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Translink Coastal Defence Section 10 (10a, 10b, 10c1, 10c2 10d, 10f and 10g)- Habitat Regulations Assessment

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1 Introduction

1.1 Background

JBA Consulting has been commissioned to undertake Habitat Regulations Assessments (HRA's) to inform remedial works for coastal assets in Northern Ireland, by Amey Consulting (Amey) on behalf of Translink. This HRA covers section 10, comprised of 10a, 10b, 10c1, 10c2, 10d and 10f. Due to the potential impacts the proposed works could have upon the interest features of the Lough Foyle Special Protection Area (SPA) and Ramsar, a HRA is required to be undertaken by the competent authority(s), prior to the consenting of works.

This report provides information to support a HRA Screening and Appropriate Assessment for the proposed works. It is intended to identify, describe and assess impact pathways that could result in likely significant effects on European designated sites (i.e. SACs and SPAs) and Ramsar sites, followed by a more detailed assessment of the potential impacts of the work on site integrity, and the avoidance/mitigation measures required to ensure no adverse impact on site integrity.

1.2 Legislative Context

The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019), also known as the 'Habitats Regulations', provide legal protection to habitats and species of national importance. The regulations also secure an ecological network of protected sites, consisting of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Government guidance also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance) are given the same level of protection as SACs and SPAs.

Prior to the UK's withdrawal from the EU, SACs were designated and protected under domestic legislation transposed from European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive), and SPAs under European Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive). Together these sites formed a European-wide Natura 2000 network of protected sites. Since 31 December 2020, SACs and SPAs within the UK no longer fall within the Natura 2000 network, and instead form a National Site Network. SPAs and SACs continue to be referred to collectively as 'European sites' within the context of the Habitats Regulations, reflecting their international importance for the conservation of biodiversity.

SACs and SPAs within the National Site Network are also still designated for habitats listed on Annex I and for species listed on Annex II of the Habitats Directive, and criteria listed under the Birds Directive, and it is these Annex I habitats, Annex II species and Birds Directive Criteria against which assessments under the Habitats Regulations are still made. Regulation 63 of the Habitats Regulations states that "A competent authority, before

deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European Site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives." This process is commonly referred to as Habitats Regulations Assessment (HRA).

2 Habitats Regulation Assessment Methods

2.1 Overview

Habitat Regulations Assessment follows a four-stage process as outlined in the Habitats Regulations Assessment Handbook (DTA, 2019) and summarised in Table 2-1 below. This report provides evidence to support Stage 1 and Stage 2 of the HRA process, to provide the Competent Authority(s) with information to make their assessment.

Table 2-1. The HRA Process

HRA Stage	Description
Stage 1: Screening	This process identifies the likely significant effects upon a European site of a project or plan, either alone or incombination with other projects or plans and determines whether these impacts are likely to be significant. Following the recent ECJ judgement in the case of *People over Wind & Sweetman v Coillte Teoranta* (Case C-323/17) measures that are necessary to avoid or reduce impacts on the European site can only be at Stage 2. If no likely significant effect is determined, the project or plan can proceed. If a likely significant effect is identified, stage 2 is commenced.
Stage 2: Appropriate Assessment	Stage 2 is subsequent to the identification of likely significant effects upon a European site in stage 1. This assessment determines whether a project or plan would have an adverse impact on the integrity of a European site, either alone or incombination with other projects or plans. This assessment is confined to the effects on the internationally important habitats and species for which the site is designated (i.e. the interest features of the site). Appropriate Assessments, in line with ECJ Case C-461/17 *Holohan v An Bord Pleanála*, must also consider impacts upon habitats and species within or outside of a site boundary if they support a qualifying feature and could impact upon the conservation objectives of the site. If no adverse impact is determined, the project or plan can proceed. If an adverse impact is identified, stage 3 is commenced.

HRA Stage	Description
Stage 3: Assessment where no alternatives and adverse impacts remain	Where a plan or project has been found to have adverse impacts on the integrity of a European site, potential avoidance/mitigation measures or alternative options should be identified. If suitable avoidance/mitigation or alternative options are identified, that result in there being no adverse impacts from the project or plan on European sites, the project or plan can proceed. If no suitable avoidance/mitigation or alternative options are identified, as a rule the project or plan should not proceed. However, in exceptional circumstances, if there is an 'imperative reason of overriding public interest' for the implementation of the project or plan, consideration can be given to proceeding in the absence of alternative solutions. In these cases, compensatory measures will have to be put in place to offset any negative impacts.
Stage 4: Compensatory measures	Stage 4 comprises an assessment of the compensatory measures where, in light of an assessment of imperative reasons of overriding public interest, it is deemed that the project should proceed.

2.2 The Precautionary Principle

If there is uncertainty, and it is not possible, based on the information available, to confidently determine no significant effects on a site then the precautionary principle will be applied, and the plan will be subject to an appropriate assessment (HRA Stage 2).

2.3 Guidance

The methodology used for this assessment is based on guidance in The Habitats Regulations Assessment Handbook (DTA, 2019). In addition, the following guidance documents were also consulted:

- European Commission Notice: Managing Natura 2000 sites. The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018)
- UK Government Guidance on the Use of Habitats Regulations Assessment (UK Government, 2019).

2.4 Assumptions and Limitations

Information on the works and conditions on site are based on current knowledge at the time of writing. Cumulative impacts are based on published documentation. If other projects with the potential for cumulative impacts are identified, it may be necessary to re-assess this project.

3 Description of the Project

3.1 Project Overview

JBA Consulting (JBA) has been commissioned to undertake Habitat Regulations Assessments (HRA's) to inform remedial works for coastal assets in Northern Ireland, by Amey Consulting (Amey) on behalf of Translink. This HRA covers the remedial works across Section 10 (10a,10b, 10c1, 10c2, 10d, 10g and 10f).

The proposed works involve patch repair works and sea defence reconstruction at Section 10 on the Translink's Belfast to Larne railway line, adjacent to Larne Lough nearby South of Magheramorne Village in Antrim, Northern Ireland.

3.2 Background

Site 10 comprises a section of sea defences located along the railway track (10a,10b, 10c1, 10c2, 10d, 10g and 10f). The proposed new revetment along the track will link to the existing grass embankments and culvert sections. The site is directly bordered by Larne Lough to the east and agricultural land to the west, with a small commercial estate lining the northwestern corner.

Within the wider area (500m radius of the site), saltmarshes and intertidal zones associated with Larne Lough are to the east. An outcropping of reclaimed land (quarry fill material) area protrudes the coast to the north of the site. To the south and west are agricultural fields with Shore Road (main A2 road, named 'Larne Road' further south) running north to south within 100m west of site. There are no major towns or villages within 500m of the site- the closest is Ballycarry village ~3km south.

3.3 Site Location

The Sites referred to in this report are within section 10, which is part of a wider scheme comprising of sections of sea defences located along the railway track on the northern shores of Larne Lough (inlet from the Irish Sea). The Site consists of undefended grass embankments and sparse patches of rock armour in need of repair. The Carrickfergus and Larne Line railway track and embankment run through the site centre behind the embankments and rock armour, with a small intertidal beach at the foot of the revetment.

The site area is centred around Irish Grid Reference J 44986 97244.

The current site area comprises of a mixture of rock armour revetment with randomly placed units with poor interlock, indicated by dislodgement of existing units. The works will involve the placement of a newly enhanced rock armour revetment across the section 10 sites (10a,10b, 10c1, 10c2, 10d, 10g and 10f).



Figure 3-1: Site 10 (10a, 10b, 10c1, 10c2, 10d, 10g and 10f) Location.

3.4 Proposed Works

The proposed works include a varied programme of sea defence extensions and refurbishments to assets including sections of shoreline and existing rock armour and embankments where the operational railway is exposed to coastal flooding, wave action and erosion.

The aim of the proposed works is to enhance the long-term resilience of the railway infrastructure in response to the increasing pressures associated with climate change, including sea-level rise, ongoing coastal erosion and increased storm frequency and intensity.

Following the analysis of various optioneering solutions, Translink identified rock armour revetments as the most appropriate and sustainable coastal defence measure for the majority of the sites. Many of the asset sites already feature deteriorated and failing rock armour structures that now require strengthening and/or extension to improve their performance under the changing conditions. Other asset locations will require new rock armour revetments to replace or overlay existing grassed or concrete embankments that currently lack sufficient protection from coastal processes. Several asset sites will also require minor patch repairs to existing sea defence structures where local defects have been identified.

The rock armour defence solutions are currently at outline design stage, and the scheme is programmed to continue through to detailed design stage prior to tendering and final construction over the coming years.

The full scheme is split into 16No. site asset locations as shown in Figure 3-2 below.

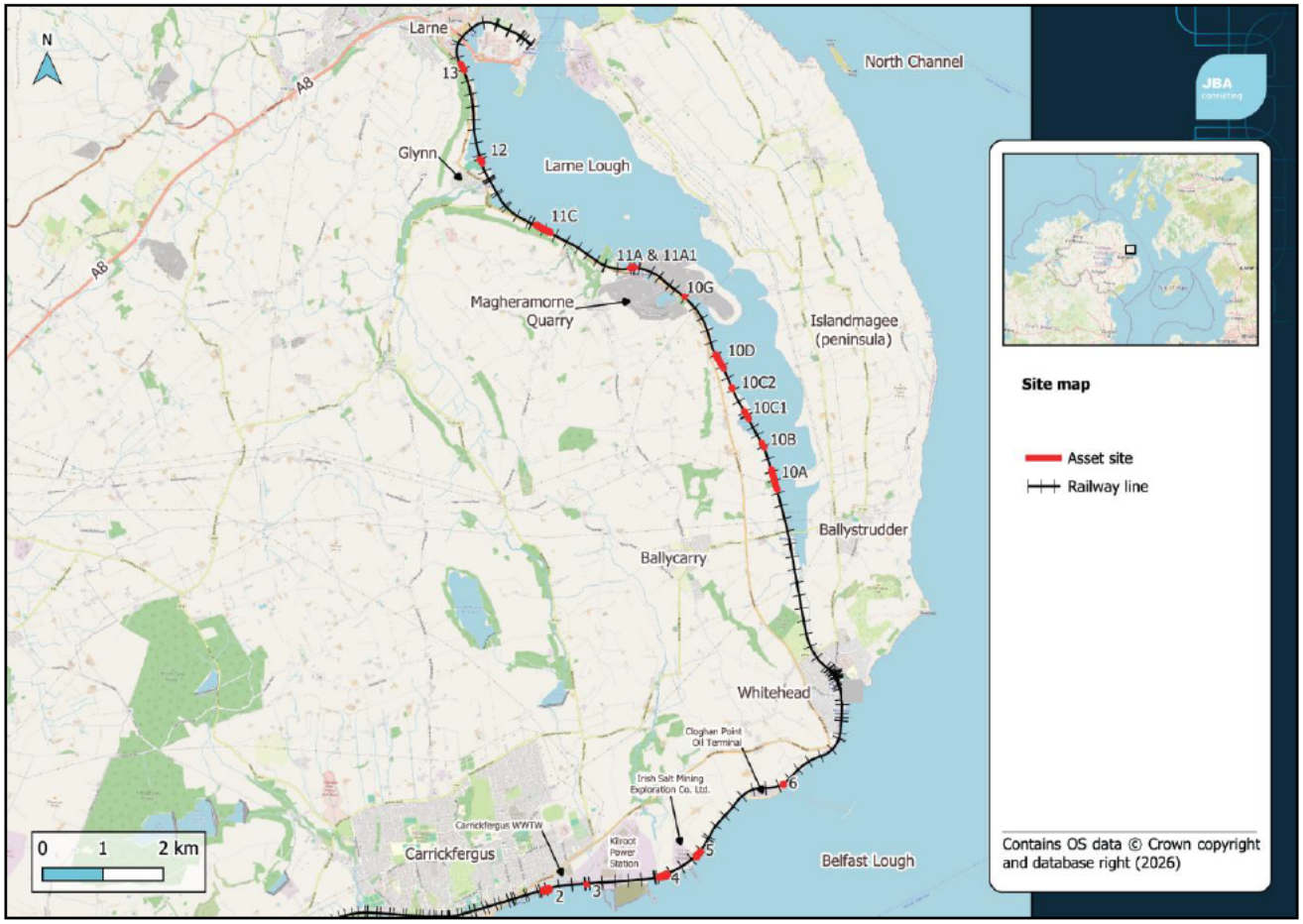


Figure 3-2: An overview of the asset site locations across the wider scheme

3.5 Summary of Works

The terrestrial waters risk assessment is concerned with elements of the scheme that can affect groundwater and inland surface waters. This report should be read in conjunction with other discipline reports, such as the ecological survey, coastal dynamics assessment, contaminated land and Water Framework Directive (WFD) reports.

The main potential impact to the groundwater environment would be associated with beneath ground works, whereas terrestrial inland waters could be affected by surface level works.

The scheme involves a series of rock revetments and patch repair works on existing coastal defences. Table 3-1 indicates the anticipated works at each asset site.

Table 3-1: Indicative proposed works at each asset site

Asset Site	Type of Works	Works Description
10A	Rock Armour Revetment	The revetment will be installed between Chainages 0-80 (Sections A & B). Both revetments will tie into the existing grass embankments at both ends.
10B	Rock Armour Revetment	The present rock armour will be replaced with new rock armour between Chainages 0-20 and 75-100 and newly enhanced rock armour revetments between Chainages 69-75. These will tie into the existing grassed embankment and rock revetment in Sections A & B.
10C1	Rock Armour Revetment	A new rock armour revetment between Chainages 250-280 (Section A) and 415-480 (Section B). Section A ties into the existing embankment and grouted rock revetment. Section B will tie into the existing revetment, culvert and embankment.
10C2	Rock Armour Revetment	New rock armour revetment between Chainages 30-40 which will tie into the existing embankment and culvert.
10D	Rock Armour Revetment	Newly enhanced rock armour revetment which will tie into the existing grass embankment and culvert structure. It will be split into 3No. sections to accommodate the additional 2No. culverts.
10G	Unknown but likely a Rock Armour Revetment	Proposed chainages are currently unclear but will likely involve a new rock armour revetment.

4 European Sites

4.1 Project Area of Influence and European Sites

The proposed scheme is located at Grid Reference J 44986 97244. Larne Lough adjacent to the site's southern boundary is designated a SPA (Special Protection Area), an ASSI (Area of Specific Scientific Interest) and a RAMSAR site along the coastal intertidal zone and the majority or the Lough waters in this area. These designated sites cover most of the coastline to the north and south, terminating at Larne town 5.5km north (by the Lough mouth). These can be seen in Figure 4-1.

There are no Special Areas of Conservation (SAC) or Areas of Outstanding Natural Beauty (AONB) within 1km of the site (OSNI Map Viewer).

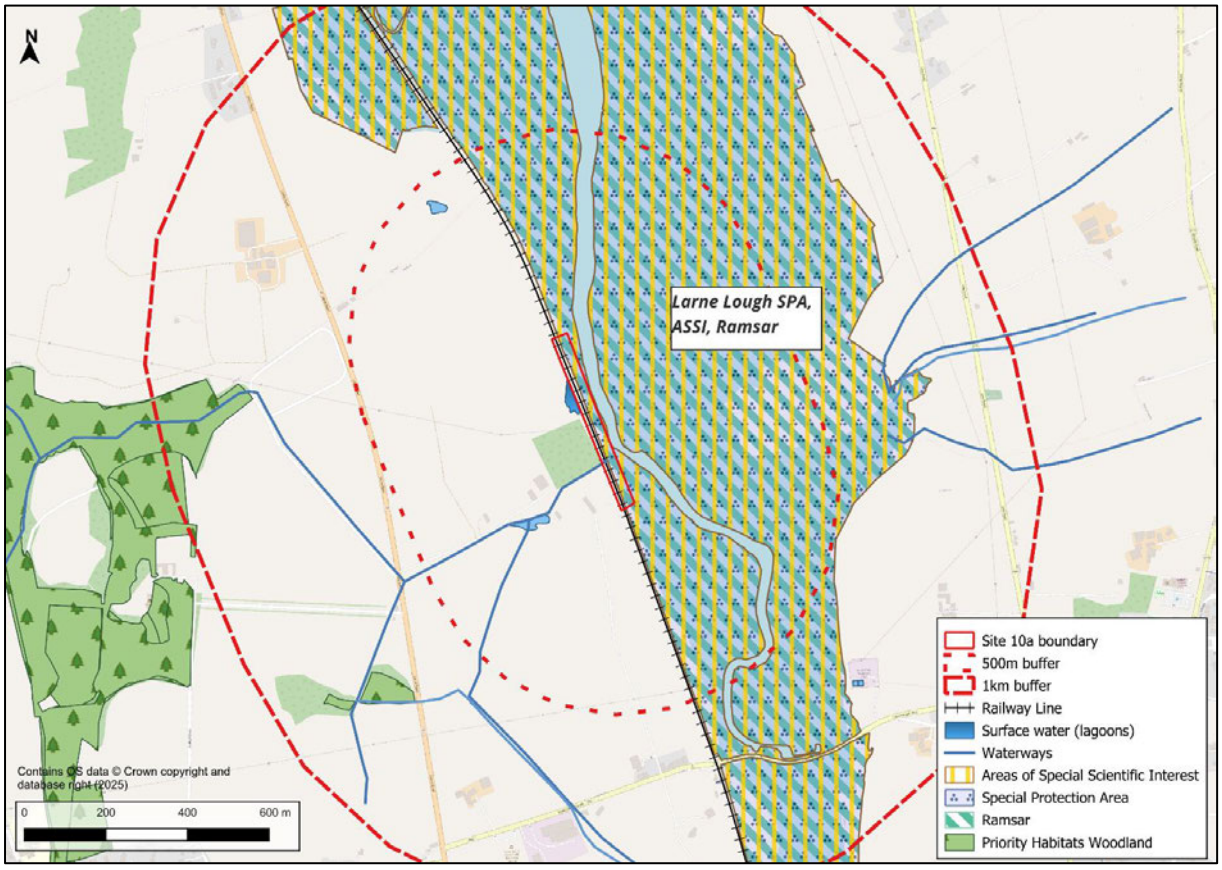


Figure 4-1 Site 10a in relation to designated sites.

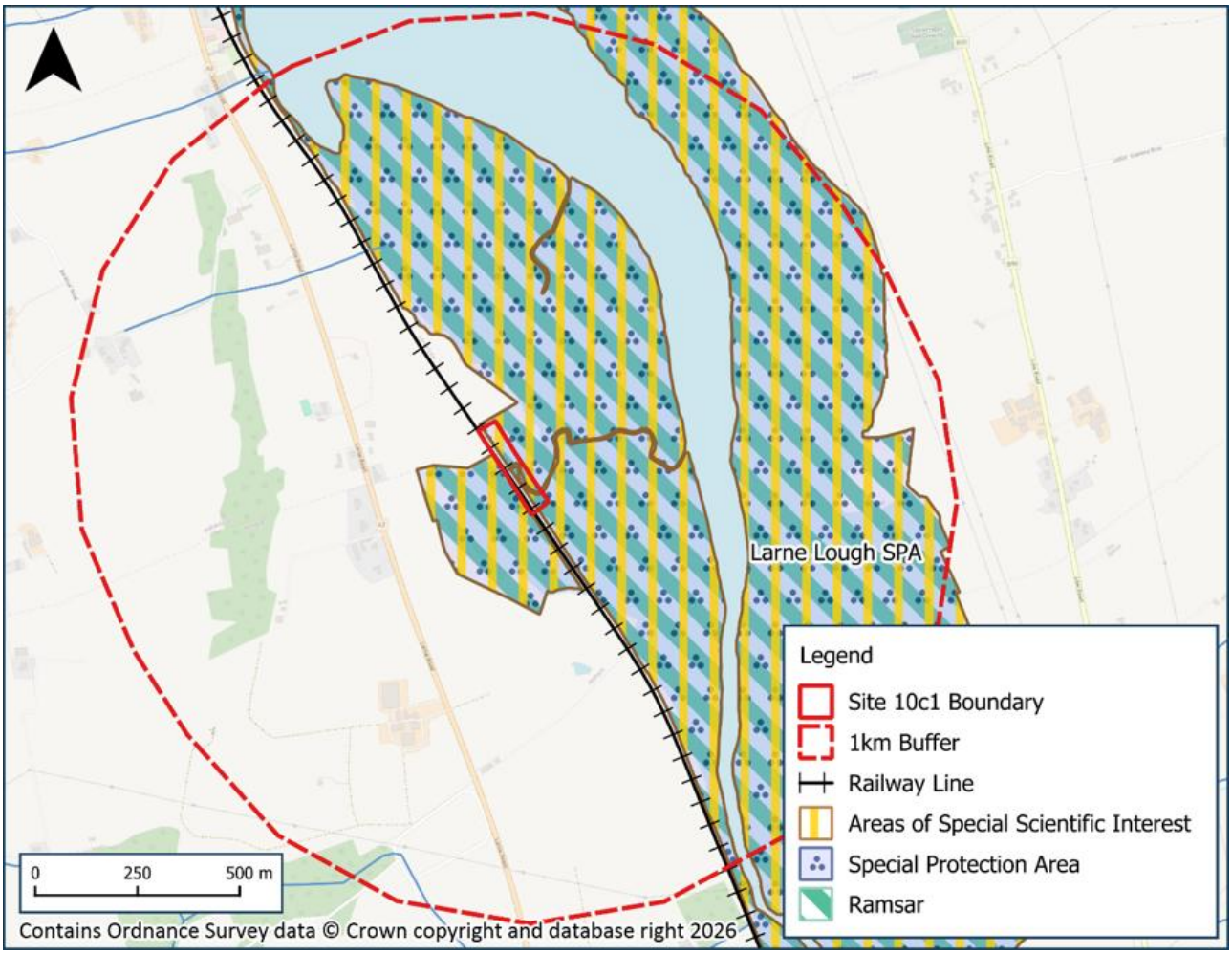


Figure 4-2 Site 10c1 in relation to designated sites.

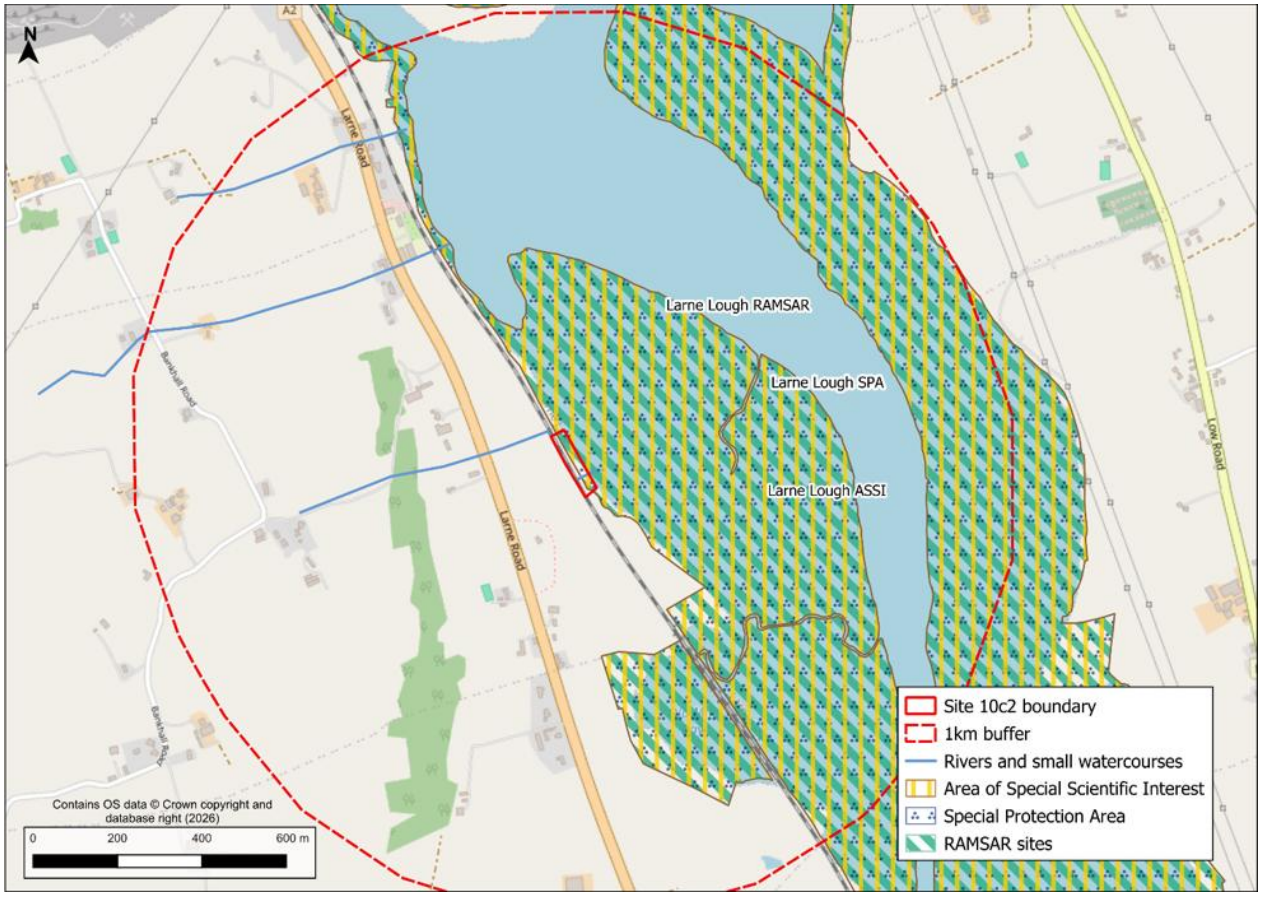


Figure 4-3 Designated Sites within 2km of Site 10c2.

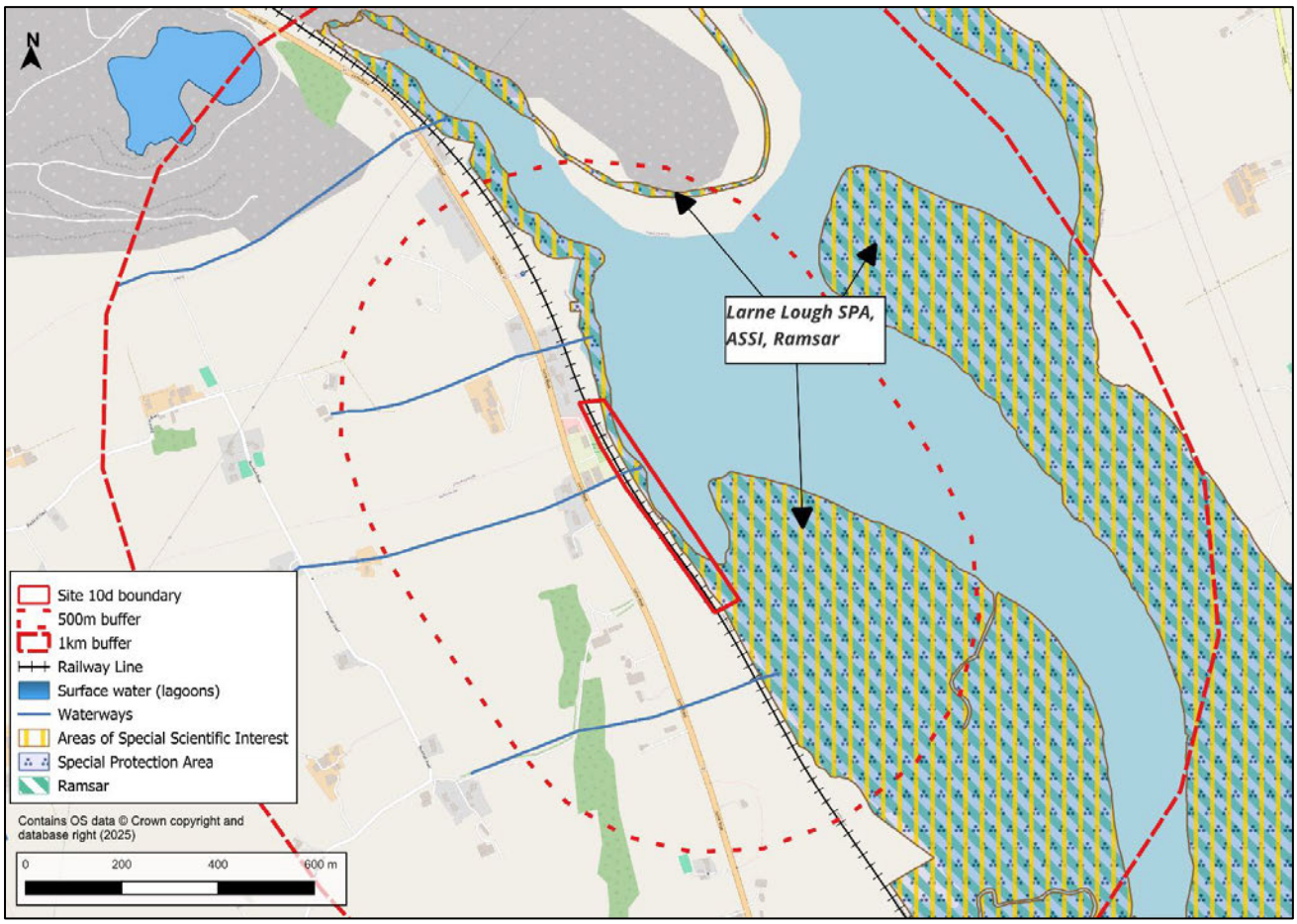


Figure 4-4: Designated Sites within 2km of the site 10d.

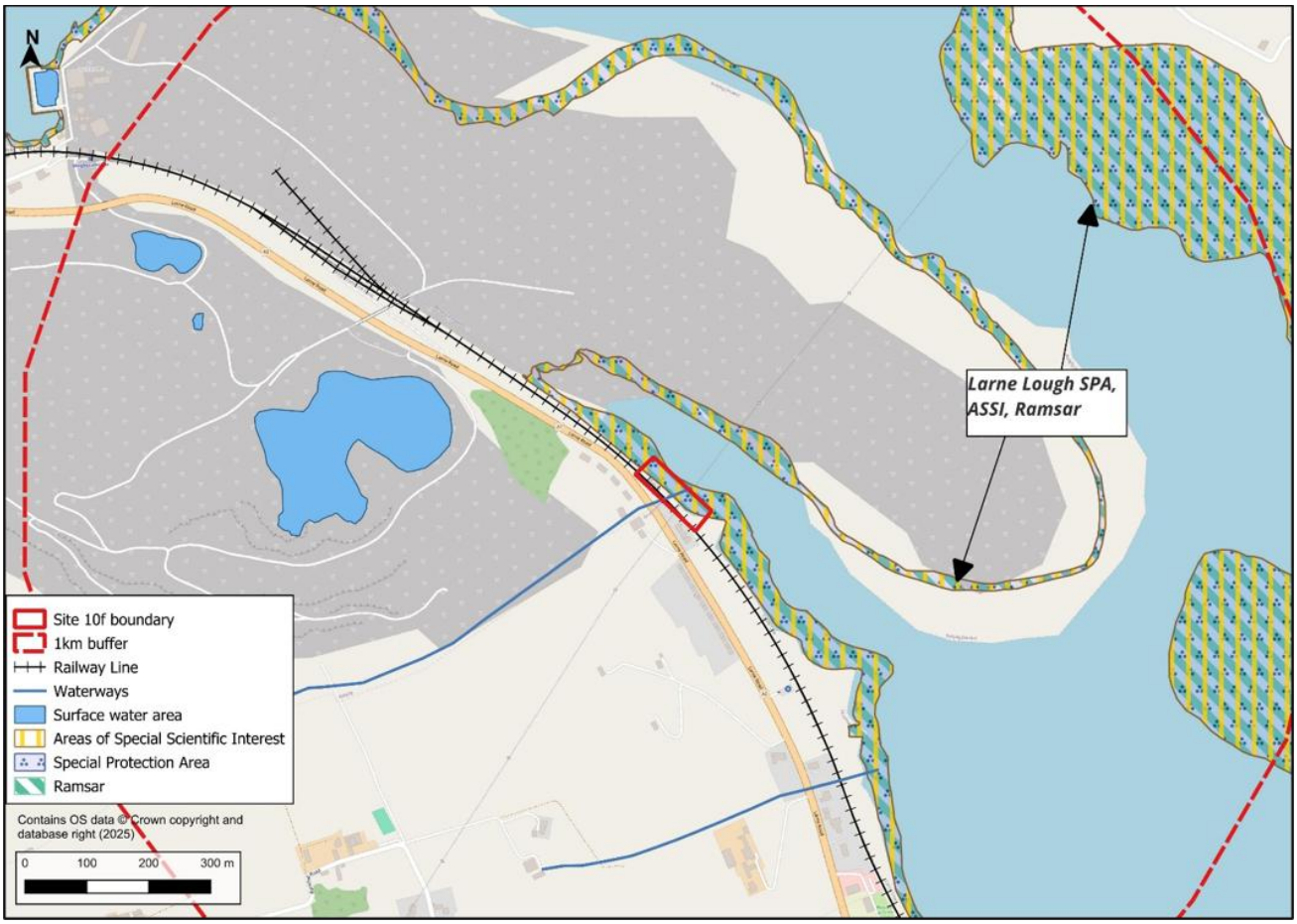


Figure 4-5: Designated Sites within 2km of the site 10e.

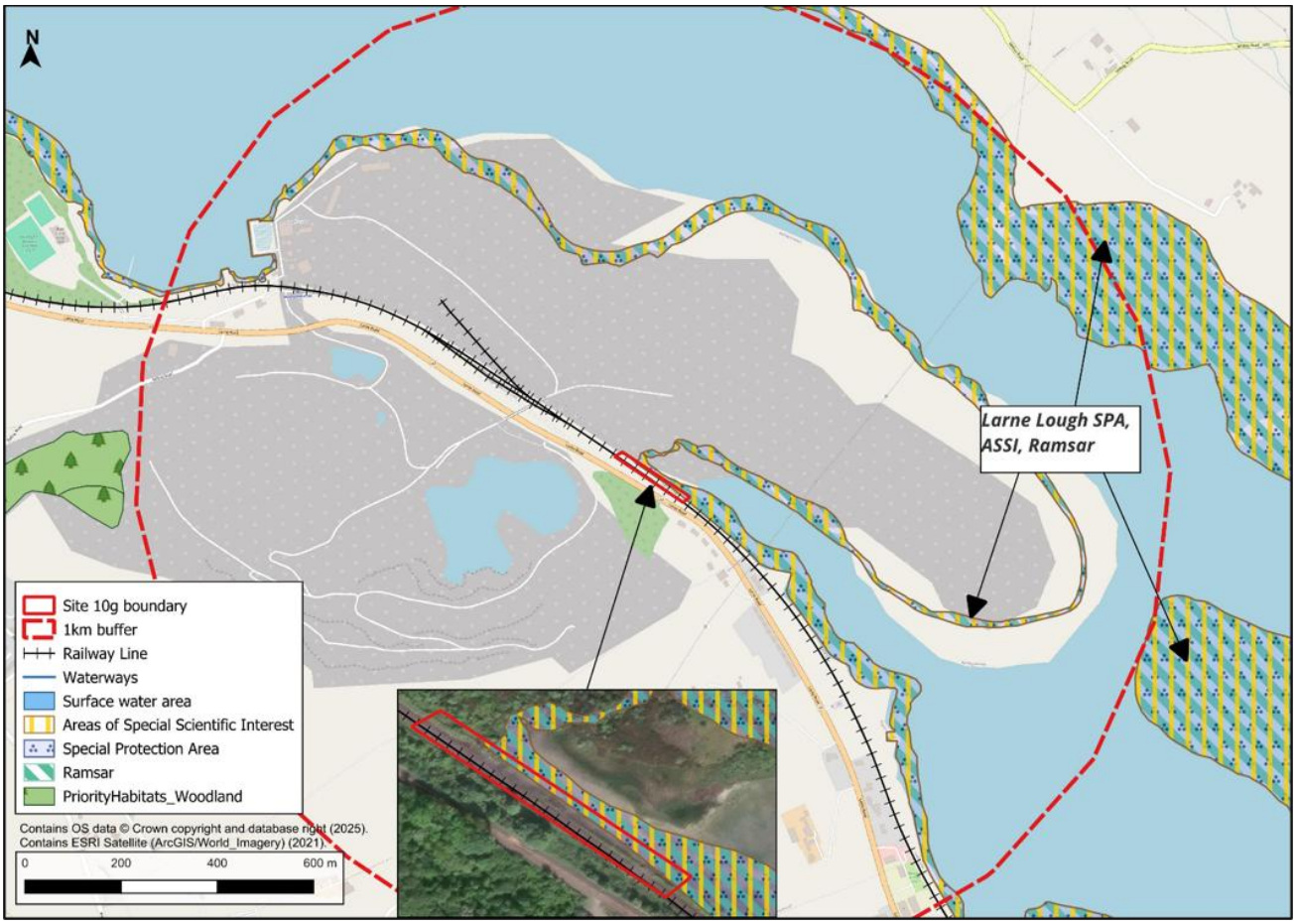


Figure 4-6 Designated Sites within 2km of site 10g.

4.2 Larne Lough Special Protection Area (SPA)

4.2.1 Qualifying Features

Lame Lough is situated on the Co. Antrim coast in the east of Northern Ireland. The Special Protection Area covers the inter-tidal area and all islands within the Lame Lough estuary south of the harbour area. Breeding sea-birds occur on both the natural island known as Swan Island (an SPA now subsumed within Lame Lough SPA) and the artificial island known as Blue Circle Island. The site boundary is entirely coincident with that of the Lame Lough Area of Special Scientific Interest. The SPA boundary is also entirely coincident with that of the Lame Lough Ramsar Site. The principal interests are the breeding colonies of Roseate, Sandwich and Common Tern and the wintering population of Light-bellied Brent Goose.

The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting internationally important populations of the following species:

Annex 1 species	Count and Season	Period	% of population
Roseate Tern *Sterna dougallii*	6 pairs Breeding	5 year mean (1993 - 1997)	1.5 % Irish population
Common Tern *Sterna hirundo*	247 pairs	5 year mean (1993 - 1997)	8.0 % Irish population

The site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting internationally important populations of the following species:

Annex 1 species	Count and Season	Period	% of population
Light-bellied Brent Goose *Branta bernicla hrota*	227 individuals Non-breeding	5yr peak mean 1991/92 to 1995/96	1.1 % of the international biogeographical population

The 2001 UK SPA Review undertook a comprehensive review of qualifying sites. The following additional species was identified as meeting the qualifying criteria:

The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting internationally important populations of the following species:

Annex 1 species	Count and Season	Period	% of population
Sandwich Tern *Thalasseus sandvicensis*	192 pairs Breeding	5 Year mean (1993 - 1997)	4.4 % of the all Ireland population

The site also qualifies under Article 4.1 of the Directive (2009/147/EC) by regularly supporting internationally important populations of the following species:

Annex 1 species	Count and Season	Period	% of population
Mediterranean Gull *Ichthyaetus melanocephalus*	3 pairs breeding	5 year mean (2010-2014)	30% of the all-Ireland Population (assessed against the 2004 population estimate)

4.2.2 Conservation Objectives

The conservation of objective of the Larne Lough SPA is 'To maintain the favourable conservation condition of the qualifying features (as outlined above) in the Larne Lough SPA'

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

4.3 Larne Lough Ramsar

4.3.1 Qualifying Features

The site qualifies for Ramsar designation under:

- Ramsar Criterion 2a - The site supports an important assemblage of vulnerable and endangered Irish Red Data Book Bird species.
- Ramsar Criterion 3c - The site regularly supports internationally important numbers of Light-bellied Brent Goose *Branta bernicla hrota* in winter.

4.3.2 Conservation Objectives

No specific conservation objectives have been set for the Larne Lough Ramsar site.

4.4 North Channel Designated Special Area of Conservation (SAC)

Annex II species that are a primary reason for selection of this site:

- 1351 Harbour porpoise *Phocoena phocoena*
  Habitat occurrence description not yet available.

4.5 The Maidens Designated Special Area of Conservation (SAC)

Annex I habitats that are a primary reason for selection of this site

- 1110 Sandbanks which are slightly covered by sea water all the time Species occurrence description not yet available.
- 1170 Reefs Species occurrence description not yet available.

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- 1364 Grey seal *Halichoerus grypus*

5 Screening Assessment

5.1 Introduction

This project is not wholly directly connected with, or necessary to, the conservation management of the listed site's qualifying features; therefore, a HRA screening assessment is required.

The following section identifies potential hazards of the proposed works. Site 10 comprises a section of sea defences located along the railway track (10a,10b, 10c1, 10c2, 10d, 10g and 10f). The site works at each location along the railway track will be undertaken concurrently, and on the same side of the lough; therefore no cumulative effects will occur. The effects of relevant hazards have been assessed in relation to each of the relevant qualifying features of the European sites outlined above. The likelihood of potential exposure to the hazard and the mechanism of effect are also identified where possible. This then allows for likely significant effects on the interest features of the designated sites to be identified.

5.2 Potential Hazards to European Sites

The proposed project, as detailed in Section 3, was assessed in order to identify potential hazards that might arise to the relevant interest features of the Larne Lough SPA and Ramsar. The list of potential hazards to the European sites are based on the designated site features and conservation objectives. These are:

- Direct habitat loss
- Noise and visual disturbance
- Water pollution
- Physical damage/mortality
- Competition from, or mortality due to, invasive non-native species (INNS)

5.3 Assessment of Likely Significant Effects

Assessment of the hazards identified above was undertaken to determine whether they would be likely to have a significant effect on the relevant qualifying features of the Larne Lough SPA and Ramsar, as a consequence of the project either alone or in combination with other plans or projects. The results of the screening assessment are given in Table 5-1. Plans and projects considered for the in-combination assessment are outlined in Section 6.4. Where appropriate, both construction and operational phase effects are considered.

Table 5-1. Assessment of Likely Significant Effects

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
Larne Lough SPA				
-Internationally important populations of Roseate Tern, Common Tern Light-bellied Brent Goose and Sandwich Tern. - Mediterranean Gull	Habitat Loss	The proposed works are located adjacent to the Larne Lough SPA boundary and will be confined to the existing railway track footprint. Works will be undertaken at low tide, with a maximum of three locations subject to repair. Given the localised nature of the works and their timing at low tide, suitable intertidal foraging habitat will remain available for wintering birds within the SPA. No direct loss of habitat within the SPA is anticipated. Therefore, potential impacts on the SPA's qualifying bird features are considered negligible.	No	No in combination assessment required; zero effect alone

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
	Noise and visual disturbance	Given the nature and localised extent of the proposed works, significant disturbance to the qualifying features of the Larne Lough SPA is not anticipated. Works will be undertaken at low tide at a maximum of three locations along the existing railway track boundary. Although sediment mobilisation could potentially increase localised turbidity and temporarily affect water clarity (Visual disturbance), any such effects are expected to be spatially limited and short-term. As tern species may forage for fish within the surrounding waters, the prevention of sediment release will be important to avoid potential effects on foraging efficiency. Given the limited extent of the works and the availability of alternative foraging habitat within the SPA, significant effects on qualifying tern species or wintering birds are not anticipated.	No	No in combination assessment required; zero effect alone
	Water pollution	During the construction phase, accidental releases of fuel, concrete or other pollutants could result in changes to water quality and adversely affect habitats within the Larne Lough SPA. In addition, the mobilisation of sediment during the works could temporarily increase turbidity, potentially reducing the ability of qualifying tern species to locate and capture fish prey. However, given the localised nature of the proposed repairs, these	Yes	In combination assessment carried forward to Appropriate Assessment

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
		effects are expected to be limited in extent. Appropriate pollution prevention measures and sediment control procedures should be implemented to minimise the risk of contaminant release and increased turbidity.		
	Physical damage/mortality	Given the nature of the works, it is not anticipated that the works will result in any physical damage or injury to the qualifying features of the SPA.	No	No in combination assessment required; zero effect alone
Larne Lough Ramsar				
Ramsar Criterion 2a - assemblage of vulnerable and endangered Irish Red Data Book bird species. Ramsar Criterion 3c - regularly supporting internationally important numbers of Light-bellied Brent Geese in winter.	Habitat Loss	The proposed works are located adjacent to the Ramsar boundary however, works will remain contained within the existing railway track boundary and therefore no habitats within the Ramsar will be impacted. Works will be undertaken at low tide, with a maximum of three locations subject to repair. Given the localised nature of the works and their timing at low tide, suitable intertidal foraging habitat will remain available for wintering birds.	No	No in combination assessment required; zero effect alone
	Noise and visual disturbance	Given the nature of the works it is not anticipated that the works will result in any disturbance to the qualifying features of the Ramsar. Works will be undertaken at low tide, with a maximum of three locations subject to repair. Given the localised nature of the works and their timing	No	No in combination assessment required; zero effect alone

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
		at low tide, suitable intertidal foraging habitat will remain available for wintering birds.		
	Water pollution	During the construction phase, accidental fuel or concrete spills could cause changes in water chemistry and impact upon the habitats and in the Ramsar, in the absence of suitable on-site avoidance and mitigation measures.	Yes	In combination assessment carried forward to Appropriate Assessment
	Physical damage/mortality	Given the nature of the works, it is not anticipated that the works will result in any physical damage or injury to the qualifying features of the Ramsar. Works will be undertaken at low tide, with a maximum of three locations subject to repair. Given the localised nature of the works and their timing at low tide, suitable intertidal foraging habitat will remain available for wintering birds.	No	No in combination assessment required; zero effect alone
North Channel SAC				

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
1351 Harbour porpoise *Phocoena phocoena*	Noise and visual disturbance	Given the localised nature of the proposed railway track repairs, which will be undertaken within the existing railway track boundary at low tide, significant effects on harbour porpoise are not anticipated. The works will be not expected to generate underwater noise or vibration of sufficient intensity to cause significant disturbance, provided that no activities capable of generating significant underwater noise are undertaken.	No	No in combination assessment required; zero effect alone
	Water pollution	Any potential sediment mobilisation or accidental pollutant release is expected to be limited to the immediate works area, subject to appropriate pollution prevention and sediment-control measures. Consequently, significant effects on the harbour porpoise qualifying feature are not anticipated, subject to confirmation that there is no relevant impact pathway between the works and the SAC.	Yes	In combination assessment carried forward to Appropriate Assessment
	Habitat Loss	The proposed railway track repairs will be localised and confined to the existing railway track boundary, with works undertaken at low tide. No direct loss or physical disturbance of habitats within the SAC is anticipated.	No	No in combination assessment required; zero effect alone
The Maidens SAC				
Annex I habitats that are a primary reason for	Habitat Loss	The Maidens SAC is designated for reef habitats, sandbanks which are slightly covered by seawater all	No	No in combination assessment

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
selection of this site: 1110 Sandbanks which are slightly covered by sea water all the time 1170 Reefs Annex II species present as a qualifying feature, but not a primary reason for site selection: 1364 Grey seal *Halichoerus grypus*		the time, and grey seal (*Halichoerus grypus*). The proposed railway track repairs will be localised and confined to the existing railway track boundary, with works undertaken at low tide. No direct loss or physical disturbance of habitats within the SAC is anticipated.		required; zero effect alone
	Noise & Disturbance	Given the localised nature and limited extent of the proposed works, significant effects on The Maidens SAC features from noise and disturbance are not anticipated, no credible pathway exists for impacts to reach the site.	No	No in combination assessment required; zero effect alone
	Water pollution	Any potential sediment mobilisation or accidental pollutant release is expected to be limited to the immediate works area, subject to appropriate pollution prevention and sediment-control measures. Consequently, significant effects on the harbour porpoise qualifying feature are not anticipated, subject to	Yes	In combination assessment carried forward to Appropriate Assessment

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combinations
		confirmation that there is no relevant impact pathway between the works and the SAC.		

5.4 Screening Statement Conclusion

At Stage 1 certain effects could not be screened out without appropriate mitigation/avoidance strategies put in place; consequently, a Stage 2 appropriate assessment is required. Those effects requiring appropriate assessment are summarised in Table 5-2 below.

Table 5-2. Summary of screening conclusions for the proposed scheme showing all screened in hazards and European Sites.

Qualifying Feature	Hazard	Likely significant effect alone or in combination
Larne Lough SPA		
-Internationally important populations of Internationally important populations of Roseate Tern, Common Tern Light-bellied Brent Goose and Sandwich Tern. - Mediterranean Gull	Water Pollution	Both
Larne Lough Ramsar		
Ramsar Criterion 2a - assemblage of vulnerable and endangered Irish Red Data Book bird species. Ramsar Criterion 3c - regularly supporting internationally important numbers of Light-bellied Brent Geese in winter.	Water Pollution	Both
North Channel SAC	Water Pollution	Both
The Maidens SAC	Water Pollution	Both

6 Appropriate Assessment

6.1 Introduction

Stage 2 of the HRA process is an Appropriate Assessment, which is required because likely significant effects caused by the proposed works at 10a,10b, 10c1, 10c2, 10d, 10g and 10f have been identified on the Larne Lough SPA and Ramsar. The Appropriate Assessment determines whether the project will have an adverse impact on the integrity of the European sites. In this assessment, avoidance or mitigation measures are applied to a point where the effects identified are no longer significant. If no significant impact on site integrity can be demonstrated, beyond reasonable scientific doubt, the project can proceed. If sufficient avoidance or mitigation measures cannot be applied, the project should not be taken forward in its current form unless there is a demonstration of no suitable alternatives and there are reasons of overriding public interest.

6.2 European Sites

Table 6-1 below shows the European sites that have been screened into the Appropriate Assessment, as summarised in Table 5-2 above.

Table 6-1. European sites screened into this assessment.

Site Name	Proximity to site
Larne Lough SPA	0.3km
Larne Lough Ramsar	0.3km

6.3 General Scheme Mitigation Measures

6.3.1 Pollution Prevention Measures

Appropriate pollution prevention measures will be implemented to ensure that the habitats within proximity of the works, including the interest features and supporting habitats of the Larne Lough SPA and Ramsar are not degraded as a result of pollution events during the construction phase. This mitigation will include:

- Following relevant guidance e.g. CIRIA Guidance: Control of water pollution from construction sites. Guidance for consultants and contractors (C532D) (Masters-Williams, 2001), including the delivery of toolbox talks to site staff.
- Any chemical, fuel and oil stores will be located on impervious bases within a secured bund with a storage capacity 110% of the stored volume.
- Biodegradable oils and fuels will be used where possible.
- Drip trays will be placed underneath any standing machinery to prevent pollution by oil/fuel leaks. Refuelling of vehicles and machinery will be carried out on an impermeable surface in one designated area well away from the high tide mark with capture of any spillages.

- Emergency spill kits will be available on site and staff trained in their use.
- Operators will check their vehicles on a daily basis before starting work to confirm the absence of leakages. Any leakages will be reported immediately.
- Daily checks will be carried out and records kept on a weekly basis and any items that have been repaired/replaced/rejected noted and recorded. Any items of plant machinery found to be defective will be removed from site immediately or positioned in a place of safety until such time that it can be removed.
- This mitigation is industry standard practice and as a result will be incorporated into the project through the Environmental Management Plan (EMP).

6.4 In-combination Effects

The proposed works at section 10 (10a,10b, 10c1, 10c2, 10d, 10g and 10f) are part of a wider scheme to complete remedial works for coastal assets in Northern Ireland, by Amey Consulting (Amey) on behalf of Translink. The scheme involves undertaking works at 26 coastal and estuarine flood defence locations along Translink's railway system in Northern Ireland. Four of these sites comprise minor patch repair works only. The works are required to improve the resilience of the existing rail infrastructure against the risks associated to climate change, including rising extreme sea levels and more severe storm events. The construction methodology is yet to be finalised and is subject to change as the scheme develops however in order to meet project delivery schedules, parallel working between sites may occur.

Other plans and projects with potential in-combination impacts were reviewed through the Derry City & Strabane District Council Planning Portal. No plans were identified that could potentially act in-combination with the proposed works. All of the planning applications within 1km of the site are all small-scale works that have no direct connection to the site. There are no Nationally Significant Infrastructure projects within 1km of the site.

6.5 Appropriate Assessment of Project Impacts and Mitigation

Taking into account the prevailing site conditions, screened in qualifying features, and the typical habitats and species necessary to the conservation of these features, the proposed works and mitigation measures and the conservation objectives for each European site, the following table details the Appropriate Assessment undertaken for the project. In Table 6-2 avoidance and mitigation measures are presented, and an assessment is made on whether an adverse impact remains after the mitigation is applied.

Table 6-2. Appropriate Assessment of Hazards and Mitigation

Qualifying Feature	Description of adverse effect(s)	Can adverse effect(s) be mitigated?	Description of mitigation measures and how they would be applied	Can adverse effect on site integrity be ruled out?
Larne Lough SPA				
-Internationally important populations of Roseate Tern, Common Tern Light-bellied Brent Goose and Sandwich Tern. - Mediterranean Gull	Water pollution: Construction activity may result in accidental fuel or concrete spills which could cause changes in water chemistry and impact the habitats within the SPA.	Yes	Strict pollution prevention measures will be implemented on site, as outlined in Section 6.3.	Yes

6.6 Implementation of Mitigation

The mitigation measures listed above are to be included in the Method Statement produced by the contractor who will be undertaking the works. The appointed contractor will therefore be responsible for ensuring that all on-site mitigation measures are implemented effectively.

7 Appropriate Assessment Conclusion

The proposed works will not have an adverse impact upon the Larne Lough SPA and Ramsar either alone or in combination with any other plans or projects, providing the following mitigation measures are implemented:

- Industry standard pollution prevention measures, particularly addressing the risks of fuel and concrete spills.
- A pre-works check will be completed as close to the construction works starting as possible in order to identify any new opportunities for nesting bird species eg. terns.
- .

References

Department of Agriculture, Environment and Rural Affairs (2015) RIVER FAUGHAN & TRIBUTARIES SAC CONSERVATION OBJECTIVES [Online] Available at: https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Conservation%20Objectives%20%282017%29.%20%20River%20Faughan%20%26%20Tributaries%20SAC.%20%20Versi....pdf [Accessed 07.08.26].

DTA (2019). The Habitats Regulations Assessment Handbook. [Online] Available at: https://www.dtapublications.co.uk/handbook/. [Accessed 07.08.26].

European Commission (2018). Managing Natural 2000 sites. The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. [Online] Available at: https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_._nov_2018_endocx.pdf. [Accessed 07.08.26].

National Parks & Wildlife Service (2015) LARNE LOUGH SPA [Online] Available at: https://www.daera-ni.gov.uk/publications/larne-lough-special-protection-area [Accessed 07.08.26].

National Parks & Wildlife Service (2015) LARNE LOUGH SPA CONSERVATION OBJECTIVES [Online] Available at: https://www.daera-ni.gov.uk/publications/larne-lough-special-protection-area [Accessed 07.08.26].

North Channel SAC https://sac.jncc.gov.uk/site/UK0030399

Ramsar Sites Information Service (1999) Information Sheet on Ramsar Larne Lough [Online] Available at: https://www.daera-ni.gov.uk/publications/larne-lough-ramsar [Accessed 07.08.26].

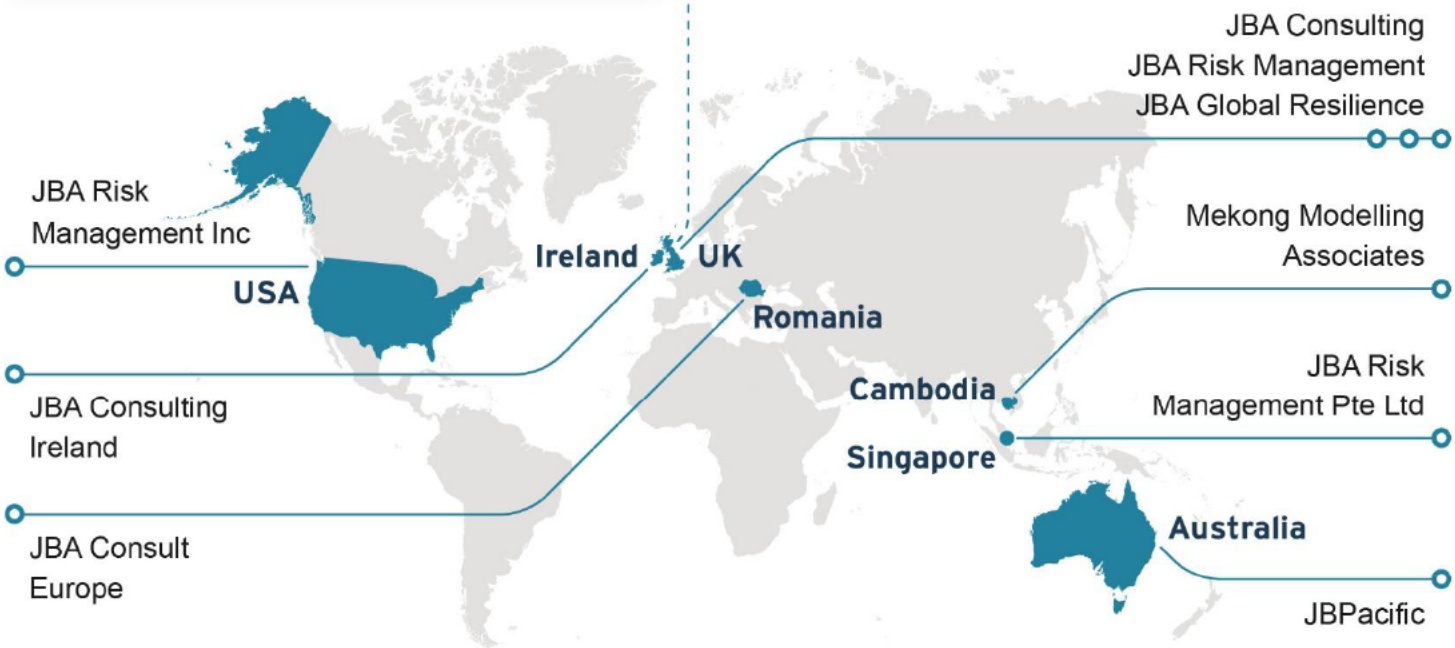
The Maidens SAC https://sac.jncc.gov.uk/site/UK0030384

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