



CPF7075 Dyfi Junction Replacement Timber Trestles Maintenance Works

Habitat Regulations Assessment

Stage 2: Statement to Inform an Appropriate
Assessment of Impacts on Dyfi Estuary/Aber Dyfi
SPA

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Document Author(s):	Bethan Moseley
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Project Manager:	Bethan Moseley

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Name	Title	Date	Version
Owain E Griffiths	Group Environment Officer	21/01/2020	002

Approvals

Name	Title	Date	Version
Rhys M Thomas	Senior Environment Officer	21/01/2020	002

Distribution

Name	Title	Date	Version
Carol Fielding	Project Manager NRW	23/01/2020	002
Mark Skellon	Environment Coordinator	23/01/2020	002
Steve Richardson	Contract Manager	23/01/2020	002

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Executive Summary

This report presents the findings of a study undertaken to inform an Appropriate Assessment of the effects of the proposed Dyfi Junction Replacement Timber Trestles Maintenance Works upon the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi Special protected Area (SPA).

The Stage 1 Screening process assessed the SAC and SPA.

- Pen Llyn a'r Sarnau SAC
- Dyfi Estuary/Aber Dyfi SPA
- Ramsar – Cors Fochno a Dyfi Ramsar
- Cors Fochno and Dyfi RAMSAR Immediately south of Dyfi Junction Bridge 1
- Cors Fochno SAC 8km southwest of Dyfi Junction Bridge 1
- Cadair Idris SAC 9km north of Dyfi Junction Bridge 1
- Craig yr Aderyn SPA 9km northwest of Dyfi Junction Bridge 1
- Coedydd Derw a Safleoedd Ystlumod Meirion 17km north of Dyfi Junction Bridge 1
- Afon Eden a Cors Goch Trawsfynydd 21km North of Dyfi Junction Bridge 1

There were no hydrological links to Cors Fochno SAC, Cadair Idris SAC, or Craig yr Aderyn SPA and these were screened out of the assessment at stage 1.

Coedydd Derw a Safleoedd Ystlumod Meirion and Afon Eden a Cors Goch Trawsfynydd SAC were screened out at stage 1 no effects on Lesser horseshoe bats were identified at stage 1.

No effects are expected on otters because the land adjacent to the bridge is prone to flooding and no suitable resting sites are available within the scheme footprint or adjacent land. The works are local to Bridge 1 and on existing bridge. No changes to prey availability is associated with the works of replacement timber trestles.

Cors Fochno a Dyfi Ramsar, Dyfi Estuary/Aber Dyfi SPA was the only site to be taken forward to Stage 2 Appropriate Assessment, with the other sites all being screened out at Stage 1.

Further assessment (to inform Stage 2: Appropriate Assessment) is therefore undertaken in this report to establish whether the impacts on Greenland White Fronted Geese would have an adverse effect on the integrity of the SPA:

- Disturbance to commuting and foraging Greenland white fronted geese.

All mitigation has been removed from the Stage 1 Screening process and included at Stage 2 assessment.

This Stage 2 report to inform an Appropriate Assessment concludes that with the inclusion of mitigation measures to minimise potential impacts on Greenland white fronted geese, the proposed works on span 1 would not have an adverse effect on the integrity of the Dyfi Estuary/Aber Dyfi SPA.

1.0 INTRODUCTION

1.1 Background and Purpose of this Report

YGC were commissioned to produce a Habitats Regulations Assessment (HRA) for the works of replacement timber trestles at bridge 1 Dyfi Junction (Grid Reference 269516 297920) as described below:

The proposed maintenance work is located on existing railway line Bridge 1 at Dyfi Junction National Grid Ref

Description of project

The work is to repair a defective structure at Dyfi Junction which includes:

Trestle 2 Installation of crosshead to diagonal stainless steel connection plate

Trestle 4 Installation of crosshead to diagonal stainless steel connection plate

Trestle 5 Pack splice to piles 3 and 4 including new stainless steel clamps

Trestle 11 Replacement of piles 2, 3, 4, 6 and 7

Trestle 12 Replacement of piles 4, 6, 7, 8 and Low Mileage diagonal

Trestle 14 Replacement of packs to top of piles 3 and 5 and steelwork to Pile 6

Trestle 15 Replacement of piles to 2,5,7 and installation of short term pile splice assembly to pile 6.

Trestle 16 Installation of short term pile of short term pile splice assembly to pile 6

Trestle 18 Replacement of Beam 3 inner corbel and installation of short term splice assembly to piles 2, 3 and 5

Trestle 20 Installation of short term connection between cross head and diagonal

Trestle 21 Replacement of both diagonals and installation of short term connection between cross head and diagonal

Trestle 22 Temporary holding repairs to back of wall timbers

Scaffold access and temporary works

Delivery of scaffold materials and work materials

(See enclosed presentation, method statement and photos for details see Appendix C).

Some pre construction works such as placing of scaffolding and inspection works are expected to commence 2nd March 2020. The main works are to be completed during a rail line possession and the work will be completed in 24 hour shifts from 3rd April until 12th April 2020. The completion of the works and any remedial works arising from the main works will be completed by 31st May 2020.

In order to inform the assessment of the impact of the maintenance work on European sites (in accordance with the Conservation of Habitats and Species Regulations 2017), a Habitats Regulations Assessment (HRA) this included a Stage 1 screening matrix which is included in the appendix B The Screening Stage could not conclude that the works would have no likely significant effect on the Greenland White Fronted Geese feature of the Dyfi Estuary/Aber Dyfi SPA. Therefore a Stage 2 Appropriate Assessment will be undertaken to assess the impact on this feature with the appliance of mitigation measures. The screening matrix for stage 1 is included in Appendix B.

1.2 Legislative Background

The Habitats Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna provides legal protection for habitats and species of European importance. The Directive is transposed into UK law by the Conservation of Habitats and Species Regulations 2010 (hereafter referred to as the 'Habitats Regulations'). Regulation 61 of the Habitats Regulations requires the competent authority, before deciding to give consent for a plan or project which (a) is likely to have a significant effect on a European 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, to make an 'appropriate assessment' of the implications for that site in view of its conservation objectives. In the light of the conclusions of the assessment, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.

All plans and projects should identify any possible impacts early in the plan-making process and then either alter the plan to avoid them or introduce mitigation measures to the point where no adverse impacts remain. Network Rail, the 'competent national authority' 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 having obtained the opinion of the general public.

This procedure is known as the Assessment of Implications on European Sites (AIES) or Habitat Regulations Assessment (HRA), and the Stage 2 Appropriate Assessment referred to above is one of a series of stages within this process. This report provides the outcome of the Stage 1 Screening (see Screening Matrices in Appendices of this report) and the Stage 2 Statement to Inform an Appropriate Assessment (SIAA).

The purpose of this statement is to identify whether or not the Proposed Improvement is likely to have an adverse effect on the integrity of the Dyfi Estuary/Aber Dyfi SPA. This is to be determined by a consideration of whether the achievement of the conservation objectives that have been set for the site will be affected. In doing so, the statement provides information on the relevant qualifying interests of the SPA, examines the likely nature and scale of the Proposed Improvement's impacts on the feature of concern, proposes mitigation for reducing the severity of the impacts, and proposes monitoring and reporting measures to determine the success of the mitigation measures that are implemented. It is intended that this assessment will allow a decision to be made by Network Rail on whether the Scheme could have an adverse effect on the integrity of the SPA (i.e. whether the achievement of one or more conservation objectives for the site could be affected).

1.3 Guidance used in Preparing this Report

This assessment has been prepared in accordance with the Design Manual for Roads and Bridges (DMRB) Volume 11, Section 4, *HD 44/09: Assessment of Implications (of Highways and/or Roads Projects) on European sites (including Appropriate Assessment)*, David Tyldesley Associates' 2011 *'Assessing Projects under the Habitats Directive. Guidance for Competent Authorities'* and the European Commission's 2000 *'Managing Natura 2000 Sites'* and the provisions of Article 6 of the 'Habitats' Directive 92/43/CEE; and Tyldesley, D., and Chapman, C., (2013) *The Habitats Regulations Assessment Handbook*, (February) (2019) edition UK: DTA Publications Limited, www.dtapublications.co.uk.

This report is specifically responding to recent developments in case law relating to C-323/17 People Over Wind and Sweetman versus Coillte (April 2018) where it is now considered inappropriate to include mitigation measures for impacts on site features to be included at the screening stage (Stage 1 of HRA).

1.4 Experience of the Surveyors and Authors of this Report

This report has been authored by YGC.

2.0 BACKGROUND TO THE PROJECT

2.1 Location of the Project

The location of the Proposed Improvement is presented in appendix Figure 1, at the rear of this report.

2.2 Purpose and Objectives of the Proposed Improvement

The works are maintenance work on existing Cambrian Railway at Dyfi Junction Bridge 1. YGC were asked to complete a HRA Stage 1 Screening for the works of replacement of span. The work are essential for the continuation use of this important railway line.

2.3 Proposed Works – Scheme Design

The Proposed Improvement encompasses the following design measures:

- The works are to replace span 1 of the bridge as per details in appendix. All works are within existing footprint of the bridge.

2.3.1 Buildability

It is anticipated that work would commence 02nd March 2020 and last until 31st May 2020. The work is considered essential for the safe use for the railway line for all users.

2.3.2 Site Preparation

The site compound will be located on existing hard standing on Network Rail Land.

2.3.3 Watercourse

Marine Licence application has been applied for along with a Flood Risk Activity Permit has been obtained for the works above the Afon Dyfi which Bridge 1 spans over at Dyfi Junction.

2.5 The Physical Land Take of the Project

No land take from any protected site is required.

2.6 Resource Requirements throughout the Lifetime of the Project

There will not be any resources required from the Dyfi Estuary/Aber Dyfi SPA for the works of replacement of span 1.

2. Waste Products Arising During Construction and Operation

All debris arising from the work will be contained within the tarpaulin tent and removed of site in accordance with relevant waste legislation. Standard pollution prevention measures will be taken as per requirements of the FRAP agreed with NRW.

Standard pollution prevention measures will be taken as per requirements of the FRAP agreed with NRW.

3.0 feature to be taken through to Stage 2

YGC have undertaken a new Stage 1 Screening exercise (Feb 2019) for Dyfi Estuary/Aber Dyfi SPA (See Appendix B).

The outcome of Stage 1 is that without mitigation, the proposed improvement could potentially have significant effects on the Greenland White Fronted Geese feature of the SPA. All other features of the SAC and RAMSAR are screened out at Stage 1 as no impacts are anticipated.

Elements of the project likely to give rise to impacts on a European site:

Evidence of Greenland White Fronted Geese included in the SPA Management Plan and is recorded to the northeast of the bridge. These geese feed on improved pastures and saltmarsh.

Potential impacts include:

Disturbance of feeding and Greenland White Fronted Geese roosting site at Dyfi Junction (within 1km of the works).

There is potential for the Greenland White Fronted Geese to be within 1km buffer from the works and could potentially be affected by the noise and visual impact of the works. Potential disturbance will be temporary in nature during the 02nd March to mid April 2020 when the Geese leave for Greenland.

4.0 CHARACTERISTICS OF Dyfi Estuary/Aber Dyfi SPA AND SCOPE OF THE STAGE 2 ASSESSMENT

4.1 Description of the Dyfi Estuary/Aber Dyfi SPA

4.1.1 Physical Area of the European Site

The Dyfi Estuary/Aber Dyfi SPA covers an area of 2056.5 hectares. Inland water bodies (Standing water, Running water) 0.1%, Bogs, Marshes, Water fringed vegetation, Fens 0.9%, Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins) 59%, Salt marshes, Salt pastures, Salt steppes 24%, Improved grassland 16%.

Other site characters:

Terrestrial: Soil & Geology:

nutrient- rich, sedimentary, peat, sand, sandstone, alluvium, shingle, acidic, mud, clay, nutrient-poor, neutral

Terrestrial: Geomorphology and landscape: floodplain, lowland, coastal, valley

Marine: Geology: sandstone/mudstone, shingle, gravel, pebble, slate/shale

Marine: Geomorphology: estuary, intertidal sediments (including sandflat/mudflat), intertidal rock, subtidal sediments (including sandbank/mudbank), pools

4.1.2 The Qualifying Features

Over winter the area regularly supports: *Anser albifrons flavirostris* (Greenland/Ireland/UK) 1% of the GB population 5 year peak mean for 1993/94 - 1997/98

4.2 Scope of the Appropriate Assessment

The only feature of the Dyfi Estuary/Aber Dyfi SPA that it is considered could be subject to a significant effect due to the maintenance work at Dyfi Junction, following the Stage 1 Screening is Greenland White Fronted Geese.

4.3 The Conservation Objectives

Conservation Objective for Feature 1: Greenland white-fronted goose *Anser albifrons flavirostris*

Vision for Feature 1 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The Dyfi wintering population attains national importance level (ie. 1% of the national (UK) population), annually.
- Winter mortality levels are <1% annually.
- Juvenile/ sub-adult birds comprise > 5% of the wintering population annually.
- All site-specific factors affecting the achievement of these conditions (eg. avoidable disturbance), are under control

The Conservation Objectives for the Greenland white fronted geese feature of Dyfi Estuary/Aber Dyfi SPA were obtained from the 'Dyfi Estuary/Aber Dyfi SPA: Advice provided by NRW in fulfilment of Regulation 37 of the Conservation of Habitats and Species Regulations 2017 (March 2018)', and are provided below. To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status.

4.4 Vulnerability

Information on past changes to the range and distribution of wintering populations indicates that the Dyfi Greenland white-front population is highly vulnerable to further decline and subsequent loss. Data

analysis (Fox et al. 1998) indicates that size, number and quality of feeding areas, levels of disturbance, flock size and site latitude are all factors that influence flock status. The Dyfi flock is the only one surviving in mainland UK south of the Scottish border, and is both small, isolated and at the southern edge of its range.

Management requirements at Dyfi need to concentrate on:

- maintaining the extent and quality of grazing;
- ensuring minimum disturbance of feeding and roosting areas.

At present there is insufficient control over either of these requirements, even though a greater extent of SPA land is under conservation management than in previous decades. Wildfowling activities whilst having minimal direct impact on the geese, are reported to cause disturbance to the birds from adjacent parts of the wildfowling zone (RSPB pers. comm.).

The geese also remain vulnerable to shooting and disturbance on private farmland and statutory protection for the species is highly desirable.

- Information is required on the frequency of disturbance at Dyfi feeding/ roosting sites, and on distances from sources of disturbance.
- Further information on grazing behaviour within the site in relation to sward nutrition value and possible competition from greater Canada goose is recommended.
- In addition further research is required on the breeding grounds in Greenland to determine more clearly the factors which appear to be delaying breeding activity amongst younger adult birds and depressing population recruitment.

5.0 EXISTING BASELINE CONDITIONS

5.1 Data Collection - Sources of Information Used in the Assessment

GIS software was used to investigate the location of the European sites which could be affected by the scheme described in Section 2.0 Screening. The Conservation Objectives for the European Protected Site assessed within this report, along with the information required to describe the sites' vulnerability has been obtained from the NRW website and site management plans and the Joint Nature Conservation Committee website.

As part of the desk study undertaken to inform the HRA, BIS Data Search was obtained to identify Greenland White Fronted Geese records for the site and the surrounding area were sought from the local environmental records centre, North Wales Environmental Information Service (BIS), and Gareth Thomas Ornithologist. BSI provided all records that they held of protected Species within 2km of the site boundary.

Gwynedd Council's GIS was used to obtain the details of the statutory designated sites within the area of the works.

A number of information sources, including publications and websites, were also consulted to gather information on the status and distribution of Greenland white fronted geese found using the site. These included:

- Joint Nature Conservation Committee (JNCC): UK Habitats Directive Reporting 2013 and information on UK Biodiversity Action Plan (BAP) priority species (JNCC, 2013);
- Environment (Wales) Act 2016: Section 7 priority species;

5.2 Consultations

Consultations were undertaken with the statutory nature conservation organisation including NRW regarding the proposals and the potential effect they could have on the local environment and the European Protected Sites.

The comments received from NRW were considered within and have been incorporated into this AA document.

5.3 Ecological Surveys

Ecological surveys to gather baseline data on protected sites and species throughout the proposed development have been undertaken in accordance with the guidelines of the Chartered Institute of Ecology and Environmental Management (CIEEM).

5.4 Survey Details

Greenland white fronted geese were not observed in the area near Bridge 1 during the site walkover survey and because of the extreme high tide on site the area adjacent to bridge 1 was found to be unsuitable for feeding birds because of the lack of permanent dry habitat.

Following consultation with NRW, Gareth Thomas Ornithologist was contacted to monitor the geese in the estuary and to continue to monitor the birds during the works as agreed with NRW.

5.4.1 Survey Results

Desk study

No records of Greenland white fronted geese were found on the BSI Records. But following discussions with NRW and Ornithologist they hold records of the geese within the area of Dyfi Junction.

Field Survey

During the initial monitoring of the geese Gareth Thomas confirmed they were 4.5km south west from Dyfi Junction AT Grid reference SN665 951. Subsequent monitoring as requested by NRW have found the geese in the area of the Afon Cletwr and back to the area near Ynys Las.

6.0 ASSESSMENT TECHNIQUES AND SIGNIFICANCE CRITERIA

The assessment of impacts of the works at Dyfi Junction on the Greenland white fronted geese which are a feature of the Dyfi Estuary/Aber Dyfi SPA, has been undertaken within this document.

The information collected during the Stage 1 screening and the various specialist surveys/monitoring of the Greenland white fronted geese have been used to predict the likely impacts of the maintenance work at Dyfi Junction Bridge 1 on the Dyfi Estuary/ Aber Dyfi SPA and, specifically, on the delivery of its conservation objectives for the Greenland white fronted geese feature of the SPA. This has been a structured, systematic and objective process and has included consideration of the full range of possible impacts. In Section 7.0, the nature of the potential impacts on the European Site potentially affected is described, in terms of the list of factors presented in Annex F of DMRB Volume 11, Section 4: HD44/09 (Assessment of Implications (of highways and/or roads projects) on European Sites (including Appropriate Assessment)).

In addition, in accordance with the CIEEM Guidelines on ecological impact assessment, impacts have been characterised in detail, in terms of the following parameters:

- Positive or negative.
- Magnitude - refers to the 'size' or 'amount' of an impact, and has been quantified wherever possible (e.g. the area of habitat to be lost etc.).
- Extent - refers to the area over which the impact occurs.
- Duration - refers to the time for which the impact is expected to last prior to recovery or replacement of the resource or feature (which may be longer than the impact-causing activity).
- Reversibility - this is addressed by identifying whether an impact is ecologically reversible, either spontaneously or through specific action, and whether such an outcome is intended.
- Timing and frequency - the timing of impacts in relation to important seasonal and/or life cycle constraints has also been evaluated. Similarly, the frequency with which activities and simultaneous impacts would take place can be an important determinant of the effects on receptors, and has therefore also been assessed and described.

Plans or projects can adversely affect the conservation objectives of a site by slowing the rate at which conservation objectives are achieved, interrupting progress towards achieving conservation objectives, disrupting factors which help to maintain favourable condition of the qualifying interests, and interfering with the abundance or distribution of key species which are indicators of favourable condition.

Following the CIEEM Guidelines, for the purposes of this assessment impact significance, in general terms, has been defined as follows:

"An ecologically significant impact is one which is defined as an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area".

Assessment of whether there is likely to be significant negative effects on the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA without mitigation, is based on the characterisation of the impacts (as described above), then consideration of these against the qualifying features, conservation objectives of the site, and the ability to maintain the primary reasons for selection and qualifying interests in a favourable condition.

6.1 The Use of Professional Judgement

Professional judgement has been used in the undertaking of this work where specific guidance was not available, and regarding the interpretation of results. Where there was insufficient information regarding the likelihood of qualifying interests being present, or of the risk of impacts, the assessment used the precautionary principle to inform the judgement. The precautionary principle has been applied to ensure that any assessment errs on the side of caution, without being overly cautious. This principle means that the conservation objectives should prevail where there is uncertainty or that harmful effects will be assumed in the absence of evidence to the contrary.

Professional judgement has been used in the gathering and interpretation of data used to support this report. It has also been used in the interpretation of the results in relation to the potential impacts on Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA.

7.0 POTENTIAL IMPACTS ON THE PROTECTED SITE

7.1 Impacts from the maintenance work alone without mitigation

The table below lists the potential impacts anticipated for the maintenance work, provides a justification of why they are relevant and characterises the potential impact. The impacts selected are those for which there is the *potential* for an effect on the achievement of the conservation objectives for the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA. These were identified during the screening process.

Table 7.0: Potential Impacts of the Proposed Improvement on the 'Greenland white fronted geese' feature of the Dyfi Estuary/Aber Dyfi SPA

Potential impacts of the Proposed Improvement on the 'Greenland white fronted geese' feature of the SPA	Reason identified as a potential impact	Characterisation of the impact
Noise and visual disturbance of Greenland white fronted geese in the SPA.	It is not possible to predict without mitigation if the geese would be disturbed by the works.	Temporary negative impact. Disturbance during construction within the vicinity of the Dyfi Junction (between 02 nd March 2019 and Mid April 2020 when the geese leave or 31 st May 2020 when project is expected to be fully completed).

8.0 Cumulative Impacts: Possible Impacts from Other Plans and Projects

In Combination with the Proposed Improvement

Under HD44/09, it is a requirement that potential cumulative impacts from other projects, in combination with the Proposed Improvement, are considered. A number of seemingly small impacts upon different parts of the SPA may have no significant effect when viewed in isolation, but in combination with one another the cumulative impact may be significant, either for the European site as a whole or for one or more of its qualifying interests.

The assessment of in-combination effects considers the potential impacts on the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA. This exercise has sought to identify the existence of plans or projects that have the potential to impact upon the integrity and quality of the Greenland white fronted geese feature of the SPA in combination with the maintenance work.

The following organisations were contacted for details of their plans and projects: Gwynedd Council Environment Department (Transportation), NRW, Network Rail, North and Mid Wales Trunk Road Agency, SNPA and Gwynedd Council Planning Department. The information on these plans or projects was collected based on their potential to impact on the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA in combination with the Proposed Improvement.

The plans or projects that were considered for potential in-combination effects with the proposal under consideration were any of the following whose effects could interact with the effects of the Proposed Improvement, for example by adding to or magnifying its effects, or by making a feature more sensitive to its effects:

- projects started but not yet completed
- projects consented but not started
- ongoing projects subject to repeated authorisations (e.g. annual licences)
- applications lodged but not yet determined
- refusals subject to appeals procedures not yet determined
- projects not requiring consent but which have been approved by the competent authority concerned
- proposals in adopted plans
- proposals in draft plans published for consultation
- allocations or other forms of proposals in adopted development plans
- allocations or other forms of proposals in draft development plans published for consultation

The author of this document has relied on the competent authority and Gwynedd Planning Authority to make available sufficient information to enable us to make a fair and reasonable assessment of the addition of effects of other planning applications and projects to, or interaction with, the effects of the Proposed Improvement.

All available information was reviewed for each of the plans or projects from which cumulative impacts could arise. This exercise was carried out by identifying any impact pathways that exist between the plans and projects identified and the SPA Greenland white fronted geese feature that is the subject of this assessment. Since the Greenland white fronted geese feature of the SPA.

There were a number of projects provided by Gwynedd Planning and SNPA which have not been listed in this document as there was insufficient information at their respective stages of the projects or plans to make an in-combination assessment.

The following plans were consulted in order to determine the existence of any such developments:

- Gwynedd and Anglesey Joint Local Development Plan (JLDP) 2011 – 2026 (Written Statement)
- SNPA Revised Local Development Plan 2016 – 2031 (Eryri Local Development Plan: Annual Monitoring Report, SNPA, October 2017)
- Powys Local Development Plan 2011 - 2026.

8.1 Plans

8.2 Gwynedd and Anglesey Joint Local Development Plan (JLDP) 2011 – 2026 (Written Statement)

In line with the screening requirement of the Habitats Regulations, an HRA assessment was undertaken of the adopted Gwynedd and Anglesey JLDP by Enfusion in July 2017, in order to determine the likelihood for significant effects on European sites within its influence.

The Gwynedd and Anglesey JDLDP HRA produced in July 2017 concluded that, *‘the majority of policies or site allocations proposed within the JLDP were unlikely to have significant effects on European sites. There are a number of reasons for this including: the majority of the policies do not necessarily propose development, but rather support certain types of development and set out criteria for the determination of any planning applications. A number of the policies also contain safeguards that seek to protect biodiversity or require any proposal for development to undertake a HRA. This along with the mitigation provided JLDP policies, including Strategic Policy PS16 (Conserving and Enhancing the Natural Environment) - which seeks to manage development to conserve and where possible enhance the natural environment by safeguarding European sites and wider biodiversity - will help to ensure that there are no likely significant effects on European sites.*

The screening assessment also considered the potential impacts of the JLDP as a whole as well as in-combination with other plans and projects. It concluded that that the JLDP was unlikely have significant effects on any European sites either alone or in-combination with other plans and projects as a result of atmospheric pollution, increased disturbance, habitat loss or fragmentation and reduced water quality and levels. These findings were subject to consultation comments and advice from NRW and wider stakeholders. Following the consultation on the JLDP, the Councils made a number of changes to the Plan. These changes were screened and found to not significantly affect the findings of the HRA Screening for the JLDP.

Further changes to the Plan which emerged as a result of matters considered during the JLDP Hearing sessions were also screened to determine if they would significantly affect the findings of the previous HRA work. The screening found that all the proposed changes were minor and did not affect the findings of the previous HRA work as they sought to provide further clarification or ensure consistency. It was therefore concluded that the JLDP is not likely to have significant effects on any European sites either alone or in-combination.

In addition, the Inspector of the adopted Gwynedd and Anglesey JDLDP 2017 states in the Gwynedd and Anglesey JDLDP document that *“in accordance with the Habitats Directive, a HRA of the Plan has been undertaken”* and that he is *“satisfied that the results of the HRA Screening demonstrate that no significant effects upon the integrity of the European sites within the plan area or in adjacent areas are likely to occur (either alone or in combination with other plans or projects) as a result of implementing the Plan.”*

8.1.2 SNPA Revised Local Development Plan 2016 – 2031 (Eryri Local Development Plan: Annual Monitoring Report, SNPA October 2017)

A Habitats Regulations Assessment of the SNPA Local Development Plan (LDP) for the period to 2022 was produced on behalf of SNPA by Hyder Consulting in February 2008 and issued in March 2009. The HRA assessed all plans proposed by the LDP and concluded that no effects on the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA are predicted.

SNPA then commissioned DTA Ecology in May 2017 to undertake a ‘shadow’ HRA in respect of the proposed review of their Local Development Plan (LDP). This work has been approached by way of an addendum to the March 2009 HRA which was undertaken in respect of the original LDP. The focus of this addendum is therefore to assess the changes which were identified through the review report and to update the findings of the earlier HRA accordingly.

The key changes compared to the 2007-2022 LDP are summarised below:

- 1) to roll forward the end date to 2031
- 2) To decide on a new plan housing requirement and how this can be met through the allocation of new sites, amendments to housing development boundaries and the contribution from windfall sites. This is likely to have a small impact on the distribution of housing development in the settlement hierarchy.
- 3) To amend Housing Policies as required along with associated text.
- 4) To reference existing policies and text with Supplementary Planning Guidance prepared since adoption
- 5) To consider the implications of any policies and proposals with a spatial component and update proposals map accordingly
- 6) To show the designation of the Snowdonia Enterprise Zone on the Proposals Map and introduce a new positive and enabling policy to manage new development within the Zone
- 7) To review policies dealing with types of tourism accommodation and related contextual policies
- 8) To amend retail policy to provide more flexibility on alternative uses
- 9) To recognise the designation of the Dark Sky Reserve
- 10) Minor inconsequential updates to policies and supporting text.

With reference to the Defra guidance on competent authority co-ordination, it is the opinion of DTA Ecology that: a) in the absence of additional material information which might render the earlier findings 'out of date', and b) on the basis that the analysis underpinning the earlier March 2009 HRA is considered to be 'rigorous and robust', the findings of the March 2009 HRA can be adopted by the SNPA in respect of all other aspects of the LDP which are unchanged by the revision review. To subject the entire LDP to HRA would represent an unnecessary duplication of assessment effort. This addendum to the March 2009 HRA therefore focuses on the effects of the changes as outlined in points (1-10) above.

The HRA identified the European sites which are potentially affected by the LDP which included the Dyfi Estuary/Aber Dyfi SPA.

8.2.2 Projects

8.2.2.1 No projects were identified within the period of the work within the SPA which could have a significant cumulative effect on the Greenland white fronted geese.

8.0 MITIGATION PROPOSALS

The following sections describe the measures proposed to mitigate the impacts described previously on the Greenland white fronted geese feature of the SPA. The areas involved are shown on the Environmental Master Plan Overview provided in Appendix of this report.

Mitigation measures for the Appropriate Assessment of the Greenland white fronted geese feature of the Dyfi Estuary/Aber Dyfi SPA are summarised below:

8. Mitigating visual and noise disturbance of Greenland white fronted geese feature of the SPA

- Pre-construction monitoring and identifying where the geese are located within the protected site (>1km from Dyfi Junction Bridge 1).
- No work will occur if the Greenland white fronted geese are within 1km of Dyfi Junction Bridge 1.
- Ornithologist expert Gareth Thomas will be monitoring the geese in the estuary, which are currently 4.5km southwest at Ynys Las.
- A buffer of 1km should be sufficient safe zone for the geese not to be affected by the works for acoustic and visual impact.
- The Dousan 270 noise level is 80db on site, the level reduces to 40db at 100 and down to 0 at 200m, therefore no noise impact is expected from the use of machine if the geese are <1km from the works.
- The works will be encapsulated to contain any debris from entering the water course/protected site. This will act as a screen and will reduce any noise and visual impact of the works. The tripod lights used during the night work will be low level 20 lux on average and will be down lighters which do not throw light to the adjacent habitat. The lights will be inside the tarpaulin tent.
- No cumulative effects are expected as no other works are known to be taking place in the estuary during the 02nd to 31st May 2020.

8 Implementation of Proposed Mitigation

An ornithologist will be on site monitoring the geese before and during the works, this has also been included in the FRAP and incorporated in to the CEMP on site.

The implementation, monitoring and management of the proposed mitigation measures will be managed via the scheme contractor's Environmental Management System (EMS) for the Proposed Improvement. The scheme contractors will operate an EMS accredited to ISO14001, and will formulate and maintain a Construction Environmental Management Plan (CEMP) for the Proposed Improvement. This will fully address the requirements of the HRA and EMP, and provide a framework for compliance with legislation, statutory requirements, planning requirements and planning policy objectives. This will include the prior development of detailed method statements as required, consultation with statutory consultees, measures to ensure employment of suitably qualified and experienced specialist subcontractors and the monitoring of mitigation measures.

9 ASSESSMENT OF RESIDUAL IMPACTS ON THE GREENLAND WHITE FRONTED GEESE FEATURE OF THE SPA WITH MITIGATION

9.1 Assessment against Conservation Objectives

The residual impacts of the Proposed Improvement (as listed above) without mitigation (Section 8 above) taken into account have been assessed against the conservation objectives of the Greenland white fronted geese feature of the SPA shown in italics below:

Conservation planning and management.

The conservation objectives guide management of sites, to maintain or restore the habitats and species in favorable condition.

Assessing plans and projects.

Article 6(3) of the 'Habitats' Directive requires appropriate assessment of proposed plans and projects against a site's conservation objectives. Subject to certain exceptions, plans or projects may not proceed unless it is established that they will not adversely affect the integrity of sites. This role for testing plans and projects also applies to the review of existing decisions and consents.

- Monitoring and reporting.

The conservation objectives provide the basis for assessing the condition of a feature and the status of factors that affect it. CCW uses 'performance indicators' within the conservation objectives, as the basis for monitoring and reporting. Performance indicators are selected to provide useful information about the condition of a feature and the factors that affect it.

Management requirements at Dyfi need to concentrate on:

- maintaining the extent and quality of grazing;
- ensuring minimum disturbance of feeding and roosting areas.

Conservation Objective 1: Population

The population is maintaining itself on a long-term basis as a viable component of its natural habitat.

Important elements include:

- *Population size;*
- *Structure, production; and*
- *Condition of the species within the site.*

Effects of Residual Impacts on Conservation Objective 1:

The work will not be completed if the Greenland white fronted geese are within 1km of the work. Therefore no impacts are expected on the Greenland white fronted geese overwintering population.

Conservation Objective 2: Range

The species population within the site is such that the natural range of the population is not being reduced or likely to be reduced for the foreseeable future.

Effects of Residual Impacts on Conservation Objective 2:

Conservation Objective for feature 1 Greenland white fronted geese:

The presence, abundance, condition and diversity of habitats and species required to support this species is such that the distribution, abundance and population dynamics of the species within the site and population beyond the site is stable or increasing. Important considerations include:

- *Distribution;*

- *Extent;*
- *Structure;*
- *Function and quality of habitat; and*
- *Prey availability and quality.*

As part of this objective it should be noted that;

- *The abundance of prey species subject to existing commercial fisheries needs to be equal to or greater than that required to achieve maximum sustainable yield and secure in the long term.*
- *The management and control of activities or operations likely to adversely affect the species feature is appropriate for maintaining it in favorable condition and is secure in the long term.*
- *Contamination of potential prey species should be below concentrations potentially harmful to their physiological health.*

In consideration of the above, it is considered that there is no reasonable likelihood of an adverse effect on Conservation Objective 3 due to the proposed maintenance work.

9.2 Assessment Summary

The mitigation proposed in above has been agreed in consultation with NRW and is considered likely to be successful.

The Greenland white fronted geese will be monitored during the works and works will not occur at Dyfi Junction if the geese are within 1km of the works as agreed with ornithologist and NRW.

It is therefore considered that there would be no significant residual effects on Greenland white fronted geese as a result of the scheme and no adverse effect on the integrity of the Dyfi Estuary/Aber Dyfi SPA.

9.0 PROPOSALS FOR MONITORING AND REPORTING

All results of the agreed site monitoring plan will be reported to NRW on completion of the work.

9.1 Monitoring of Greenland white fronted geese

The ornithologist will monitor the Greenland white fronted geese during the works as per agreement with NRW.

9.2 Criteria for Success

It is not believed that the Greenland white fronted geese would be significantly affected by the works at Dyfi Junction Bridge 1 because no work will be completed if the geese are within 1km of the works as agreed with the ornithologist and NRW.

9.3 Reporting Mechanism

All reporting will be sent to NRW via e-mail.

10 CONCLUSIONS

HD44/09 recommends that the conclusion section of the SIAA, answers certain questions which sum up the findings of the assessment and conclude the process. The following four questions should be made clear when concluding the HRA. These questions are answered below and summarise the findings of this report;

Dyfi Estuary /Aber Dyfi SPA

a) Is the proposal directly connected with or necessary to site management for nature conservation?

The proposal relates to maintenance work and is neither connected with, nor necessary to the management of the Dyfi Estuary/Aber Dyfi SPA for nature conservation.

b) Is the proposal likely to have a significant effect on the features of the site of European Importance, alone or in combination with other plans and projects?

It has been concluded that, assuming the implementation of the mitigation measures detailed in this document, the proposals are not likely to have a significant effect on the Greenland white fronted geese feature of the SPA, whether alone or in combination with other plans and projects.

c) What are the implications of the effects of the proposal on the site's conservation objectives and will it delay or interrupt progress towards achieving the objectives?

It has been concluded that, assuming the implementation of the mitigation measures, the proposals would not affect progress towards the achievement of any of the objectives for the Greenland white fronted geese feature of the SPA.

d) Can it be ascertained that the proposal will not adversely affect the integrity of the site beyond reasonable scientific doubt?

Whether the Proposed Improvement would have an adverse effect on the integrity of the site has been determined by assessing whether, with the implementation of the mitigation measures would affect the achievement of one or more conservation objectives set for the site. As stated above, the proposed maintenance work would not affect the achievement of any of the conservation objectives set for the Greenland white fronted geese feature of the SPA.

For the purposes of Regulation 61 of the Conservation of Habitats and Species Regulations 2017, it is concluded that there would not be an adverse effect on the integrity of the Dyfi Estuary/Aber Dyfi SPA with mitigation listed in this appropriate assessment (stage 2).

References

Joint Nature Conservation Committee website. 2016. *Special Areas of Conservation. Specially Protected Areas*

JNCC (2013) *European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). Supporting documentation for the Third Report by the United Kingdom under Article 17.*

NRW. Natural Resources Wales website. 2016. *European SPA Management Plans and Conservation Objectives*

Tyldesley, D., and Chapman, C., (2013) *The Habitats Regulations Assessment Handbook*, (February) (2019) edition UK: DTA Publications Limited, www.dtapublications.co.uk

Appendix A Site Location and Protected Sites Map

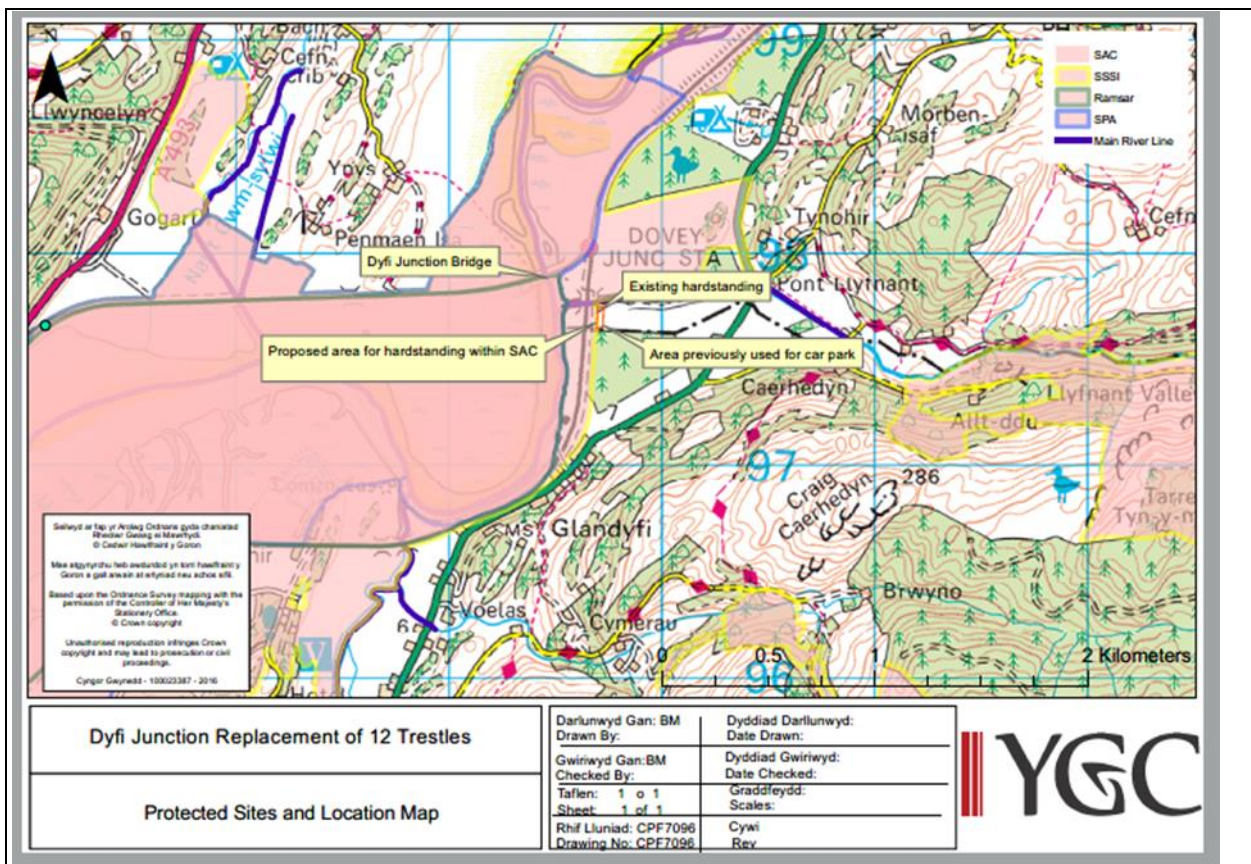


Figure 1: Dyfi Junction Bridge 1 Location in relation to Dyfi Estuary/Aber Dyfi SPA

Appendix B - Insert Stage 1 Screening

Assessing the Impacts on the Dyfi Estuary/Aber Dyfi SPA - Screening Matrix

Project Name:	Dyfi Junction replacement of 12 timber trestles from Bridge 1 - Maintenance Works	
Natura 2000 Site under Consideration	Dyfi Estuary/Aber Dyfi SPA	
Date:	Author (Name/Organisation)	Verified (Name/Organisation)
14/01/2020	Bethan Moseley BSc (hons) PIEMA – YGC Gwynedd Council	Owain E Griffiths MCIWEM BSc (hons) PIEMA YGC Gwynedd Council
<u>Description of project</u> The work is to repair a defective structure at Dyfi Junction which includes: Trestle 2 Installation of crosshead to diagonal stainless steel connection plate Trestle 4 Installation of crosshead to diagonal stainless steel connection plate Trestle 5 Pack splice to piles 3 and 4 including new stainless steel clamps Trestle 11 Replacement of piles 2, 3, 4, 6 and 7 Trestle 12 Replacement of piles 4, 6, 7, 8 and Low Mileage diagonal Trestle 14 Replacement of packs to top of piles 3 and 5 and steelwork to Pile 6 Trestle 15 Replacement of piles to 2,5,7 and installation of short term pile splice assembly to pile 6. Trestle 16 Installation of short term pile of short term pile splice assembly to pile 6 Trestle 18 Replacement of Beam 3 inner corbel and installation of short term splice assembly to piles 2, 3 and 5 Trestle 20 Installation of short term connection between cross head and diagonal Trestle 21 Replacement of both diagonals and installation of short term connection between cross head and diagonal Trestle 22 Temporary holding repairs to back of wall timbers scaffold access and temporary works Delivery of scaffold materials and work materials (See enclosed presentation, method statement and photos for details). Some pre construction works such as placing of scaffolding and inspection works are expected to commence 2nd March 2020. The main works are to be completed during a rail line possession and the work will be completed in 24 hour shifts from 3rd April until 12th April 2020. The client has consulted NRW Marine Licencing team and a marine licence is being obtained by Alun Griffiths (Rail) required for the works. The client has applied for a section 28h consent for works within Dyfi SSSI has been applied for from NRW.		
<u>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Site by virtue of:</u>		
• Size and scale (road type and probable traffic volume)	The work involves the replacement of timber trestles from an existing structure. Temporary scaffolding will be connected to the structure during the construction phase to hold up any existing services and to prevent debris from falling into the estuary.	
• Land-take	The proposal is within Dyfi Estuary/Aber Dyfi SPA, European statutory protected site. No permanent land will be taken from this protected site as all the work will	

	be within Railway Land. Temporary access on foot will be required to erect the scaffolding.
· Distance from the European Site or key features of the site (from edge of the project assessment corridor)	The viaduct is within Dyfi Estuary/Aber Dyfi SPA.
· Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	There will not be any resources required from the SPA for maintenance work.
· Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)	All debris from the removal of timber and steel will be held in the scaffolding and removed off site as required via railway line. The contractor will adhere to the requirements of the Flood Risk Activity Permit and adhere to GPP5 works in or near water and will have spill kits on site in the event of a spill. All personnel will be trained to use spill kits and will implement the emergency procedure should an accident happen. No atmospheric pollution is expected with this work as the work will be undertaken with the use of one Monster Crane will be positioned 5m from abutment. On completion of the proposal there will not be any increase in number or frequency of trains, therefore the situation with regard to atmospheric pollution will remain the same.
· Excavation requirements (e.g. impacts of local hydrogeology)	Some excavation works are expected around the base of each trestle but all materials will be put to side and returned to the after the new trestle has been placed. Each trestle will be removed and replaced during a 12 hour period. One, one tonne Mini excavator will be used during low tide to remove the silt around the base of each trestle.
· Transportation requirements	Access will be via railway line. An existing trackway to Dyfi Junction will be used all other materials will be transported to site via railway line.
· Duration of construction, operation, etc	It is expected that the contractors undertaking the proposed works would require a site presence during 2nd March 2020 to 12th April 2020 for erection of scaffolding and main works of replacing timber trestles and associated replacement of brackets and steel works. The site compound is on existing hard standing at Dyfi Junction and no additional land is required for this. Minor vegetation removal from the railway track will be completed by hand from 2nd March 2020. Erection of scaffolding will also take place and this work will be completed without the use of machinery and significant noise is not expected during this work. The main works will be completed on the 3rd April 2020 to 12th April 2020 for 24 hours continuous shift working day and night.
· Other (Noise disturbance)	There could be some noise disturbance when the timbers and steel are removed and also during the cutting of timber and steel brackets. As the works will not proceed if Greenland white fronted geese are in the vicinity of the works no noise impacts is expected on the Greenland white fronted geese. No Greenland white-fronted goose <i>Anser albifrons flavirostris</i> were seen on site during the site visit as the land adjacent to the railway line was flooded. The Greenland White Fronted Geese have last been recorded 4km south west of Dyfi Junction. The noise generated from this work is likely to disturb White fronted geese without mitigation put in place.

Description of avoidance measures and good working practices; <i>Describe any assumed (plainly established and uncontroversial) avoidance and good working practice measures, including information on:</i>	
• <i>Nature of proposals</i>	Plainly established or uncontroversial good practice measures are proposed such as adhering to GPP5 work and maintenance in and near water during the works, and all machinery will be on the railway track. One mini excavator will be on site to dig around the trestle but most of the digging will be hand dig because of the difficult terrain.
• <i>Location</i>	Dyfi Junction Bridge 1 Viaduct is within the Dyfi Estuary/Aber Dyfi SPA Protected Sites, all works will be undertaken off the railway line itself. Works under the bridge will be completed on pontoons and off the scaffolding. Specialist diving teams will remove silt around the trestles by hand from below the river level.
• <i>Evidence for effectiveness</i>	The measures proposed are plainly established and uncontroversial, having been proven to be effective at numerous construction sites for a number of years.
• <i>Mechanism for delivery (legal conditions, restrictions or other legally enforceable obligations)</i>	Spill kits and personnel trained to use the kit will be available on site on case of oil leak. The staff will be trained to contain any oil/diesel and clean up. NRW emergency help line (0300 065 3000) will be contacted in the case of an emergency spill.
<u>Characteristics of European Site(s)</u> A brief description of the European Site should be produced, including information on:	
• Name of European Site and its EU code	Dyfi Estuary/Aber Dyfi SPA
• Location and distance of the European Site from the proposed works	The Protected Sites are located within the area of the proposed works. 2056.5ha
• European Site size	2056.5ha
• Key features of the European Site including the primary reasons for selection and any other qualifying interests	Key feature 1: Greenland white-fronted goose <i>Anser albifrons flavirostris</i>
• Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways	The geese are easily disturbed by human activity, even from a considerable distance away. Currently, geese can suffer disturbance from two main sources: i) from land management activities eg farming and utility management; ii) from shooting on land in close proximity to goose feeding/roosting areas. Conservation Objective for Feature 1: Greenland white-fronted goose <i>Anser albifrons flavirostris</i> • All site-specific factors affecting the achievement of these conditions (eg. avoidable disturbance), are under control.
• European Site conservation objectives – where these are	Vision for Feature 1 - The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The Dyfi wintering population attains national importance level (ie.1% of the

readily available	national (UK) population), annually. • Winter mortality levels are <1% annually. • Juvenile/ sub-adult birds comprise > 5% of the wintering population annually. • All site-specific factors affecting the achievement of these conditions (eg. avoidable disturbance), are under control.
<u>Assessment Criteria</u> Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Site.	
Elements of the project likely to give rise to impacts on European site: There is potential for the project to disturb Greenland white fronted geese the Qualifying Features of the Protected Sites without mitigation. As mitigation is not to be included in stage 1 the assessment must proceed to stage 2 appropriate assessment.	
In combination impacts: There are no other schemes identified by Alun Griffiths Contractors (Rail) or by Network Rail or by NRW which would act in combination with this scheme which would result in an effect on this European site Dyfi SPA during 02nd March 2020 to 31st May 2020.	
<u>Initial Assessment</u> The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts. <i>Describe any likely changes to the site arising as a result of:</i>	
• Reduction of habitat area	None
• Disturbance to key species	Possible if geese are in the area of the works or within 1km of the works.
• Habitat or species fragmentation	None
• Reduction in species density	None
• Changes in key indicators of conservation value (water quality, etc)	None. No cementitious materials are associated with this project and there are no fluvial pollution pathways on site. The contractor will work considerately and adhere to the recommendations by NRW regarding work in the protected sites.
• Climate change	As the proposed maintenance works are to replace previously existing timber and steel in the same location, any impacts would be temporary in nature and therefore climate change is not a material consideration in relation to the proposed works.
<i>Describe any likely impacts on the European Site as a whole in terms of:</i>	
• Interference with the key relationships that define the structure of the site	None
• Interference with key relationships that define the function of the site	None
<i>Indicate the significance as a result of the identification of impacts set out above in terms of:</i>	
• Reduction of habitat area	None
• Disturbance to key	Possible without mitigation.

species	
• Habitat or species fragmentation	None
• Loss	None
• Fragmentation	None
• Disruption	Not significant
• Disturbance	Not significant
• Change to key elements of the site (e.g. water quality, hydrological regime etc)	None
Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	
There could be impact on the Greenland white fronted geese without mitigation from this project alone. There are no other projects predicted in the vicinity during the project period.	
Outcome of screening stage	Effects on Greenland white fronted geese is possible without mitigation.
Are the appropriate statutory environmental bodies in agreement with this conclusion (delete as appropriate and attach relevant correspondence).	Consultation has been undertaken with NRW Team regarding the monitoring for the Greenland White Fronted Geese during the works they have also been liaised with regarding the Marine Licence, SSSI consent and FRAP.

Appendix C

Method Statement

1. Summary

Please provide a brief summary of the application including location of the works (coordinates - lat/long, decimal degrees). For activities that cover a large area please provide coordinates of the approximate extent of works.

The location(s) of the construction phase is the River Dovey Viaduct Number 1, which carries a single line DJP at 79 miles 375 yards, grid reference SN6946397890 over the tidal River Dovey or Afon Dyfi. The viaduct is approximately 110m long and has eleven timber trestles on the north side and four on the south. The main section has four composite steel spans and

girders. There is a bridge keeper's house at the western end. The structure sits on the Cambrian railway line between Dovey Junction & Penhelig Stations.

Dovey Junction Viaduct No1. DJP, 79 m, 352yds

Site Access Address: Unnamed Road, Off A487 at Glandyfi, SY20 8SU.

Grid Ref: SN 69460 97892

Dovey Junction proposed site compound layout

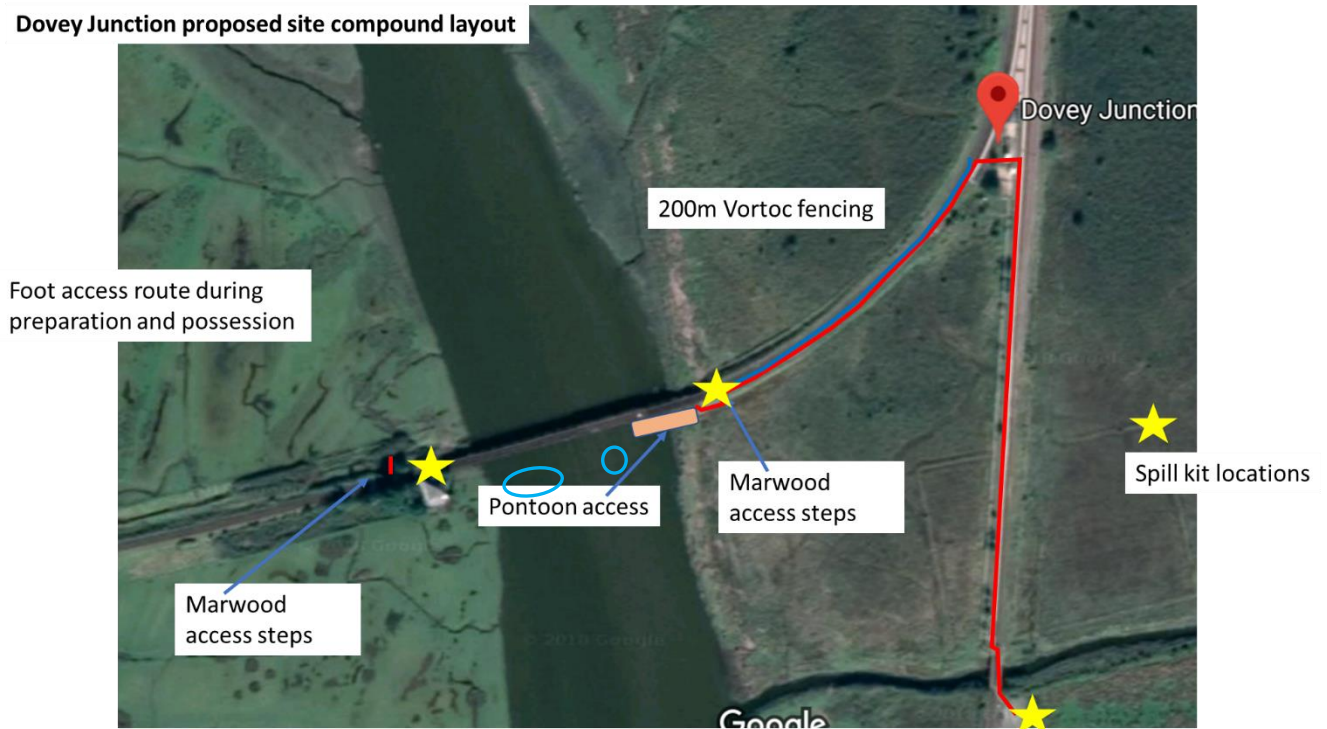


Figure 1: Site Layout

2. Scope of Works

Please provide a full description of all proposed works including:

This method statement details the works at Aberdovey viaduct number 1 which consist of the following repairs:

Work type	Carried out:
Trestle 2 Installation of crosshead to diagonal stainless steel connection plate	Dayshift
Trestle 4 Installation of crosshead to diagonal stainless steel connection plate	Dayshift
Trestle 5 Pack splice to piles 3 and 4 including new stainless steel clamps	Dayshift low tide
Trestle 11 Replacement of piles 2, 3, 4, 6 and 7	Within blockade day or night
Trestle 12 Replacement of piles 4, 6, 7, 8 and Low Mileage diagonal	Within blockade day or night
Trestle 14 Replacement of packs to top of piles 3 and 5 and steelwork to Pile 6	Dayshift
Trestle 15 Replacement of piles to 2,5,7 and installation of short term pile splice assembly to pile 6	Within blockade day or night
Trestle 16 Installation of short term pile of short term pile splice assembly to pile 6	Within blockade day or night
Trestle 18 Replacement of Beam 3 inner corbel and installation of short term splice assembly to piles 2, 3 and 5	Within blockade day or night
Trestle 20 Installation of short term connection between cross head and diagonal	Dayshift
Trestle 21 Replacement of both diagonals and installation of short term connection between cross head and diagonal	Within blockade day or night
Trestle 22 Temporary holding repairs to back of wall timbers	Dayshift
Scaffold access and temporary works	Dayshift
Delivery of scaffold materials and work materials	Saturday nightshift

Mobilisation – 2nd to 13th March 2020 – dayshift working

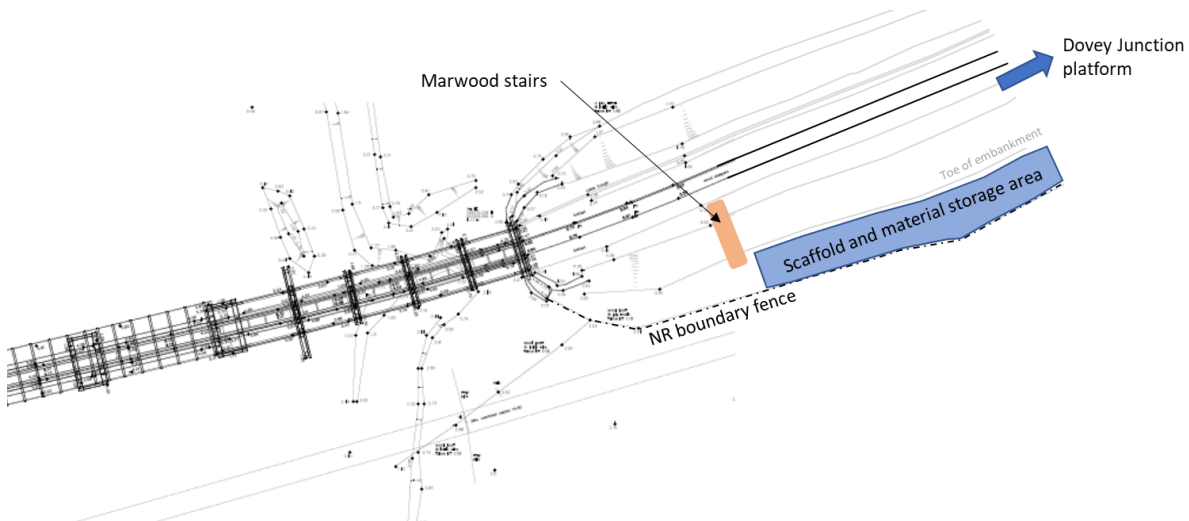
A site compound will be set up on NR land at the location in figure 1. Welfare facilities will consist of office, canteen, drying room and toilet block.

Vortok fencing will be set up from Dovey Junction Station to the east side of the viaduct and grass will be cut within the railway cess to create a safe access route for site access on foot.

Underwater clearance and survey, 16th to 27th March 2020 – dayshift working
Underwater examination of piles including clearing of debris (tree branches etc) to allow replacement of timber piles and installation of new stainless-steel splice clamps. This work is carried out from pontoons with dive equipment located on them. Small boats are used for rescue cover and to move pontoons, manpower and equipment. Equipment will be taken to site using trolleys on the track in line blocks during the day.

Scaffold erection, 23rd March to 3rd April 2020 – dayshift working

Due to limited access to the area Scaffold equipment will be delivered to the bottom of the embankment (NR land) during Saturday night possessions 21/3/20 and 28/3/20 see plan below. The scaffolding will then be moved by hand and pontoon to required locations



Scaffolding (shown in green and blue in fig 2) will be erected to the specific trestles and spans with manpower accessing on foot from the compound via Dovey Platform

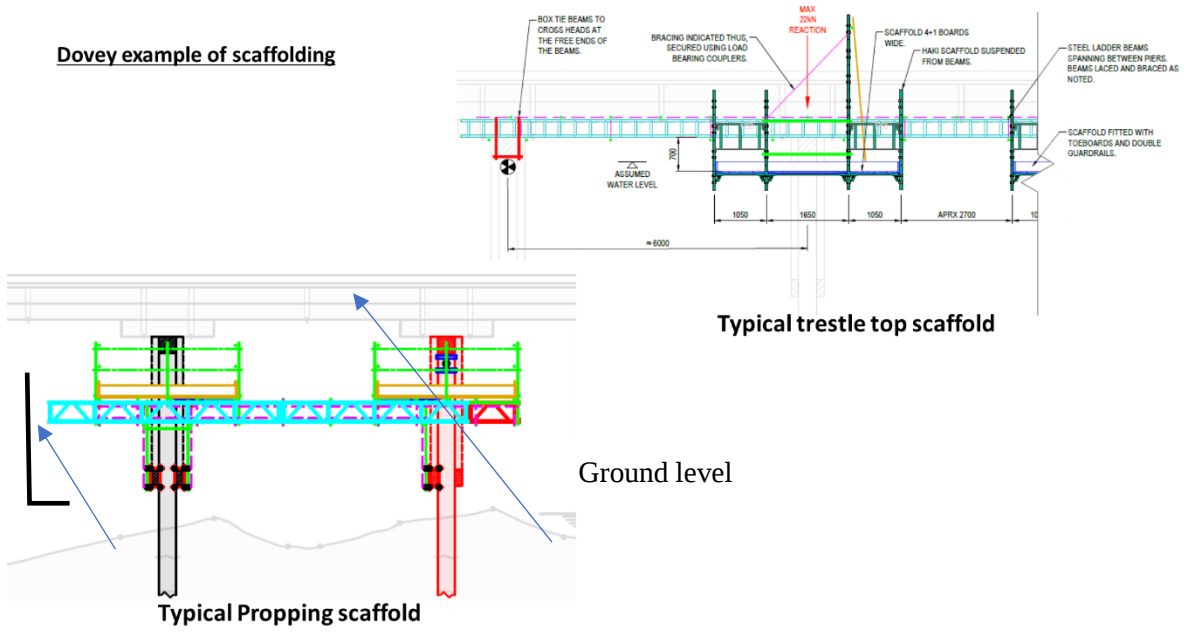


Figure 2: Scaffold prop arrangement in advance of deck removal

Main Works within 8 day blockade of line, 3rd April to 12th April 2020 – 24hour working

A road rail crane and two trailers loaded with temporary work and one trailer loaded with timber will travel to site from the RRAP at Paddy's Crossing at the start of the blockade.

The temporary works will be set up above required trestle /spans in order to lift the weight from the trestle and allow replacement of piles. See fig 3 for example of temp work

The crane will be used to lift new and replaced timbers between track level and pontoons on river.



The timbers will be replaced as per table in section 1 below is typical pile replacement (replaced items are shown in red).

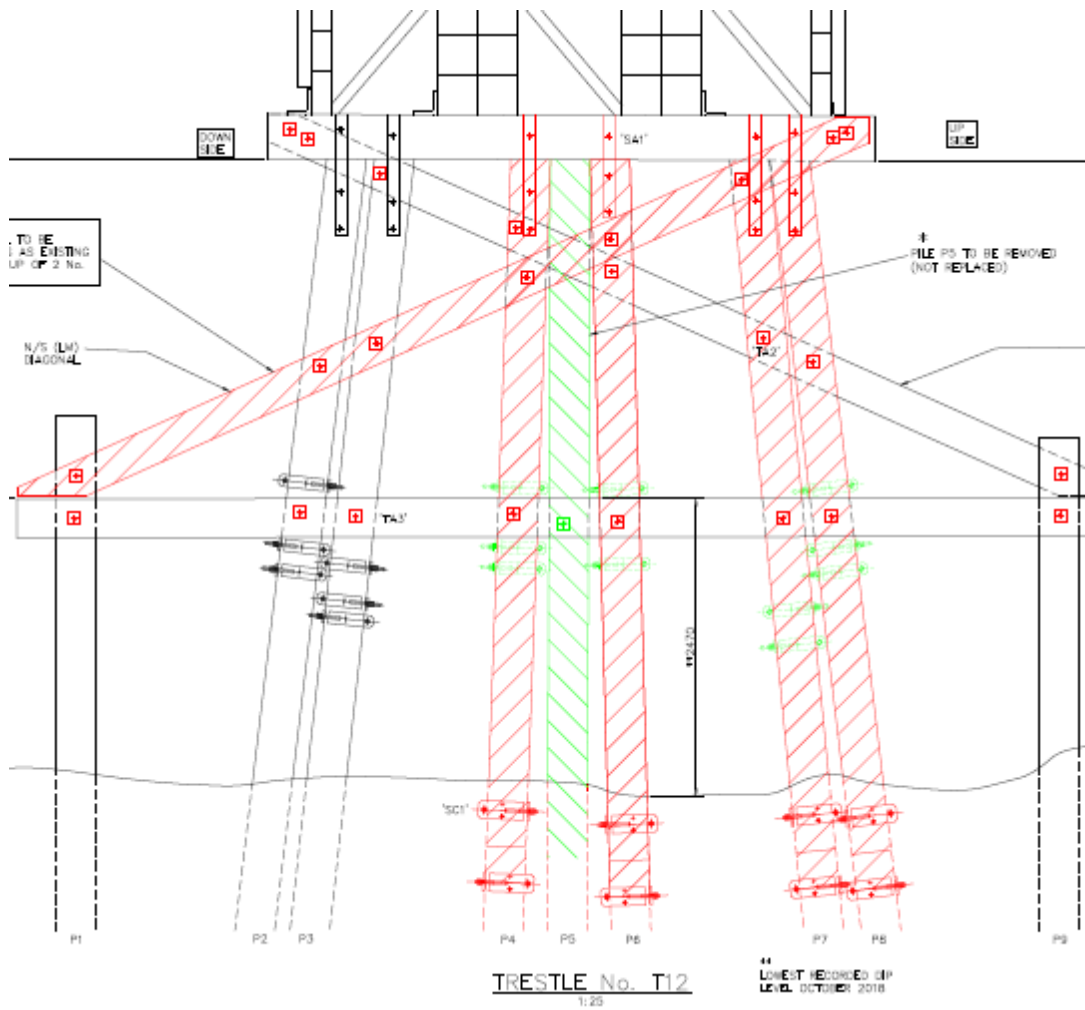


Figure 3: Example of timber pile replacement

3. Access and working areas

Please provide details of access to the site and working areas. This should include:

- *Attached map of the access/egress route and working areas (annotated aerial image and/or OS map)*
- *Predicted plant/vehicle movements*
- *Storage areas for plant, equipment and materials (if required)*
- *Risks to navigation*

See *Figure 1: Site Layout* for access and egress route

All plant, labour and materials will access the viaduct from the railway line. Vortok fencing will be set up from Dovey Junction Station to the east side of the viaduct and grass will be cut within the railway cess to create a safe access route for site access on foot. A temporary stairway will be installed down the embankment and a short section of fence taken down to facilitate pedestrian access to waters edge as shown in appendix. The pontoons are made of modular components and will be carried along this route and assembled at the rivers edge.

The road rail monster crane will travel along the railway track from Tywyn direction, having accessed the line at Paddy's Crossing.

Materials will be stored on the railway embankment, track trailers or pontoons. Materials will not be stored where river levels could affect them

- We have contacted the Maritime & Coastguard Agency and await their formal response; however the river is not navigable at this location and previously, the risk to navigation has been assessed as low by the Maritime & Coastguard Agency. We will comply with the following advice
 - Notify local marine users, noting the number of recreational craft at Aberdovey Marina. Contacting the local Harbour Master (address and telephone number available on Google) would be advised. – 01654 767626, 07879 433148
 - Ensure suitable bunding, storage facilities are employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.
 - Ensure that the works are sufficiently marked, and that adequate precautions are taken to secure any objects/personnel from the bridge so that they do not pose a hazard to any marine users transiting below.

4. Environmental mitigation

Please list appropriate mitigation measures to minimise impacts on the marine environment these may include:

- *Pollution prevention and control procedure (guidance available at: <http://www.netregs.org.uk/media/1304/qpp-5-works-and-maintenance-in-or-near-water.pdf>)*
- *Spill response kits*
- *Minimise plant traffic*

- Designated access and egress routes
- Storage of materials (fuel, chemicals, construction waste)
- Biosecurity (guidance available at <http://www.snh.gov.uk/docs/A1294630.pdf>)

Note: To assist you, the following mitigation statements will be used as conditions within the licence. By signing this method statement you will be agreeing to adhere to these restrictions. If you are unable to do this, the application will not qualify as Band 2.

- ✓ All equipment, temporary structures, access tracks, waste and/or debris associated with the works will be removed on completion of the works.
- ✓ Bunding, storage facilities and spill kits will be employed to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment.
- ✓ Plant, vehicles and machinery will not be refuelled on the foreshore.
- ✓ Coatings and treatments will be suitable for use in the marine environment and are used in accordance with best environmental practice.
- ✓ All equipment, materials, machinery and PPE used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.
- ✓ In the event of removal of any sensitive species or habitat designated by NRW under Schedule 7 of the Environment (Wales) Act 2016, no further removals will occur at that location or within 20m of that location.

Please list your bespoke mitigations here:

- ✓ Location of spill kits shown on **Error! Reference source not found..**
- ✓ All plant to be checked for oil leaks before use.
- ✓ Trained and competent personnel and supervision will be employed.
- ✓ All refuelling to be carried out at a designated point, sited at least 10m away from any watercourse.
- ✓ All plant will run on biodegradable hydraulic oils, and the biodegradable chainsaw chain bar lubricant will be used.
- ✓ Emergency response clean up contractor on standby – Bremar Howells 01202 653558.

5. additional Information

Please list any additional information that may help with the application:

- *Consents/permissions required*
- *List of plans or drawings attached to method statement*
- *Emergency procedures*
- *Contact details*