

## WREN HERITAGE FUND – Expression of Interest

Applicant's Details:		
<b>Organisation Name</b>	City & County of Swansea	
<b>Type of Organisation</b>	Local Government	
	Primary contact details	Secondary contact details
<b>Contact Name</b>	Steve Smith	Phil Holmes
<b>Position in Organisation</b>	Design and Conservation Team Leader	Head of Economic Regeneration and Planning
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<b>Project Title:</b>	Urgent repairs to Musgrave Engine House, Hafod-Morfa Copperworks	
<b>Ownership:</b>	City & County of Swansea.	
<b>Grading/Listing:</b>	Scheduled Monument (Cadw ref GM483 , CCS ref AM101) Grade II* (Cadw ref LBI1697, CCS ref LB061) See information attached at Appendix A	
<b>Project Address:</b>	Hafod-Morfa Copperworks, Landore, Swansea	

## Project Description / Summary:

The Musgrave Engine House and chimney is a grade II\* listed building and scheduled ancient monument with the original Musgrave stationary steam engine, copper rolls and drive system in situ. The building lost its roof covering many years ago and the original copper slag bricks are deteriorating. As a result parts of the building are at risk of imminent collapse.

The Musgrave Engine House and wider Hafod-Morfa Copperworks site are owned by the City and County of Swansea Council. In the last three years a successful partnership between the Council and Swansea University has been established for the site through the CU @ Swansea project that has secured funding from the Cadw Heritage Tourism fund and the Welsh Government Strategic Regeneration Area. This has allowed heritage trails to be developed, interpretation to be installed, vegetation to be cleared to reveal the heritage and a number of historic structures rescued from imminent collapse. In total some £480,000 has been spent on heritage structures at the Hafod/ Morfa Copperworks to date and the Musgrave Engine House is the next to be tackled.

The intention is to bring the historic buildings at the copperworks back into use on a phased basis as part of a mixed use regeneration project possibly delivered by means of a HLF Heritage Enterprise Grant application, however the condition of the Musgrave Engine House means that urgent work is required now to stabilise the building in advance of the main restoration project.

The Cu @ Swansea project has commissioned a condition survey and costed schedule of works for the Musgrave Engine House (attached at Appendix B). This identifies the areas in need of urgent attention and this forms the basis of this WREN Heritage bid. The works proposed as part of this WREN bid include the urgent stabilisation and consolidation of the engine house and chimney. The longer term aspiration (not part of this WREN bid) is to re-roof the building and ultimately to restore the in situ machinery to working order.

## What is the historical importance of your project?

The Musgrave Engine House is one of 12 listed buildings/ structures remaining from the Hafod-Morfa Copperworks that once dominated the Lower Swansea Valley. All the other heritage structures including a smelting shed, works buildings, another engine house (without machinery) are all grade II listed.

The Engine House is unique in that it was built in 1910 for the Musgrave Uniflow stationary steam engine that is still in situ along with the rolling mills and drive system. It was in use until 1980 but has deteriorated significantly since the works was closed.

The Cadw listing description indicates that the Musgrave Engine House is listed grade II\* for its importance as a '*rare engine house with in situ steam engine and group value with the listed buildings of the former Hafod and Morfa Copperworks.*'. The Cadw Ancient Monument text indicates that the '*combination of engine house, steam engine, rolls and drive system is now unique in wales and this is therefore an 'outstanding monument*'. The seminal publication that documents the Swansea Copper Industry, Copperopolis also highlights the significance of the Musgrave Engine House with the in situ machinery. They are describes as a '*rare survival of an important industry*'.

It is also significant in terms of the materials; the copper slag bricks were produced at the Copperworks site as a by-product of the copper smelting process and whilst copper slag wall copings can be found in a number of areas of Swansea and further afield, the Musgrave Engine House is one of only two remaining buildings constructed from copper slag bricks (the other building being the V&S Locomotive Shed, also on the Copperworks site).

The attached photographs in Appendix B demonstrate the current condition of the Musgrave Engine House. The long term vision for the Musgrave Engine House is to restore the Musgrave Uniflow stationary steam engine to working order as the centre piece of a mixed use regeneration project as shown in the attached Heritage Masterplan for the Copperworks at Appendix C, but the first step is to halt the current deterioration and to safe guard the building whilst the wider heritage project is developed and regeneration funding secured.

## What significance will the WREN grant make to your project ?

As with all public sector organisations in Wales, the Council's funding is diminishing and the competition for the remaining funding is fierce. The need for consolidation and repair of the Copperworks buildings and structures has been identified as part of a wider assessment of heritage at risk in the City and County of Swansea. The works to the Musgrave Engine House form part of a programme following on from the repair of a number of listed structures at the Hafod-Morfa Copperworks:

- Canal Wall – structural issues addressed and fully repointed
- Tramway pillars – consolidated and repointed
- Laboratory Building – was at risk of imminent collapse. Substantial areas now stabilised and reconstructed.
- V&S Locomotive Shed – propped with scaffolding to remove risk of imminent collapse
- Lime kiln – works current underway to consolidate and repaint

The works to date at the Hafod-Morfa Copperworks have made a significant impact in saving listed buildings at risk, with three structures being removed from the at risk register and a further two buildings being saved from imminent collapse.

The Cadw funded Heritage Tourism project at the Copperworks has now finished and all funding has been spent. The Council and Swansea University does not currently have the funding to tackle the urgent works at the Musgrave Engine House, hence this grant application. A WREN grant for the Musgrave Engine House would allow the Council to undertake all the necessary repairs to safeguard the building and in situ machinery. If the funding is not secured, then there is the risk of partial collapse of areas of the building as explained below.

## Discrete elements for WREN funding:

A visual condition and structural assessment of the Musgrave Engine House and chimney was undertaken in February 2015 by James and Nicholas (see report at Appendix B). A full digital survey of the building in its current condition was also undertaken. The building is suffering from a lack of weather protection and a long standing lack of maintenance; the main issues are as follows;

### Engine House

- The roof covering is missing; the roof timbers are rotting and have partially collapsed.
- The wall tops are weathered and disturbed by the collapsing roof
- The faces of many of the copper slag bricks are spalling
- General mortar weathering and wash out
- Window cills disrupted
- Corroding metal work is destabilising surrounding masonry
- Vegetation damage to masonry

### Chimney

- Vertical cracking
- Mortar weathering and wash out
- Loose masonry at crown
- Low level missing masonry

James and Nicholas advise that the '*structure as a whole appears quite stable... but there are elements that are on the verge of local collapse*'. The urgent works include removal of the roof structure as if left it will eventually collapse and cause further damage to the masonry and in situ machinery, vegetation removal and masonry repair/ consolidation. A more detailed outline of the potential works is set out in Appendix B.

James and Nicholas have also put together the following estimated cost of works and all of the following items form part of this bid for WREN funding:

### Engine House

Record, dismantle and remove remaining roof structure	£	7,750
Consolidate wall tops and record/remove items of dangerous metalwork	£	9,000
Rebuilt areas of dangerous low level cable drive walls	£	3,050
Dismantle and reconstruct window cills	£	6,400
Removal and treatment of vegetation	£	4,000

### Chimney

Remove and treat vegetation	£	2,500
Make safe brickwork at crown	£	3,500
Low level brickwork repairs	£	1,150

Preliminaries (scaffold, welfare etc.)	£	35,000
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Professional fees (10%)	£	7,235
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<b>TOTAL</b>	<b>£</b>	<b>79,585</b>
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**Note: It is intended to secure match funding to cover any shortfall between the £75,000 WREN funding that is sought and the actual costs which can only be confirmed once contractors have quoted for the work.**

Given that there may be protected species such as bats present, the site will be inspected by the Council's ecologist and they will advise on any ecological mitigation that is required.

All the works to the Musgrave Engine House and chimney will require Scheduled Monument Consent from Cadw. Cadw are a partner on the wider Copperworks project and they are aware of the WREN bid for the Musgrave Engine House. If the WREN funding is agreed then detailed pre-application discussions about the repairs with Cadw will commence immediately (this will draw on the recent experiences of undertaking WREN funded repairs to Scotts Pit in Birchgrove which is also an ancient monument). The following draft programme demonstrates that the project could potentially be completed within 1 year of the funding being announced:

If WREN funding confirmed on 1<sup>st</sup> Sept 2015 then the possible programme is as follows:

Action	Duration	Approx. dates
Informal pre-application SM discussions with Cadw	4 weeks	End Oct
Obtain Council approval to submit SMC application	4 weeks (in parallel with pre-app discussions with Cadw)	End Oct
Finalise SMC application and submit to Cadw	4 weeks	End Nov
Timescale for Cadw determination of SMC	13 weeks (often quicker)	Early March 2016
Finalise tender documentation (partial overlap with SMC process)	2 week	End March 2016
Procurement process	4 weeks	End April 2016
Award contract process	1 weeks	Start May 2016
Start on site		May 2016
Implement works	3 months (approx.)	August/ Sept 2016

## Public Access Arrangements:

The Hafod-Morfa Copperworks site is open to the public with multiple points of access. The Cadw funded Heritage Tourism project has created a network of trails and interpretation points. One requirement of the Cadw funding is to increase public access to the site and to monitor this via counting equipment

There is strong community interest in the Hafod-Morfa Copperworks site and it's regeneration. The project has an e-mailing list of over 397 people and organisations and a high profile on local twitter and Facebook networks. We have run regular friends group meetings over the last three years, which have attracted up to 70 people at each meeting. There is an active group of volunteers who engage in tour guiding, litter picking and site maintenance. They are currently formalising a constitution for an independent friend's group. We have organised a number of events, including a Living History Festival which was attended by an estimated 7000 plus people and the feedback was supportive and inspiring. The site is proving to be a popular place to visit. Visitor counters at the site have registered over 13,515 visits since being installed in May 2014.

The Musgrave Engine House and adjacent Vivian Engine House are fenced to restrict direct public access due to the current condition of both buildings and various trips/ falls at ground level. Recently the visually intrusive palisade fencing around the engine houses including a second internal fence around the copper rolls has been replaced by a single weld mesh fence. This provides the necessary security but allows clear views through to the Engine Houses and in situ machinery as the attached photographs indicate. One of the recently installed interpretation points overlooks the Musgrave Engine House and explains the role of the building and its significance. The site is also brought to life by a wind up audio trail which includes the story of the 'Engine House Boy' which recalls how the boys used to literally take their lives in their own hands by riding on the drive ropes between the Musgrave engine and the rolling mills.

Whilst the works to the Musgrave Engine House would need to be undertaken by specialist heritage contractors, there is potential for the friends group to help manage vegetation that has been cut back to reveal the industrial heritage.

In the short term for safety reasons the Musgrave Engine House will not be directly publically accessible but is highly visible from public vantage points in close proximity. There may be scope to take organised visits within the secure area to view the Engine Houses and in situ machinery at close proximity subject to a risk assessment. In the medium to long term, the intention is to restore the Musgrave stationary steam engine and to provide public access to the Engine House with a new public square as indicated by the attached Heritage Masterplan at Appendix C.

<b>Total Project Cost:</b>	Circa £80,000	<b>Amount Requested from WREN:</b>	£ 75,000
<b>Funding from other sources:</b>	It is hoped that additional match funding can be secured, but this cannot be confirmed at this stage		
<b>Estimated Project Start Date:</b>	May 2016 (start on site)	<b>Estimated Start Date for WREN funded element (if applicable)</b>	August 2016

**Estimated Project Completion Date:** September 2016

**Please detail below the name and the contact details of your contributing third party funder.**  
(see information below which explains Third Party Funding)

Phil Holmes  
Head of Economic Regeneration and Planning  
City & County of Swansea,  
Corporate Building and Property Services  
The Civic Centre,  
Oystermouth Road,  
Swansea. SA1 3SN.

**Please indicate what insurance and level of cover your organisation currently has in respect of the project building/structure (e.g. Public Liability, Building/Structure)**

The site is owned by the City and County of Swansea. As an organisation, the Council has £50m public liability insurance for all sites. The insurance cover is to be confirmed.

**Declaration:**

On behalf of **The City and County of Swansea Council** I declare that the information and statements in this expression of interest are true and accurate.

Name (an authorised signatory of the organisation)

*Phil Holmes*

Position in Organisation

*Head of Economic Regeneration and Planning*

Date *2.4.15*

**For WREN Internal Use Only:**

Name of WRG LFS:

Distance to WRG LFS:

Reference No:

Initials:

Date of meeting:

Organisation Type: