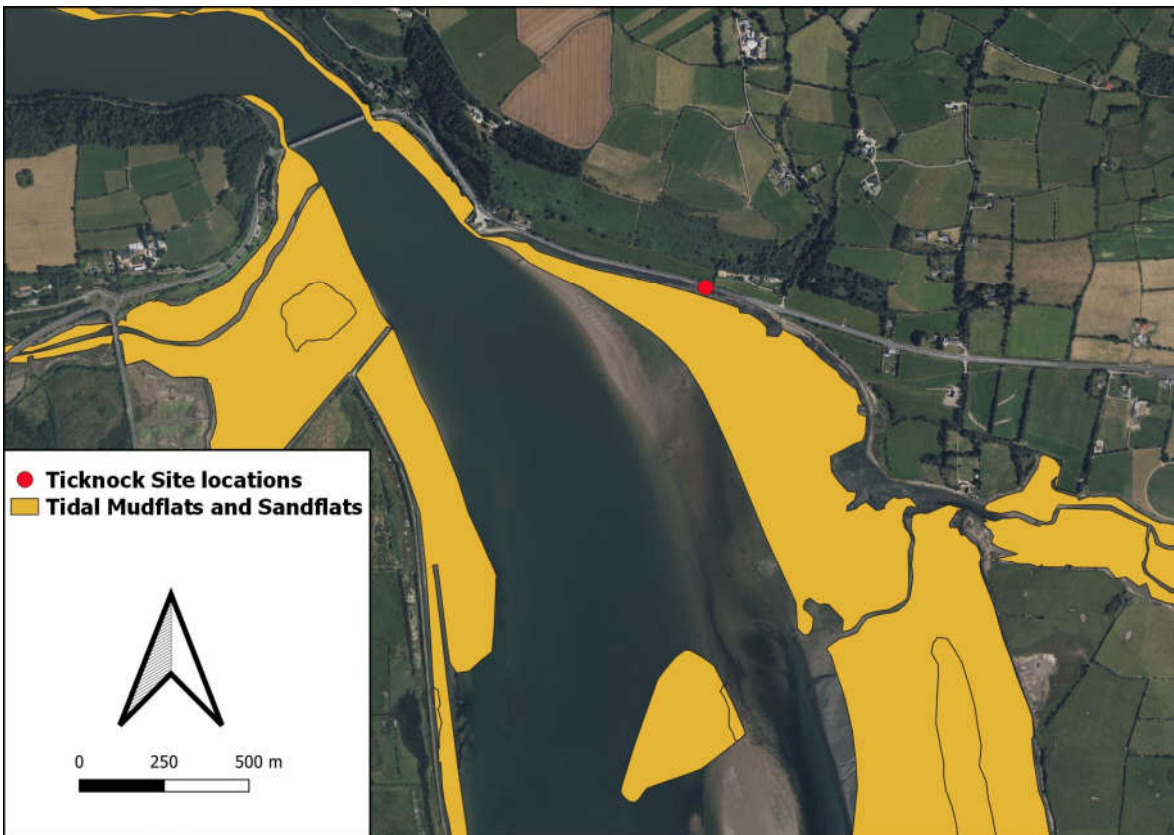


Figure 4.2 – Tidal Mudflats and Sandflats habitat adjacent to the works area.

5. Natura 2000 Sites

5.1. Zone of Influence

The “Zone of Influence” of a plan or project is the area which may experience ecological effects as a result of its implementation, including any ancillary activities. The various impacts of a plan or project will each have their own characteristics, e.g., nature, extent, magnitude, duration etc. Accordingly, the area subject to each impact (“zone of impact”) will vary depending on characteristics of the impact and the presence of pathways for its propagation. Ecological features within or connected to one or more zones of impact could, depending on their sensitivities, be affected by the plan or project under consideration. The area containing such features may be regarded as the Zone of Influence. As such, in establishing the Zone of Influence for a plan or project, regard must be had to the characteristics of its potential impacts, potential pathways for impacts and the sensitivities of ecological features in the receiving environment.

In its guidance on selecting which Natura 2000 sites to include in the AA Screening, *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities* (DEHLG, 2010a) recommends inclusion of sites in the following three categories: -

- Any Natura 2000 sites within or adjacent to the plan or project area,
- Any Natura 2000 sites within the Zone of Influence of the plan or project (generally within 15km for plans, to be established on a case-by-case basis for projects, having regard to the nature, scale and location of the project, the sensitivities of the ecological receptors and the potential for in-combination effects), and
- Following the precautionary principle, any other Natura 2000 sites for which the possibility of significant effects cannot be excluded, e.g., for a project with hydrological impacts, it may be necessary to check the full extent of the catchment for Natura 2000 sites with water-dependent qualifying interests.

In addition, *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC* (EC, 2021) recommends consideration of Natura 2000 sites hosting fauna which could move to the plan or project area or its zone(s) of impact, and the potential for the plan or project to sever ecological connectivity within or between Natura 2000 sites. *Appropriate Assessment Screening for Development Management* (OPR, 2021) emphasises the importance of employing the source-pathway-receptor model (rather than arbitrary distances such as 15km) when selecting Natura 2000 sites for inclusion in the AA Screening.

Based on the descriptions of the proposed development (Section 3) and the receiving natural environment (Section 4), the zones of impact of the proposed development were defined as: -

- For temporary disturbance to fauna, all areas within a precautionary buffer of 500m of each of the proposed works locations, and
- For hydrological impacts, waterbodies and riparian zones/floodplains within 100m of all works locations and downstream waterbodies as far as any accidental pollution could conceivably be carried.

The Zone of Influence was defined as the above zones of impact as well as other areas with potential ecological connectivity to them, i.e. Blackwater Estuary and Youghal Harbour.

Publicly available spatial data for river, transitional and coastal waterbodies (*EPA Maps*) were used in conjunction with aerial imagery to identify pathways and zones of impact for disturbance and water quality impacts from the proposed works. These were then mapped in relation to Natura 2000 sites (see Figures 5-1). In addition, the wider Zone of Influence described above was examined to identify any other Natura 2000 sites with potential ecological connections to these zones of impact.

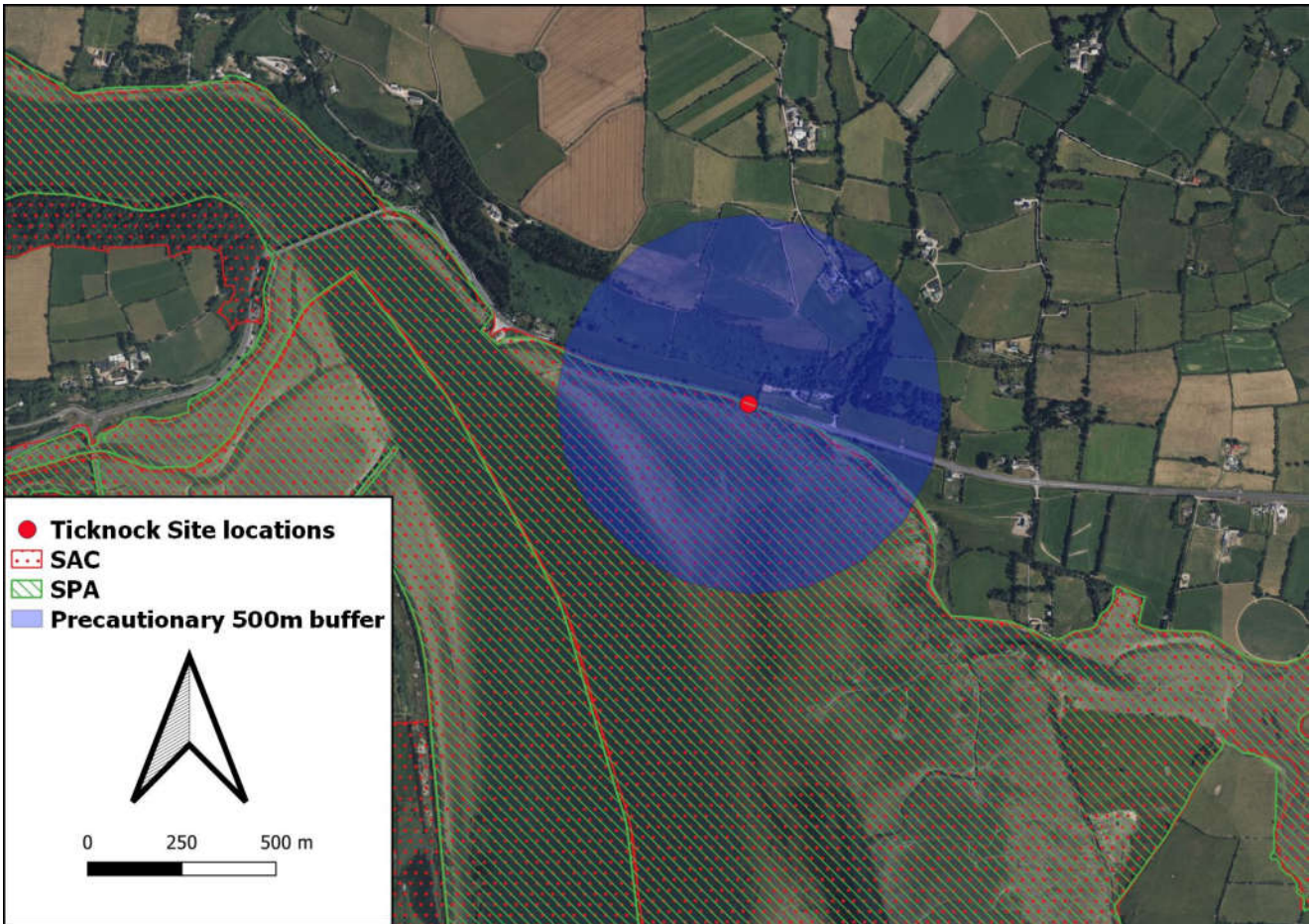


Figure 5.1 - Zones of impact of the proposed works in relation to the boundaries of Natura 2000 sites.

5.2. Natura 2000 sites in environs of proposed works

There is three Special Areas of Conservation potentially within the zone of influence of the proposed works; the Blackwater River (Cork/Waterford) SAC (002170; NPWS, 2012a); Ballymacoda (Clonpriest and Pillmore) SAC (000077; NPWS, 2015) and Ardmore Head SAC (002123; NPWS, 2016).

The site is located adjacent to and partially within the boundary of the Blackwater River (Cork/Waterford) SAC (Figure 5-1)

Three Special Protected Areas for birds are potentially within the zone of influence of the proposed works; Blackwater Estuary SPA (004028; NPWS, 2012b), Ballymacoda Bay SPA (004023; NPWS, 2015b) and Helvick Head to Ballyquin SPA (004192; NPWS, 2018).

The proposed works site is located along the boundary and partially within the Blackwater Estuary SPA (004028) (Plate 5.2). Qualifying interests for these sites are listed in Table 5-1.

The Ballymacoda (Clonpriest and Pillmore) SAC (000077) and Ardmore Head SAC (002123) are located ca. 6.45km and 10.67km from the works site. The proposed works share a remote hydrological connection with both SPAs. However, the type, scale and duration of works is such that these sites will not be impacted and are not considered further.

Helvick Head to Ballyquin SPA is located 10.3km from the works area. The works area does not include suitable habitat for Chough. Both Cormorant and Herring Gull, which do occur in Youghal Estuary, are listed as qualifying interests as breeding birds. However, the timing, scale and duration of proposed works at Ticknok are such that nesting seabirds (including Kittiwake) within Helvick Head to Ballyquin SPA would not be negatively impacted by the proposed works, nor would Peregrine which do hunt over the estuary and environs at Youghal.

Ballymacoda Bay SPA is located 6.5km to the southwest. It is included for further consideration due to its proximity and as it shares a number of qualifying interests with Blackwater Estuary SPA.

Table 5-1 - Qualifying Interests of nearby Natura 2000 sites.

Site	Site no.	Distance	Qualifying Interests
Blackwater River (Cork/Waterford) SAC	002170	Within	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Water courses of plain to montane levels with the <i>Ranuncion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] <i>Trichomanes speciosum</i> (Killarney Fern) [1421]
Ballymacoda (Clonpriest and Pillmore) SAC	000077	7.6km to southwest	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140]

Site	Site no.	Distance	Qualifying Interests
			Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]
Ardmore Head SAC	002123	9.2km to southeast	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]
Blackwater Estuary SPA	004028	Within	Wigeon (<i>Anas penelope</i>) [A050] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Lapwing (<i>Vanellus vanellus</i>) [A142] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Wetland and Waterbirds [A999]
Ballymacoda Bay SPA	004023	6.5km to southwest	Wigeon (<i>Anas penelope</i>) [A050] Teal (<i>Anas crecca</i>) [A052] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Lapwing (<i>Vanellus vanellus</i>) [A142] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Wetland and Waterbirds [A999]
Helvick Head to Ballyquin SPA	004192	10.3km to east	Cormorant (<i>Phalacrocorax carbo</i>) [A017] Peregrine (<i>Falco peregrinus</i>) [A103] Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188] Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]

Summary

Based on the above examination of the Zone of Influence, three Natura 2000 sites have been selected for inclusion in the screening assessment: –

- Blackwater River (Cork/Waterford) SAC (site code: 002170)
- Blackwater Estuary SPA (Site code: 004028)
- Ballymacoda Bay SPA (Site code: 004023)

5.3. Site Descriptions

The descriptions of Natura 2000 sites presented in this section are based on the Site Synopsis, Conservation Objectives and Natura 2000 Standard Data Form documents for the sites concerned, augmented by information from the supporting documents available on the site-specific pages of the NPWS website.

Annex I habitat types marked with an asterisk (*) are “priority habitat types”, i.e. natural habitat types in danger of disappearing and for the conservation of which the EU has a particular responsibility given the proportion of their natural ranges falling within the European territory of Member States.

5.3.1. Blackwater River (Cork/Waterford) SAC

The NPWS describes the quality and importance of the Blackwater River (Cork/Waterford) SAC as follows (NPWS, 2016): -

“The area of saltmarsh within the site is small. The best examples occur at the mouths of the tributaries and in the townlands of Foxhole and Blackbog. Those found are generally characteristic of Atlantic salt meadows. The species list at Foxhole consists of Common Saltmarsh-grass (Puccinellia maritima), small amounts of Greater Seaspurrey (Spergularia media), glasswort (Salicornia sp.), Sea Arrowgrass (Triglochin maritima), Annual Sea-blite (Suaeda maritima) and Sea Purslane (Halimione portulacoides) - the latter a very recent coloniser. Some Sea Aster (Aster tripolium) occurs, generally with Creeping Bent (Agrostis stolonifera). Sea Couch (Elymus pycnanthus) and small isolated clumps of Sea Club-rush (Scirpus maritimus) are also seen. On the Tourig River additional saltmarsh species found include sea-lavenders (Limonium spp.), Thrift (Armeria maritima), Red Fescue (Festuca rubra), Common Scurvygrass (Cochlearia officinalis) and Sea Plantain (Plantago maritima). Oraches (Atriplex spp.) are found on channel edges. Species such as Saltmarsh Rush (Juncus gerardi) and Sea Rush (J. maritimus) are found in places in this site also, and are indicative of Mediterranean salt meadows. Areas of Salicornia mud are found at the eastern side of the townland of Foxhole above Youghal, at Blackbog, along the Tourig and Kinsalebeg estuaries.

The shingle spit at Ferrypoint supports a good example of perennial vegetation of stony banks. The spit is composed of small stones and cobbles and has a well-developed and diverse flora. At the lowest part, Sea Beet (Beta vulgaris subsp. maritima), Curled Dock (Rumex crispus) and Yellow Horned-poppy (Glaucium flavum) occur, while at a slightly higher level Sea Mayweed (Matricaria maritima), Cleavers (Galium aparine), Rock Samphire (Crithmum maritimum), Sea Sandwort (Honkenya peploides), Spear-leaved Orache (Atriplex prostrata) and Babington’s Orache (A. glabriuscula). Other species present include Sea Rocket (Cakile maritima), Herb-Robert (Geranium robertianum), Red Fescue and Kidney Vetch (Anthyllis vulneraria). The top of the spit is more vegetated and supports lichens and bryophytes, including Tortula ruraliformis and Rhytidiadelphus squarrosus.

The site is also important for the presence of several E.U. Habitats Directive Annex II animal species, including Sea Lamprey (Petromyzon marinus), Brook Lamprey (Lampetra planeri), River Lamprey (L. fluviatilis), Twaite Shad (Alosa fallax fallax), Freshwater Pearl Mussel (Margaritifera margaritifera), Otter (Lutra lutra) and Salmon (Salmo salar). The Blackwater is noted for its enormous run of salmon over the years. The river is characterised by significant pools, streams, glides, and generally, a good push of water coming through except in very low water.

Several bird species listed on Annex I of the E.U. Birds Directive are found on the site. Some use it as a staging area, others are vagrants, while others use it more regularly. Internationally important numbers of Whooper Swan (average peak 174, 1994/95-95/96) and nationally important numbers Bewick’s Swan (average peak 5, 1996/97-2000/01) use the Blackwater Callows. The site holds important numbers of wintering waterfowl. Both the Blackwater Callows and the Blackwater Estuary Special Protection Areas (SPAs) hold internationally important numbers of Black-tailed Godwit (average peak 847, 1994/95-95/96 on the callows, average peak 845, 1974/75-93/94 in the estuary).

Qualifying Interests

The River Barrow and River Nore SAC was selected for the following qualifying interests: -

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Perennial vegetation of stony banks [1220]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation [3260]
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Austropotamobius pallipes* (White-clawed Crayfish) [1092]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Alosa fallax fallax* (Twaiite Shad) [1103]
- *Salmo salar* (Salmon) [1106]
- *Lutra lutra* (Otter) [1355]
- *Trichomanes speciosum* (Killarney Fern) [1421]

Threats, Pressures and Activities

Table 5-2 below lists the threats, pressures and activities with negative impacts on the site, as per its Natura 2000 Standard Data Form (Eionet, 2023).

Table 5-2 - Threats, pressures and activities with negative impacts on the Blackwater River (Cork/Waterford) SAC.

Rank	Threat, pressure or activity (code)	Threat, pressure or activity (description)	Inside, outside or both
LOW	D01.04	railway lines, TGV	IN
MEDIUM	B	Sylviculture, forestry	OUT
MEDIUM	J02.01	Landfill, land reclamation and drying out, general	OUT
LOW	B	Sylviculture, forestry	IN

Rank	Threat, pressure or activity (code)	Threat, pressure or activity (description)	Inside, outside or both
HIGH	A04	grazing	IN
LOW	K01.01	Erosion	IN
MEDIUM	I01	invasive non-native species	IN
MEDIUM	I01	invasive non-native species	OUT
HIGH	A04	grazing	OUT
LOW	J02.01	Landfill, land reclamation and drying out, general	IN
LOW	C01.01	Sand and gravel extraction	OUT
LOW	E03.01	disposal of household / recreational facility waste	IN
LOW	D01.02	roads, motorways	IN
LOW	G02	Sport and leisure structures	OUT
LOW	G01.01	nautical sports	IN
MEDIUM	E01	Urbanised areas, human habitation	OUT
MEDIUM	E02	Industrial or commercial areas	OUT
HIGH	A08	Fertilisation	IN
HIGH	A03	mowing / cutting of grassland	IN
HIGH	A08	Fertilisation	OUT
MEDIUM	F02.03	Leisure fishing	IN

NPWS (2020a) and Eionet (2023)

5.3.2. Blackwater Estuary SPA

The NPWS describes the quality and importance of the Blackwater Estuary SPA as follows (NPWS, 2014):

“The Blackwater Estuary SPA is a moderately-sized, sheltered south-facing estuary, which extends from Youghal New Bridge to the Ferry Point peninsula, close to where the river enters the sea. It comprises a section of the main channel of the River Blackwater to Ballynaclash Quay. At low tide, intertidal flats are exposed on both sides of the channel. On the eastern side the intertidal channel as far as Kinsalebeg and Moord Cross Roads is included, while on the west side the site includes part of the estuary of the Tourig River as far as Kilmagner.

The Blackwater Estuary SPA is an internationally important wetland site on account of the population of Black-tailed Godwit it supports. It is also of high importance in a national context, with seven species having populations which exceed the thresholds for national importance. The occurrence of Little Egret, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. The Blackwater Estuary is also a Ramsar Convention site.”

Qualifying Interests

The qualifying interests of the Blackwater Estuary SPA are as follows: -

- Wigeon (*Anas penelope*) [A050]
- Golden Plover (*Pluvialis apricaria*) [A140]

- Lapwing (*Vanellus vanellus*) [A142]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Wetland and Waterbirds [A999]

Threats, Pressures and Activities

Table 5-3 below lists the threats, pressures and activities with negative impacts on the Blackwater Estuary SPA, as per its Natura 2000 Standard Data Form (Eionet, 2023).

Table 5-3 - Threats, pressures and activities with negative impacts on the Blackwater Estuary SPA.

Rank	Threat, pressure or activity (code)	Threat, pressure or activity (description)	Inside, outside or both
Low	A04	grazing	In
Low	F03.01	Hunting	In
High	E01	Urbanised areas, human habitation	Out
Medium	G01.01	nautical sports	In
High	D01.02	roads, motorways	In
Medium	A08	Fertilisation	Out
Medium	F02.03	Leisure fishing	In

NPWS (2020b) and Eionet (2023)

5.3.3. Ballymacoda Bay SPA

The NPWS describes the quality and importance of the Blackwater Estuary SPA as follows (NPWS, 2014):

“This coastal site stretches north-east from Ballymacoda to within several kilometres of Youghal, Co. Cork. It comprises the estuary of the Womanagh River, a substantial river which drains a large agricultural catchment. Part of the tidal section of the river is included in the site and on the seaward side the boundary extends to, and includes Bog Rock, Barrel Rocks and Black Rock. The inner part of the estuary is well sheltered by the Ring peninsula, a stabilised sand spit with sand dunes at its northern end and salt marshes on the landward side. Sediment types vary from muds to muddy sands in the inner part to fine rippled sands in the outer exposed part. The macroinvertebrate fauna of the intertidal flats is well-developed, with the following species occurring: Ragworm (Hediste diversicolor), the crustacean Corophium volutator, Lugworm (Arenicola marina), Baltic Tellin (Macoma balthica), Peppery Furrow-shell (Scrobicularia plana), Common Cockle (Cerastoderma edule) and the tubeworm Lanice conchilega. In the more sheltered areas, the intertidal flats are colonised by mats of green algae (mostly Ulva spp.), with brown seaweeds occurring on the rocky shores of the shingle spits. Common Cord-grass (Spartina anglica) has spread within the estuary since the late 1970s. The main channel is flanked by salt marshes and wet fields, much of the latter being improved for agriculture.

Ballymacoda Bay SPA is one of the most important sites in the country for wintering waterfowl. It qualifies for international importance on the basis of regularly exceeding 20,000 wintering birds but also for its Golden Plover and Black-tailed Godwit populations. In addition, it supports nationally important populations of a further fourteen species. Two of the species which occur, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive. Ballymacoda Bay is also a Ramsar Convention site.”

Qualifying Interests

The qualifying interests of the Ballymacoda Bay SPA are as follows: -

- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Golden Plover (*Pluvialis apricaria*) [A140]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Sanderling (*Calidris alba*) [A144]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Turnstone (*Arenaria interpres*) [A169]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]

- Common Gull (*Larus canus*) [A182]
- Lesser Black-backed Gull (*Larus fuscus*) [A183]
- Wetland and Waterbirds [A999]

Threats, pressures and Activities

Table 5-4 below lists the threats, pressures and activities with negative impacts on the Ballymacoda Bay SPA, as per its Natura 2000 Standard Data Form (Eionet, 2023).

Table 5-4 - Threats, pressures and activities with negative impacts on the Ballymacoda Bay SPA.

Rank	Threat, pressure or activity (code)	Threat, pressure or activity (description)	Inside, outside or both
High	A04	grazing	Out
Low	F03.01	Hunting	In
Medium	I01	invasive non-native species	In
Low	G01.02	walking, horse riding and non-motorised vehicles	In

6. Likely Significant Effects

6.1. Identification of Potential Impacts

The identification of potential impacts in this section uses the “*source-pathway-receptor*” model. According to this model, for an impact to exist, all three of the following criteria must be met: -

- Some aspect of the plan or project must act as a source of an impact,
- There must be a pathway capable of conveying the impact to a receptor, and
- The receptor must be sensitive to the impact.

The types of impacts likely to arise from the proposed works and their specific sources are described in Section 3.3.4 above and the receptors are the qualifying interests of the Natura 2000 sites concerned, as listed in Section 0 above. Given that the sources and the receptors are already known, the following subsections focus on the identification of potential pathways between those sources and receptors.

6.1.1. Blackwater River (Cork/Waterford) SAC

Potential impacts to the qualifying interests of the Blackwater River SAC are identified in Table 6-1 below.

Table 6-1 - Identification of pathways for impacts to the Blackwater River SAC.

Qualifying interest	Description and location	Pathways for impacts	Potential impact
Estuaries (1130)	Works are located adjacent to or within estuary habitat.	Given the presence of this qualifying interest in close proximity to the proposed works, pathways for impacts cannot be ruled out at this stage.	Yes
Mudflats and sandflats not covered by seawater at low tide (1140)	Intertidal sections of the coastline where the substrate is dominated by mud and sand. This habitat is located approximately 23m from the proposed works.	Given the presence of this qualifying interest in close proximity to the proposed works, pathways for impacts cannot be ruled out at this stage.	Yes
Perennial vegetation of stony banks (1220)	Perennial vegetation of the upper beaches of great shingle banks, formed by <i>Crambe maritima</i> , <i>Honkenya peploides</i> and other perennial species. A wide range of vegetation types may be found on large shingle structures inland of the upper beach. There are no records of this habitat in the Zol. The habitat is present at Ferrypoint, opposite Youghal.	There is no pathway between this habitat and the proposed works as it does not occur within the immediate area and there is no hydrological connectivity due to the location of this habitat type at the upper end of shingle banks. As such there is not potential for impact and this QI can be screened out.	No
<i>Salicornia</i> and other annuals colonising mud and sand (1310)	Pioneer saltmarsh community on muddy sediment seaward of established saltmarsh or forming patches within other saltmarsh communities where the elevation is suitable and there is regular tidal inundation. There are no recorded areas of this habitat in the estuary, any such habitats are likely to occur in more sheltered areas than where the works are proposed. Is	There is no overlap between the works area or Zol and this habitat. There may be a hydrological connection if the habitat occurs within the estuary. However, due to the scale and duration of the works it is not considered likely that there is a potential for impact and this QI can be screened out.	No

Qualifying interest	Description and location	Pathways for impacts	Potential impact
	likely to occur in similar areas to saltmarsh.		
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) (1330)	Saltmarshes of the Baltic, North Sea, English Channel and Atlantic shores, occupying the lower, middle and the transition to upper saltmarsh zones, of importance for other wildlife, including waterbirds. The nearest recorded example of this habitat type is located 1km southeast of the proposed works area.	There is no overlap between the works area or ZOI and this habitat. There is a hydrological connection to the habitat with the nearest location 1km southeast of the site. However, due to the distance to the habitat along with the scale and duration of the works it is not considered likely that there is a potential for impact and this QI can be screened out.	No
Mediterranean salt meadows (<i>Juncetalia maritimi</i>) (1410)	The upper zone of saltmarshes, usually adjacent to the boundary with terrestrial habitats, widespread on the Irish coastline, though not as extensive as Atlantic salt meadows. Distinguished from Atlantic salt meadows by the presence of rushes such as Sea Rush (<i>Juncus maritimus</i>) and Sharp Rush (<i>J. acutus</i>). The nearest recorded example of this habitat type is located 1.8km southeast of the proposed works area.	There is no overlap between the works area or ZOI and this habitat. There is a hydrological connection to the habitat with the nearest location 1.8km southeast of the site. However, due to the distance to the habitat along with the scale and duration of the works it is not considered likely that there is a potential for impact and this QI can be screened out.	No
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260)	Broad definition, covering upland, flashy, oligotrophic, bryophyte- and algal-dominated rivers, to tidal reaches dominated by submerged or floating vegetation of the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> (low water level during summer) or aquatic mosses. The stretches of the River Nore to be subject to the proposed works confirm to this habitat type.	The works are located in a brackish estuary and so is not suitable for this habitat. This habitat is only likely to occur upstream of the works. As such there is no potential for impact and this QI is screened out.	No
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles (91A0)	Old woodland of Oak (<i>Quercus</i> sp.) with Holly (<i>Ilex aquifolium</i>) and Hard-fern (<i>Blechnum spicant</i>), generally on podsolised soils in upland, southern and western regions, but also on localised, non-waterlogged acid soils elsewhere. This habitat is located 1.5km northwest upstream of the proposed works.	This habitat does not occur within the works area or ZOI. The closest occurrence of the habitat is upstream and located above the water level. As such there is no potential for impact and this QI can be screened out.	No
*Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) (91E0)	Riparian woodlands of Ash (<i>Fraxinus excelsior</i>) and Alder (<i>Alnus glutinosa</i>) on heavy soils periodically inundated by the annual rise of river levels but otherwise well-drained and aerated during low water. This habitat occurs 10km upstream of the proposed works.	This habitat does not occur within the works area or ZOI. The closest occurrence of the habitat is 10km upstream. As such there is no potential for impact and this QI can be screened out.	No
Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) (1029)	Large, long-lived (100+ years), bivalve mollusc found in clean, fast-flowing rivers. Glochidial larvae use a temporary salmonid	The habitat in the works area is not suitable for this species as it is brackish. [REDACTED]	No

Qualifying interest	Description and location	Pathways for impacts	Potential impact
	host, juveniles occupy interstitial habitats in the riverbed for 5 years or more. Mussels mature at 7-15 years and have a prolonged fertile period lasting into old age. The closest FWPM area is 10km upstream	As such there is not potential for impact and this QI can be screened out.	
White-clawed Crayfish (<i>Austropotamobius pallipes</i>) (1092)	Ireland's largest freshwater arthropod. Prefers relatively cool temperatures and adequate dissolved oxygen and lime but tolerating significant fluctuations in these. Juveniles live among submerged tree roots, gravel or macrophytes, while larger crayfish must have stones to hide under, or an earthen bank in which to burrow. Suitable habitat is present in stretches of the Blackwater River. The closest record of this species is more than 50km upstream.	The habitat in the works area is not suitable for this species as it is brackish. The closest records for white-clawed crayfish are more than 50km upstream. As such there is not potential for impact and this QI can be screened out.	No
Sea Lamprey (<i>Petromyzon marinus</i>) (1095)	Adults live as external parasites on host fish or marine mammals at sea, migrating in spring into freshwater to excavate redds or spawning nests in gravelled areas of large rivers. Egg laying follows nest excavation and the resulting ammocoetes hatch within days. These move downstream to areas of fine sediment into which they can burrow. Transformation into young adults occurs in late summer, with migration to estuaries and open sea in late autumn-winter.	This species is likely to pass the area during migration, as such impacts on this qualifying interest cannot be ruled out at this stage.	Yes
Brook Lamprey (<i>Lampetra planeri</i>) (1096)	Smallest of the lampreys recorded in Ireland. Unlike other lampreys, it is non-parasitic and non-migratory as an adult, living its entire life in freshwater. Adults spawn in spring, excavating shallow nests in relatively fine gravels in areas of reduced flow. Ammocoetes move downstream to areas or margins with fine silt. Young adults overwinter before migrating short distances upstream to spawn. The adult fish die after spawning.	Unlike Sea and River lamprey, Brook lamprey are not anadromous and does not occur in the estuary. As such there is no potential for impact and this species can be screened out.	No
River Lamprey (<i>Lampetra fluviatilis</i>) (1099)	Adults spawn in rivers spring, excavating shallow nests in fine gravels and small stones. The adult fish die after spawning. The ammocoetes move downstream to fine silt deposits where they live as filter feeders over a period of years before transforming into young adults and migrating to estuarine and marine habitats. As adults they are parasitic on larger fish in coastal waters.	This species is likely to pass the area during migration, as such impacts on this qualifying interest cannot be ruled out at this stage.	Yes

Qualifying interest	Description and location	Pathways for impacts	Potential impact
Twaite Shad (<i>Alosa fallax</i>) (1103)	A member of the herring family, spends most of its life in estuaries and coastal waters, moves upriver to spawn in late spring. The eggs hatch after a short period and juveniles move down into the estuary. Irish fish may live in estuaries for at least two full years prior to going to sea. The majority of spawning occurs at the first suitable gravels above the tidal limit, but some fish move much further upstream.	Twaite Shad has been recorded in the River Blackwater. It is an anadromous species, which breeds in freshwater and as a young fish goes to sea; young fish will drop down the river and spend time in the estuary. as such impacts on this qualifying interest cannot be ruled out at this stage.	Yes
Atlantic Salmon (<i>Salmo salar</i>) (1106)	Irish population comprises mostly fish that spend two years as sub-adults in freshwater before going to sea as smolts. Most fish spend one winter at sea before returning to their natal rivers, mainly during the summer, as grilse. Smaller numbers spend two winters at sea, returning mainly in spring, hence "spring" salmon. A small proportion of the adult population returns to the sea post-spawning and can return to spawn again. Salmon are considered present throughout the Blackwater system.	Does occur in the River Blackwater. Adults pass through estuary to spawning grounds. Would only occur in the environs of Tiknock whilst migrating.	Yes
Otter (<i>Lutra lutra</i>) (1355)	Large mustelid found along rivers, lakes and coasts throughout Ireland, where there is abundant prey and habitat providing cover. Feeds on a wide variety of aquatic prey, including fish, crustaceans, molluscs and amphibians. Otter occur widely throughout Youghal Harbour and the Blackwater Estuary	Owing to the likely presence of this species, its habitat and prey resource in close proximity to the proposed works, there are clear pathways for impacts.	Yes
Killarney Fern (<i>Trichomanes speciosum</i>) (1421)	A large filmy fern that is extremely sensitive to desiccation and is restricted to damp, shady and humid habitats. Habitats include dripping caves, cliffs, crevices and gullies by waterfalls, crevices in woodland, and occasionally the floor of damp woodland (deeply shaded, humid). Occur 3.5km northwest of the proposed works	This habitat does not occur with the Zol. This is a terrestrial species and so there is no potential for hydrological connection. As such there is no potential for Impact.	No

6.1.2. Blackwater Estuary SPA

Potential impacts to the qualifying interests of the Blackwater Estuary SPA are identified in Table 6-2 below.

Table 6-2 - Identification of pathways for impacts to the Blackwater Estuary SPA.

Qualifying interest	Description and location	Pathways for impacts	Potential impact
Wigeon (<i>Anas penelope</i>) Golden Plover (<i>Pluvialis apricaria</i>) Lapwing (<i>Vanellus vanellus</i>) Dunlin (<i>Calidris alpina</i>) Black-tailed Godwit (<i>Limosa limosa</i>) Bar-tailed Godwit (<i>Limosa lapponica</i>) Curlew (<i>Numenius arquata</i>) Redshank (<i>Tringa totanus</i>)	All QI bird species of the SPA are likely to forage on the mudflats within the estuary.	Due to the close proximity of the works to the mudflat habitat there is potential for impact. As such these QIs cannot be screened out at this point.	Yes
Wetland and waterbirds	There are extensive areas of wetland habitat important to waterbirds throughout the Estuary including salt marsh and mudflat/sandflats.	Given the close proximity of the works to the mudflats this QI cannot be screened out at this point.	Yes

6.1.3. Ballymacoda Bay SPA

Potential impacts to the qualifying interests of the Blackwater Estuary SPA are identified in Table 6-3 below.

Table 6-3 Identification of pathways for impacts to the Blackwater Estuary SPA.

Qualifying interest	Description and location	Pathways for impacts	Potential impact
Wigeon (<i>Anas penelope</i>) Teal (<i>Anas crecca</i>) Ringed Plover (<i>Charadrius hiaticula</i>) Golden Plover (<i>Pluvialis apricaria</i>) Grey Plover (<i>Pluvialis squatarola</i>) Lapwing (<i>Vanellus vanellus</i>) Sanderling (<i>Calidris alba</i>) Dunlin (<i>Calidris alpina</i>) Black-tailed Godwit (<i>Limosa limosa</i>) Bar-tailed Godwit (<i>Limosa lapponica</i>) Curlew (<i>Numenius arquata</i>) Redshank (<i>Tringa totanus</i>) Turnstone (<i>Arenaria interpres</i>) Black-headed Gull (<i>Chroicocephalus ridibundus</i>) Common Gull (<i>Larus canus</i>) Lesser Black-backed Gull (<i>Larus fuscus</i>)	Ballymacoda Bay SPA is located 6.5km from the site. These QI bird species of the SPA are likely to use the mudflats within the estuary for ex-situ feeding.	Due to the potential use of the mudflats within the estuary for ex-situ feeding these QI's cannot be screened out at this point.	Yes
Wetland and waterbirds [A999]	The wetland habitats of Ballymacoda Bay are located 6.5km from the proposed works	Given the scale and duration of the works it is unlikely that there could be any impact on wetland habitats in Ballymacoda bay 6.5km away.	No

Qualifying interest	Description and location	Pathways for impacts	Potential impact
		As such there is no potential for impact and this species can be screened out.	

6.1.4. Summary

The qualifying interests for which potential impacts could not be ruled out at this stage were: -

- Blackwater River (Cork/Waterford) SAC
 - Estuaries (1130)
 - Mudflats and sandflats not covered by seawater at low tide (1140)
 - Sea Lamprey (*Petromyzon marinus*) (1095)
 - River Lamprey (*Lampetra fluviatilis*) (1099)
 - Twaiter Shad (*Alosa fallax*) (1103)
 - Atlantic Salmon (*Salmo salar*) (1106)
 - Otter (*Lutra lutra*) (1355)
- Blackwater Estuary SPA
 - Wigeon (*Anas penelope*) [A050]
 - Golden Plover (*Pluvialis apricaria*) [A140]
 - Lapwing (*Vanellus vanellus*) [A142]
 - Dunlin (*Calidris alpina*) [A149]
 - Black-tailed Godwit (*Limosa limosa*) [A156]
 - Bar-tailed Godwit (*Limosa lapponica*) [A157]
 - Curlew (*Numenius arquata*) [A160]
 - Redshank (*Tringa totanus*) [A162]
 - Wetland and waterbirds [A999]
- Ballymacoda Bay SPA
 - Wigeon (*Anas penelope*) [A050]
 - Teal (*Anas crecca*) [A052]
 - Ringed Plover (*Charadrius hiaticula*) [A137]
 - Golden Plover (*Pluvialis apricaria*) [A140]
 - Grey Plover (*Pluvialis squatarola*) [A141]
 - Lapwing (*Vanellus vanellus*) [A142]

- Sanderling (*Calidris alba*) [A144]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Turnstone (*Arenaria interpres*) [A169]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Common Gull (*Larus canus*) [A182]
- Lesser Black-backed Gull (*Larus fuscus*) [A183]

The qualifying interests for which potential impacts could be ruled out at this stage were: -

- Blackwater River (Cork/Waterford) SAC
 - Perennial vegetation of stony banks (1220)
 - *Salicornia* and other annuals colonising mud and sand (1310)
 - Mudflats and sandflats not covered by seawater at low tide (1140)
 - Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (1330)
 - Mediterranean salt meadows (*Juncetalia maritimi*) (1410)
 - Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation (3260)
 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles (91A0)
 - *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) (91E0)
 - Freshwater Pearl Mussel (*Margaritifera margaritifera*) (1029)
 - White-clawed Crayfish (*Austropotamobius pallipes*) (1092)
 - Brook Lamprey (*Lampetra planeri*) (1096)
 - Killarney Fern (*Trichomanes speciosum*) (1421)
- Ballymacoda Bay SPA
 - Perennial vegetation of stony banks (1220)
 - Wetland and waterbirds [A999]

The potential impacts identified in this section are evaluated in view of the conservation objectives of the relevant Natura 2000 sites in Section 6.2 below.

6.2. Evaluation of Effects

6.2.1. Blackwater River (Cork/Waterford) SAC

The significance of effects on the Blackwater River (Cork/Waterford) SAC are evaluated in view of the relevant conservation objectives in Table 6-4 below (excluding the conservation objectives for qualifying interests for which potential impacts were ruled out in Table 6-1 above).

Table 6-4 - Evaluation of effects on the River Barrow and River Nore SAC (LSE = likely significant effect).

Conservation objective	Description of effects	LSE
To maintain the favourable conservation condition of Estuaries in the Blackwater River (Cork/Waterford) SAC	<p>The attributes of this conservation objective relate to estuarine habitat extent including <i>Mytilus edulis</i>-dominated community Intertidal estuarine sandy mud community complex; Subtidal estuarine fine sand with <i>Bathyporeia</i> spp. community complex; Sand and mixed sediment with polychaetes and crustaceans community complex; Coarse sediment community complex.</p> <p>The proposed repairs to Ticknock seawall are limited to the reconstruction of the collapsed parapet and damage to the retaining wall in two particular locations. The only potential impacts are from mortar spillage. Works will be carried out from a scaffold with geotextile fabric fitted to the wooden surface. This will collect most spillages. Some mortar may still spill between the scaffold and the wall during repair. However, as can be seen in the Plate 3-2 there is a concrete apron at the base of the wall. Any spillage will land here and can be easily collected at the end of the works day. Works will only be carried out at low tide. As such there will be no impact on the condition or extent of any of the above-mentioned habitats.</p>	No
To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in the Blackwater River (Cork/Waterford) SAC	<p>The attributes of this conservation objective relate to habitat area, community extent, structure and distribution. Community types include <i>Zostera</i>-dominated community, <i>Mytilus edulis</i>-dominated community, Intertidal estuarine sandy mud community complex and Sand and mixed sediment with polychaetes and crustaceans community complex.</p> <p>The proposed repairs to Ticknock seawall are limited to the reconstruction of the collapsed parapet and damage to the retaining wall in two particular locations. The only potential impacts is from mortar spillage. Works will be carried out from a scaffold with geotextile fabric fitted to the wooden surface. This will collect most spillages. Some mortar may still spill between the scaffold and the wall during repair. However, as can be seen in the Plate 3-2 there is a concrete apron at the base of the wall. Any spillage will land here and can be easily collected at the end of the works day. Works will only be carried out at low tide. As such there will be no impact on the condition or extent of any of the above-mentioned habitats.</p>	No
<i>To restore the favourable conservation condition of Sea lamprey in the River Barrow and River Nore SAC</i>	<p>The attributes of these two conservation objectives are the same and have similar targets across the two species. The attributes relate to distribution (extent of migration), population structure of juveniles, juvenile density in fine sediment, extent and distribution of spawning habitat, and availability of juvenile habitat.</p>	No
<i>To maintain the favourable conservation condition of River lamprey in the River Barrow and River Nore SAC</i>	<p>Works will be carried out from a scaffold with geotextile fabric fitted to the wooden surface. This will collect most spillages. Some mortar may still spill between the scaffold and the wall during repair. However, as can be seen in the Plate 3 2 there is a concrete apron at the base of the wall. Any spillage will land here and can be easily collected at the end of the works day. Works will only be carried out at low tide. Given the nature, scale and duration of the proposed works, there is no potential for impact on any of these attributes.</p>	No
<i>To restore the favourable conservation condition of Twaite shad in the River Barrow and River Nore SAC</i>	<p>The attributes of this conservation objective relate to distribution (extent of anadromy), population structure (age classes), extent and distribution of spawning habitat, water quality (oxygen levels) and spawning habitat quality (filamentous algae, macrophytes, sediment). Given the nature of the proposed works, the only attributes potentially affected are water quality.</p> <p>The target for water quality is that oxygen levels are maintained no lower than 5mg/l. Given that any water quality impacts from the proposed works</p>	No

Conservation objective	Description of effects	LSE
	would be limited to very localised and brief mortar spillage or hydrocarbon contamination, there would be no significant effect on oxygen levels.	
<i>To restore the favourable conservation condition of Salmon in the River Barrow and River Nore SAC</i>	The attributes of this conservation objective relate to distribution (extent of anadromy), adult spawning fish, fry and out-migrating smolt abundance, number and distribution of redds, and water quality. Given the nature of the proposed works, the only attribute potentially affected is water quality. The target for water quality is EPA Q-value of at least 4. As the proposed works are located within brackish water the Q-value metric is not applicable. However, given that any water quality impacts from the proposed works would be limited to very localised and brief mortar spillage or hydrocarbon contamination, there would be no significant effect on the general water quality in the area.	No
<i>To restore the favourable conservation condition of Otter in the River Barrow and River Nore SAC</i>	The attributes of this conservation objective relate to distribution, extent of terrestrial, marine and freshwater habitats, couching sites and holts, and fish biomass available. Given the nature, location and duration of the proposed works there is no potential to impact on these attributes.	No

6.2.2. Blackwater Estuary SPA

The significance of effects on the Blackwater Estuary SPA are evaluated in view of the relevant conservation objective in Table 6-5 below.

Table 6-5 - Evaluation of effects on the Blackwater Estuary SPA (LSE = likely significant effect).

Conservation objective	Description of effects	LSE
<i>To maintain the favourable conservation condition of all QI bird species within the Blackwater Estuary SPA.</i>	The attributes of this conservation objective for all species relate to population trends and distribution. The potential impact posed by the proposed works relates to disturbance of QI species feeding on the mudflats. The mudflats within the Blackwater Estuary are extensive. As such there is suitable alternative feeding habitat in close proximity. There is currently a level of disturbance in the area due to the presence of the busy N25 road. As such birds in this area are likely used to a level of disturbance. Given the nature, scale and duration of the proposed works there is no potential to impact on these attributes.	No
To maintain the favourable conservation condition of the wetland habitat in Blackwater Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.	The attributes of this conservation objective relate to extent of wetland habitat available. The proposed works will not impact on the available wetland habitat within the estuary. Given this there is no potential to impact on this attribute.	No

6.2.3. Ballymacoda Bay SPA

The significance of effects on the Ballymacoda Bay SPA are evaluated in view of the relevant conservation objective in Table 6-6 below.

Table 6-6 - Evaluation of effects on the Ballymacoda Bay SPA (LSE = likely significant effect).

Conservation objective	Description of effects	LSE
<i>To maintain the favourable conservation condition of all QI bird species in Ballymacoda Bay SPA</i>	<p>The attributes of this conservation objective for all species relate to population trends and distribution. The potential impact posed by the proposed works relates to disturbance of QI species feeding on the mudflats.</p> <p>The mudflats within the Blackwater Estuary are extensive. As such there is suitable alternative feeding habitat in close proximity. There is currently a level of disturbance in the area due to the presence of the busy N25 road. As such birds in this area are likely used to a level of disturbance. Given the nature, scale and duration of the proposed works there is no potential to impact on these attributes.</p>	No

6.2.4. Summary

On the basis of objective information presented in Sections 3, 4, 5 and 6.1, the evaluation in Section 6.2 has found, beyond reasonable scientific doubt, that any ecological impacts likely to arise from the proposed works would not constitute significant effects on the Blackwater River (Cork/Waterford) SAC, the Blackwater Estuary SPA or the Ballymacoda Bay SPA. The potential for such effects to occur in combination with other plans and projects is assessed in Section 7.

7. Potential In-combination Effects

7.1. Requirement for Assessment

The requirement for AA arising out of Article 6(3) of the Habitats Directive covers plans and projects that, “*either individually or in combination with other plans or projects*”, are likely to have a significant effect on one or more Natura 2000 sites. This means that AA is required for any plan or project that, in combination with other plans or projects, would have a significant effect on one or more Natura 2000 sites, irrespective of the presence or absence of such effects from that plan or project on its own. Therefore, regardless of the significance of the effects of the plan or project individually, the potential for significant effects in combination with other plans and projects must be considered in all cases.

7.2. Approach and Methodology

The objective of this requirement is to capture significant effects potentially arising from the cumulation or other interaction of non-significant effects from multiple plans and projects. Consequently, the assessment of potential in-combination effects is not a pair-wise assessment, rather, it considers the totality of the effects arising from all plans and projects affecting the Natura 2000 site(s) in question. In identifying the plans and projects to be included in this assessment, it is important to define an appropriate geographical scope and timescale over which potential in-combination effects are to be considered and the sources of information to be consulted, as described below. It is also important to consider the nature of the interactions between effects, which may be additive, antagonistic, synergistic or complex.

7.2.1. Geographical Scope

In defining the geographical scope for identifying potential in-combination effects, it is important to remember that effects are evaluated in view of the conservation objectives of the Natura 2000 site(s) concerned. As such, two or more effects relating to the same conservation objective for a given Natura 2000 site would combine even if their geographical extents did not overlap. For example, the loss of a small area of an Annex I habitat type listed as a qualifying interest of a Natura 2000 site would combine with the loss of an entirely unconnected area of the same habitat type from a remote part of the same site to produce an in-combination effect, the significance of which would need to be evaluated in view of the relevant conservation objective. On that basis, the scope of the assessment of in-combination effects extends to all plans and projects affecting the same conservation objectives as the plan or project under consideration, irrespective of whether those effects are significant or not.

In this case, given the scale of the proposed project, localised extents of its impacts and sensitivities of the Natura 2000 sites in the ZOI, it was deemed most appropriate to include areas in close proximity to the proposed project and its zones of impact within the geographical scope for identifying potential in-combination effects.

7.2.2. Timescale

The timescale over which potential in-combination effects were considered in this case covered plans and projects from 5 years ago (i.e., 2018) to the present and all reasonably foreseeable future plans and projects, i.e., published draft plans and project which are already in the planning system or have received planning permission. Ongoing agricultural, industrial, and other activities were also considered.

7.2.3. Sources of Information

The following sources of information were consulted to gather information on other plans and projects:

- Local authority development plans and their AA documents
- Local authority online planning enquiries (Cork County Council and Waterford County Council)
- *EIA Portal* <<https://housinggov.ie/maps.arcgis.com/apps/webappviewer/index.html?id=d7d5a3d48f104ecbb206e7e5f84b71f1>>

7.3. Assessment

Plans

The Cork County Development Plan 2022-2028 and Waterford City & Council Development Plan 2022-2028 set out the vision, core strategy, aims and policy objectives for the proper planning and sustainable development of both counties. The plans contain a large number of policy objectives relating to biodiversity. The plans were subject to AA, including the preparation of a Natura Impact Report (CCC, 2022; WCCC, 2021), which assessed, at a strategic level, the implications of the plan for Natura 2000 sites, including the Blackwater River SAC, the Blackwater Estuary SPA and the Ballymacoda Bay SPA. Where potential adverse effects were identified, the plans were amended to mitigate those effects.

The policy objectives in the Cork County Development Plan and Waterford City & County Development Plan contribute to mitigating the negative effects of development on the Blackwater River SAC, the Blackwater Estuary SPA, the Ballymacoda Bay SPA and other Natura 2000 sites, and provide for the enhanced resilience of these sites through the development of green infrastructure/ecological networks. Therefore, there will be no adverse effects from the proposed works in combination with this plan, which will itself mitigate any in-combination effects arising from other projects.

Projects

Projects identified on the *EIA Portal* within the geographical scope of this assessment included: -

- A review of the existing Waste Water Discharge Licence (WWDL) (Reg. No. D0139-01) for the Youghal Agglomeration is being sought. Irish Water are applying to the Agency for consent to the use of Dunn's Park as the permanent primary discharge point.
- Construction of an up to 5MW solar PV farm, with an export capacity of 4MW and associated development, Youghal Mudlands, Youghal, Co. Cork.
- That portion of the Celtic Interconnector project to be constructed below the Mean High Water Mark to approximately 35km offshore in Irish Territorial Waters, Claycastle Beach in Youghal.
- That portion of the Celtic Interconnector project to be constructed onshore in Ireland, to the Mean High Water Mark (HWM), including an electricity converter station in the townland of Ballyadam east of Carrigtwohill in County Cork.

Given the nature of most of these projects they are unlikely to have any effect on these sites and, therefore, have no potential to give rise to any in-combination effects. Taken together, given the nature, scale and geographical spread of these projects, they are not likely to give rise to significant effects in combination with the proposed works.

Other projects within the scope of this assessment include construction of new domestic dwellings or extensions to such dwellings, and retention of existing developments, typically extensions to domestic dwellings. Regarding potential water quality impacts, these projects will have to comply with the EPA's *Code of Practice for Wastewater Treatment Systems for Single Houses* (EPA, 2009, 2018) and have conditions attached to their planning permission, such as siting of septic tanks, foul and surface water drainage, and clean surface water run-off drainage facilities. Projects of this scale are not expected to give rise to significant disturbance impacts. Therefore, the proposed works are not likely to significantly affect the Blackwater River SAC, the Blackwater Estuary SPA, the Ballymacoda Bay SPA or other Natura 2000 sites in combination with these projects.

Other activities

Farmers and landowners undertake general agricultural operations in areas adjacent to the Blackwater River and its tributaries that could potentially give rise to effects on the same qualifying interests the proposed works. Most such operations are periodic, not continuous, and qualify as 'activities requiring consent' that require prior consultation with the NPWS, e.g. reclamation, infilling or land drainage within 30 m of a river, removal of trees or any aquatic vegetation within 30 m of a river, and harvesting or burning of reed or willow (NPWS, 2023a). Such

operations must also comply with the European Communities (Environmental Impact Assessment) (Agriculture) Regulations, 2011 (as amended) in relation to: -

- Restructuring of rural land holdings,
- Commencing use of uncultivated land or semi-natural areas for intensive, and
- Land drainage works on lands used for agriculture.

Stage 2 AA is required under Section 9 of those Regulations if the activity is likely to have a significant effect on a Natura 2000 site. The drainage or reclamation of wetlands is controlled under the Planning and Development (Amendment) (No. 2) Regulations, 2011 and the European Communities (Amendment to Planning and Development) Regulations, 2011. Therefore, any in-combination effects from agricultural operations and the proposed works are not likely to be significant.

7.4. Conclusion

As detailed in the preceding sections, it can be concluded that, based on the small scale of the proposed works and the brief duration of both the works themselves and any impacts arising from them, they will not give rise to likely significant effects on the Blackwater River SAC, the Blackwater Estuary SPA and the Ballymacoda Bay SPA or any other Natura 2000 site, in combination with other plans or projects.

8. Conclusion

This Appropriate Assessment Screening Report has examined the details of the proposed Ticknock seawall repairs and the Natura 2000 sites in the Zone of Influence. It has analysed the potential impacts of the proposed works on the receiving natural environment and evaluated their effects, both individually and in combination with other plans and projects, in view of the conservation objectives of the relevant Natura 2000 sites. This report has been prepared in line with the Habitats Directive, as transposed into Irish law by the Habitats Regulations, relevant case law and guidance from the European Commission, the Department of the Environment, Heritage and Local Government and the Office of the Planning Regulator, on the basis of objective information and adhering to the precautionary principle.

Following the assessment detailed in this report, it can be concluded beyond reasonable scientific doubt that the proposed works will not, either individually or in combination with other plans or projects, give rise to any impacts which would constitute significant effects on the Blackwater River (Cork/Waterford) SAC (site code: 002170), Blackwater Estuary SPA (Site code: 004028), Ballymacoda Bay SPA (Site code: 004023) or any other Natura 2000 site, in view of their conservation objectives. Therefore, it is the recommendation of the authors of this report that Transport Infrastructure Ireland, as the competent authority in this case, may determine that Appropriate Assessment is not required in respect of the proposed Ticknock seawall repairs.

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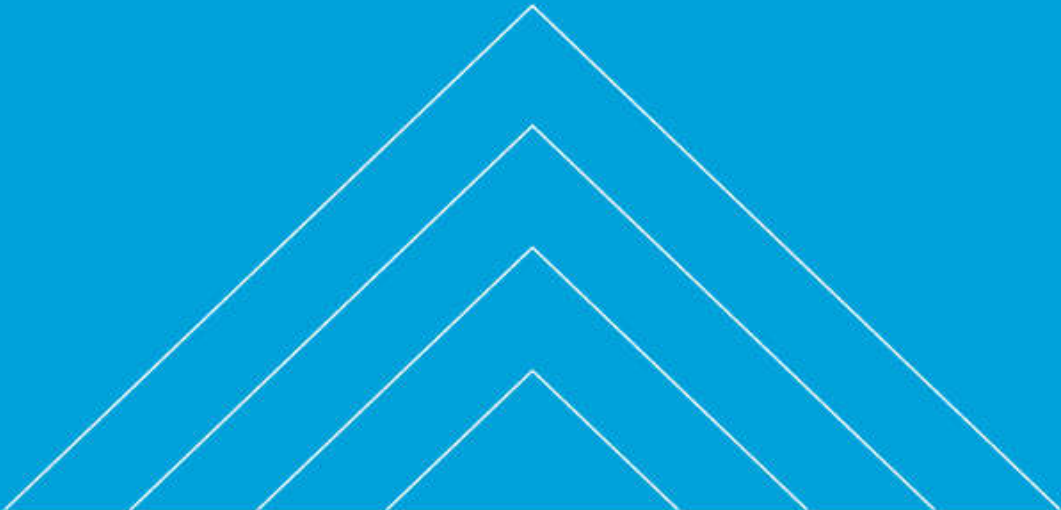
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Appendices



Appendix A. Method Statement

Risk Assessment Method Statement (RAMS)

1. Project / Site Name:	Ticknok Retaining Wall	Job No:	
Date RAMS Issued:	10/11/23	RAMS No:	15
Expiry Date (Max 6 Months)	6 months	Revision No:	01

Contractor / Sub-Contractor:	Cumnor Construction		
RAMS prepared by:	[REDACTED]		
Speciality:	Repairs to parapet wall		
Scope of works:	Masonry Repair		
Expected Duration of works:	12 days		
Expected Start Date of Works:	T.B.C		
Start time / Finish Time:	08.00	17.00	
Restricted times on site:	17.00 – 08.00		

2. Declaration by RAMS Author:	Name:	Signature:	Date of Visit:
I have visited the site to assess the workplace hazards & risks and the site-specific requirements / controls required. (If Applicable)	[REDACTED]	[REDACTED]	3/11/23
Cumnor representative who attended the site assessment visit. (If Applicable)	[REDACTED]	[REDACTED]	3/11/23

Authorised & Vetted by?	Name:	Signature:	Date:
	[REDACTED]	[REDACTED]	3/11/23

(Note below to be amended if completed internally by CM / QS and SO)

Cumnor Site Management will evaluate and accept/reject the above RAMS using the Preliminary Health and Safety Plan where applicable and the Site Specific Health and Safety Plan (SSHSP) in accordance with the Safety Health & Welfare at Work Act 2005 and the Safety, Health and Welfare (Construction) Regulations 2013.

The Risk Assessment Method Statement (RAMS) Log and the master (Hard) copy of the approved RAMS, signed by all relevant operatives should be maintained in a prominent place on site within the Construction H&S Plan / Mobile H&S Plan, and must remain on site for the duration of the works. It is the responsibility of the Sub-contractor to ensure all operatives involved with the specific works, have the RAMS communicated to them and that they confirm through their signature that they understand and comply with the RAMS.

Risk Assessment Method Statement (RAMS)

3. Site Rules and Safety Notes:

1. All operatives will be Site Inducted on their first day on site and have a minimum of a valid Safe Pass card, as standard.
2. All works to be carried out within the agreed site boundary
3. All operatives will be required to wear the minimum P.P.E as follows: -
 - hard hats, hi-vis vests, safety boots, masks when working within close proximity
 - hearing protection, gloves, goggles/safety glasses and dust masks to be worn, if required
4. Permission maybe required to bring site vehicles / plant / materials onto site.
5. If required, all personnel will seek permission to enter any area where another trade may be operating.
6. Working hours to be strictly within specified site hours.
7. All plant operators to have relative and valid CSCS cards
8. All persons on site to follow the instructions of site management
9. If an operative feel work conditions are unsafe, then they are to **PAUSE** the job / stop works immediately and inform Site Management
10. Any site works areas to be set up will include safety barriers and signage around material storage zones.
11. Welfare facilities will be provided on site.
12. Main access route to site will be from the N25 National Primary Road. Access/ Egress points are to be kept closed at all times and locked out of site hours. Keys will remain with Site foreman at all times
13. There will be site parking available. See plan below.
14. All deliveries/collections to site are to take place as per Cumnor Construction Ltd.'s Traffic Management Plan.
15. All vehicles are to abide by Cumnor Constructions Traffic Management Plan.
16. **Under no circumstances are delivery trucks or vans are to be left unattended at any time.**
17. Documentation and items to be kept on site at all times include; Medium first aid Box, fire extinguisher, Construction H&S Plan and Method Statements signed and dated by all involved in the works, Site Sign in / out Register

The above is a non-exhaustive list and is subject to change as conditions dictate

Assembly point to be agreed upon by site foreman prior to works commencing and all on site informed. Signage to be put in place to avoid confusion in the case of an emergency.

On approval, this RAMS shall be explained to all operatives and signed by all working parties prior to the works commencing.

Risk Assessment Method Statement (RAMS)

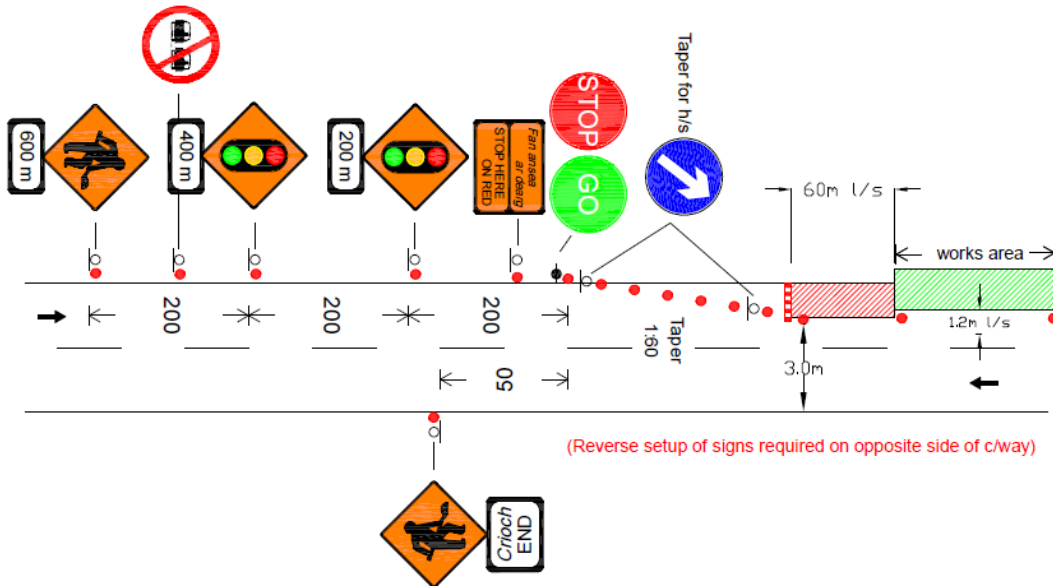
4. Methodology:

(Outline how the work will take place from arrival on site, to completion of works, step by step in detail to ensure no ambiguity).

(Safety Rules / key Safety Points to be adhered to from Section 3.)

Traffic Management

- Traffic management will be set up as set out below.



- Site vehicles will park within the temporary traffic management set up on the hard shoulder.
- All materials will be store within the traffic management set up.
- The road will be reduced to one lane over the area of works.
- We will use the closed off lane to temporarily store materials for the duration of the works.
- A mobile welfare unit will also be set up in this area.

Risk Assessment Method Statement (RAMS)

Ecological Notes

Birds

All birds' nests are protected by law. Nests which might be encountered under bridges include dipper and grey wagtail. The Dipper nests in closed / domed nests often located on supports under bridges. Kingfisher may also nest in sand banks close to bridges. Our ecologist will advise on general ecological questions as works progress. If a nest is discovered, the area is to be left undisturbed and the ecologist advice should be sought. If a known nesting site would be impacted by proposed repair works, mitigation in the form of artificial nest boxes must be provided.

Covid 19 policies & procedures:

- Cumnor Construction Ltd has introduced a detailed Covid-19 policy which will become part of everyday action to inhibit the spread of Covid-19 throughout our community or communities which we are involved with.
- Prior to attending site, all operatives are required to complete a screening questionnaire' & 'CIF-C19 online induction' and issue digitally to site management for review. Those failing the questionnaire will not be permitted on site.
- Each site will have a C19 Compliance Officer appointed to ensure social distancing guidelines, rules and policies are maintained at all times
- Each site has been issued a revised Site Attendance Register which includes Covid-19 Screening Assessment questions to be carried out by the 'Designated Person' 'C19 Compliance Officer.
- Wash hands using soap and warm water following the 20 second rule and drying sufficiently using disposable paper towels.
- No car-pooling is permitted travelling to, around, or from site.
- If a worker feels unwell and has any of the following, notify your site supervisor immediately: Cough, Elevated Temperature, shortness of breath, runny nose.
- Exclusion zones including signage are to be put in place around any close contact working areas to ensure other operatives are not able to enter the area, while maintaining social distancing for all others on site at all times, illuminating Compliance by other site members.
- Additional PPE such as Dust masks, safety glasses, white suits and gloves are mandatory for close contact working and must be worn at all times.
- All tools used are to be cleaned and disinfected after use, and at any other times where tools may be shared between personnel on site. If possible, tools are not to be shared on site, but must be cleaned at the end of each day and prior to commencing work the following days
- Hand sanitizer will be provided to all workers on site.

Risk Assessment Method Statement (RAMS)

Site location:



Location of works

Site Compound Location

- Site compound to be set up in area to the west of the site
- No plant to access the shorefront
- All materials to be kept either in the site compound or on the roadside above the works area
- Scaffold to be passed down from roadside to the works area



Site Compound Location

Weather/ tides

- The weather will be monitored prior to commencing with the works.
- Tide times will be monitored prior and during the duration of the works. Works will only take place during low tidal hours.

Risk Assessment Method Statement (RAMS)

Materials

- Any materials which are stored on site will be kept in a secured designated area away from the watercourse.

Note: Tools, scaffold tower, boots, wellingtons etc will be sprayed with Vikron before and after entering a watercourse

Sequence of works:

- Set up TTMP as per plan. The road will be reduced to one lane over the area of works. We will use the closed off lane to temporarily store materials for the duration of the works. A mobile welfare unit will also be set up in this area.
- Safety barriers to be placed around the works area.
- All works to be planned so that working day is maximised in relation to tide times.
- Life jackets will be used by all workers on site when working over or near the water.
- Set up scaffold around works area (CSCS certified). Scaffold will be supported by rakers from the shore and will not have to be attached to the wall.
- Starting at the top of wall remove stone in sections by hand in controlled manner. Old stone will be retained and re-used where possible.
- Stone will be stored on site in tonne bags.
- All stone and mortar which has fallen into the river bed will be removed by hand at low tide.
- Access to the shore will be achieved via a gateway within 300m of the works area.
- Workers will track along the foreshore close to the base of the wall.
- All seaweed within the works area on the stonework will have to be removed to facilitate works.
- Once collapsed area has been removed re-construction works can begin. The damaged section measures 33.5m x 1m x 0.51m. The repair will be carried out to match existing.
- Re-instate damaged section of wall.
- At CH325M there is a localised repair to the sea wall measuring 1.27m x 1.4m x 1.1m
- At CH348M there is a localised repair to the sea wall measuring 0.8m x 1.4m x 1.1m
- Once the damaged sections of the wall have been re-built repointing works will then be complete.
- De-mobilisation will begin after the repointing has been completed.
- Materials will be removed off site.
- Scaffolding will then be removed.
- TTMP to be removed when works are fully complete.
- Site clean-up.

Repointing & Masonry Repair

1. Masonry repair and repointing is required over a 33.5m stretch.
2. Access to repairs to be via scaffolding
3. Scaffolding to be set up by certified CSCS scaffolder.
4. When repairs or repointing is being carried out a plywood platform wrapped in geotextile will stop mortar droppings from having any chance in contaminating the nearby watercourse.
5. Loose and cracked pointing shall be raked out to sound material and the joint cleaned.
6. All repointing is to be done using NHL 5, manufacturer's instructions to be followed.
7. All repointing shall be undertaken with lime mortar in accordance with the contents of CCSPW- 02400 and CC-SCD-02407
8. Missing or deteriorated pointing to be carefully raked out by hand to a depth of twice the joint thickness and the joint dampened down.
9. Mortar for new and repointing existing masonry work shall be NHL5 lime mortar Mix Reference (a) in accordance with Table 24/4 of Transport Infrastructure Ireland Publication CC-SPW-02400.
10. If the masonry structure to be repaired is dry, dampen it down before the mortar is Applied (otherwise the dry structure may suck moisture from the mortar)
11. If it rains after the mortar is applied, cover the masonry structure to protect it.
12. If the temperature is likely to drop below 5°, cover the masonry structure with

Risk Assessment Method Statement (RAMS)

hessian/frost blanket to protect it from frost penetration/damage.

13. If the temperature is below 4° no work with lime mortar should be carried out (preparation work such as cleaning/hacking out of joints can still be done).
14. All joints to be tamped with stiff brush once mortar is stiff
15. For parapet reconstruction works, all mortar beds shall be of a thickness to match the adjacent stonework as closely as possible.
16. Particular care shall be taken in respect of the finished appearance of the mortar joints in accordance with Clause 2456.
17. The colour of the mortar shall match the existing to the reasonable satisfaction of the Engineer.
18. All stonemasons to have attended 'Masonry Arch Bridge Repair Workshop' or be members of the Guild of Master Craftsmen

Risk Assessment Method Statement



Assessment Date:	3/11/23	Assessed By:		Assessment Review Period:	continuously
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Severity of Consequence (S)

1	Insignificant/minor first aid, no time off, no loss
2	Lost time, recoverable, (strain, sprain, laceration, dermatitis)
3	Temporary disability, recoverable (minor fracture, asthma, deafness, concussion)
4	Permanent disability, survivable (major fractures, amputation, head injuries, eye injuries, poisoning)
5	Causing death to one or more people (fatal injuries, occupational cancer, fatal disease/fire)

Likelihood (L)

1	Improbable
2	Low
3	Medium
4	High
5	Almost certain

Risk Level (R)

Low	1 - 4
Moderate	5 - 9
Considerable	10 - 14
High	15 - 19
Critical	20-25

Evaluation Matrix

Severity of Consequence	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
Likelihood						

Notes on completing the Risk Assessment below:

- A number of Hazards have been identified on the above mentioned site. Please confirm which may be applicable to your specific works on site. Each hazard is to be completed by entering Y/N in the end column and initial that you have read and understood. If specific relevant hazards have not been noted, the Contractor / Sub-Contractor is obliged to ensure those hazards, including a detailed risk assessment are included in the blank sections below. Additional space has been left if additional controls are required.
- If issues arise on site causing unforeseen and additional risks to those completing the works, that job or task will need to be **PAUSED** until such time that the Risk has been assessed and additional control measures are put in place and documented below reducing the risk associated with said works

Risk Assessment Method Statement

Ref:	Individual Activity Description	Hazards Identified	Persons / Groups at Risk	Risk level Before Controls			Risk Control Measures (Add as required)	Risk level Remaining After Controls			Applicable to job / task Y / N (Initial)
				S	L	R		S	L	R	
				1.	<ul style="list-style-type: none"> Use of Abrasive Wheels 	<ul style="list-style-type: none"> Eye / bodily injuries Injury to other person Noise induced hearing loss Damage to materials / services 		<ul style="list-style-type: none"> All Operators Members of the Public 	3	3	
2.	<ul style="list-style-type: none"> Access, egress to site and work areas 	<ul style="list-style-type: none"> Trip hazards, slipping causing a limb injury 	<ul style="list-style-type: none"> All Operators Members of the Public 	4	2	8	<ul style="list-style-type: none"> All access ways into site to be kept clear at all times Site housekeeping to be enforced to ensure the site is safe and organised All cables to be hung or moved out of access paths . . . 	4	2	2	Y

Risk Assessment Method Statement



3.	<ul style="list-style-type: none"> Using Cement and / or concrete on site 	<ul style="list-style-type: none"> Severe skin burns Falls of materials into excavations Manual handling 	<ul style="list-style-type: none"> All operators involved in the operation 	2	2	4	<ul style="list-style-type: none"> A MSDS (Material Safety Data Sheet) sheet must be available for materials used Appropriate PPE to be worn, including glasses for splashing, PVC gloves and wellingtons Washing facilities and first aid station to be provided for operatives Restrict time exposed to concrete Barriers / stop blocks to all excavations Suitable discharge area for concrete lorries Safe system of work in place documented and signed by all involved in the works . . 	1	2	2	Y
4.	<ul style="list-style-type: none"> Any Demolition works on site 	<ul style="list-style-type: none"> Sudden collapse of structure Hazardous substances Public adjacent to works areas 	<ul style="list-style-type: none"> All operators involved in the works Public adjacent to works areas 	2	4	8	<ul style="list-style-type: none"> All glass, projecting parts & loose objects will be removed first All service to be made redundant / safe No other work will be carried out within the area of demolition Demolition will start at the top of the roof and work downwards Continuous monitoring of the structure will be carried out to ensure stability of the structure Dust suppression to be used, if conditions dictate Shoring and bracing will be erected as required to prevent collapse All openings to be protected PPE to be worn at all times Safe system of work in place documented and signed by all involved in the works . . 	2	2	4	Y

Risk Assessment Method Statement

5.	<ul style="list-style-type: none"> Dust on Site 	<ul style="list-style-type: none"> Visibility impairment for drivers causing collision Personal injury Silicosis Dust explosion 	<ul style="list-style-type: none"> Injury to operators on site Injury to members of the public 	4	2	8	<ul style="list-style-type: none"> Use equipment that produces minimal dust Use water to dampen when cutting Restricted hours on site Seal off areas to prevent the spread of dust Issue PPE - dust masks, safety respirators 	2	1	2	Y
6.	<ul style="list-style-type: none"> Use of Electrics on Site 	<ul style="list-style-type: none"> Electrocution Damage to cables Overload causing a fire 	<ul style="list-style-type: none"> All operators Members of the public that may be in close proximity of the site 	2	4	8	<ul style="list-style-type: none"> All temporary routes for cabling must be set out beforehand and duct where possible All portable equipment must be P.A.T tested as per the General Application Regs 2007, part 3: Electricity – Reg 81 (as required) and certs kept on file All electrical appliances / tools must be visually checked by a competent person before each use Trailing cables must be tied overhead where possible and not interfere with access routes All electrical cabinets / boxes must be locked C02 temporary fire points must be strategically setup around site / buildings All electrical tools must be a maximum of 110volts Safe system of work in place documented and signed by all involved in the works 	2	2	4	N

Risk Assessment Method Statement



7.	<ul style="list-style-type: none"> Excavations 	<ul style="list-style-type: none"> Asphyxiation and crushing causing serious harm or death Damage to adjacent buildings / properties 	<ul style="list-style-type: none"> Operators involved in the works 	3	4	12	<ul style="list-style-type: none"> Excavation where the depth could cause a collapse then the trench is to be protected with shoring system Edge protection to be in place next to all excavations All required signage to be in place Excavations to be inspected on a weekly basis by competent person recorded in the AF3 For deep excavations, two points of access and egress must be used Single man work is not permitted Materials are not to be stored adjacent to excavations If excavations are deemed unsafe no work is to be done in them until they are made safe Safe system of work in place documented and signed by all involved in the works . . 	2	2	4	Y
8.	<ul style="list-style-type: none"> Fires 	<ul style="list-style-type: none"> Bodily injury Spread of fire Property damage Potential death 	<ul style="list-style-type: none"> All operators Member of public in close proximity of the site 	2	4	8	<ul style="list-style-type: none"> No burning of materials anywhere on or around site permitted All gas bottles must be securely tied and have a Fire point (extinguisher) close at hand Any explosives are to be protected by close board sheeting Strategic fire points to be setup around site & through buildings Temporary fire escape layout plan & evacuation plan to be setup . . 	2	2	4	Y
9.	<ul style="list-style-type: none"> Working on public Footpath 	<ul style="list-style-type: none"> Potential injury to member of the public Increased risk of Slips, trips & falls as a result of works being completed 	<ul style="list-style-type: none"> All operators Members of the public 	4	2	8	<ul style="list-style-type: none"> All areas to be barriered off with pedestrian barriers with min. 1.2m lateral width provided Full interlocking barriers where pedestrians to be placed adjacent live traffic All excavations must be fully protected and covered at the end of each day Temporary ramps required where any change of level for pedestrians Pedestrian (WK80/81) to be used for any directional instructions required . . 	2	1	2	Y

Risk Assessment Method Statement



10.	<ul style="list-style-type: none"> Use of Ladders on Site 	<ul style="list-style-type: none"> Operative falling from height Materials/ Tools falling from height 	<ul style="list-style-type: none"> All operators 	3	3	9	<ul style="list-style-type: none"> Ladders must be tagged and recorded in GA3 weekly Ladders must be secured (tied at top) and securely footed Must extend 1m above stepping off point on scaffolds Ladders to be used for short term use with 3 points of contact to be on ladder always Restrict height for ladders and ensure access to pass underneath is stopped Any defected ladders must never be used Ladders setup at 1 in 4 (75 deg. angle) Safe system of work in place documented and signed by all involved in the works 	2	2	4	Y
11.	<ul style="list-style-type: none"> Lifting Equipment 	<ul style="list-style-type: none"> Dangers to operatives on site Fall of materials 	<ul style="list-style-type: none"> All operators Public in close proximity of site 	4	2	8	<ul style="list-style-type: none"> All lifting equipment must be certified (GA1) and copies of certs kept onsite Only certified operators to use lifting plant, e.g. cranes, MEWP's etc Lifting equipment to be checked and recorded in GA2 weekly Any damaged or worn slings / chains must not be used and disposed of Temporary barriers must be placed around lifting / sluing areas Safe system of work in place documented and signed by all involved in the works 	1	4	4	Y
12.	<ul style="list-style-type: none"> Lone Person working on site 	<ul style="list-style-type: none"> Personal injury to operative and / or illness 	<ul style="list-style-type: none"> Lone Worker 	4	2	8	<ul style="list-style-type: none"> Where possible, do not use a lone worker setup Operators must have mobile communication and check in to their supervisor at agreed times Lone workers must be on a site or location where others are in the vicinity 	2	2	4	Y

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13.	<ul style="list-style-type: none"> Manual Handling of materials on site 	<ul style="list-style-type: none"> Injury to back Lower limb injury Arm & Hand injuries 	<ul style="list-style-type: none"> All operators 	4	2	8	<ul style="list-style-type: none"> All operatives are trained in manual handling. Use of mechanical aids to lift items where possible, e.g. cable block / teleporter/ Hi-ab Use of two employees to lift awkward or heavy items Frequent stretching of the back is encouraged to all employees who are constantly bending. . . 	4	1	4	Y
14.	<ul style="list-style-type: none"> Use of Mobile Towers on site 	<ul style="list-style-type: none"> Materials and tools falling from height Operatives falling from height Collapse of erected tower 	<ul style="list-style-type: none"> All operators involved in the works Members of the public that maybe in close proximity of where works are occurring 	3	3	9	<ul style="list-style-type: none"> Operators must be CSCS or equivalent certified to erect & dismantle mobile towers Full PPE to include chin strapped helmets must be worn The wheels must be locked when in use and towers not moved when operatives or materials are on the platform Guard rails must be in place at all times Do not overload platforms Towers must be tagged and recorded in the GA3 book, weekly . . 	2	2	4	N
15.	<ul style="list-style-type: none"> Noise 	<ul style="list-style-type: none"> Damage to hearing Affecting members of the public 	<ul style="list-style-type: none"> All operators Members of the public in close proximity to the ongoing works 	4	2	8	<ul style="list-style-type: none"> PPE must be worn when there is a noise level is above 80dBA Earplugs to be worn at low level noises Ear muffs to be worn when operators are using tool/plant that have a high noise level Operators are not to be exposed to excessively loud noises for extended periods If possible use other plant and tools that do not have a loud noise level . . 	2	2	4	Y

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16.	<ul style="list-style-type: none"> Operating Plant on Site (Excavator) 	<ul style="list-style-type: none"> Dangers to other operatives on site Overturning of excavator Overhead Services Underground Services Injury to driver and others including death 	<ul style="list-style-type: none"> Operator Operatives on site Members of the public 	4	4	12	<ul style="list-style-type: none"> Area to be excavated to be CAT scanned for services by ticketed operator. Drawing and plans to be checked also. Dial before you dig to be consulted. Operators must be CSCS certified and trained to use plant Safety signage to be in place No unauthorised passengers permitted on plant. All plant must have flashing beacons and audible sirens Care to be taken when reversing and sluing Unattended excavator must have the engine switched off and keys out Extra care to be taken where sloping surfaces are being driven Do not overload machinery to their stated capacity All other operatives to remain outside the exclusion zone. Operator must track on the designated access route as required Spotter to be in place at all times Safe system of work in place documented and signed by all involved in the works 	1	4	4	Y
17.	<ul style="list-style-type: none"> Operating Tools on site 	<ul style="list-style-type: none"> Cuts / Lacerations Long term deafness Nerve injuries 	<ul style="list-style-type: none"> All operators using tools on site 	4	2	8	<ul style="list-style-type: none"> Wear appropriate PPE to include ear defenders and safety glasses / goggles Only 110volt (max) permitted on site Erect sound barriers as required Restrict length of time for use, e.g. mainly vibrating / oscillating tools (check tool specs) Do not leave tools running 	2	1	2	Y

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18.	<ul style="list-style-type: none"> Striking overhead cables 	<ul style="list-style-type: none"> Injury / Death from contact by plant 	<ul style="list-style-type: none"> All operators 	2	2	4	<ul style="list-style-type: none"> If vehicles cross under overhead cables then goal post system to be put in place All operators to be shown location of overhead cables during site induction Safety signage to erected by overhead cables All overhead cables to be insulated by ESB if near operator works area 	1	4	4	Y
19.	<ul style="list-style-type: none"> Refuelling plant on site 	<ul style="list-style-type: none"> Fire / environmental pollution 	<ul style="list-style-type: none"> All operators involved in the refuelling task 	2	2	4	<ul style="list-style-type: none"> All fuels to be kept in correct containers and clearly labelled & identified No refuelling to take place in the vicinity of ignition points Engines must be switched off before any refuelling takes place Fuel tanks must be double skinned and bunded with lockable valves Spillage kits must be in close proximity of all tanks and within waste lorries Storage areas of fuels must have appropriate fire extinguishers Any spillages must be reported immediately to the Site Supervisor / Safety Manager 	1	2	2	Y

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20.	<ul style="list-style-type: none"> Erected Scaffolds on Site 	<ul style="list-style-type: none"> Falling from the scaffold causing injury or death 	<ul style="list-style-type: none"> All operators working at height on the scaffold 	3	4	12	<ul style="list-style-type: none"> Scaffold to have design cert (is required) Scaffold to have hand over cert issued by basic or advanced CSCS ticketed erector. To be kept on site Scaffold to be checked on a weekly basis and GA3 to be completed by person who has CSCS card or scaffolders inspection ticket Platforms must not be overloaded Scaffold to be tagged at each ladder point with an inserted safe to use tags and safe to use signs displayed on the scaffold on it Toe boards to be in place to prevent materials falling from overhead on operators below SLW to be displayed on scaffold loading bays. Up and over gates to be used on the scaffold loading bays Any alteration needed to be mad 	2	2	4	Y
21.	<ul style="list-style-type: none"> Setting out of Traffic Management 	<ul style="list-style-type: none"> Injury to operator on site by moving vehicles Injury to members of the public that may be in close proximity of works 	<ul style="list-style-type: none"> All operators Members of the public 	2	4	8	<ul style="list-style-type: none"> Install traffic management as per plan issued Ensure signage and cones are as per approved plan Operators with CSCS cards to setup traffic management system and inspect on a weekly basis or as required Safe system of work in place documented and signed by all involved in the works 	1	3	3	Y

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22.	<ul style="list-style-type: none"> Preventing unauthorised access to area of works 	<ul style="list-style-type: none"> Injury to unauthorised person on site Damage to plant / equipment and materials 	<ul style="list-style-type: none"> All operators on site Unauthorised person on site 	2	3	6	<ul style="list-style-type: none"> All site visitors are inducted prior to being in work areas Operators to notify site management of any unauthorised access to site immediately Site gates to be closed at all times and locked and checked at close of business All required signage in place notifying public of works in the area 	2	2	4	Y
23.	<ul style="list-style-type: none"> Vibration 	<ul style="list-style-type: none"> Numbness & tingling of fingers / hands Nerve & muscle damage to fingers / hands White finger (VWF) Arm vibration (AV) 	<ul style="list-style-type: none"> All operators involved in the works 	2	2	4	<ul style="list-style-type: none"> Allow only competent persons to use tools Refer to individual vibration / exposure limits Wear full PPE to include anti-vibration gloves as required Reduce length of times using tool Use tools with low vibration Safe system of work in place documented and signed by all involved in the works 	1	2	2	Y
24.	<ul style="list-style-type: none"> Working in bad weather conditions 	<ul style="list-style-type: none"> Operators being injured as a result of the bad weather 	<ul style="list-style-type: none"> All operators 	3	3	9	<ul style="list-style-type: none"> When there are poor weather conditions all work to stop immediately, foreman to make call if carrying out work is unsafe 	3	1	3	Y

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25.	<ul style="list-style-type: none"> Working over water 	<ul style="list-style-type: none"> Drowning Upper body injuries Death of fish life 	<ul style="list-style-type: none"> All operators 	3	4	12	<ul style="list-style-type: none"> PPE to include life vests, flotation devices and drag lines as conditions dictate or where no edge protection in place AF4 to be completed weekly Temporary decks with heavy gauge polythene and catch nets to be used where working under bridges All plant and tools to be placed in water course to be steam cleaned prior to use Safe system of work in place documented and signed by all involved in the works 	2	3	6	Y
26.	<ul style="list-style-type: none"> Vermin and bird droppings 	<ul style="list-style-type: none"> Contact with droppings may cause illness and irritations to operative 	<ul style="list-style-type: none"> All operators involved in works 	3	3	9	<ul style="list-style-type: none"> Suitable PPE to be worn at all times. including full disposable overalls. Gloves to be disposed of after each use – do not re-use gloves / dust masks / disposable suits. Hands to be washed before eating food, or touching your face as bird droppings may contain 'Salmonella' (a bacterial infection causing severe diarrhea). All breaks are to be taken away from the areas contaminated by bird droppings to avoid cross contamination. Dampen down the bird droppings with water to prevent the creation of dust from the droppings. Excessive bird droppings can cause a build-up of insects, which can transmit diseases and other infections, so the use of insect repellent is required if this is the case. Operatives who have pre-existing respiratory conditions are to wear suitable dust masks such as the 3m 6000 series as required. Operatives with weakened immune systems should not directly do tasks involving bird droppings. all works involved with areas containing excessive bird droppings are to be supervised sufficiently ensuring controls are in place at all times. 	2	2	4	Y

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27.	<ul style="list-style-type: none"> Working at Height 	<ul style="list-style-type: none"> Fall of materials and operatives 	<ul style="list-style-type: none"> Operators on site Public in close proximity 	4	4	16	<ul style="list-style-type: none"> Existing fall / edge protection to be certified within 12 months, or after alterations before works take place. Existing fall / edge protection to be checked prior to commencement of works each day to ensure safety of all Tool box talk on 'Working at Height ' to be issued prior to commencement on site Edge protection is not to be interfered with unless you are certified to do so All materials are to be stored correctly upon the roof to ensure materials cannot be blown off the roof in strong winds Operatives to be mindful of the weather each day before proceeding Edge protection to be signed off weekly using the GA3 form within the site H&S Plan 	1	4	4	Y
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Risk Assessment Method Statement

5. Emergency Contact Details:

Site First Aider



Name:

Tel:

Location of First Aid

There is a first aid station set up within the building however, the site foreman will have a medium sized first aid box with appropriate signage in the vicinity of the works.

A First Aid box can always be located in a Cumnor Site Vehicle

Local Hospital (A&E)

Name: Cork University Hospital

Address: Co. Cork

Tel: 021 4922000

Local Garda Station

Name: Anglesea Street Garda Station

Address: Anglesea Street, Co. Cork

Tel: 021 4522000

Local Fire Brigade Station

Name: Cork City Fire Brigade

Address: Anglesea Street, Co. Cork

Tel: 999 / 112

Other useful numbers

ESB 1850 928960 (Dial before you dig)

ESB (Emergency) 1850 372 999

GAS 1850 427747 (Dial before you dig)

GAS (Emergency) 1850 205050

Eircom 1901 (Dial before you dig)

Risk Assessment Method Statement

6. Training Required – *Specific to this Site*

1. Safe Pass (Mandatory)
2. Manual Handling (Mandatory)

Please State any Special Training requirements **below** required by Operatives **specific to this RAMS** i.e. Confined Spaces, Height Rescue, First Aid etc.

- 1.
- 2.
- 3.






Additional Supervision & Duties

(incl. Appointed Persons, Temporary Works Coordinator, Authorised Person etc)

Name	Role/Responsibility	Contact No:	Company

Risk Assessment Method Statement

7. P.P.E. (Personal Protective Equipment) (Specific to this site and relating to the information contained in this RAMS)

<u>P.P.E (Personal Protective Equipment) - Specific to this Site</u>					
 Safety Boots To include Ankle support EN ISO 20345:2011 CE S3 SRC Wellingtons EN ISO 20345:2011 S5 SRA	 Hard Hats EN397 EN50365	 Safety Gloves EN 388 levels 4- 1-2-1 or 2-1-2-1 Safety Gloves (grey type for vegetation removal) EN 388:2003	 Hearing Protection (for all drilling works, demolition and cutting works) Surefit Ear defenders (for noisy work) EN 352-3:2002 Earplugs (disposable) EN 253-2:2002	 Eye Protection (for all drilling works, demolition and cutting works) Goggles (cutting works) EN 166:2001 Glasses (standard for light cutting) EN 166:1995	Other: Hi-Vis vest / jacket - double banded EN ISO 20471 3m Dust mask EN 14387:2004

8. Material Delivery, Storage and Distribution

(Outline safe arrangements for traffic management, delivery, offloading and secure storage – if applicable). Include a step by step sequence on how you will perform the task (Include sketch, drawings & photographs if required.)

1. All material will be delivered to site via the..... abiding by the approved Traffic Management Plan on site
- 2.
- 3.
- 4.
- 5.

Risk Assessment Method Statement

9. Anticipated Waste Control and Disposal Arrangements (If Applicable) *Cumnor must be notified of waste leaving site*

- 1.
- 2.
- 3.
- 4.
- 5.

Number of Person's Anticipated on site:			
Will any of your workforce be non-English speaking or reading:	Yes		No

How will the contents of this RAMS be communicated to your non-English speaking workforce:

10. Permits Required – Type









High Risk Activities	Work Permit Required

Risk Assessment Method Statement

11. Hazardous Substances

Please identify any hazardous substances you will be using or potentially encountering on site

Circle applicable

							
Toxic	Explosive	Asbestos	Corrosive	Hazardous to the environment	Flammable	Pressurised Gas	Other
YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

Please list any applicable substance below and attach relevant Safety Data sheets:

- 1.
- 2.
- 3.
- 4.
- 5.

Please identify details of emergency response to; Spill, Escape and combustion

- 1.
- 2.
- 3.
- 4.
- 5.

12. Temporary / Permanent Works Design Certs

Any Required please list below (If Applicable)

Risk Assessment Method Statement

13. Work Specific Emergency & Rescue Procedures

Please outline Emergency Rescue Procedures to include details of equipment required and where it can be located

- 1.
- 2.
- 3.
- 4.
- 5.

Briefed to: (by signing below I confirm that I have been briefed and understand the Risk Assessment Method Statement for this Job / Task).

No.	Name (Print)	Signature	Date	Company Name
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Witnessed by (Supervisor): I confirm that all personnel who are involved in the task covered by this set of RAMS, have had these RAMS explained to them. Any future operatives to be assigned to this task will also receive communication of these RAMS.

Name:		Signature:	
Title:		Date:	

WS Atkins Ireland Limited

