



WATER FRAMEWORK DIRECTIVE ASSESSMENT

Works on the Menai Bridge, 2025

for

UK Highways (A55) Ltd.

4th April 2025 REV.5

ECO_1154



Ecoscope Ltd.

Telford Lodge, Benarth Road, Conwy LL32 8UB

t. [03335 771 402](tel:03335771402) e. info@eco-scope.co.uk w. www.eco-scope.co.uk

Registered address as above | Company Number: 08916412 | VAT Reg. No. 199 5268 44

CONTENTS	Page no.
GLOSSARY OF TERMS AND ACRONYMS	3
EXECUTIVE SUMMARY	4
1. INTRODUCTION	6
1.1 Personnel	6
1.2 Consultation	6
1.3 Nature and extent of works	7
2. STAGE 1: SCREENING - POTENTIAL IMPACTS TO PROTECTED SITES/FEATURES	9
2.1 Site Details	9
3. STAGE 2: SCOPING	11
3.1 Potentially Damaging Operations (PDO's)	11
3.2 Impact of PDO's on Protected Sites and Qualifying Features	16
4. RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS	18
4.1 Mitigation Strategy	18
4.2 Avoidance & Protection	18
4.3 Reduction	19
5. STAGE 3 DETAILED ASSESSMENT - WORKS METHOD STATEMENT	21
5.1 Method Statement (incorporating recommendations)	21
5.2 Preparation for repainting	25
5.3 Painting scheme: underdeck and parapet painting	25
(see No's 2 & 5, Figure 6, APPENDIX 1)	25
5.4 Repair work to parapet and concrete corbels	26
(see No's 1 & 2, Figure 6, APPENDIX 1)	26
5.5 Land saddle inspection and works	26
5.6 Deck bearing access	27
(see No. 3, Figure 6, APPENDIX 1)	27
5.7 Lighting: Refurbishment and electrical works	27
5.8 General Protection and Risk Mitigation	28
5.9 Potentially Damaging Operations	31

Ecoscope Ltd.

Telford Lodge, Benarth Road, Conwy LL32 8UB

t. [03335 771 402](tel:03335771402) e. info@eco-scope.co.uk w. www.eco-scope.co.uk

Registered address as above | Company Number: 08916412 | VAT Reg. No. 199 5268 44

6.	REASSESSMENT OF IMPACTS POST WFD ASSESSMENT	32
6.1	Revised Impact Assessment	32
7.	APPENDIX 1	I
8.	APPENDIX 2	II
9.	APPENDIX 3	III
	Figure 1 Location and works boundary	7
	Figure 2 Protected Sites map	9
	Figure 3 Menai Strait Mussel and Oyster Fishery Order (2022) boundary map	10
	Figure 4 Example of terms #1	26
	Figure 5 Example of terms #2	27
	Figure 6 Reference locations on structure and key	i
	Figure 7 Overview of works	ii
	 Table 1 Personnel	 6
	Table 2 Directly-affected Protected Site and its Qualifying Features	9
	Table 3 Adjacent Protected Sites and their Qualifying Features within 5 Km	10
	Table 4 WFD Assessment screening and scoping matrix	12
	Table 5 Conclusion of the screening process	16
	Table 6 Impact of Potentially Damaging Operations on Qualifying Features - summary	16
	Table 7 Hierarchy of Impacts	17
	Table 8 Impact Assessment (after mitigation)	32
	Table 9 National Marine Plan Signposting	iii

Ecoscope Ltd.

Telford Lodge, Benarth Road, Conwy LL32 8UB

t. [03335 771 402](tel:03335771402) e. info@eco-scope.co.uk w. www.eco-scope.co.uk

Registered address as above | Company Number: 08916412 | VAT Reg. No. 199 5268 44

GLOSSARY OF TERMS AND ACRONYMS

EMS = Environmental Method Statement

WFD = Water Framework Directive

DMRB = Design Manual for Roads & Bridges (Standards for Highways 2014)

INNS = Invasive Non-Native Species

MEWP = Mobile Elevated Work Platform

NRW = Natural Resources Wales

PDO = Potentially Damaging Operations

SSSI = Site of Special Scientific Interest

SAC = Special Area of Conservation

SPA = Special Protection Area

FCS = Favourable Conservation Status

LPA = Local Planning Authority

IoACC = Isle of Anglesey County Council

WCA = Wildlife & Countryside Act 1981 (as amended)

S7 = Section 7, Environment (Wales) Act 2016

BAT = Best Available Technique

PPE = Personal Protective Equipment

EXECUTIVE SUMMARY

Ecoscope Ltd were required to undertake a Water Framework Directive (WFD) assessment of the potential for repainting works on the Menai Bridge to impact on Protected Sites and their Qualifying Features, in particular the Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay SAC and the potential of the works to impact on Water Quality.

The process involves:

- 1. **INTRODUCTION:** Personnel, consultations, nature of the works.*
- 2. **SCREENING:** Site details, identification of Potentially Damaging Operations (PDO's) associated with the works and their unmitigated impact of Protected Sites / Qualifying Features: screening matrix and potential Impact Assessment;*
- 3. **SCOPING:** Details of Protected Sites potentially impacted and their Qualifying Features;*
- 4. **RECOMMENDATIONS:** Proposed mitigation for all potential risks, including water quality and impact on SAC / SPA features whether directly or indirectly affected.*
- 5. **WORKS METHOD STATEMENT:** Contractor's Works Method Statement incorporating all recommendations relating to WFD and achieving Favourable Conservation Status (FCS) of Protected Sites.*
- 6. **REASSESSMENT POST-WFD:** Revised Impact Assessment with all recommendations considered in the Contractor Works Method Statement.*

Document Issue Date: Monday 11th November 2024

Revision #1	Tuesday 12 th November 2024
Revision #2	Wednesday, 20 November 2024
Revision #3	Thursday 19th December 2024
Revision #4	Tuesday 7 th January 2025
Revision #5	Friday 4 th April 2025
Approved by:	Mr. Stuart Kato M.Sc., MCIEEM
Prepared by:	Dr Richard Birch CEcol

1. INTRODUCTION

1.1 Personnel

1.1.1 The following personnel provided the information included in this report (Table 1).

Table 1 Personnel

PERSONNEL	EXPERIENCE
Kerry Evans MSc, CEng.	DBFO Senior Operations Manager
Liam Kelly	Contracts Manager, Spencer Engineering
Geraint Jones BEng (Hons), MICE	Associate Director, WSP.
Dan Malkin	Project Manager, Spencer Bridge Engineering
Mr. Stuart Kato MSc.	Managing Director at Ecoscope Ltd.
Dr Richard Birch CEcol	Principal Ecologist, Ecoscope Ltd

1.2 Consultation

1.2.1 The following organisations and consultations will be undertaken:

- Protected sites and Qualifying Features (Natural Resources Wales);
- Compliance with the Water Framework Directive (Natural Resources Wales);
- Marine Environment Access and Permissions (Caernarfon Harbour Trust);
- Marine Environment Access and Permissions (Marine Dept, IoACC)

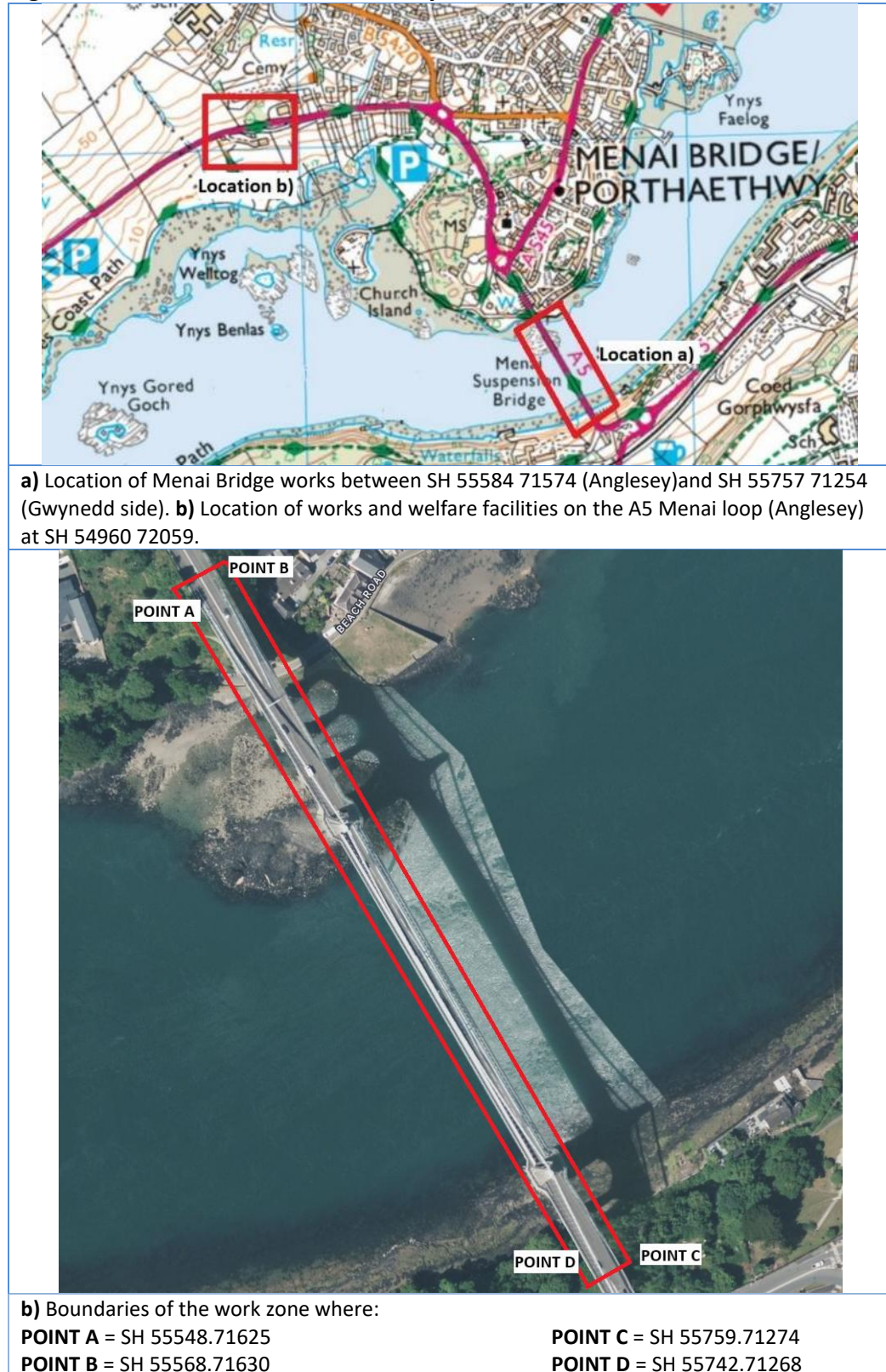
1.2.2 Information to inform the WFD Impact Assessment is obtained from:

- Guidance Note(s) GN078 'Complying with WFD Regulations 2017' ;
- Wales Intertidal SAC feature assessment summary 2004-2017 report No. 63 (Moore, J., Mercer, T., Bunker, F., Howson, C. and Brazier, P.) 2021;
- Water Watch Wales at:
<https://waterwatchwales.naturalresourceswales.gov.uk/en/>;
- [Western Wales River Basin Management Plan Summary](#) (Conwy & Ynys Môn);
- JNCC in Wales at: <https://sac.jncc.gov.uk/site/wales>;
- Y Fenai a Bae Conwy / Menai Strait and Conwy Bay Special Area of Conservation and Traeth Lafan Special Protection Area Ynys Seiriol / Puffin Island Special Protection Area [Management Plan 2009](#);
- Menai Strait Fishery Order Management Association at:
<https://www.msfoma.org/>;

1.3 Nature and extent of works

1.3.1 The proposed works to the Menai Bridge will be undertaken at the location shown in Figure 1a Location (a), with the proposed location for off-site works in Figure 1a Location (b). Co-ordinates for the works area are shown in Figure 1b

Figure 1 Location and works boundary



- 1.3.2 The works will comprise cleaning and painting of the metalwork of the Menai Bridge, with remedial repair works to stonework. Offsite location will comprise only welfare and storage in an existing layby.
- 1.3.3 Details of the activities to be undertaken are included in STAGE 2: SCOPING. Works are in accordance with the National Marine Plan (see Table 9 National Marine Plan Signposting, APPENDIX 3).

2. STAGE 1: SCREENING - POTENTIAL IMPACTS TO PROTECTED SITES/FEATURES

2.1 Site Details

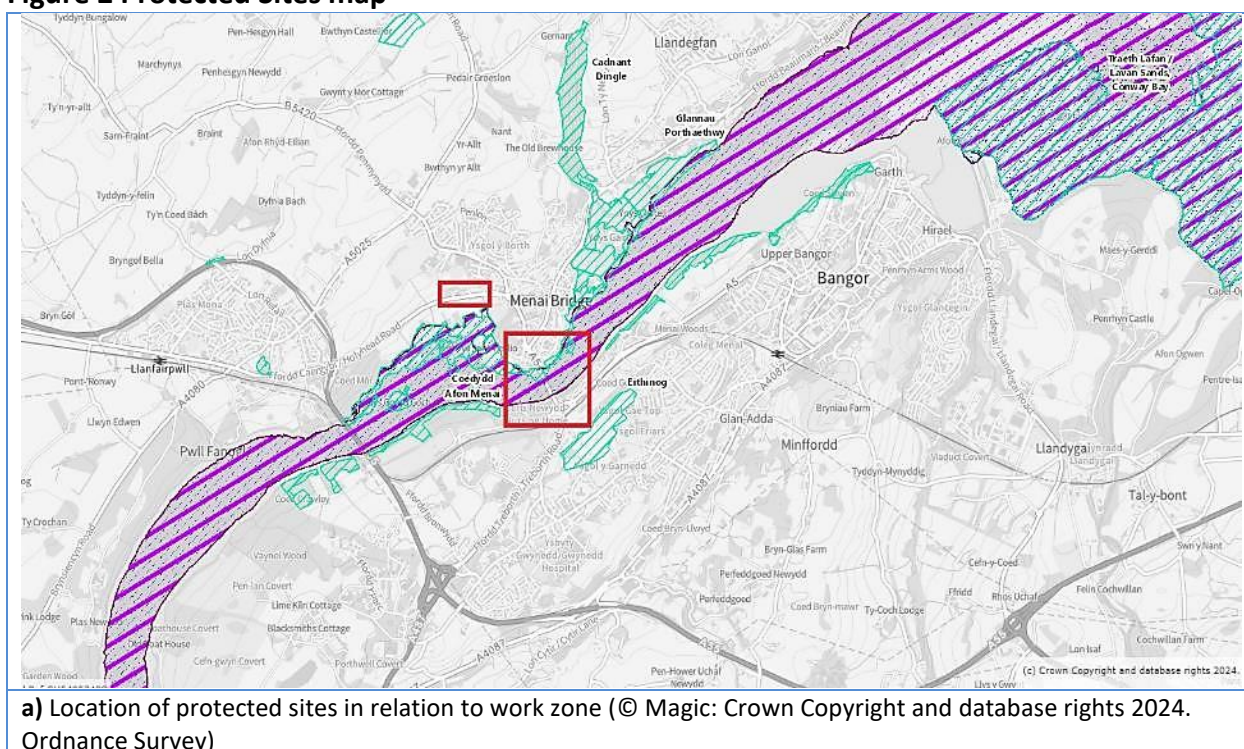
2.1.1 The works will be undertaken directly above the International protected site shown in Table 2.

Table 2 Directly-affected Protected Site and its Qualifying Features

NAME	CLASSIFICATION	SUMMARY OF QUALIFYING FEATURES	AREA	DISTANCE
Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay	SAC	- Sandbanks which are slightly covered by sea water all the time; - Mudflats and sandflats not covered by seawater at low tide; - Reefs; - Large shallow inlets and bays; - Submerged or partially submerged sea caves;	26,501 Ha	0

2.1.2 The location and extent of protected sites in relation to the work area is illustrated in Figure 2.

Figure 2 Protected Sites map

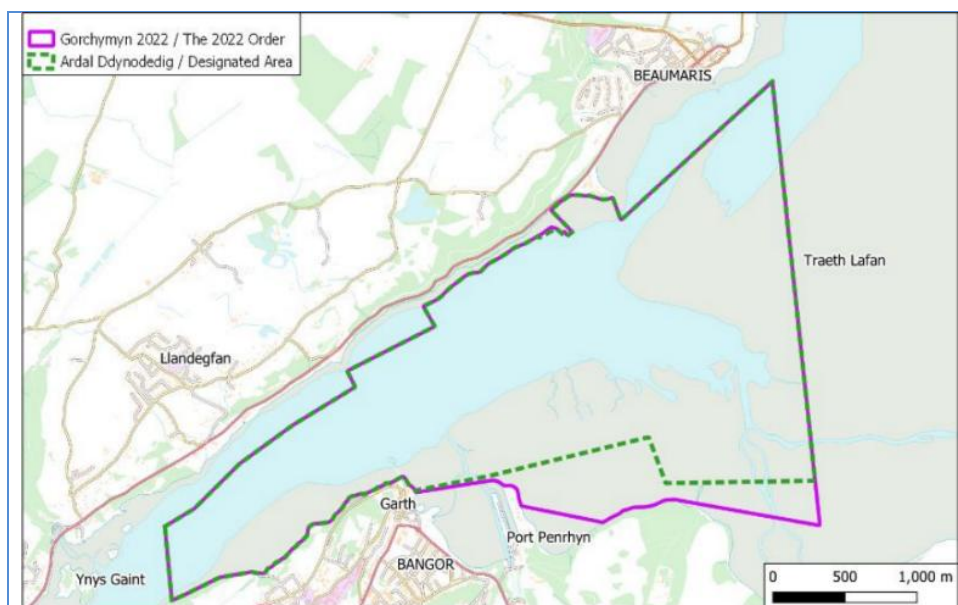


2.1.3 In addition to the SAC, a list of Special Protection Areas and Sites of Special Scientific Interest (with a marine or hydrological component) within 10 Km of the proposed operations is provided in Table 3, p. 10

Table 3 Adjacent Protected Sites and their Qualifying Features within 5 Km

NAME	CLASSIFICATION	SUMMARY OF QUALIFYING FEATURES	AREA	DISTANCE
Traeth Lavan / Lavan Sands & Conwy Bay	SPA	• Oystercatcher; • Red-breasted Merganser; • Curlew; • Great crested Grebe; • Redshank.	2,703 Ha	3.7 Km
Liverpool Bay / Bae Lerpwl	SPA	• Red-throated Diver; • Little Gull; • Common Scoter; • Little Tern; • Common Tern.	252,757 Ha	10.3 Km
Glannau Porthaethwy	SSSI	• Tideswept rocky shore community; • Lichen communities above the tideline; • Overhanging rock communities; • Sheltered muddy gravel communities; • Diving and wading birds; • Otter.	67 Ha	0
Coedydd Afon Menai	SSSI	• Oak-Ash-Ivy woodland; • <i>Sorbus porrigentiformis</i>	22 Ha	420 m
Cadnant Dingle	SSSI	• Oak-Ash-Slender False brome woodland; • Red Squirrel	18 Ha	1.2 Km
Traeth Lavan	SSSI	• Littoral tidal habitats • Wintering wildfowl and waders	2,700 Ha	5.2 Km

3.1.3 The Menai Straits and adjacent Lafan Sands are also an important ‘Designated Several Fishery Area’ (as designated March 2022 – see Figure 3), producing commercial crops of Mussels, Cockles and Oysters.

Figure 3 Menai Strait Mussel and Oyster Fishery Order (2022) boundary map

3. STAGE 2: SCOPING

3.1 Potentially Damaging Operations (PDO's)

- 3.1.1 The Menai Strait and Conwy Bay SAC and adjacent Lafan Sands SPA management plan (2009) identifies 'Dock, Harbour & Marine Structures: maintenance' as a potentially damaging operation, stating:

'Treat as plan or project as appropriate (including assessment of cumulative effects in association with others plans and projects, where necessary). Review, revise or establish management practices and technical operational limits that are required to secure features at FCS. Seek advice from relevant environmental agencies. Monitor compliance and enforce. Specific further information on operation required (location, extent, scale, timing and duration).'

- 3.1.2 The scoping and screening matrix in Table 4 identifies Potentially Damaging Operations (PDO's) associated with the proposed works, and their impact on Protected Sites and their Qualifying Features and concludes that the operation has the potential to affect the Favourable Conservation Status (FCS) of the SAC, adjoining SPA and associated SSSI's.

Table 4 WFD Assessment screening and scoping matrix

MENAI BRIDGE REPAINTING				
CASE DETAILS				
Case Reference			WFD name	Menai Strait East
Applicant	UK Highways		Water Body Type	Marine, coastal
Description of Activity	Repainting Menai Bridge, including some remedial works to stonework.		Water Body I.D.	FID 1 Llyn, Eryri and Ynys Môn catchments
Location	Menai Bridge (centroid SH 55671 71418)		Area	122,28 Ha
Local Planning Authority	Isle of Anglesey & Gwynedd County Council		Status	SAC
			Ecological Status (based on assessment in 2017)	1. Tide-swept communities: Britannia Bridge – ‘Recorded changes in species richness, species composition and abundance appear to reflect the expected levels of natural fluctuations.’ 2. <i>Fucus serratus</i> communities: ‘ - expected levels of natural fluctuations’. 3. Sediment communities (Mudflats): Foryd & Traeth Lafan – ‘ - expected levels of natural fluctuations’. 4. Sediment communities (Muddy Gravels): ‘-expected levels of natural fluctuations’; 5. Seagrass beds: ‘No negative indicators of seagrass condition (disease, bait digging or other physical damage) were recorded in 2017’.
Anticipated Start	3 rd March 2025		Hydromorphology	Fast-flowing marine tidal conditions with flood tide from south and ebb from north. Narrow strait of rock types from Ordovician mudstones (north), Precambrian volcanics (Bangor and Menai Bridge) and Carboniferous limestones (Faenol to Caernarvon). Depth to 18m below bridge.
Anticipated Finish	March 2026		Principle uses	Amenity, conservation, shellfish fisheries.
Duration	1 year		Higher sensitivity habitats present	• Sandbanks which are slightly covered by sea water all the time;

MENAI BRIDGE REPAINTING					
				• Mudflats and sandflats not covered by seawater at low tide; • Reefs; • Large shallow inlets and bays; • Submerged or partially submerged sea caves;	
Use of hazardous chemicals			Protected Areas within 2 Km		

Higher sensitivity habitats	Lower sensitivity habitats
Sandbanks which are slightly covered by sea water all the time;	Muddy gravels;
Mudflats and sandflats not covered by seawater at low tide;	Tide swept rocky shore communities;
Reefs;	Lichen communities above tideline;
Large shallow inlets and bays;	Overhanging rock communities;
Submerged or partially-submerged sea caves	Diving and wading birds
	Otter

MENAI BRIDGE REPAINTING					
CLIMATE	RESPONSE	EXPLANATION	POLLUTION	RESPONSE	EXPLANATION
Is the location susceptible to earthquakes, subsidence, landslides, erosion, or extreme /adverse climatic conditions, e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	Yes	High winds have caused traffic management in the past. (See 4.2 Avoidance & Protection , p. 18)	Will the project release pollutants or any hazardous, toxic or noxious substances to air and water?	Yes	Paint residue, potentially containing lead, may be released during abrasive pre-treatment of metal surfaces. (see 4.1 Mitigation Strategy , p. 18)

MENAI BRIDGE REPAINTING					
Is the development within, partly within, or near a 'sensitive area' as defined by Regulation 2 of the EIA Regulations?	Yes	The proposal is within Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay SAC	Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	Yes	Paint residue, potentially containing lead, may drop into the SAC below from preparation works. (see (4.1 Mitigation Strategy, p. 18) Potential to contaminate shellfish spawning areas.
Will there be any risk of major accidents (including those caused by climate change, in accordance with scientific knowledge) during maintenance or operation?	Yes	High winds and their potential impact on encapsulated structures (see 4.3 Reduction, p. 20)	Are there any areas on or around the location which are already subject to pollution or environmental damage, e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No	Not required
BIODIVERSITY	RESPONSE	EXPLANATION	POLLUTION	RESPONSE	EXPLANATION
Are there any protected areas which are designated or classified for their terrestrial, avian and marine ecological value, or any non-designated / non-classified areas which are important or sensitive for reasons of their terrestrial, avian and marine ecological value, located on or around the location and which could be affected by the project? (e.g. wetlands, watercourses or other water-bodies, the coastal zone, mountains, forests or woodlands, undesignated nature reserves or	Yes	Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay SAC within 0 metres; Traeth Lafan / Lavan Sands, Conwy Bay SPA within 3.7 Km; Glannau Porthaethwy SSSI within 0 metres; Coedydd Afon Menai SSSI within 430 metres;	Are there any water resources including surface waters, e.g. rivers, lakes/ponds, coastal or underground waters on or around the location which could be affected by the project, particularly in terms of their volume and flood risk?	No	Not required

MENAI BRIDGE REPAINTING					
parks. (Where designated indicate level of designation (international, national, regional or local))		Cadnant Dingle SSSI within 1.2 Km.			
Could any protected, important or sensitive species of flora or fauna which use areas on or around the site, e.g. for breeding, nesting, foraging, resting, over-wintering, or migration, be affected by the project?	Yes	Peregrine Falcon; Oystercatcher; Cormorant and Shag; Otter.	NATURAL RESOURCES Will maintenance, operation or implementation of the project involve actions which will cause physical changes in the topography of the area?	RESPONSE No	EXPLANATION Not required
Are there any areas on/around the location which contain important, high quality or scarce resources which could be affected by the project, e.g. forestry, agriculture, water/coastal, fisheries, minerals?	Yes	Please see above response to biodiversity	Will construction or operation of the project use natural resources above or below ground such as land, soil, water, materials/minerals or energy which are non-renewable or in short supply?	No	Not required
WASTE	RESPONSE	EXPLANATION	CUMULATIVE IMPACTS	RESPONSE	EXPLANATION
Will the project produce solid wastes during construction or operation or maintenance?	Yes	Rust, paint residue, potentially containing lead, metal and concrete residues.	Could this project together with existing and/or approved development result in cumulation of impacts together during the maintenance/operation phase?	No	Prior to the current work schedule, all works on the adjacent Britannia Bridge were completed.
CONCLUSION	RESPONSE	EXPLANATION			
Is proposal likely to have significant effects on the environment?	Yes	Without avoidance and mitigation strategies, the proposed works will potentially have a negative impact on Protected Sites and their Qualifying Features.			

3.2 Impact of PDO's on Protected Sites and Qualifying Features

3.2.1 Table 5 assess the impact of PDO's on Protected Sites and their Qualifying Features.

Table 5 Conclusion of the screening process

No.	SITE NAME	CONCLUSION
1	Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay	Potential impact on SAC features through: • Pollution through chemical spill affecting all SAC features; • Material pollution from objects falling into SAC as a result of high winds or other environmental conditions.
2	Traeth Lavan / Lavan Sands & Conwy Bay	Potential impact on SPA features through: • Chemical pollution directly and indirectly affecting all species associated with the SPA.
3	Traeth Lavan / Lavan Sands & Conwy Bay	Potential impacts on SSSI features through: • Pollution through chemical spill directly or indirectly affecting all SSSI features.
4	Glannau Porthaethwy	Potential impact on SSSI features: • Pollution through chemical spill directly or indirectly affecting habitats and species associated with the SSSI.
5	Coedydd Afon Menai	No potential impacts.
6	Cadnant Dingle	No potential impacts.

3.2.2 PDO's may potentially impact on sites 1-4 in Table 5. No further assessment of impacts on Coedydd Afon Cenai SSSI or Cadnant Dingle will be considered.

3.2.3 The potential impact on designated features of the SAC, SPA and adjacent affected SSSI's is assessed in Table 6

Table 6 Impact of Potentially Damaging Operations on Qualifying Features - summary

No.	FEATURE	POTENTIALLY DAMAGING OPERATIONS	RISK	SEVERITY	RISK × SEVERITY
1	Individual elements of specific SAC (and supporting SSSI) features	Pollutants released to air or to fall into SAC from abrasive works to paintwork or chemical spills.	5	5	25
		Pollution, litter and debris caused by high winds / gales.	5	5	25
2	Shellfish cultivation	Contaminants with the potential to affect shellfish populations (e.g. lead-based paints).	5	5	25

Key

RISK		SEVERITY		RISK × SEVERITY	
1	Negligible	1	Negligible	1-9	Cumulative effect of likelihood × severity = minor negative (potentially positive) impact
2	Slight risk	2	Low level of impact		

RISK		SEVERITY		RISK × SEVERITY	
3	Moderate risk	3	Moderate impact	10-16	Cumulative effect of likelihood × severity = moderate negative impact
4	Event likely to occur	4	Major impact		
5	High risk of event occurring	5	Severe impact	17 - 25	Cumulative effect of likelihood × severity = major negative impact

3.2.4 The assessment concludes that, ***without mitigation***, the potential impact of bridge maintenance works on some SAC features (sandbanks, mudflats and reefs, and their accordant characteristic species) would be **High** at an **International** Level (see Table 7 for definitions).

3.2.5 The impact on some features of the underpinning SSSI's (muddy gravels, tideswept oarweed communities and their associated species) would also be **High** at an **National** Level.

3.2.6 The potential impact on shellfish fisheries is assessed as **Moderate** at a **Local** Level.

Table 7 Hierarchy of Impacts

HIERARCHY OF IMPACT	DEFINITION
International	Having an impact on the population size or habitat area on a Worldwide scale
National	Having an impact on a habitat or species distributed throughout the British Isles
Regional	Having an impact on a habitat or species distribution in any of the individual countries making up the British Isles
Local	Having an impact on a habitat or species that may be significant at a local level (Borough or Parish)

3.2.8 While there is no foreseeable impact on groundwaters feeding into the catchment, water quality in the marine environment of the Menai Strait is integral to the maintenance of Protected Sites and their Qualifying Features.

4. RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS

4.1 Mitigation Strategy

4.1.1. Risk is reduced by implementation of a hierarchy of strategies:

- Avoidance
- Protection
- Reduction
- Enhancement
- Mitigation

4.1.2 The bridge was originally painted using a lead based paints. Whilst the majority of this paint was removed during the comprehensive repainting works undertaken in 2005, traces of lead are still likely to be encountered. In view of this, the Contractor will manage the works in accordance with the Control of Lead at Work Regulations 2002.

4.1.3 As the work is remedial, only the appropriate of these strategies are addressed and the solutions incorporated into the STAGE 3 detailed assessment - WORKS METHOD STATEMENT, p. 21.

4.2 Avoidance & Protection

4.2.1 The Temporary Works Platforms (Gantries) will be encapsulated, and all preparation and painting of *in situ* furnishings and structures will take place within the encapsulation to avoid finings, paint and materials falling into the SAC. Details of the works areas is provided in Figure 6 Reference locations on structure, APPENDIX 1, p. i.

4.2.2 The Temporary Works Platforms (Gantries) are subject to a design and check process per DMRB and the existing structure is similarly checked for the loads arising from the TW. The platform encapsulation is designed to remain in place in wind speeds of up to 45mph and the platforms themselves are designed and checked for wind loads in accordance with BS EN 1991-1-4.

- 4.2.3 The site team will monitor wind forecasts and actual conditions on site. If wind speeds are likely to exceed the 45mph limit, then the working area will be made safe and the encapsulation will be removed. Prior to removal the decking will be cleared of any loose materials / debris.
- 4.2.4 The appointed ecologist must be contacted in the event of any incident which may compromise the integrity of the SAC and other protected sites, or may violate current environmental legislation. Such incidents may include:
- Discovery of a nesting bird;
 - Operations not anticipated in the Method Statement that may affect protected sites or features.
- 4.2.5 Peregrine Falcon (*Falco peregrinus*) is known to be present in the area, no nesting on Menai bridge has been recorded. Prior to any works and at weekly intervals during works between March and September inclusive, checks by a suitably qualified and experienced ecologist will be made to ensure no nesting activity is taking place. In addition, staff working on site will be briefed in relation to nesting birds and the law. The surveys and checks will cover all species of bird likely to nest on the structure. Should pigeons be recorded nesting they will be dealt with under the provisions of the general licence issued for this species. In the event of other species being present any work which may affect fecundity will cease immediately. Advice will be sought from the project ecologist and NRW is required. Any such work will not resume until the last chick of the last brood has fledged.

4.3 Reduction

- 4.3.1 Painting will be by brush. No paint will be applied by propellant to avoid aerosol droplets causing potential contamination.
- 4.3.2 Where it is possible to do so, all painting and preparation will be accomplished *ex situ* at location 'b' in Figure 1, p. 7, to avoid contamination of the SAC.

4.3.3 All paint will comply with NG 1900 of the Standards for Protection of Steelworks against Corrosion (Amendment October 2022) and its Environmental Appendices (1/23) as appropriate. The specified paint system for use on the bridge is a mix of epoxy and polyurethane paints and is approved for use on the highway network. These paints are non toxic and do not contain heavy metals.

5. STAGE 3 DETAILED ASSESSMENT - WORKS METHOD STATEMENT

5.1 Method Statement (incorporating recommendations)

- 5.1.1 The Method Statement has been drafted to eliminate potential impacts to Protected Sites and their Qualifying Features as listed in Table 2, p. 9 and Table 3, p. 10. There are 6 principle aspects to the works covered by this Method Statement:
- 5.1.2 At the conclusion of repairs to the hangars supporting the bridge preparation for repainting the structure will be implemented (allowing for a period of preliminary inspection and bedding in). All replacement hangers require weathering before painting. This is Planned for Early 2025 using Mobile Elevated Work Platforms (MEWPs) to access the strands from the bridge deck in the individual locations.
- 5.1.3 Painting will also include the underside of the bridge and parapets and these will be encapsulated in a structure sufficient to withstand wind speeds of up to 45 mph.
- 5.1.4 Access from the bridge will involve a bespoke under-deck platform providing access to the main span bearings to the Anglesey and Bangor Towers as well as the Underdeck of the Main Span Structure. The Main Span working platforms will be delivered to site on a floating vessel to facilitate installation.
- 5.1.5 Works will involve surface preparation and painting of various steelwork elements on the bridge superstructure.
- 5.1.6 Methods of preparation will include scraping away loose paint, mechanical preparation, quill blasting and open grit blasting, all undertaken within the encapsulated work area.
- 5.1.7 The following Section References refer to Figure 6 Reference locations on structure and key, APPENDIX 1, which shows diagrammatically where the works will be carried out.

5.1.8 A general overview of the works is included for reference in Figure 7, APPENDIX , p. ii.
A summary of the method statement with emphasis on environmental control is detailed below in green:

5.1.9 There are significant shellfish fisheries located along the length of the Menai Strait, including cockle beds at both Traeth Melynog and Traeth Lafan, mussel fisheries at various locations, as well as oysters, crab and lobster. In addition to these there is also an active finfish industry. As such it is important that all risk of pollution events are reduced to a minimum. This will be achieved by the following procedures:

5.1.10 All blasting works to the underdeck or parapets will be carried out in such a method to limit the exposure of paint and debris to the environment below. This will involve:

- Encapsulation of blasting works to control the work area and prevent loose paint /debris from becoming airborne
- Encapsulation will be **inspected daily prior to any works commencing** to ensure no gaps/ splits or areas for grit or material to escape – this will be signed by the Paint Inspection/ Painter prior to any works commencing on that shift. Any gaps/ holes or issues with encapsulation will be rectified PRIOR to works commencing.
- Underdeck gantries to be vacuumed/cleaned **on a daily basis** to remove **ALL** blast media and paint. This will involve vacuum to remove material during blasting along with a thorough sweep/ clean of the platform before the end of shift in preparation for the following shift.
- All works will be undertaken by ICATS / TTP qualified Painting operatives

5.1.11 Although the containment, blasting and cleaning procedure is clear and concise, all personnel involved in works will be re-briefed at regular intervals to ensure that all the stages and quality & safety control measures are maintained (for example – importance of cleanliness post blasting, avoidance of contamination and regular enclosure checks throughout the working shift).

5.1.12 As well as encapsulation the following measures will be implemented:

- All spent grit to be cleaned up at regular intervals to prevent a build-up and prior to the removal of encapsulation.
- Grit removed to be transferred to sealed 1tonne bags before being removed from structure.
- All weep holes on structure to be covered with sandbag to prevent escape of materials from deck.
- Refuelling to be undertaken off the structure for mechanised plant – where plant permanently on the bridge – fuel tank to be double bunded and all fuel lines to be checked daily.
- Environmental spill kit to be kept next to any plant.
- All small plant to be refuelled/ placed on a plant nappy.
- All waste will be moved to designated waste skips prior to leaving site.
- Hard gantry flooring which are vacuumed/cleaned on a daily basis

5.1.13 The General Method and sequence below will be followed:

Enabling Works:

- Upon arrival at site, all operatives must report to Spencer's Site Manager for induction and safety briefing.
- Once all staff and operatives have been inducted, they shall also sign into Spencer Group Site Attendance register and be fully inducted and briefed on all appropriate paperwork. Permits will also be issued and briefed at this point.
- Onsite welfare facilities will be provided by Spencer Group and utilised for the duration of the project.
- Appropriate traffic management will be in place at the worksite for the duration of the project. This will ensure the site is secured during and out of working hours.

Access / Egress:

- Access to the underdeck scaffold will be via clearly marked access ladders, access shall be provided by SBE.
-

Containment:

- All blasting and painting activities must offer full containment to prevent any debris escaping to the adjacent environment.
- The underdeck will be encapsulated using enviro wrap, built in entrance and exits shall be installed into the enviro wrap, these will consist of unzippable flaps.
- Parapet posts are to be blasted and painted offsite so no encapsulation shall be used.

Spent Grit Removal:

- Spent grit removal will be mainly by means of the on-site Clemvac (high specification, industrial vacuum cleaner), this is the preferred option to reduce manual handling activities.
- The Clemvac will be positioned as close to the work location that requires cleaning as practically possible.
- Operatives will use brushes to scrape back spent grit into small piles that can then be vacuumed by the vac.
- Once the clemvac tanks are full it will be transported from the bridge to the A5 Layby area to be unloaded into bulk bags and placed on pallets ready for transport.
- Spent grit contains iron silicate particles that if inhaled over a prolonged time may cause serious respiratory health issues. It is imperative that personnel involved in grit clean up works will wear the following additional PPE. As a minimum a FFP3 dust mask or half face / full face filter mask. All personnel involved in grit clean will be briefed on COSHH assessment for spent grit.
- Dust Test - After the sweep blast the blasted substrate will also be assessed for levels of dust contamination in accordance with EN ISO 8502-3. Dust on blast-cleaned steel surfaces can reduce the adhesion of subsequently applied coatings and by absorbing moisture might promote the corrosion of the blast-cleaned steel surfaces. Accumulation of dust more naturally occurs on horizontal surfaces, the interior of pipes, and in structural cavities. Special inspection should be carried out to ensure that such areas are adequately cleaned and adequately free from dust before painting.

5.2 Preparation for repainting

- 5.2.1 An Access platform with full encapsulation will be erected around the parapet and below the bridge with robust canvas or woven plastic encapsulation to prevent materials entering the SAC. Monitoring of conditions with wind speeds up to 45 mph will be undertaken. In excess of this, the encapsulation will be removed or secured following clearance of any materials on the access decking.
- 5.2.2 Bespoke works platforms to be suspended below the bridge (in order to access the underdeck) will be delivered to site by floating vessel.
- 5.2.3 Once the work area is enclosed, scraping and grit blasting will be employed to remove paint from the superstructure. Grit-blasting will be undertaken with additional vacuum dust extraction and filtration within the encapsulated area to prevent dust from escaping into the environment.

5.3 Painting scheme: underdeck and parapet painting

(see No's 2 & 5, Figure 6, APPENDIX 1)

- 5.3.1 These works involve surface preparation and painting of various steelwork elements on the bridge superstructure; methods of preparation include: scraping away loose paint, mechanical preparation, quill blasting and open grit blasting.
- 5.3.2 After surface preparation, repainting will be undertaken. Paint will comply with NG 1900 of the standards for Protection of Steelworks against Corrosion (Amendment October 2022) and its Environmental appendices (1/23). The preferred method of application would be by brush, particularly for areas of local painting on the posts. Any spray-painted items will be completed off-site, including in the works area shown in Figure 1, p. 7.
- 5.3.3 Unused (waste) paint, disposable PPE, finings and cleaning equipment will be disposed of in an appropriate COSHH skip located in a secure area.

5.3.4 Hydraulic equipment will be secured within a plant nappy (Figure 4b), with spill kits within immediate access. Waste oil and hydraulic fluid will be safely disposed of in appropriate COSHH rated container and taken to a recycling facility.

5.4 Repair work to parapet and concrete corbels

(see No's 1 & 2, Figure 6, APPENDIX 1)

5.4.1 Works involve replacement of parapet fixing nuts on the end of the corbels (Figure 4a) followed by concrete repair and strengthening works to selected corbels.

5.4.2 Repair work involves breaking out and replacement of isolated areas of concrete on the corbels, replacement / repair to internal reinforcement, installation of small steel strengthening brackets and associated fixings.

Figure 4 Example of terms #1



5.4.3 The corbels will be accessed with rope access or a bespoke temporary access platform cantilevered from the footpath above.

5.4.4 Works to concrete will only be undertaken after wetting of the concrete to ensure dust and arisings, as well as small areas of locally removed paint are captured; encapsulation shall be designed to contain overspill and splashes of new grout and concrete.

5.5 Land saddle inspection and works

(see No. 4, Figure 6, APPENDIX 1)

5.5.1 Works will involve *in situ* tension measurements of tensioned components of the land saddle (Figure 5a) arrangement at the Anglesey approach viaduct, and adjustment to the tension in selected components as required. After cleaning the saddle pit of guano and other debris, measurements and adjustments will be carried out using hydraulic jacking equipment.

5.5.2 Hydraulic equipment will be secured within a plant nappy (Figure 4b), with spill kits within immediate access. Waste oil and hydraulic fluid will be safely disposed of in appropriate COSHH rated skip.

5.6 Deck bearing access

(see No. 3, Figure 6, APPENDIX 1)

5.6.1 Bespoke platforms to access the parapets and underdeck bearing, under-deck platform to the main span and soffits of the tower footways will be erected.

Encapsulation will ensure no materials are permitted to enter the Menai Straits SAC.

Figure 5 Example of terms #2



5.7 Lighting: Refurbishment and electrical works

(see No. 6, Figure 6, APPENDIX 1)

- 5.7.1 These works will involve partial or total replacement of street and decorative lighting on the bridge.
- 5.7.2 The mainspan lighting truss, lighting and associated cabling shall be removed and refurbished in its entirety for future installation with temporary lighting installed in the interim period.
- 5.7.3 Replacement of lighting will involve access methods, including (but not necessarily limited to):
- Rope access,
 - Access from floating vessels,
 - Mobile Elevated Works Platforms (MEWP's)
 - Scaffold access.
- 5.7.4 All specialized works will be undertaken by suitably-qualified contractors and all waste materials and arisings will be disposed of by a licensed waste carrier.
- 5.7.5 All materials used above or in close proximity to the watercourse shall be secured with a suitable lanyard to prevent loss into the Menai Strait.
- 5.7.6 All works carried out from floating vessels shall be undertaken in line with requirements of the local Marine and Port Authorities.

5.8 General Protection and Risk Mitigation

- 5.8.1 All waste shall be disposed of in an appropriate skip and removed from site by a licensed waste carrier.
- 5.8.2 All tools, equipment and materials used when working at height shall be suitably secured with lanyards to prevent falling objects into the Strait or surrounding environment.
- 5.8.3 Vehicles and mobile plant will be re-fuelled away from the bridge and in a location to minimise risk of pollution to the watercourse and surrounding environment (see Figure 1p. 7).

- 5.8.4 Large static plant –(i.e. compressors) will have both an internal bunded tank and potentially an external fuel tank - again bunded. All static plant - as described above - that cannot be refuelled away from the main span – will be sat in or protected around with plant nappy/ fuel boom to catch any oil/ fuels (see Figure 4b, p. 26). Where this does not jeopardise functionality, the use of alternative fuelled plant and bio-fuels and oils will be adopted.
- 5.8.5 As an additional precaution, the drainage holes in the deck will be blocked off with sand bags.
- 5.8.6 Full spill kit response will be provided by the contractor in line with best practice guidelines for pollution prevention.
- 5.8.7 Traffic management in the form of a single lane closure across the full length of the bridge will likely be in place throughout the duration of the project, across all schemes.
- 5.8.8 In addition to the details outlined previously, in accordance with Environmental Best Practice:
- 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, and only in the appropriate places as specified in Figure 1, p. 7.
 - Coatings and treatments will be suitable for use in the marine environment and are used in accordance with Best Available Techniques ([BAT](#)) for Environmental Best 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 invasive species (INNS) into the marine environment.

5.8.9 Navigational risks during import of materials have a potential impact on the environment and to users of the local area. Risks will be controlled through thorough risk assessments prepared by appropriately qualified and experienced marine professionals. A summary of these measures are provided below:

- **Experienced crew** - ScaffFloat personnel with experience in running similar operations and familiar with the operational limits of ScaffFloat will be used, Skippers will be commercially endorsed. In addition, a local skipper will be used to overlay local knowledge where needed.
- **Tides** - All works will be planned around slack water, preparation and positioning in the 1.5hrs leading up to slack water and completion and return to dock with 0.5hrs of HW.
- **Weather** - Limits will be set in the project RAMS, these will include a maximum wind speed measured on deck with an anemometer, and a maximum wave height again assessed on-site. Limits will vary depending on wind direction with the most favorable being those with the least fetch for wave height and length to accumulate.
- **Mooring plan** - The final mooring plan will be produced in consultation with the harbor master. Anchors will be used to help hold station.
- **Notice to Mariners:** We will liaise with the local HM to produce a notice to mariners to notify all local marine traffic, especially commercial traffic, as well as the coastguard and local RNLI station. In addition, we will make contact with local boat operators and charter companies.
- **Signage:** Large letter signage will be fitted to the ScaffFloat advising marine traffic to pass wide and slow. This can be bolstered by flashing yellow lights to further attract attention and warn of a hazard.
- **Support Boat:** The fast support boat we are providing will also take the role of guardian boat, and be available to head up or downstream to help guide approaching vessels away from the works. Often on projects like this, the local HM will assist with this operation as they carry more authority and carry blue lights.

- **Safety Cover:** The support boat we are providing will also support any Man Overboard, it can quickly get to the casualty and using it's recovery net, recover persons, conscious or unconscious from the water.
- **Drills:** Emergency drills will be conducted with the whole team before works commence. This will include MOB, Fire and Loss of propulsion drills, as well as a full ScaffFloat induction on working safely on the water including the proper fitting and use of lifejackets. This training is recorded on our safety software i-Auditor and PDF records are available.

5.9 Potentially Damaging Operations

- 5.9.1 A scoping and screening matrix (see Table 4, p. 12) identifies potential impacts to the Protected Sites and their Qualifying Features within 5km as listed in Table 2, p. 9 and Table 3, p. 10.

6. REASSESSMENT OF IMPACTS POST WFD ASSESSMENT

6.1 Revised Impact Assessment

6.1.1 Implementation of strategies to reduce or eliminate potential impacts of the works on Protected Sites and their Qualifying Features is re-assessed in Table 8.

Table 8 Impact Assessment (after mitigation)

No.	FEATURE	POTENTIALLY DAMAGING OPERATIONS	MITIGATING ACTIONS	RISK	SEVERITY	RISK × SEVERITY
1	Individual elements of specific SAC (and supporting SSSI) features	Pollutants released to air or to fall into SAC from abrasive works to paintwork or chemical spills.	• Brush-painting <i>in situ</i>; • No propellant painting; • Encapsulation; • Off-site refuelling, 'Plant nappies' for static plant.	2	2	4
		Pollution, litter and debris caused by high winds / gales.	• Encapsulation; • Strategy for removal in excess of 45 m.p.h. winds.	3	2	6
2	Shellfish beds	Contaminants with the potential to affect shellfish populations (e.g. lead-based paints).	• Encapsulation; • Adherence to NG 1900; • Off-site working	1	1	1

Key

RISK		SEVERITY		RISK × SEVERITY	
1	Negligible	1	Negligible	1-9	Cumulative effect of likelihood × severity = minor negative (potentially positive) impact
2	Slight risk	2	Low level of impact		
3	Moderate risk	3	Moderate impact	10-16	Cumulative effect of likelihood × severity = moderate negative impact
4	Event likely to occur	4	Major impact		
5	High risk of event occurring	5	Severe impact	17 - 25	Cumulative effect of likelihood × severity = major negative impact

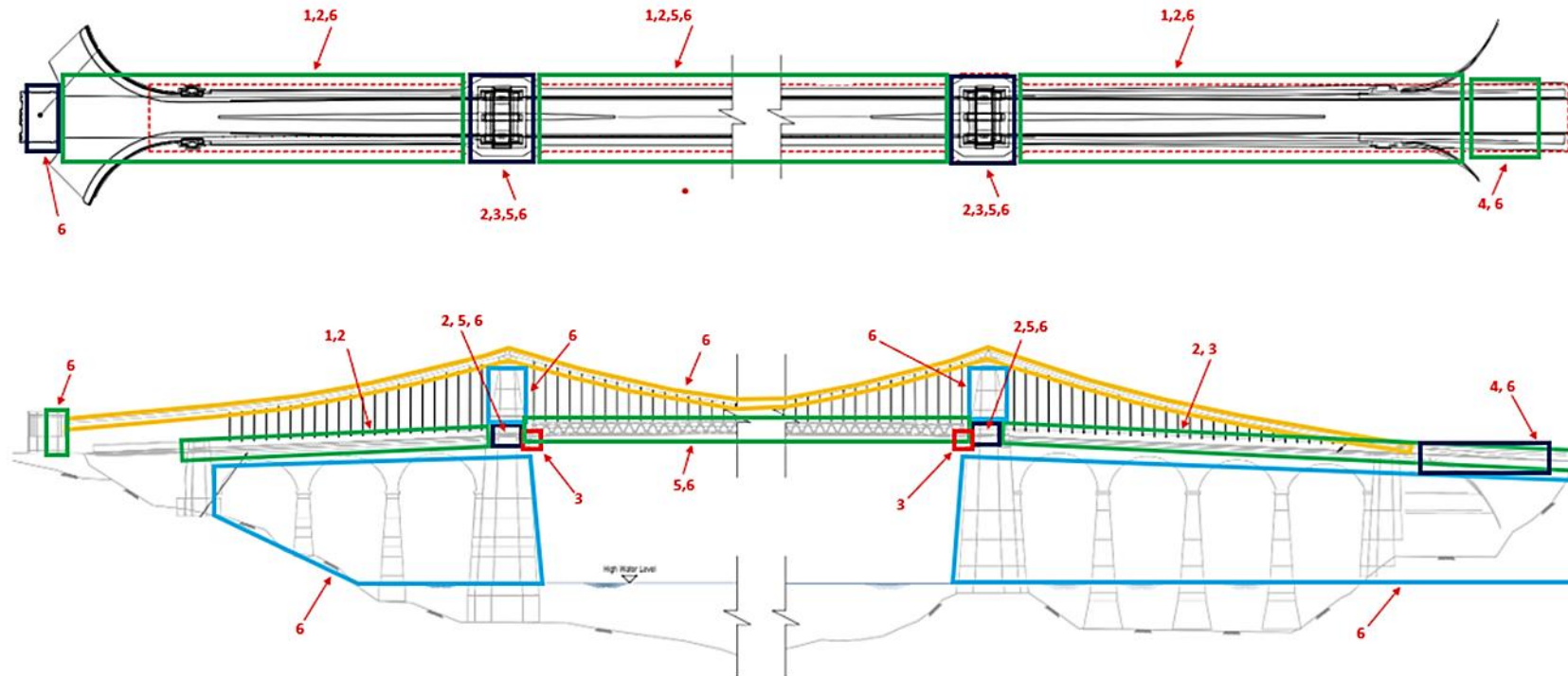
6.1.2 Correct implementation of the recommendations reduces the risk of impacts to all protected ecological features to **Low** at a **Local** level.

6.1.3 Risk of litter disbursed by high winds is Low if consideration given to the design of waste disposal skips, which will be sited in a sheltered location on the Gwynedd bank.

7. APPENDIX 1

Figure 6 Reference locations on structure and key

Menai Suspension Bridge – Works Layout Drawing

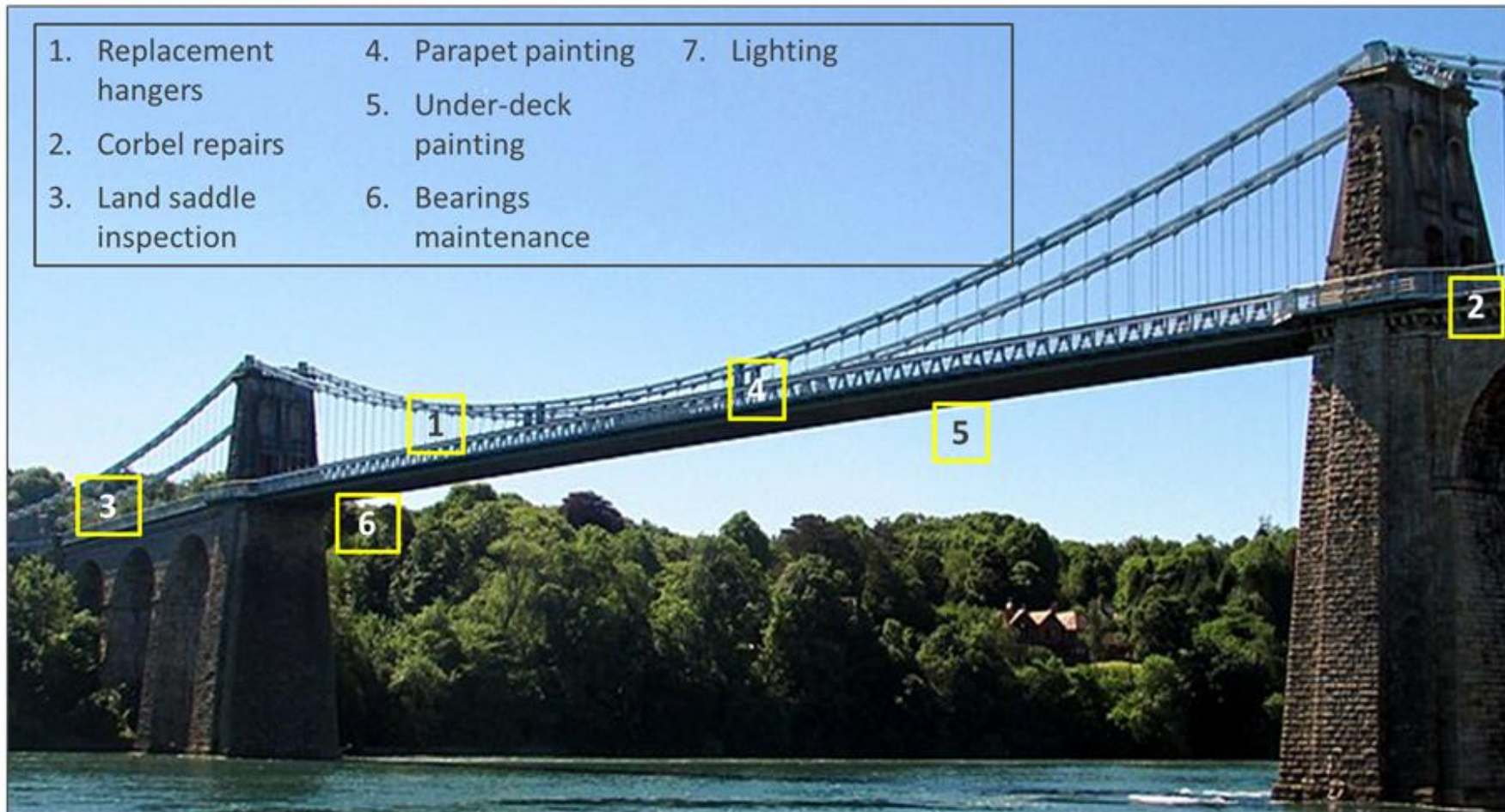


Key

1. Corbel strengthening and repairs
2. Parapet repairs and painting
3. Mainspan deck bearing inspections
4. Land saddle inspections
5. Mainspan/ Tower walkway underdeck painting
6. M&E Lighting Scheme

8. APPENDIX 2

Figure 7 Overview of works



9. APPENDIX 3

Table 9 National Marine Plan Signposting

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
GEN_01	Planning policy	There is a presumption in favour of the sustainable development of the plan area in order to contribute to Wales' well-being goals.	Any impacts will be positive.	Maintenance to retain the functionality of a National Landmark and transport link.
GEN_02	Planning policy	Relevant public authorities should take a proportionate, risk-based approach to application of relevant marine planning policies in decision making.	Not Applicable	No planning consent required
ECON_01	Sustainable economic growth	Proposals for economically sustainable activities are encouraged, particularly where they contribute to: 1. the sustainable management of natural resources thereby supporting ecosystem resilience; 2. a more resilient economy; 3. employment opportunities particularly for coastal communities; 4. protecting and creating employment at all skill levels; 5. maintaining communities with a high-density of Welsh speakers; and/or 6. tackling poverty by supporting deprived coastal communities.	Any impacts will be positive.	Maintenance leading to continued functioning of the Menai Bridge contributes economic benefit via transport links between Ynys Môn and the mainland. Its contribution to other aspects of ECON_01 are considered as neutral with respect to the existing contribution.
ECON_02	Coexistence	Proposals should demonstrate how they have considered opportunities for coexistence with other compatible sectors in order to optimise the value and use of	Project is being undertaken for UK Highways who operate and maintain the A55, as such a co-ordinated approach has been adopted to maximise the	Maintenance contributes to integrated transport policy for the region.

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		the marine area and marine natural resources.	coexistence of required works and the marine environment.	
SOC_01	Access to the marine environment	Proposals that maintain or enhance access to the marine environment are encouraged.	Not Applicable	Not Applicable
SOC_02	Well-being of coastal communities	Proposals that contribute to the well-being of coastal communities are encouraged.	Any impacts will be positive	Maintenance and functionality of the Menai Bridge provides vehicular and pedestrian links between island and mainland communities.
SOC_03	Marine pollution incidents	Proposals should demonstrate how they minimise their risk of causing or contributing to marine pollution incidents.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS and Section 5:STAGE 3 detailed assessment - WORKS METHOD STATEMENT	
SOC_04	Welsh language and culture	Proposals that contribute to the promotion and facilitation of the use of the Welsh language and culture are encouraged.	Not Applicable	Not Applicable
SOC_05	Historic assets	Proposals should demonstrate how potential impacts on historic assets and their settings have been taken into consideration and should, in order of preference: 1) avoid adverse impacts on historic assets and their settings; and/or 2) minimise impacts where they cannot be avoided; and/or 3) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated,	The works are specifically to protect a historic monument.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		proposals must present a clear and convincing case for proceeding. Opportunities to enhance historic assets are encouraged.		
SOC_06	Designated landscapes	Proposals should demonstrate how potential impacts on the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated have been taken into consideration and should, in order of preference: 1) avoid adverse impacts on designated landscapes; and/or 2) minimise impacts where they cannot be avoided; and/or 3) 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 designated landscapes are encouraged.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS and Section 5: STAGE 3 detailed assessment - WORKS METHOD STATEMENT	

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_07	Seascapes	Proposals should demonstrate how potential impacts on seascapes have been taken into consideration and should, in order of preference: 1) avoid adverse impacts on seascapes; and/or 2) minimise impacts where they cannot be avoided; and/or 3) 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.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS and Section 5:STAGE 3 detailed assessment - WORKS METHOD STATEMENT	
SOC_08	Resilience to coastal change and flooding	Proposals should demonstrate how they are resilient to coastal change and flooding over their lifetime.	Works will offer improved resilience to coastal and environmental change.	Carrying out required maintenance to Menai Bridge improving operational life and operation of structure.
SOC_09	Effects on coastal change and flooding	Proposals should demonstrate how they: avoid significant adverse impacts upon coastal processes; and minimise the risk of coastal change and flooding; Proposals that align with the relevant Shoreline Management Plan(s) and its policies are encouraged.	No impact	No impact

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_10	Minimising climate change	Proposals should demonstrate how they, in order of preference: 1) avoid the emission of greenhouse gases; and/or 2) minimise them where they cannot be avoided; and/or 3) mitigate them where they cannot be minimised. Where significant emission of greenhouse gases cannot be avoided, minimised or mitigated, proposals for regulated activities must present a clear and convincing case for proceeding.	Impact reduced as far as reasonably practicable	In line with principle of eliminate, reduce, inform and control, the project will where practicable eliminate the emissions of greenhouse gases by employing mains power where possible. Where this is not feasible industry best practice will be employed such as load management, battery back up and hybrid plant and systems.
SOC_11	Resilience to climate change	Proposals should demonstrate that they have considered the impacts of climate change and have incorporated appropriate adaptation measures, taking into account Climate Change Risk Assessments for Wales. Proposals that contribute to climate change adaptation and/or mitigation are encouraged.	No impact	Short term works
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: 1) avoid adverse impacts; and/or 2) minimise impacts where they cannot be avoided; and/or 3) mitigate impacts where they cannot be minimised.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS and Section 5: STAGE 3 detailed assessment - WORKS METHOD STATEMENT	

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		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.		
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.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS; Section 5: STAGE 3 detailed assessment - WORKS METHOD STATEMENT and the summary of post-mitigation impact assessment in Table 8 Impact Assessment (after mitigation), p. 32.	
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.	See accompanying Biodiversity Risk Assessment document.	See accompanying Biodiversity Risk Assessment document.
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.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS	

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ENV_05	Underwater noise	Proposals should demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference: 1) avoid adverse impacts; and/or 2) minimise impacts where they cannot be avoided; and/or 3) 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.	Not Applicable	Structurally, any impacts will be the same after repainting as they were before.
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: 1) avoid adverse impacts; and/or 2) minimise adverse impacts where they cannot be avoided; and/or 3) 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.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS	

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
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: 1) avoid adverse impacts; and/or 2) minimise adverse impacts where they cannot be avoided; and/or 3) 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.	See section 4: RECOMMENDATIONS TO REDUCE POTENTIALLY DAMAGING OPERATIONS and the summary of post-mitigation impact assessment in Table 8 Impact Assessment (after mitigation), p. 32.	
GOV_01	Cumulative effects	Proposals should demonstrate that they have assessed potential cumulative effects and should, in order of preference: 1) avoid adverse impacts; and/or 2) minimise adverse impacts where they cannot be avoided; and/or 3) 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. Proposals that contribute to positive cumulative effects are encouraged.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
GOV_02	Cross-border and plan compatibility	Relevant public authorities, in making their decisions, should have regard to: any applicable policy in a relevant marine plan; any applicable policy in relevant terrestrial development plans or related documents; the Natural Resources Policy; any relevant local well-being plan(s) (including the local well-being assessment); and evidence in any relevant Area Statement(s) produced by Natural Resources Wales (NRW).	No further impact than that previously stated	No further impact than that previously stated
SCI_01	Using sound science responsibly	Relevant public authorities should make decisions using sound evidence and a risk-based, proportionate approach. Where appropriate they should apply the precautionary principle and consider opportunities to apply adaptive management.	Decisions made in line with evidence risk-based approach	Decisions made in line with evidence risk-based approach
AGG_01a	Aggregates (supporting)	Proposals for new aggregate extraction will be supported, within any tonnage limits, where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
AGG_01b	Aggregates (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities: for the sustainable use of wider marine aggregate natural resources; to define and, once in place, further develop and refine Strategic	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		Resource Areas for aggregates in order to support the sustainable development of the aggregate sector through marine planning.		
AQU_01a	Aquaculture (supporting)	Proposals for new aquaculture developments will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
AQU_01b	Aquaculture (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of aquaculture resources including the identification of: natural resources that provide aquaculture potential opportunities to define and, once in place, further develop and refine Strategic Resource Areas for aquaculture in order to support the sustainable development of the aquaculture sector through marine planning.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
D&D_01	Dredging and disposal (supporting)	Proposals that maintain navigable channels and long term access to open at-sea disposal sites for appropriate material will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
ELC_01a	Low carbon energy (supporting) wind	Proposals for offshore wind energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations. Proposals for wind >350MW will be considered by UK Government in accordance with relevant national policy. In determining an NSIP for a wind proposal, the decision maker will have regard to this plan. Any determination in relation to energy developments of any scale will be taken in accordance with this plan alongside any other relevant considerations.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_01b	Low carbon energy (supporting) wind	In order to understand future opportunities for offshore wind development, including floating technologies, this plan supports strategic planning for the sector. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wind energy resources including identification of: • natural resources that provide potential opportunity for future use; • evidence to de-risk consenting for the sector; and • opportunities to define and, once in place, further develop and refine Strategic Resource Areas for offshore wind energy resource safeguarding; in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	Not Applicable	Not Applicable
ELC_02a	Low carbon energy (supporting) wave	Proposals for wave energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_02b	Low carbon energy (supporting) wave	In order to understand future opportunities for wave energy development, relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wave energy resources including identification of: • natural resources that provide potential opportunity for future use; • evidence to de-risk consenting for the sector; and • opportunities to define and, once in place, further develop and refine Strategic Resource Areas for wave energy resource safeguarding; in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	Not Applicable	Not Applicable
ELC_03a	Low carbon energy (supporting) tidal stream	Proposals for tidal stream energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_03b	Low carbon energy (supporting) tidal stream	In order to understand future opportunities for tidal stream energy development, relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of tidal stream energy resources including identification of: 1) natural resources that provide potential opportunity for future use; 2) evidence to de-risk consenting for the sector; and 3) opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal stream energy resource safeguarding in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	Not Applicable	Not Applicable
ELC_04	Low carbon energy (supporting) tidal range	In order to understand future opportunities for tidal range development, strategic planning for the sector is	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		encouraged. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to: 1) collect evidence to support understanding of environmental constraints and opportunities for the sustainable use of the tidal range resource; 2) support understanding of the optimal siting of tidal lagoon developments across Wales as part of a wider, UK perspective; and 3) identify opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal lagoon safeguarding purposes. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.		
O&G_01a	Oil and gas (supporting)	Proposals that maximise the economic recovery of oil and gas sustainably will be supported where they comply with the objectives of this plan, and fully meet the environmental safeguards contained within the statutory processes of awarding production licences and subsequent	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		activity-specific approvals. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.		
O&G_01b	Oil and gas (supporting)	Welsh Government policy is to avoid the continued extraction of fossil fuels in intertidal areas and estuaries and coastal inlet waters that fall within the Welsh onshore licence area. Applications for new petroleum licenses in these areas should not be supported, unless required for mine safety or scientific purposes. Proposals for the development and extraction of oil and gas in these areas with land based elements must provide robust and credible evidence to demonstrate how they conform to the Planning Policy Wales Energy Hierarchy for Planning, including how they make a necessary contribution towards decarbonising the energy system.	Not Applicable	Not Applicable
O&G_02	Oil and gas (supporting)	Proposals that support the long-term development of carbon capture and storage technology will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
FIS_01a	Fisheries (supporting)	Proposals that support and enhance sustainable fishing activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
FIS_01b	Fisheries (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to develop a strategic evidence base to improve understanding of opportunities for the sustainable development of fisheries in order to support the sustainable development of the fisheries sector through marine planning.	Not Applicable	Not Applicable
P&S_01a	Ports and shipping (supporting)	Proposals for ports, harbours and shipping activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
P&S_01b	Ports and shipping (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to support the sustainable development of the ports and shipping sector through marine planning.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
P&S_02	Ports and shipping (supporting)	Proposals that provide for the maintenance, repair, development and diversification of port and harbour facilities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
CAB_01	Subsea cabling (supporting)	Proposals that facilitate the growth of digital communications networks and/or the optimal distribution of electricity will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Not Applicable	Not Applicable
T&R_01a	Tourism and recreation (supporting)	Proposals that demonstrate a positive contribution to tourism and recreation opportunities and policy objectives (for the sector) around the Welsh coast will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	Any impact will be positive	The importance of tourism to the Ynys Môn economy is enhanced by a functional alternative route.

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
T&R_01b	Tourism and recreation (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for sustainable tourism and recreation around the Welsh coast, including: 1) developing a strategic evidence base to improve understanding of current and potential tourism and recreation activities, including eco-tourism and other low impact activities; and 2) opportunities to define areas of future opportunity for tourism and recreation; in order to support the sustainable development of the tourism and recreation sector through marine planning.	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SAF_01	Safeguarding existing activity	Proposals likely to have significant adverse impacts upon an established activity covered by a formal application or authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for the proposal to progress under exceptional circumstances. b: Proposals likely to have significant adverse impacts upon an established activity not subject to a formal authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding. Under SAF 01 a and b, compatibility should be demonstrated through, in order of preference: a. Avoiding significant adverse impacts on those activities, and/or b. Minimising significant adverse impacts where these cannot be avoided; and/or c. Mitigating significant adverse impacts where they cannot be minimised.	Works will not have a significant adverse impact	Maintenance secures the long-term functionality of the Menai Bridge

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SAF_02	Safeguarding strategic resources	Proposals which may have significant adverse impacts upon the prospects of any sector covered by this plan to engage in sustainable future strategic resource use (of resources identified by an SRA) must demonstrate how they will address compatibility issues with that potential resource use. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding. Compatibility should be demonstrated through, in order of preference: 1) Avoiding significant adverse impacts on this potential strategic resource use, and/or 2) Minimising significant adverse impacts where these cannot be avoided; and/or 3) Mitigating significant adverse impacts where they cannot be minimised.	Not Applicable	Not Applicable
DEF_01	Defence (safeguarding)	Proposals that: 1) potentially affect Ministry of Defence (MOD) Danger Areas, Exercise Areas or strategic defence interests; and/or 2) potentially interfere with communication, surveillance and navigation facilities necessary for defence and national security;	Not Applicable	Not Applicable

WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		should only be authorised with the agreement of MOD.		