

File Note

Project title	Rhymney Great Wharf Polders Enhancement for Saltmarsh Restoration
Job number	290063
File reference	290063-ARP-00-RP-RP-NX-0011
cc	
Prepared by	Bethan Follis
Date	21 December 2023
Subject	Consideration for Welsh National Marine Plan

4 Pierhead Street Capital Waterside Cardiff CF10 4QP United Kingdom

t +44 29 2047 3727 d +44 29 2026 6690

arup.com

1. Introduction

This note demonstrates how the proposed works at Rhymney Great Wharf takes into consideration the Welsh National Marine Plan produced by Welsh Government in 2019, further to what has already been included in the Marine Licence application form.

2. Consideration for the Welsh National Marine Plan

The following reports and documents have been produced to support the Marine Licence application:

- A. Site Location Plan
- B. Design Plans
- C. Outline Construction Method Statement
- D. Project Environmental Report (PER)
- E. Preliminary Ecological Appraisal (PEA)
- F. Preliminary Water Environmental Regulations (WER) Compliance Assessment
- G. Environmental Action Plan (EAP)
- H. Information to Inform a Habitat Regulation Assessment (HRA)
- I. Biosecurity Plan
- J. NRW Correspondence
- K. Environmental Constraints and Opportunities Plans (ECOPs)
- L. Consideration for the Welsh National Marine Plan – this document.
- M. Coastal Processes Study

The Project seeks to re-establish and protect important saltmarsh habitats along the Rhymney Great Wharf by installing new polders and extending the existing polder system. Whilst the primary focus of this Project is to restore the saltmarsh (Atlantic salt meadows) SAC feature, the Project is also seeking to support the mudflats and sandflats not covered by sea water at low tide (intertidal

Job number 290063
Date 21 December 2023

mudflats and sandflats) feature by retaining sediment and also retaining or restoring transition zones between the two habitats.

There is significant flood risk behind the embankment and the long-term Shoreline Management Plan policy is hold the line. There is already a significant embankment in this location, and works have been undertaken previously to place rock armour at the edge of the saltmarsh and within creeks to protect the remaining saltmarsh that is present. The polders project aims to delay more significant investment / works to the more formal / traditional flood risk infrastructure, which would likely involve raising the embankment, and protection works to the toe of the structure due to mudflat / saltmarsh erosion. These alternatives may be needed eventually, but there is an opportunity to at least delay a project of that nature, and potentially avoid it through delivery of this restoration project.

The following table identifies the policies from the Welsh National Marine Plan relevant to the current application and how they have been considered in a proportionate way to the project's scale, potential impacts and risk.

Welsh National Marine Plan Policy	Consideration
ECON_01: Sustainable economic growth Proposals for economically sustainable activities are encouraged, particularly where they contribute to: - the sustainable management of natural resources thereby supporting ecosystem resilience; - a more resilient economy; - employment opportunities particularly for coastal communities; - protecting and creating employment at all skill levels; - maintaining communities with a high-density of Welsh speakers; and/or - tackling poverty by supporting deprived coastal communities	The scheme directly contributes to SMNR, supports ecosystem resilience and resilient communities, and therefore local economy through the protection of infrastructure, key services and local businesses. Multiple coastal projects over time can improve the skillset of people, boost direct and indirect employment opportunities and create a more resilient economy.
SOC_03 Marine pollution incidents Proposals should demonstrate how they minimise their risk of causing or contributing to marine pollution incidents	Measures to minimise the risk of marine pollution incidents are secured in Appendix G – Environmental Action Plan (EAP). The EAP draws together standard best practice and project-specific requirements identified by supporting assessments; HRA, WER, PEA, etc.
SOC_07: Seascapes	New timber polder construction will be in keeping with traditional structures along this stretch of coast. Successful restoration of the mudflats /

Job number

290063

Date

21 December 2023

Welsh National Marine Plan Policy	Consideration
Proposals should demonstrate how potential impacts on seascapes have been taken into consideration and should, in order of preference: - avoid adverse impacts on seascapes; and/ or - minimise impacts where they cannot be avoided; and/or - mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Opportunities to enhance seascapes are encouraged.	saltmarsh will support enhancement of the local seascape in compliance with SOC_07. Further details are provided in Appendix D - PER.
SOC_08: Resilience to coastal change and flooding Proposals should demonstrate how they are resilient to coastal change and flooding over their lifetime.	There is significant flood risk behind the existing embankment and the long-term Shoreline Management Plan policy (SMP2) is hold the line. There is already a significant embankment in this location, and works have been undertaken
SOC_09: Effects on coastal change and flooding Proposal should demonstrate how they: - avoid significant adverse impacts upon coastal processes; and - minimise the risk of coastal change and flooding	previously to place rock armour at the edge of the saltmarsh and within creeks to protect the remaining saltmarsh that is present. This restoration project aims to delay more significant investment/works to the more formal/traditional flood risk infrastructure, which would likely involve raising the embankment, and protection works to the toe of the structure due to mudflat/saltmarsh erosion. These alternatives may be needed eventually, but there is an opportunity to at least delay a project of that nature, and potentially avoid it through delivery of this restoration project. Successful restoration would deliver an inadvertent resilience benefit to existing defences by reducing exposure to tidal energies.
SOC_10: Minimising climate change Proposals should demonstrate how they, in order of preference: - avoid the emission of greenhouse gases; and/or - minimise them where they cannot be avoided; and /or - mitigate them where they cannot be minimised. Where significant emission of greenhouse gases cannot be avoided, minimised or mitigated,	Successful restoration of saltmarsh will lead to effective carbon sequestration; saltmarsh is extremely efficient in trapping sediment and acts as a carbon sink. A Contractor is due to be appointed in Spring 2024, therefore Appendix C- Outline Construction Method Statement considers delivery of materials to site, which is currently not defined and is a significant contributor to CO₂ emissions, after the sourcing of materials. The decision on delivery of

Job number

290063

Date

21 December 2023

Welsh National Marine Plan Policy	Consideration
proposals for regulated activities must present a clear and convincing case for proceeding.	materials to site will depend on Contractor's preference, resources and programme. Natural materials (wood) will be utilised in preference to carbon-intensive materials such as concrete, thus avoiding embedded carbon emissions. Measures to minimise greenhouse gas emissions include: • Machinery/vehicles to be well maintained, regularly serviced and comply with MOT emissions standards; • Deliveries to site will be controlled to avoid queuing; and • Engines will be switched off when not in use. Refer to Appendix G - EAP.
ENV_01: Resilient marine ecosystems Proposals should demonstrate how potential impacts on marine ecosystems have been taken into consideration and should, in order of preference: - avoid adverse impacts; and/or - minimise impacts where they cannot be avoided; and/or - mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to the protection, restoration and/or enhancement of marine ecosystems are encouraged.	Fundamentally, this project aims to support the protection and enhancement of existing SAC features (intertidal mudflat and Atlantic salt meadow) and promote restoration across a wider area; thus, the project is considered compliant with ENV_01. Installation is proposed within a European Marine Site whereby potential pathways exist for other features of the National Site Network. A number of assessments have been undertaken to consider potential pathways for effect of the proposed scheme on protected habitats and species within the surrounding area. Key species that have been considered within the assessments and design of mitigation measures include wintering, breeding and passage birds, intertidal mudflats and saltmarsh and migratory fish.
ENV_02: Marine Protected Areas Proposals should demonstrate how they: • avoid adverse impacts on individual Marine Protected Areas (MPAs) and the coherence of the network as a whole; • have regard to the measures to manage MPAs; and • avoid adverse impacts on designated sites that are not part of the MPA network.	The mitigation hierarchy has been applied throughout, including programming installation to avoid the overwintering bird season (October to March inclusive), ensuring the integral design does not act as a barrier to fish and securing mitigation to reduce potential effects on any breeding birds that may be present during installation.

Job number

290063

Date

21 December 2023

Welsh National Marine Plan Policy	Consideration
	These and other potential impacts on marine ecosystems and protected areas are addressed in: Appendix F- Preliminary Water Environmental Regulations (WER) Compliance Assessment. Appendix G- Environmental Action Plan (EAP). Appendix H- Habitat Regulation Assessment (HRA).
ENV_03: Invasive non-native species Proposals should demonstrate how they avoid or minimise the risk of introducing and spreading invasive non-native species. Where appropriate, proposals should include biosecurity measures to reduce the risk of introducing and spreading of invasive non-native species.	Biosecurity measures are included within Appendix I- Biosecurity Plan, Appendix C- Outline Construction Method Statement and Appendix G- EAP and summarised below: - Initial Extended Phase 1 Habitat Survey has confirmed the likely absence of INNS – refer to Appendix E: PEA. - Invasive non-native species (INNS) pre-installation checks for INNS along access routes. - The transfer of amphibian and fish diseases as well as INNS shall be minimised by undertaking cleaning and disinfection of equipment. All debris, plant fragments and mud should first be scrubbed off footwear and rinsed with water. - Follow the Clean, Check, Dry Process.
ENV_04: Marine litter Proposals should demonstrate how they: • avoid the deliberate introduction of litter into the marine plan area; and • minimise the risk of accidental release of litter.	Marine litter is addressed in Appendix C – Outline Construction Method Statement and Appendix G - EAP and summarised below: - Minimal waste will be produced, mainly material packaging & welfare rubbish, all of which will be placed in to a suitable skip located within the compound area, supplied & managed by the main contractor. - All storage containers will remain within the site compound and be appropriately bunded to prevent any spillages or leaks. - All works should follow strict pollution prevention best practice. The recommended pollution measures should follow the guidance for pollution prevention (GPP) “Works and maintenance in or near water: GPP 5”.

Job number

290063

Date

21 December 2023

Welsh National Marine Plan Policy	Consideration
ENV_06: Air and water quality Proposals should demonstrate that they have considered their potential air and water quality impacts and should, in order of preference: - avoid adverse impacts; and/or - minimise adverse impacts where they cannot be avoided; and/or - mitigate adverse impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Construction best practice is secured through the WER, HRA and EAP to ensure compliance with relevant PPGs / GPPs (including GPP5: Works and Maintenance in or Near Water) and CIRIA best practice. Impact on water quality is addressed in Appendix F - Water Environmental Regulations (WER) Compliance Assessment, Appendix G - EAP and Appendix H – Information to Inform a HRA. Impact on air quality is considered to be negligible and is addressed within Appendix D- PER and Appendix G - EAP.
ENV_07: Fish Species and Habitats Proposals potentially affecting important feeding, breeding (including spawning & nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance should demonstrate how they, in order of preference: - avoid adverse impacts on those areas; and/or - minimise adverse impacts where they cannot be avoided; and/or - mitigate adverse impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Potential pathways for effects on fish are considered in Appendix F - Water Environmental Regulations (WER) Compliance Assessment, Appendix H – Information to Inform a HRA and secured in Appendix G – EAP; these are summarised below: - No key spawning or nursery areas are considered to be affected; however, migratory fish presence cannot be ruled out. - Works must adhere to pollution prevention guidance (e.g. GPP5, CIRIA best practice, etc.) during polder installation to avoid impacts on fish habitats. - To ensure successful operation, openings in the polders must be aligned with existing channels, which will also ensure egress of fish during ebb tides.
GOV_01: Cumulative effects Proposals should demonstrate that they have assessed potential cumulative effects and should, in order of preference: - avoid adverse effects; and/or - minimise effects where they cannot be avoided; and/or	The Cardiff Council Planning Portal was reviewed for potential major planning applications, within a radius of 1km, that could have potential cumulative effects with the proposed scheme. Several planning applications were identified; however, these were minor applications, therefore cumulative effects are not anticipated. Marine licences were reviewed for potential applications within a radius of 1km that may have

Job number 290063
Date 21 December 2023

Welsh National Marine Plan Policy	Consideration
c. mitigate effects where they cannot be minimised. If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to positive cumulative effects are encouraged.	potential cumulative effects with the project. No relevant marine licence applications were found. In-combination effects are also considered in Appendix H: Information to Inform a HRA, which concluded no in-combination effect.