St Fagans
Non-Technical Summary
2695.051
## CONTENTS

1.0 NON TECHNICAL SUMMARY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>1</td>
</tr>
<tr>
<td>Existing Environment, Potential Impacts and Mitigation</td>
<td>2</td>
</tr>
</tbody>
</table>
1.0 NON TECHNICAL SUMMARY

Background

TEP was commissioned by National Museum Wales (NMW) to produce design options for the redevelopment of St Fagans Museum and to undertake consultation with stakeholders to determine a final design option. TEP was also required as part of this commission to undertake an assessment of the potential environmental effects of the final design proposals.

St Fagans National History Museum is approximately 6km to the west of Cardiff city centre and borders the west of the village of St Fagans. The Museum is Wales’ leading cultural tourist destination, housing collections portraying the way in which Welsh people have lived, worked and spent their leisure time over the past 500 years. The collections are displayed in galleries and across the 55ha site in the form of over 40 reconstructed buildings creating an Open Air Archaeological Area. It is Wales’ most popular visitor attraction, with approximately 620,000 visits per annum, and is also the largest museum in Wales.

The facilities at St Fagans Museum are inadequate to accommodate the high proportion of visitors during the busiest days and therefore a number of redevelopment proposals have been identified which will aim to reinforce the Museum as the home of Welsh history and an integral part of Welsh identity.

To achieve the aim of redevelopment, of five key schemes have been identified:

- Refurbishment of the Main Building including a new play area;
- Footpath realignments including the link to St Fagans Castle;
- Development of a New Gallery Building including the associated events space;
- Development of an Open Air Archaeology Area including the development of Llys Rhosyr and the Celtic Village; and
- Improvements to the coach and car parking facilities.

Due to the nature of the proposals, Cardiff City Council confirmed that proposed works require an Environmental Impact Assessment (EIA). A Scoping Report was produced following consultation with key agencies and authorities and a Scoping Opinion was provided by Cardiff City Council, which largely agreed with the findings of the Scoping Report.

EIA is the process used to identify potential environmental effects caused by construction and operation so that effects can be minimised. The assessment process has involved a series of surveys, assessments and consultations to identify how to undertake the redevelopment proposals at St Fagans Museum without causing unacceptable environmental effects.

This Non-Technical Summary provides a summary of the Environmental Statement.
Existing Environment, Potential Impacts and Mitigation

Landscape and Views

An assessment of the anticipated effects on the landscape and on views of the proposed redevelopment of St Fagans National History Museum was undertaken.

The Museum site lies within the River Ely valley and is surrounded predominantly by farmland and blocks of woodland.

The most significant landscape effect during construction of the proposed redevelopment of St Fagans Museum would result from proposed works to the Main Museum building and its immediate setting and works within site woodland.

Landscape effects on completion of the proposed development are considered to be largely beneficial. Whilst the proposed works would result in direct effects to the fabric of the Main Museum Building (Grade II Listed), beneficial effects would result from improvements to the external appearance of the Main Building, its setting and parking areas, and internal improvements to the Museum. The redevelopment proposals would improve site legibility and visitor orientation and interpretation, and would increase the historic and educational value of the Museum site, particularly within the wooded part of the site. Proposed works would also increase the capacity of the Museum site to accommodate additional visitors without having a significantly adverse effect on valuable site features and characteristics.

The most significant adverse landscape effect on completion of the proposed works would be moderate to minor, resulting from rising pasture land north of the Museum access road being used an overflow car parking area for a short period of the year. This effect would be short term for each occurrence although it would repeatedly occur.

Views within the eastern part of the site comprising St Fagans Castle and Castle Gardens would not be affected by the proposed redevelopment. Coach parking would be removed from views of the Museum building frontage. Tall hedgerows alongside paths north of the Museum building would be removed as part of the proposed ‘spine’ footpath, opening up footpath views to the surrounding site and allowing for better visitor orientation and site legibility. Restoration of 1908 woodland ‘rides’ and the principal of ‘nodes’ would open up views along ‘rides’ and across ‘nodes’.

The most significant visual effects on identified public views during construction of the proposed works are anticipated to be experienced by walkers on the footpath along the southern site boundary and Museum access road, and by walkers on a short section of the Valeways Millennium Heritage Trail along the site’s eastern boundary. Works proposed to the Main Building are also anticipated to be perceptible in more distant views from PROW on higher ground south-west of the Museum site.

A residential property on the western end of Persondy Lane running south-west off Michaelston Road, and a property or a small group of properties on the northern edge of Michaelston Road south of the site, may have glimpsed views of construction works.
proposed in relation to the Main Building, where not screened by intervening mature trees.

Permanent effects on views from the identified receptors on completion of the proposed redevelopment of St Fagans Museum range from moderate beneficial to negligible. A moderate beneficial visual effect is anticipated on motorists travelling along the Museum access road on the approach to the Main Museum Building.

The greatest visual effect on private views is anticipated to be minor neutral, experienced on completion of proposed works by residents living in a small group of properties on the edge of Michaelston-super-Ely west of Michaelston Road, south of the site.

The greatest visual effect on completion resulting from the proposed overflow car parking area proposed on rising pasture land north of the Museum access road is anticipated to be moderate to minor adverse experienced by public receptor 1 (PRoW along the Museum’s access road) and public receptor 8 (Museum access road).

Ecology

The redevelopment proposal at the Museum site will not affect any nationally designated sites (Ely Valley SSSI and Ty Du SSSI).

There are regionally designated SINCs around the Museum, but the proposals will only result in effects upon the St Fagans SINC. The SINC is designated for its beech woodland and ponds. A small proportion of plantation will be cleared to create rides within the SINC but losses of plantation are not significant and will not affect the integrity of the SINC. New structuring and the restoration of woodland rides and construction of a new pond within the SINC will deliver a beneficial effect of regional significance.

Other sites designated for nature conservation are present in proximity to the site, but the scale of the proposals or the spatial relationship between the designated sites and the Museum site are such that no significant effects are anticipated upon these.

St Fagans Museum comprises broadleaved plantation with small quantities of semi-natural woodland and a variety of grassland types. Numerous artificial and ornamental ponds are located across the site. Hedgerows are also present, which are for the most part species poor and associated with car parks and footpaths. Proposals will result in the removal of small areas of broadleaved plantation, hedgerows and neutral grasslands.

Loss of plantation is not considered to be a significant effect and similarly, although hedgerows within the site qualify as UKBAP priority habitat, losses are proportionally small. New hedgerows planted along the new footpaths will result in a net gain of hedgerows.

Loss of neutral grasslands within the site are the most significant habitat loss. Neutral grasslands are a local biodiversity habitat priority and they are not extensive within the site. The neutral grasslands include unimproved and marshy grasslands, which are comparatively more species rich than most other habitats present. The losses will result
in the simplification (loss of botanical diversity) of habitats across the site. These losses will be mitigated through the creation of species and herb rich grasslands within the new woodland rides.

The Museum supports a wide range of notable species, including invertebrates, birds, mammals and amphibians. The most important species assemblages occurring within the site include amphibians and bats. Two small populations of great crested newt within the site are of regional importance and these are at risk during the construction period. A range of mitigation measures will be implemented, including appropriate timing of works and methods to passively or actively exclude amphibians from works areas to ensure they come to no harm.

The assemblage of bats at the Museum is of regional importance. At least eleven species are confirmed to use habitats in the site and seven species are known to roost on the site. No roosts will be directly affected by the proposals. Tree removal has the potential to affect flight lines of bats entering and leaving roosts and navigating around the site as does the introduction of lighting at new buildings and along new footpaths. Mitigation will include new planting to retain and strengthen commuting routes and provide screening and a sensitive lighting scheme will be implemented that will not affect roosts or commuting or foraging bats one the development has been completed. Trees with potential to support roosts will be inspected to ensure that no roosts are present. Effort will be expended to retain any roosts in situ and where this is not possible, bat boxes will be provided. Tree clearance within the plantation will increase the amount of woodland edge habitat which will have a beneficial effect upon bats.

Although the greatest potential for impacts arise in relation to great crested newts and bats, potential effects of lower significance (local or site level) might arise upon other species such as badgers, other amphibians (common toad, common frog and smooth and palmate newts) and a parasitic plant present in hedgerows that may be removed. Mitigation measures will ensure that disturbance or loss of these species will not occur.

Habitat creation measures including a new pond and bat tower will result in beneficial effects of regional significance for GCNs and bat species utilising the site. Additional benefits of local significance will be delivered for other amphibian species and invertebrates.

No adverse residual effects are predicted as a result of the proposals. As a part of St Fagan’s Museum’s commitment to provide a biodiversity framework within the masterplan, the Museum will implement a wildlife monitoring programme to ensure that information of the Museum’s biodiversity is kept up to date. This monitoring programme will be implemented over a ten year starting from the year when the redevelopment proposals are implemented (2012 to 2021).

Archaeology and Cultural Heritage

An assessment of the effects on archaeology and cultural heritage as a result of the redevelopment of the Museum was undertaken through reference to a previously undertaken watching brief and lidar survey.

There are no World Heritage Sites or Scheduled Monuments within St Fagans Museum.
The Museum is designated as a Registered Park and Garden and is set within a Conservation Area. The wider area is designated as an ‘Archaeologically Sensitive Area’. There are 40 listings within the Museum, including the Main Building.

Previous studies at the Museum have recovered cultural heritage findings within and surrounding the Museum, including, Bronze-age findings, an Anglo-Norman earthwork castle, ruined medieval buildings, artefacts, hollow ways (features characteristic of shrunken medieval villages formed when active routes become unused, silt up and become grassed over), field boundaries and ditches.

A watching brief undertaken in 2011 confirmed that there is a low probability of discovering new archaeological features. If any artefacts do remain in situ, these are likely to be poorly preserved due to previous ploughing activities. Many of the artefacts associated with the Museum site have already been removed and will therefore not be affected during construction or once the redevelopment proposals have been finalised.

During construction, there will be a temporary adverse effect on the setting of the the Main Building however following construction, no adverse effects on setting will be apparent. Key features will be retained which reflect its architectural importance and the proposals will provide beneficial improvements to the Museum.

In terms of setting of the Conservation Area, Registered Park and Garden and Archaeologically Sensitive Area Construction, construction activities will have a moderate, short term, adverse effect. Once construction is complete, the setting of the Conservation Area, Registered Park and Garden and Archaeologically Sensitive Area will be unaffected.

The overall significance of effect of redevelopment is judged to be minor adverse. Archaeological areas judged potentially to receive a moderate adverse effect or minor adverse effect as a result of construction activities, will be neutral following mitigation. This is with the exception of a hollow way where a service trench will traverse a preserved section. Careful construction procedures such as avoidance of soil ripping and careful reinstatement procedures will ensure any effects are kept to a minimum.

Watching briefs will be undertaken during construction to deal with any unanticipated archaeological remains encountered during soil stripping and/or foundation excavation.

Transport

An assessment of traffic effects relating to changes in travel patterns was undertaken through reference to the Transport Assessment submitted separately in support of the planning application. The adopted approach accords with national guidelines in identifying the degree of significance attributable to forecast increases in traffic generation and the extent to which they can affect severance, road safety, driver delay and pedestrian amenity.

During both the construction and operational phases of development, the assessment has established that the forecast traffic increases will have an insignificant effect on road conditions. It is proposed to mitigate any temporary residual effect during
construction through the application of a Traffic Management Plan. This serves to ensure that all residual effects can be regarded as insignificant.

Hydrology

A study of surface and groundwater features was undertaken to assess the potential effects of the re-development proposals on water resources at St Fagans Museum.

Several ponds are within the Museum site and the River Ely is the closest watercourse being approximately 200m south of the Main Building. The water quality of the River Ely is classified as poor by the Environment Agency based on the phytobenthic and fish communities and the presence of polyaromatic hydrocarbons.

St Fagans Museum is within Flood Zone A. Zone A is an area considered to be at little or no risk of fluvial and/or coastal flooding. The proposals will not significantly increase the impact of flooding.

Relevant mitigation measures and general good practice guidelines for working in and around water will be employed to minimise any potential impacts to the surface and groundwater resources. Mitigation measures adopted to minimise both temporary adverse effects during construction and longer-term effects on watercourses and other water bodies (including ponds) will include the following:

- Applying strict controls over the disposal of water from excavations;
- Preventing contamination of watercourses and groundwater by applying stringent on-site pollution control measures and adhering to pollution prevention guidance;
- Minimising surface water and sediment run-off;
- Implementation of flood prevention measures; and
- Implementation of SUDS techniques.

With successful implementation of the proposed mitigation measures, the redevelopment proposals at St Fagans Museum will have an overall negligible effect on water resources both on and off site.

The SUDs techniques employed will improve the overall quality of the water being discharged off site.

Socio-Economics

An assessment of the potential impacts that the proposed redevelopment of St Fagans Museum will have on the socio-economic resource was undertaken. The assessment took into account consideration of both social well-being of the community and economic prosperity.

In summary the key benefits associated with the redevelopment of the Museum include:

In summary, the key benefits associated with the Museum redevelopment are:

- £25.5m capital investment;
- 290 person years of construction employment over a 5 year build period;
- 130 FTE direct, indirect and induced construction related jobs over the build period;
- 35 additional FTE jobs created;
- An additional 14 FTE jobs across the South East Wales region as a consequence of visitor spend;
- 1000 volunteering placements over five years will provide 3,300 voluntary days;
- Flexible (paid and unpaid) employment opportunities that will make a tangible impact upon local unemployment and help to enhance the skills, experience and prospects of those that are out of work;
- 25% increase in income, including an additional £500,000 in additional income from activities and enterprises;
- Between £165,000 and £260,000 additional expenditure by the museum in the Cardiff economy, providing a major boost to local businesses;
- Contribution to an enhanced profile for Cardiff as a tourist destination with high quality visitor facilities;
- Catalytic attraction of additional visitors and business growth; and,
- Contribution to the overall economic vitality and place branding of Cardiff as an economic centre and major European City.

The minor negative impacts associated with construction works will be for a limited period only and will be minimised through a comprehensive mitigation programme. In the long term, the proposed redevelopment of the Museum will have a positive socio-economic impact ranging from minor to major in magnitude.

**Conclusion**

The construction of the redevelopment of the Museum is expected to commence in Spring 2013 and be undertaken over approximately 5 years. Potential effects resulting from construction include visual effects, effects on the setting of the historic and landscape importance of the site, disturbance to species and habitats, and a negative effect on visitor numbers. However, once mitigation methods have been adopted, the residual effects typically range from negligible to minor adverse and are therefore not considered to be significant.

Once construction is complete it is expected that the redevelopment of the Museum will have a largely beneficial effect on aspects of the environment assessed as part of this EIA. Beneficial effects would result from improvements to the external appearance of the Main Building, its setting and parking areas, and internal improvements to the Museum. The redevelopment proposals would improve site legibility and visitor orientation and interpretation, and would increase the historic and educational value of the Museum site, particularly within the wooded part of the site. Proposed works would also increase the capacity of the Museum site to accommodate additional visitors without having a significantly adverse effect on valuable site features and characteristics.
Through careful design of the redevelopment of St Fagans Museum, the proposal will achieve the aims to enhance visitor numbers and their experience, whilst also causing minimum disturbance to people and the environment.