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**METHOD STATEMENT FOR BAND 1 MARINE LICENCE APPLICATION**

**AT**

**THE MENAI BRIDGE**

for

**UK Highways Ltd.**



**Ecoscope Ltd.**

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## **A. EXECUTIVE SUMMARY**

*Ecoscope Ltd was requested by UK Highways to provide a method statement for works to the Menai Bridge, involving replacement of the parapet railings and posts and footpath slab.*

*Following discussion with NRW marine licencing department (conference call 15<sup>th</sup> September Jodie Pullen) it was agreed that a band 1 licence was required to progress the works.*

*This method statement accompanies the associated licence application form and details the method of work and the environmental measures in place.*

**Document Issue Date:** Monday, 12 October 2020

**Approved by:** Mr. Stuart Kato M.Sc., MCIEEM

**Prepared by:** Dr. Richard Birch CEcol

## B. INTRODUCTION

### B.1 Background to activity

B.1.1 Ecoscope Ltd was requested by UK Highways to provide a method statement for works to the Menai Bridge, involving replacement of the parapet railings and posts and footpath slab.

B.1.2 The Menai Strait is a marine Special Area of Conservation (mSAC) and is underpinned along the shoreline by a terrestrial SSSI at Glannau Porthaethwy. Works with potential to affect the marine environment, albeit minor, are subject to a Band 1 Marine Licence Application (MLA-1).

B.1.3 Concrete panels below the pedestrian footway are starting to fail and require replacement. Works are anticipated to commence with commissioning in November 2020 and to last until March 2021.



**Figure 1. OS mapping (1:25000 scale) works location marked with red arrow**

Mapping reproduced under OS licence No. 1000594466

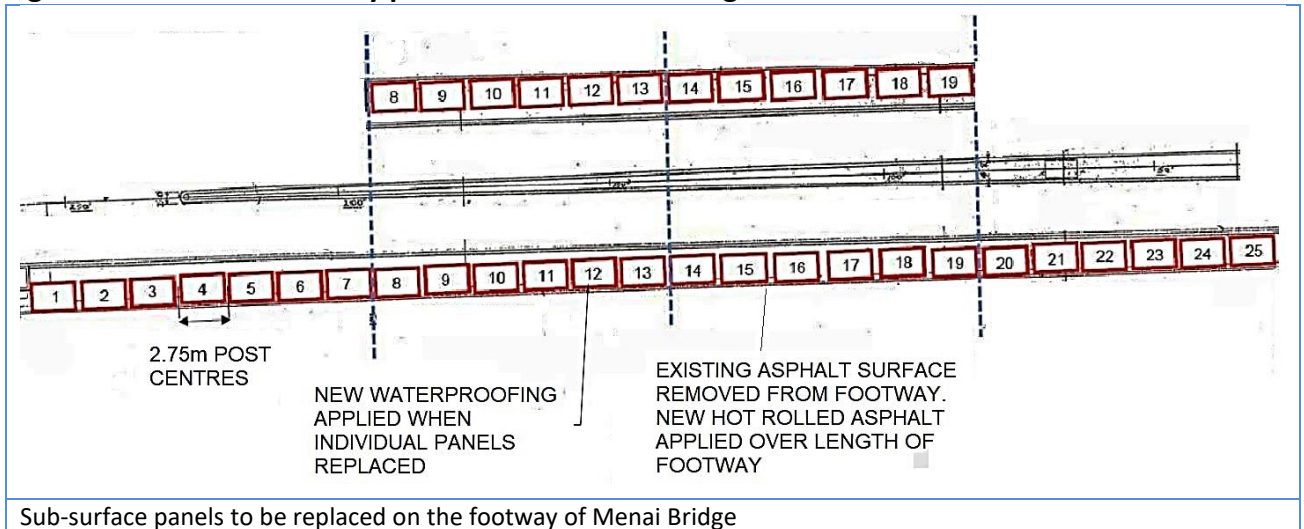
## **B.2 Full details of proposed scope of works to be covered by the licence**

B.2.1 The works include:

- Removal of the footway asphalt surfaces to expose the individual panels that make up the footpath base (Figure 2);
- Removal and replacement of precast concrete panels 1-25 on south footway and 8-19 on north footway (Figure 2);

B.2.2 Concrete panels below the footway are starting to fail and require replacement. Each panel will be lifted out in turn by a specially constructed rig and replaced. The replacement panels will be cast off site to remove the risk of concrete spillage etc.

**Figure 2 Subsurface footway panels on the Menai Bridge**



- Replacement of asphalt surfacing to the footways
- Removing the steel posts of the parapet which are bolted to the corbels and replaced with a new post.
- Removal of the parapet railing panels which are taken from site to be repainted and the re bolted to the parapet posts

B.2.2 Work is estimated to take approximately 5 months, commencing in November.

B.2.3 Works will be undertaken during daylight hours.

*Access and working areas:*

B.2.4 No vessels will be required; the worksite will be accessed from the bridge itself and the A5 road.

B.2.5 Vehicles on the bridge will be controlled by a lane closure and traffic light system. Materials will be stored on site and delivered on an on time basis.

B.2.6 Debris netting will be installed to prevent any material falling into the sea, Please refer to section E.1.2

**C. SURVEY AND SITE ASSESSMENT**

**C.1 Existing information on Protected Sites & Qualifying Features**

C.1.1 Protected Sites and their Qualifying Features which may potentially be affected are listed in **Table 1**:

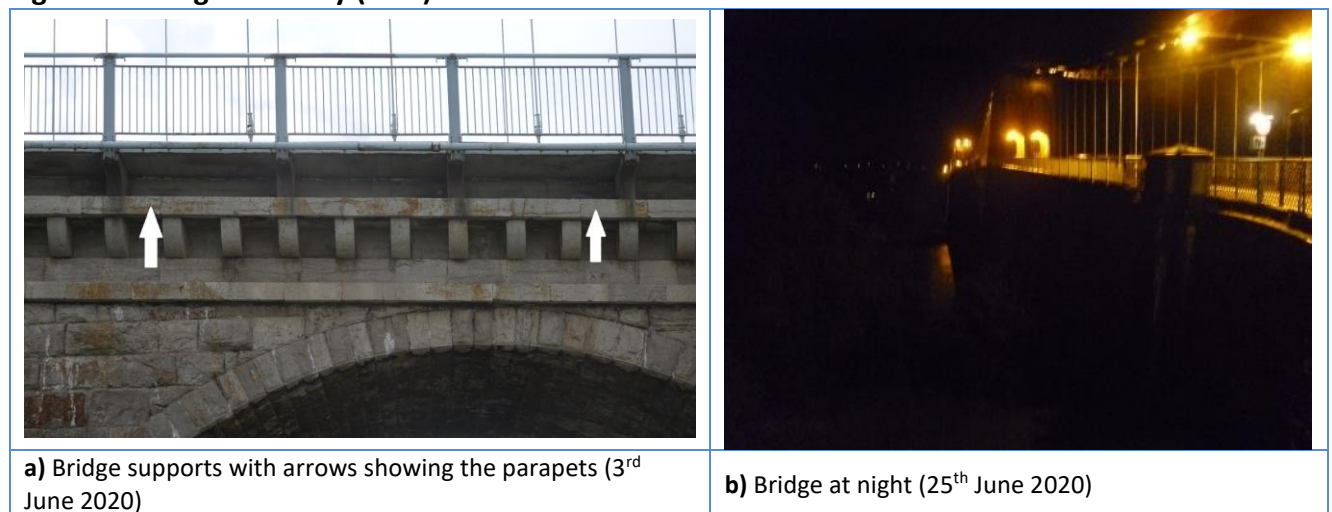
**Table 1 Protected Sites & Qualifying Features**

NAME	CLASSIFICATION	SUMMARY OF QUALIFYING FEATURES	AREA
GLANNAU PORTHAETHWY	SSSI	<ul style="list-style-type: none"> <li>• Sandbanks which are slightly covered by sea water all the time;</li> <li>• Mudflats and sandflats not covered by seawater at low tide;</li> <li>• Reefs;</li> <li>• Large shallow inlets and bays;</li> <li>• Submerged or partially submerged sea caves;</li> <li>• Additional marine features included in designation but not reason for it.</li> </ul>	26,501 Ha
FENAI A BAE CONWY/ MENAI STRAIT AND CONWY BAY	sac	<ul style="list-style-type: none"> <li>• Tideswept rocky shore community;</li> <li>• Lichen communities above tideline;</li> <li>• Tideswept oarweed communities (with ascidians);</li> <li>• Overhanging rock communities;</li> <li>• Sheltered muddy gravel communities;</li> <li>• Diving and wading birds;</li> <li>• Otter</li> </ul>	67 Ha

**C.2 Other Statutory Features that may be affected**

C.2.1 Bats may potentially roost beneath the stone parapets.

**Figure 3 Ecological survey (bats)**



**a)** Bridge supports with arrows showing the parapets (3<sup>rd</sup> June 2020)

**b)** Bridge at night (25<sup>th</sup> June 2020)

C.2.2 Surveys undertaken by 2 surveyors in June 2020 concluded that the risk bats were roosting beneath the parapets was negligible (Figure 3).

## D. PRE-MITIGATION IMPACT ASSESSMENT

### D.1 Risk Assessment without mitigation

D.1.1 **Table 2** indicates the potential impact of negative effects on the marine SAC and its protected features:

**Table 2 Risk assessment (without mitigation)**

IMPACT	IMPACTS ON PROTECTED SITES	RISK	SEVERITY	RISK × SEVERITY
Construction	<ul style="list-style-type: none"> <li>Material falling into marine SAC</li> </ul>	<b>4</b>	<b>3</b>	<b>12</b>

#### Key

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

D.1.2 Overall, the risk of impact on protected sites and species is considered to be **Minor** at an **local** Level as defined in Table 3:

**Table 3 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)

## **E. WORKS TO BE UNDERTAKEN**

### **E.1 Mitigation for Potential Impacts**

E.1.1 Any material falling from the parapet into the SAC has the potential to affect the Favourable Conservation Status, and therefore precautions will involve stopping material from reaching the SAC at construction source.

E.1.2 Strategies to prevent material falling from the bridge into the water will include:

- i. Debris netting to avoid material falling into the water during construction. Netting will be an imperforated debris tarp (or similar). Examples come with a mesh opening of 1.5mm and would catch all but the very smallest of particles. The debris netting would be flame retardant to mitigate the risk of ignition from the hot rolled asphalt. The bottom of the system will be attached using small M8 stainless steel anchors set into the RC beam running below the corbels. The top would be fixed to the bottom member of the parapet to fully restrain the system.
- ii. All replacement structures will be painted off-site before being installed. The paint will comply with NG 1900 of the standards for Protection of Steelworks against Corrosion and its Environmental appendices (1/23). The preferred method of installation would be using a brush particularly for areas of local painting on the stanchions. Any spray-painted items will be completed off-site.

E.1.3 No Biosecurity Risks are anticipated as the works will be based solely in the terrestrial environment.

E.1.3 Vehicles and plant will be re-fuelled away from the bridge. Full spill kit response will be provided by the contractor in line with Netregs guidance.

E.1.4 In compliance with band 1 requirements the following mitigation statements will be complied with:

- ✓ 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.

## E.2 Revised Impact Assessment

E.2.1 Impact assessment after implementation of mitigation is assessed in **Table 4**:

**Table 4 Risk assessment (after mitigation)**

IMPACT	FEATURE AFFECTED	MITIGATION STRATEGY	RISK	SEVERITY	RISK × SEVERITY
Construction	<ul style="list-style-type: none"> <li>Material falling into marine SAC</li> </ul>	<ul style="list-style-type: none"> <li>Debris netting to 1.5mm gauge fitted to prevent material falling into SAC.</li> </ul>	<b>2</b>	<b>3</b>	<b>6</b>

### Key

RISK		SEVERITY		RISK × SEVERITY	
<b>1</b>	Negligible	<b>1</b>	Negligible	<b>1-9</b>	Cumulative effect of likelihood × severity = minor negative (potentially positive) impact
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<b>5</b>	High risk of event occurring	<b>5</b>	Severe impact	<b>17 - 25</b>	Cumulative effect of likelihood × severity = major negative impact

E.2.2 Risk is therefore reduced to **Negligible**.

**F. IMPORTANT CONTACT DETAILS**

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