

# Penllergare

Cadwraeth Cynllun  
Rheolaeth

Hydref 2008

Conservation  
Management Plan

October 2008

Ymddiriedolaeth Penllergare  
The Penllergare Trust



**NICHOLAS PEARSON ASSOCIATES**  
ENVIRONMENTAL PLANNERS • LANDSCAPE ARCHITECTS • ECOLOGISTS

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## **EXECUTIVE SUMMARY**

Penllergare Valley Woods is a relict but highly significant designed historic landscape located on the edge of Swansea, Wales's second largest city. The Valley Woods are currently cared for, without either ownership or a secure tenancy, by a local charitable group, the Penllergare Trust. Without secure tenure, the Penllergare Trust has concentrated on promoting the need to protect the site, locally and nationally, and also on improving our understanding of the history and nature of Penllergare. The Trust has been very successful, with a large and active Friends group, many volunteers, two books published and sold out, and a busy schools and guided walks programme. However, there is an urgent and recognised need to improve the conservation and appreciation of important historic features including two Scheduled Ancient Monuments and listed structures 'at risk', and to identify how the site's public amenities can be sustained in the long term. This Conservation Management Plan has been produced to address these issues and forms part of a bid for funding from the Heritage Lottery Fund and Big Lottery Fund *Parks for People* initiative.

#### *Importance of the park*

The plan, commissioned by The Penllergare Trust, with support from *Parks for People*, demonstrates both the historic and present importance of the park:

- The Valley constitutes what remains of the unique picturesque landscape created by the Llewelyn family, notably Lewis Weston Dillwyn, John Dillwyn Llewelyn and Sir John Talbot Dillwyn Llewelyn, that exploited the natural topography on a grand scale.
- Penllergare forms the historic core of an ancient estate, once home of the powerful local Glamorgan Price and Mathews families.
- Lewis Weston Dillwyn, John Dillwyn Llewelyn and Sir John Talbot Dillwyn Llewelyn were prominent figures in Victorian society, and pioneers of technology, science and photography. As a result, Penllergare has an exceptionally rare and detailed photographic record of the estate's appearance in its prime.
- The landscape has survived, albeit in a severely neglected state, through a turbulent century of economic, industrial and social change, on the urban fringe of Swansea.
- Penllergare includes an historic astronomical observatory and the remains of a pioneering Victorian orchid house, both designated as Scheduled Ancient Monuments.
- It is a popular green space for quiet recreation and enjoyment by the local communities, and possesses an unusual sense of community ownership which stems from a history of public access since the late nineteenth century. It is slowly being brought back into management by a group of volunteers, trainees and Penllergare Trust staff.

- The park is a valuable haven for wildlife with extensive woodland, the river Llan, wetland and grassland habitats, slowly being brought back into management by a group of volunteers, trainees and Penllergare Trust staff.

#### *Some problems*

However, Penllergare is not without its problems:

- the twentieth century has seen a division of ownership, pressures from highway, residential and commercial development, procrastination over future use, failures in the planning system, and lack of clear responsibility for management. As a result, Penllergare's historic landscape and character has been seriously, and, in parts, irreversibly, compromised through neglect, insensitive development and poor quality engineering works;
- many historic landscape features have been lost, and those that remain require extensive conservation and repairs;
- there are no visitor facilities or accommodation for school visits, trainees, maintenance staff or Trust meetings;
- there is no dedicated car parking, and what there is, is minimal, shared with other uses or perceived to be insecure;
- the two Scheduled Ancient Monuments are poorly interpreted, largely concealed and in very poor condition;
- the upper lake is heavily silted; the lower lake dam has been breached, reducing the extent of open water which played a key historic role in the designed landscape and biodiversity;
- sustainable means of access by cycle and rail are limited, while bus and footpath links are not yet widely promoted;
- many paths remain muddy, overgrown and in poor condition, and there are very few benches or waymarkers, limiting access for all;
- the valley lacks a clear sense of spatial order and of identity through the loss of historic buildings, minimal signage, lack of interpretation and proximity to busy roads.

#### *Management proposals*

The conservation management plan sets out a number of proposals to address these weaknesses, and to improve both the quality and the capacity of Penllergare for free public access and enjoyment. Physical improvements are shown on the Valley masterplan, but other proposals include:

- a commitment by the Penllergare Trust to establish a secure interest in the tenure of the Valley Woods;

- dedicated investment and effort to sustain and develop the consultation processes and local community involvement in the management of the Valley;
- partnerships with local volunteers, social and commercial businesses, and development of the Friends group;
- improved interpretation, signage, website, accessibility and events, so that the site gives a wider welcome;
- an enhanced events programme which reveals some of the history of the estate;
- increased involvement with local schools, and colleges, around the estate, and outreach work in local communities.

The above programmes are detailed further in a companion report, the Access, Audience Development and Training Plan by VZJ Associates.

#### *Key themes*

Interpretation will focus on a number of key themes arising from the history of Penllergare:

- The role of Lewis Weston Dillwyn, John Dillwyn Llewelyn, and Sir John Talbot Llewelyn as leading figures in nineteenth century Britain, pioneers in industry, technology, horticulture, and science, and instigators and philanthropists in the development of Swansea and the surrounding area.
- Penllergare as art; in an internationally unique collection of early photographs, in paintings and sketches, and as an important nineteenth century designed landscape.
- Penllergare as a site of important scientific discoveries and experiments, surviving in documentary accounts and the equatorial observatory.
- A substantial and well-recorded walled garden, and the intensity, innovations and discoveries of Victorian gardening.
- Penllergare's rich biodiversity, habitats and wildlife.

#### *Proposed works*

Proposals shown on the masterplan include:

- proposals for the location of dedicated visitor facilities to include a community training, meeting and education room, toilets, and the provision of a café or refreshment kiosk;
- proposals for the creation of a small dedicated car park;
- the creation of an accessible interpretative tour around the Valley, with improved pedestrian routes, restoration of historic pathways and additional fully accessible footbridges to create a greater variety of circuits;

- de-silting of the Upper Lake to reinstate its historic form, and prevent total reversion to marshland;
- introduction of site furniture and signage to increase welcome and accessibility, using carefully selected designs to minimise impact on the historic landscape;
- thinning and management of areas of dense trees and shrub to reopen historic views;
- creation of a dedicated works area with compost bays, secure storage and mess room for Woodland Management Team;
- repair and restoration of the historic steps, terraces, footbridges, retaining walls, and, where viable, waterfalls and cascades;
- careful integration of the sewage pipe over the river Llan, and recreation of the old stone bridge as a fully accessible river crossing and visual feature in the landscape;
- replanting of specimen trees and ornamental shrubberies lost from the existing landscape;
- maintaining and enhancing biodiversity;
- improved screening of the housing on the western side of the landscape;
- removal of visually intrusive and redundant weirs along the Llan below the Lower Lake;
- restoration and conversion of the walled garden, gardener's cottage and adjacent areas for horticultural training and as a visitor attraction;
- securing the Valley Woods boundary, particularly along the western perimeter to reduce anti-social behaviour and the perception of unkempt wasteland;
- restoration of the Lower Lake and cascade is only put forward as a lower priority, future project.

Where practical, the Ordnance Survey map of 1876 forms the guide for conservation management of the landscape, as this records the last complete phase of the designed mid-nineteenth century landscape. However this is to be supplemented by continued research into the historic and archaeological importance of the site, and the scope to interpret the history of Penllergare further through planting, management and maintenance.

This report also includes, in outline, management and maintenance proposals which detail how the long term values of the park will be sustained and enhanced through landscape maintenance, holistic administration and community involvement.

## **Funding**

The plan also sets out the costings of the proposals and allowances for inflation, fees, and improved maintenance, totalling some £ 4.6 million over three years. It is proposed to meet these costs with a grant application to the Heritage Lottery Fund and Big Lottery for £3.4 million; partnerships and



involvement with the local social enterprises and volunteers; and partnership funding from Cadw and others.

### **Timing**

This Conservation Management Plan will be submitted to the Heritage Lottery Fund, seeking support for the development stage, including detail surveys, archaeology, detail plans, further local consultation and consents. This information would then be submitted to support a full grant for restoration. If successful, this whole process is likely to take about two years before works would start on the ground. The works would be spread over a three year programme.

## CRYNODEB GWEITHREDOL

Mae Coedig Cwm Penllergare yn dirlun creiriol, ond yn dirlun hanesyddol wedi'i gynllunio arwyddocaol dros ben, wedi'i leoli ar gyrion Abertawe, ail ddinas Cymru. Ar hyn o bryd, grŵp elusennol lleol, sef Ymddiriedolaeth Penllergare sy'n edrych ar ôl Coedwig y Cwm, er nad oes ganddynt berchnogaeth neu chwaith denantiaeth ddiogel o'r safle. Gan nad oes ganddynt ddeiliadaeth ffurfiol, mae Ymddiriedolaeth Penllergare wedi canolbwyntio ar hyrwyddo'r angen i warchod y safle, yn lleol ac yn genedlaethol, ac hefyd ar wella'n dealltwriaeth o hanes a natur Penllergare. Mae'r Ymddiriedolaeth wedi bod yn llwyddiannus iawn, gyda grŵp Ffrindiau mawr a gweithgar, llawer o wirfoddolwyr, dau lyfr wedi eu cyhoeddi ac wedi gwerthu mas, rhaglen brysur i ysgolion a rhaglen o deithiau tywys. Serch hynny, mae gwir angen cydnabyddedig i wella'r warchodaeth a'r gwerthfawrogiad o nodweddion hanesyddol pwysig, gan gynnwys dwy Heneb Gofrestredig a strwythurau eraill sydd 'o dan fygythiad', ac i adnabod sut i gynnal cyfleusterau cyhoeddus y safle yn yr hir-dymor. Mae'r Cynllun Rheoli Cadwraeth yma wedi'i gynllunio er mwyn mynd i'r afael â'r materion hyn ac mae'n ffurfio rhan o gais am gyllid o Gronfa Dreftadaeth y Loteri a menter *Parciau i'r Bobl (Parks for People)* y Gronfa Loteri Fawr.

### *Pwysigrwydd y parc*

Mae'r cynllun, a gomisiynwyd gan Ymddiriedolaeth Penllergare, gyda chymorth *Parciau i'r Bobl (Parks for People)*, yn dangos pwysigrwydd hanesyddol a chyfoes y parc:

- Mae'r Cwm yn cynrychioli'r hyn sydd ar ôl o'r tirlun pictiwésg unigryw a grewyd gan y teulu Llewelyn, yn benodol Lewis Weston Dillwyn, John Dillwyn Llewelyn a Syr John Talbot Dillwyn Llewelyn, cynllun sy'n gwneud yn fawr o'r topograffi naturiol ar raddfa fawreddog.
- Penllergare yw craidd hanesyddol stad hynafol, a fu unwaith yn gartref i'r teulu Price a'r teulu Mathews – dau deulu lleol grymus Sir Forgannwg.
- Roedd Lewis Weston Dillwyn, John Dillwyn Llewelyn a Syr John Talbot Dillwyn Llewelyn yn aelodau blaenllaw o gymdeithas oes Fictoria, ac yn rhagflaenwyr ym meysydd technoleg, gwyddoniaeth a ffotograffiaeth. O ganlyniad, mae cofnod ffotograffig hynod brin a manwl ar gael a chadw o Benllergare, sy'n darlunio'r stad pan 'roedd yn ei blodau.
- Mae'r tirwedd wedi goroesi, er mewn cyflwr hynod ddiffaith, canrif gythryblus o newid economaidd, diwydiannol a chymdeithasol, a'r cyfan ar gyrion trefol Abertawe.
- Mae Penllergare yn cynnwys arsyllfa seryddol o bwys hanesyddol ac olion tŷ tegeirianau arloesol o oes Fictoria, y ddau'n Henebion Cofrestredig rhestredig.
- Mae'n fan gwyrdd poblogaidd, ac yn cael ei ddefnyddio gan gymunedau lleol ar gyfer adloniant a mwynhad tawel. Mae ymdeimlad anarferol o berchnogaeth gymunedol yn perthyn i'r lle, gan fod na hanes o fynediad cyhoeddus i'r safle ers diwedd y bedwaredd ganrif ar bymtheg. Yn

araf bach, mae grŵp o wirfoddolwyr, hyfforddai a staff Ymddiriedolaeth Penllergare yn dod â'r parc yn ôl o dan reolaeth.

- Mae'r parc yn cynnig lloches werthfawr i fywyd gwyllt, gyda'i goedwigoedd helaeth, yr afon Llan a chynefinoedd gwlyptir a glaswelltir yn araf cael eu hadfer gan grŵp o wirfoddolwyr, hyfforddai a staff Ymddiriedolaeth Penllergare.

### *Rhai problemau*

Serch hynny, nid yw Penllergare heb ei broblemau:

- Yn yr ugeinfed ganrif gwelwyd raniad ym mherchnogaeth y safle, datblygiadau i briffyrdd a datblygiadau preswyl a masnachol yn ychwanegu pwysau, oedi ynglyn â'i defnydd yn y dyfodol, methiannau yn y system gynllunio a diffyg cyfrifoldeb clir o ran rheolaeth. O ganlyniad, mae tirwedd a chymeriad hanesyddol Penllergare wedi'i gyfaddawdu'n ddifrifol, ac mewn manau, yn anadferadwy, drwy esgeulustod, datblygu ansensitif a gwaith peirianegol o ansawdd gwael;
- mae llawer o nodweddion y tirwedd hanesyddol wedi'u colli, ac mae angen gwaith cadwraeth ac atgyweiro helaeth ar y rhai sydd wedi goroesi;
- does dim cyfleusterau ymwelwyr neu lety ar gyfer ymweliadau ysgol, hyfforddai, staff cynnal a chadw neu gyfarfodydd yr Ymddiriedolaeth;
- does dim manau parcio wedi'u neilltuo, a mae'r ddarpariaeth sydd ar gael yn annigonol; rhaid ei rannu gydag eraill, a chanfyddir ei fod yn anniogel;
- nid yw'r ddwy Heneb Gofrestredig wedi'u dehongli'n dda, maent mwy neu lai o'r golwg ac mewn cyflwr bregus iawn;
- mae'r llyn uchaf wedi siltio'n helaeth, mae bwlch yn wal yr argae isaf, ac mae hyn yn lleihau'r arwynebedd o ddŵr agored, yr hyn a oedd yn chwarae rôl hanesyddol allweddol yn y tirwedd a gynlluniwyd, a bio-amrywiaeth;
- mae'r ffyrdd mynediad cynaliadwy – ar feic neu drên – yn brin, tra nad yw'r cysylltiadau bws a'r llwybrau cerdded wedi'u hyrwyddo'n eang eto;
- mae llawer o'r llwybrau'n parhau'n fwdlyd, yn llawn tyfiant ac mewn cyflwr gwael. Nifer fach iawn o feinciau ac arwyddbyst sydd i'w cael; mae hyn yn rhwystro mynediad i bawb;
- nid oes ymdeimlad clir o drefn gofodol a hunaniaeth yn perthyn i'r Cwm oherwydd bod adeiladau hanesyddol wedi diflannu, y nifer fach o arwyddion, diffyg dehongli a'r ffaith bod y safle'n agos i briffyrdd prysur.

### *Cynigion y Rheolwyr*

Mae'r Cynllun Rheoli Cadwraeth yn rhestru nifer o gynigion a fydd yn mynd i'r afael â'r gwendidau hyn, a gwella ansawdd a chapasiti Penllergare ar gyfer mynediad a mwynhad cyhoeddus rhad ac am ddim. Dangosir y gwelliannau ffisegol ar uwchgynllun y Cwm, ond mae'r cynigion eraill yn cynnwys:

- ymrwymiad gan Ymddiriedolaeth Penllergare i sicrhau tenantiaeth ddiogel o Goedwig y Cwm;
- buddsoddiad wedi'i neilltuo ac ymdrech i gynnal ac i ddatblygu'r prosesau ymgynghori a chynnwys y gymuned yn rheolaeth y Cwm;
- partneriaethau gyda gwirfoddolwyr, a busnesau cymunedol a masnachol lleol, a datblygu'r cylch Ffrindiau;
- gwell dehongli, arwyddion, gwefan, hygyrchedd a digwyddiadau, i wneud y safle'n fwy croesawgar;
- Rhaglen ddigwyddiadau ehanach a fydd yn olrhain tipyn o hanes y stad;
- Ymwneud mwy ag ysgolion a cholegau lleol o gwmpas y stad, a gwaith allgymorth mewn cymunedau lleol.

Ceir fanylion pellach y rhaglenni uchod yn y cydadroddiad, Cynllun Mynediad, Datblygu Cynulleidfa ac Hyfforddiant gan VZJ Associates.

#### *Themáu Allweddol*

Bydd y dehongli'n ffocysu ar nifer o themáu sy'n deillio o hanes Penllergare:

- Rôl Lewis Weston Dillwyn, John Dillwyn Llewelyn, a Syr John Talbot Llewelyn fel cymeriadau blaenllaw ym Mhrydain yn y bedwaredd ganrif ar bymtheg, rhagflaenwyr ym meusydd diwydiant, technoleg, garddwriaeth a gwyddoniaeth, a symbylwyr a dyngarwyr yn natblygiad Abertawe a'r cyffiniau.
- Penllergare fel celf; mewn casgliad unigryw o fri rhyngwladol o ffotograffau, mewn paentiadau a dyluniadau, a fel tirwedd a gynlluniwyd bwysig o'r bedwaredd ganrif ar bymtheg.
- Penllergare fel safle a welodd ddarganfyddiadau ac arbrofion gwyddonol pwysig a gofnodwyd mewn cofnodion dogfennol, a'r arsyllfa gyhydeddol.
- Gardd furiog sylweddol wedi'i chofnodi'n fanwl, a'r dwyster, newyddbethau a'r darganfyddiadau a welwyd ym myd garddio yn ystod oes Fictoria.
- Bio-amrywiaeth, cynefinoedd a bywyd gwyllt cyfoethog Penllergare.

#### *Cynlluniau Arfaethedig*

Mae'r cynigion a ddangosir ar yr uwchgynllun yn cynnwys:

- cynigion i leoli cyfleusterau wedi eu neilltuo ar gyfer ymwelwyr, a fydd yn cynnwys café neu giosg lluniaeth a thoiledau, ac i ddarparu ystafell ar gyfer hyfforddiant, cyfarfodydd a dysgu;
- creu taith deongliadol hygyrch o gwmpas y Cwm, gyda gwell llwybrau cerdded; adfer y llwybrau hanesyddol ac adeiladu mwy o bontydd troed gwbl hygyrch er mwyn creu mwy o amrywiaeth o gylchdeithiau.
- Di-siltio'r Llyn Uchaf er mwyn adfer ei ffurf hanesyddol, a'i atal rhag dychwelyd i fod yn gorstir llwyr;
- cyflwyno celfi ac arwyddion i'r safle i roi mwy o groeso ac ymdeimlad o hygyrchedd, gan ddefnyddio cynlluniau wedi'u dewis yn ofalus fel na fyddant yn ymyrryd yn ormodol ar y tirlun hanesyddol;
- cynigion i greu maes parcio bach;
- teneuo a rheoli ardaloedd o dyfiant dwys (coed a llwyni) er mwyn ail-gyflwyno'r golygfeydd hanesyddol;
- creu ardal waith benodol gyda biniau compost, manau storio diogel ac ystafell gyffredin i Dîm Rheoli'r Goedwig;
- trwsio ac adfer y grisiau, terasau, pontydd troed a'r waliau cynnal hanesyddol, ac os yw'n bosibl, y rhaeadrau a'r sgydau dŵr;
- integreiddio'n ofalus y biben garffosiaeth dros yr afon Llan, ac ail-adeiladu'r hen bont gerrig fel ei bod yn ffordd gwbl hygyrch o groesi'r afon ac yn nodwedd weledol o'r tirlun;
- ail-blannu coed sbesimen a phrysglwyni addurnol sydd ar goll o'r tirwedd bresennol;
- cynnal a gwella'r bio-amrywiaeth;
- gwell sgrinio o'r tai ar ochr orllewinol y tirwedd;
- tynnu i ffwrdd y coredau ar hyd yr afon Llan islaw'r Llyn Isaf, gan eu yn bod yn ddiangen ac yn weledol ymwithiol;
- adfer ac addasu'r ardd furiog, bwthyn y garddwr ac ardaloedd cyfagos ar gyfer hyfforddiant garddwriaethol a'u gwneud yn atyniad ymwelwyr;
- diogelu ffin Coed y Cwm, yn enwedig ar hyd y terfyn allanol gorllewinol er mwyn cwtdogi ar ymddygiad gwrthgymdeithasol a newid y canfyddiad taw tir diffaith, anniben yw'r safle;
- mae adferiad y Llyn Isaf a'r rhaeadr yn brosiect i'r dyfodol, ac o flaenoriaeth is.

Pan yn ymarferol, dilynir fap Arolwg Ordnans 1876 i reoli cadwraeth y tirlun, gan taw ar hwn y cofnodir y cyfnod gorffenedig diwethaf yn natblygiad y tirlun wedi'i gynllunio, canol y bedwaredd ganrif ar ddeg. Serch hynny, atodir at hyn drwy ymchwilio i bwysigrwydd hanesyddol ac archaeolegol y safle, a bydd cyfle i ddadansoddi hanes Penllergare trwy blannu, rheoli a chynnal a chadw.

Mae'r adroddiad hwn hefyd yn cynnwys amlinelliad o'r cynigion rheoli a chynnal a chadw; yma ceir fanylion am sut y bydd gwerthoedd hir-dymor y parc yn cael eu cynnal a gwella drwy gynnal a chadw tirwedd, gweinyddu holistig a chynnwys y gymuned.

## **Cyllid**

Mae'r cynllun hefyd yn rhestru cost y cynigion, gan ystyried chwyddiant, ffioedd a gwella'r gwaith cynnal a chadw, y cyfan yn dod i gyfanswm o ryw £ 4.6 miliwn dros gyfnod o dair blynedd. Bwriedir cwrdd â'r costau yma drwy wneud cais am grant i Gronfa Dreftadaeth y Loteri ac i'r Loteri Fawr am £3.4 miliwn; partneriaethau a chynnwys mentrau cymdeithasol lleol a gwirfoddolwyr; a chyllid partneriaeth oddiwrth Cadw ac eraill.

## **Amseru**

Bydd y Cynllun Rheoli Cadwraeth hwn yn cael ei gyflwyno i Gronfa Dreftadaeth y Loteri i geisio cymorth at y cam nesaf, sef datblygu'r cynllun; bydd hyn yn cynnwys arolwg manwl, archaeoleg, cynlluniau manwl, ymgynghori lleol pellach a sicrhau caniatad i weithredu. Wedi hynny, bydd yr holl wybodaeth yma'n cael ei gyflwyno er mwyn cefnogi cais am grant adfer llawn. Os yn llwyddiannus, bydd yr holl broses yma'n debyg o gymryd tua dwy flynedd, cyn ei bod hi'n bosibl dechrau bod unrhyw waith ymarferol. Byddai'r gwaith ei hun yn ymestyn dros gyfnod o dair blynedd.

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## ACKNOWLEDGEMENTS

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- J. Brown and Landskip and Prospect, *Penllergare Heritage Landscape* (1993)
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- The Penllergare Trust, *Draft Conservation Plan* (2007)
- M. Norman, *Woodlands at Penllergare* (September 2007)
- K. Murphy et al., *Penllergare Cultural, Archaeological and Historic Landscape Database* (curated by Dyfed Archaeological Trust)

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## INTRODUCTION

### 1.1 Study Area

The Penllergare Valley Woods lie northwest of Swansea, in an area of open landscape bounded by the M4 to the north, the A483 to the west and south, and the conurbation of Swansea to the east and southeast (figure 1). The majority of the valley is owned by the Llysdinam Trust, but managed by The Penllergare Trust on the basis of ad hoc agreements with the lessee, BJ Land Holding Ltd. The river Llan, and its immediate valley, and the relict gardens and grounds, once the setting of Penllergare house, form the subject of this study.

The main attractions for locals and visitors are the valley walks and the Upper Lake waterfall. Penllergare mansion was demolished in 1961, and the site is now occupied by the City and County of Swansea local authority, incorporating offices and car parks. In addition to ruined structures in and around the walled garden, the study area encloses two historic buildings surviving from the 1830s and 1850s: the Lower Lodge, a hostel; and the redundant equatorial observatory (a Scheduled Ancient Monument).

### 1.2 Purpose of the Report

This report seeks to summarise the history of the landscape, to assess its current management and use, and to propose ways in which its importance and value for conservation, education and enjoyment can best be recognised, managed and enhanced. Preparation of the report has been funded largely by a *Parks for People* Project Planning Grant from the Heritage Lottery Fund.

### 1.3 How to use this report

The *History and Analysis* (section 3.0) contains a chronological analysis of the historic phases of Penllergare's development, based on primary and secondary sources gathered from previous studies and a small amount of additional, original research. This understanding of the site's history then forms the basis for the subsequent sections of the report assessing the significance of Penllergare, proposing objectives for its future conservation, and providing a foundation for policies and proposals. Proposals in sections 6.0 and 7.0 are costed at a budget level in appendix 5. The spelling *Penllergare* is used throughout this report where it refers to the historic estate, mansion house, demesne land and the Valley Woods, as the spelling used by the landowning family during the key historic period for this plan; *Penllergaer*

refers to the village west of the A483, and *Parc Penllergaer* is the name of the modern housing estate between the A483 and the Valley Woods.

This Conservation Management Plan summarises and includes some of the recommendations of its separate companion report, The Access, Audience Development and Training Plan by VZJ Associates.

## 2.0 METHODOLOGY

### 2.1 Documentary Survey

The purpose of this report is to combine the evidence and research by a number of previous studies and publications in order to present a summary history of Penllergare, and a firm foundation for identifying significance, objectives and subsequent proposals and policies. Consequently, the production of this report has not involved extensive new original research, and has instead drawn principally from the evidence set out in the following documents and database:

- J. Brown and Landskip and Prospect, *Penllergare Heritage Landscape* (1993)
- R. Morris, *Penllergare: A Victorian Paradise* (1999)
- R. Morris, *Unpublished M. Phil. on John Dillwyn Llewelyn*, Brunel University
- Cadw, *Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales: Reference PGW (Gm) 54 (SWA)* (2000)
- J. Childs, *Penllergare: An Appreciation of the Place, People and Context* (2004)
- The Penllergare Trust, *Penllergare: Echoes from Valley Woods* (2006)
- The Penllergare Trust, *Draft Conservation Plan* (2007)
- M. Norman, *Woodlands at Penllergare* (September 2007)
- K. Murphy et al. *Penllergare Cultural, Archaeological and Historic Landscape Database* (curated by the Dyfed Archaeological Trust)

### 2.2 Site Survey

The site survey was undertaken using the Ordnance Survey first edition, 25 inch scale of 1876 (and later maps), cross-referenced with historic illustrations, photographs and a modern topographic survey. The 1876 map was selected as the earliest accurate record of the grounds. The aims of this survey were:

- i. to identify landscape features, including paths, park buildings, boundaries and artefacts; all features were photographed and are included in the Historic Landscape Gazetteer (appendix 2);
- ii. to record the location of the principal views, circulation routes and derelict or lost features, such as the sites of structures marked on early plans;
- iii. to establish the sequence of development and the approximate age of the historic landscape features and boundaries;

- iv. to identify the wider historic setting of the park, albeit that our study focuses on the defined study area.
- v. to identify constraints to, and opportunities for, management and restoration proposals.

The site survey was supplemented by an archaeological survey by Cambria Archaeology, now Dyfed Archaeological Trust.

### 2.3 **Landscape Conservation Philosophy**

The conservation of historic parks has to respond to a number of characteristics which differentiate landscapes from buildings or archaeology. Some facets will affect buildings or archaeology, such as biological decay or erosion, but in landscapes these characteristics may be dominant.

- i. *Biological growth and decline* of trees, shrubs, grass and flowers means that certain factors are not readily controlled, and can only be controlled by action, that is, active management, whether it be grazing, pruning or mowing. Buildings also require maintenance but, in the landscape, a default of management can have a very rapid effect that alters the entire character of the heritage asset. At Penllergare, the previous natural regeneration and planting of trees into open spaces may threaten buried archaeology as well as alter the historically open visual character of parts of the designed valley landscape.
- ii. The *aesthetic design* rationale is dominant, and so designed landscapes, in particular, have very little scope for productive adaptive re-use without impact on their essential characteristics. It is difficult to imagine appropriate uses, other than the historic uses of quiet recreation, walking, play, events, refreshment and traditional silviculture and horticulture, in the landscape.
- iii. *Modern perceptions* have tended to view landscapes as natural, implying that they can be appreciated free of charge. In contrast, archaeology has been regarded as either a fixed constraint, or an opportunity for excavation; whereas buildings are useful, capable of re-use, and are known to be expensive to maintain. Preconceived ideas about resource allocation limit what can be achieved in landscapes. Notably, at Penllergare, the planning system has allocated country park use to the property without any dedicated public funding.
- iv. Most, but not all, landscapes are a *palimpsest*, with several layers of design. Conservation of the *last complete phase* may well be the most appropriate, just as it is

widely adopted for buildings. Restoration to a defined early date now tends to be limited to specific circumstances (where resources allow, later phases are of low significance, intervention is unavoidable, early evidence is dependable and recreation is acceptable). Two risks arise, however, from restoration only to the last complete phase: firstly that society could end up conserving mostly early twentieth century landscapes, being the last significant design phase in many parks and gardens, including Penllergare. Secondly, that the mix of characters might, through growth and decay, degrade more important, earlier design features on a site.

The conservation and restoration of designed landscapes does not, therefore, fall readily into a predetermined philosophy or approach. Conservation guidelines are useful but, in practice, policies have to respond to:

- an understanding of the historic and the cultural importance of the site;
  - identification and conservation of the essential qualities and character of an individual site, be they historic, visual, aesthetic, architectural, horticultural, ecological, cultural or perceptual;
  - changes in use which reflect changes in ownership;
  - a diversity of approaches between parks, so that different sites conserve different aspects of designed historic landscapes.

### **3.0 SUMMARY HISTORY AND ANALYSIS**

This section summarises the history of Penllergare, highlighting key dates and events, identifying main phases of the estate's development and also addressing the historic context of Penllergare, and its place in regional and national history.

### 3.1 **Pre-Victorian Penllergare, up to 1817**

#### *The Price Family*

Seventeenth century Penllergare was the seat of the Price family, powerful and prominent local landowners. The earliest documented reference to Penllergare dates from 1608 and by the mid-seventeenth century, the estate was said to consist of a mansion, known as *Pen lle yr gaer*, with a number of adjoining properties, predominantly lying between Pontlliw and Cadle. As the Prices were ardent Royalists, it was said that the Parliamentarians sent a special troop to Penllergare during the Civil War in order to bring back *Mr Price* dead or alive; they failed to find him and attempted to seize his horse instead.

The importance of Penllergare to the Prices is evident in their continued investment in its development throughout the seventeenth century, culminating in a new, three-storey, five bay house in 1710. *Penllergare*, seat of *Price esq.*, was plotted by Bowen in 1729, with some indication of an associated wooded estate (figure 2). Illustrated with a symbol for a substantial mansion, Penllergare took its place as a prominent residence in the Swansea area alongside *Nidfwych* the property of *Mathews Esq.* to the south.

#### *Nydfwch*

The mansion and estate of *Nidfwych* or *Nydfwch* was the historic seat of the Mathews family, first referred to in a document of 1319. In the 1670 hearth tax, both residences of Penllergare and *Nydfwch* were recorded as having five hearths, suggesting a similar size and status of their respective owners, Thomas Price (1641-1723) and Henry Mathews. In 1750, Gryffydd Price married Jane Mathews, and *Nydfwch* was absorbed in the Penllergare estate. In a similar way to Penllergare, Bowen illustrated *Nidfwych* with a number of trees, suggesting the existence of a mature wooded estate in the Afon Llan valley area.

By the eighteenth century inventories record Penllergare as the larger residence, with twenty rooms listed in 1783. This probably explains why Penllergare remained the principal residence of the enlarged estate, and *Nydfwch* was tenanted, before being demolished in the early 1820s.

Recent archaeological investigations have identified buried walls and structural debris of what is thought to be the medieval house of the Mathews, above the Lower Lake, in Graig-neddfwch Wood. Like Penllergare, Nydfwch appears to have occupied a prominent position on the top of the eastern bank of the Llan valley commanding dramatic views over the valley towards Swansea. Archaeologists have also identified the line of a track to the mansion rising from the 1830s carriageway, and a viewing platform at its highest point, from which the Llewelyns later sketched and photographed bird's-eye views of the Lower Lake (figure 10).

#### *John Llewelyn 1787-1817*

Gryffydd Price died without issue, and Penllergare was divided between his nephew-in-law, John Popkin (1746-97) of Coytrahen, and his cousin, John Llewelyn of Ynysygerwn (1756-1817). In time, presumably following the death of Popkin, the entire estate reverted to John Llewelyn, forming, with Ynysygerwn, one of the largest landholdings in the area. Like Thomas and Gryffydd Price before him, Llewelyn held a number of offices, notably high sheriff of Glamorgan in 1792, and was lieutenant colonel of the West Glamorgan militia. He was married to Frances Goring (1769-1832).

Although Yates's 1799 county map gives no indication of woodland immediately around Penllergare house, or south to Cadley, the Ordnance Survey surveyor's drawing of 1813 suggests the Afon Llan valley included two established plantations around each of the houses. John Llewelyn inherited Penllergare when he was thirty-one, and therefore had a further thirty years to develop the estate. The surveyor's drawing was completed four years before his death, and therefore provides some idea of the state of Penllergare when it was passed on to his grandson, John Dillwyn (later Llewelyn).

One of John's improvements included the extension of Penllergare house around 1810. It is thought he selected the most eminent Swansea architect of the day, William Jernegan (1751-1836), designer of various public buildings in Swansea, such as the Assembly Rooms (1805-24), and private commissions for other prominent local families including an octagonal villa for the Swansea customs collector, Edward King in 1784, later purchased by the Vivians; Stouthall for John Lucas (late 1780s); remodelling of Sketty Hall for Ralph Sheldon (1790); and Sketty Park House for the copper magnate, Sir John Morris (1806). Jernegan is also famed for designing the Mumbles lighthouse (1793).

A sketch records Jernegan's sizeable extension, with large Regency sash windows and a grand neo-classical porch, alongside the original 1710, Georgian house. A second view of the house records the grounds, laid out with lawn, shrubs, specimen trees, and a dramatic backdrop of



the wooded valley landscape. This parkland setting is illustrated further by the 1813 map (figure 3), recording a relatively small, rectilinear park enclosed with a woodland belt, and crossed by drives to the Swansea and Llangyfelach roads. Further pasture extended to the west, and Penllergare Farm was established to the southwest.

Identifying the extent of Llewelyn's investment and development at Penllergare, as opposed to what he simply inherited from the Prices, is not clear. Full scale rebuilding of the outdated house may not have been an option, possibly indicating limited funds or perhaps encouraged by the approval of the old house given by Malkin in 1803 – *a new house in good style, not far removed from magnificence* (4). A recollection of Llewelyn planting trees *about Nydfwch* in 1807, and an account book of timber sales on the Ynysgerwn and Penllergare estates between 1801-19 (NLW), suggest Llewelyn took an active interest in silviculture, and this was something continued by his successor to Penllergare, Lewis Weston Dillwyn.

### 3.2 **Founding Paradise: Lewis Weston Dillwyn 1817-1833**

#### *Industrialist and Public Figure*

John Llewelyn left Penllergare to his grandson, son of his illegitimate daughter, Mary (née Adams, 1776-1865) and her husband Lewis Weston Dillwyn (1778-1855), married in 1807. Until his grandson came of age, Penllergare was managed by his son-in-law, Lewis, and in 1817 the family moved into the house.

Lewis Weston Dillwyn was a well-educated, cultured and popular individual in early nineteenth century Swansea, with connections to leading public and academic figures of the day. His father and grandfather were philanthropic Quakers, active in the anti-slavery movement and the development of Philadelphia with William Penn. When Lewis was twenty-four, his father bought the controlling interest in the Cambrian Pottery in Swansea. William Dillwyn placed his son in charge and Lewis moved to Burrows Lodge, Swansea (now the site of the National Waterfront Museum) in the same year. By 1810, Lewis was the sole owner of the Pottery, becoming Dillwyn & Co. in 1811.

The importance of porcelain in the eighteenth and early nineteenth century is often overlooked today. In the first half of the eighteenth century, porcelain was more valuable than gold, and the development of the European porcelain was a critical step in art, technology and science, characterised by extensive industrial espionage (1). Lewis was, therefore, managing an exceedingly valuable business, with even greater potential following the heavy duties imposed on imported Chinese porcelain. By 1814, Lewis had brought together the skills and capital to make porcelain, which was *the high water mark of British*

*porcelain for the purity and translucency of its body* (2) and considered by others *as the most beautiful of all English [sic] pastes or bodies* (3).

Following the loss of two key staff members in 1817, Billingsley and Walker, former employees at Worcester, Lewis leased out the Cambrian Pottery. Aged only 39, Lewis hoped that there would be sufficient capital from the estate of John Llewelyn to keep the family's existing lifestyle and run the Penllergare and Ynysygerwn estates. Penllergare was exchanged for The Willows with John's widow, and only then was it discovered how much work was needed to repair the house, which was old, riddled with damp and had leaking roofs and walls. Adding further pressure to Lewis's finances was his now sizeable family of six children; Fanny (1808-1894; married the notable archaeologist, Matthew Moggridge, son of John Hodder Moggridge (1771-1834) founder of Blackwood, an ideal community for coal miners, 1820-1827, based on the ideas of Robert Owen, with a special emphasis on gardens and vegetable growing (19)); John (1810-1882); Lewis (1814-1892; married Bessie de la Beche); Mary (1816-1906; married Revd Montague Earle Welby); and Sarah and William who died in infancy.

#### *Guardian of Penllergare*

From 1817 to 1852, Lewis kept a diary providing detailed references to the management of Penllergare. Like his father-in-law before him, Lewis took a particular interest in silviculture. Less than a year into his ownership, he was working on the estate woodlands, including the clearance of Nydfwch plantations, and the purchasing and planting of elms. Over the next ten years, Lewis continued clearing, thinning, enclosing and planting woodland, including those *near the House*, around Nydfwch, and *about Brynrhos*.

As early as 1820, Lewis formulated ideas about the future layout of the valley, planning *clumps of trees to form objects from the road in case it should ever be brought up the Valley to the house from Cadle* and planting Cilfwnwr, Tir Donkin to Cefn Cadle to *improve the view from the House*. Nine years later, when John was nineteen, Lewis noted assessing *new plantations of John's* and walking around the estate together. Such comments begin to reveal Lewis's significant role in the Penllergare valley landscape, although this was predominantly associated with his son. The main drive, constructed in Lewis's final year, was designed by John to be completed in time for his occupation.

Lewis's other significant contribution to the Penllergare estate was the acquisition of land, including twenty-four properties in the parish of Llangyfelach. As a shrewd businessman and

social climber, Lewis was particularly careful to buy up land with coalmines, or coal-mining potential.

Three years before the end of Lewis's guardianship of Penllergare, the Ordnance Survey published a second survey, providing some idea of the developments since 1813 and the achievements of Lewis Dillwyn (figure 4). The Ordnance Survey old series are normally an engraved version of the earlier surveyor's drawing. However, the significant changes noted in these Glamorgan sheets suggest re-surveying took place of the rapidly changing industrial landscape. By 1830, the original park, wrapped tightly around the house, appears to have been extended west and south, the public highway to the north pushed out and drives realigned. The park also appears to include the distinctively shaped walled garden to the south of the house. Lewis's new plantations are evident along both sides of the valley, with further, irregularly-shaped clumps dispersed along either side of the valley down to *Melin Cadly*.

Lewis's ambitious visions for Penllergare reflect his passionate interests and prominent position in a number of other disciplines. Politically, he rose to High Sheriff of Glamorgan in 1818, MP in 1832 and alderman and Mayor of Swansea from 1835-1840. As a member of the first Reformed Parliament, his portrait was included in Sir George Hayter's *House of Commons, 1833*, standing alongside Christopher Rice Mansel Talbot and the second member for Glamorgan, John Henry Vivian.

Lewis was also a great writer, publishing a number of works on natural history including *The Botanists Guide Through England and Wales* (1805), *British Confervae or Coloured Figures and Descriptions of the British Plants referred by Botanists to Genus Confervae* (1809), *Descriptive catalogue of Recent Shells according to the Linnean Method* (1817) and, later, *The Flora and Fauna of Swansea* (1841). As founder president of the Royal Institution of South Wales, vice president of the British Association for the Advancement of Science and Fellow of the Royal Society, Lewis formed a number of relationships with distinguished individuals such as inventor, Sir Charles Wheatstone, chemists, Sir Humphrey Davy and William Wollaston, and scientist, Sir William Grove, all four of which are said to have been entertained by Lewis at Penllergare. Other friends included Charles Babbage, inventor of the calculating machine; Thomas Bowdler, a physician who made his name producing censored versions of the works of Shakespeare that were considered more suitable for women and children; and the astronomer, Sir James South.

Perhaps, of more significance for the development of Penllergare were Lewis's connections with the world of botany and horticulture. He was a fellow of the Linnean Society and on amiable terms with plant collectors and botanists, Sir Joseph Banks and Sir William Jackson Hooker, with Joseph Sabine, natural historian and honorary secretary of the Royal Horticultural Society from 1810-30; Robert Brown, Librarian of the Linnean Society and keeper of botany at the British Museum; and the botanist, George Bentham.

With such connections Lewis was well versed in the latest developments and introductions in horticulture, undoubtedly influencing the planting at Penllergare. A further source of cutting-edge horticulture would have been through his friendship with George Loddiges of the Loddiges Nursery in Hackney which specialised in newly introduced hothouse plants and established the Hackney Botanic Garden to display new tree species, and through plant acquisition from the Miller, Knight and Veitch nurseries. Plants were also sourced from the local nursery, Elliotts and Morgans and from Clasemont, home of the Morris family.

Mary Dillwyn also appears to have been interested in horticulture, as suggested by the record of a conversation had with her granddaughter, Thereza, in 1856 - *...there was a garden in terraces all down the steep bank to the river, walls were built in several places, to keep the bank up, they remain at present mostly. Grandmama had first only the border under the upper wall (close to the sycamore)...After that she got the piece of ground between the next walls for her own, and that is what we call the rockwork garden. Below that it was all kitchen garden...* This description suggests the early implementation of the terrace garden, perhaps even dating from Mary's childhood.

Mary Dillwyn's description of the terrace garden, the construction date of the main drive, the joint decisions over planting in the 1820s, and the accounting of subsequent building works during the 1830s, in Lewis's diary, suggest a rather blurred transition from Lewis to John, and the joint creation of the designed landscape over several decades. This is perhaps not surprising as John had grown up at Penllergare, apparently had a close relationship with his father, sharing similar interests and ambitions, and, unlike many transitions in ownership, without a clear cut-off point between the generations, Lewis continued to influence Penllergare's development even after moving to Sketty Hall. Nevertheless, the energy and wealth of the young, newly married, John Dillwyn Llewelyn did inject a revived wave of investment in overhauling the old house and developing the surrounding landscape.

### 3.3 **Perfecting Paradise: John Dillwyn Llewelyn, 1833-1879**

#### *Penllergare's Heir*

As a condition of his inheritance, John Dillwyn was required to add Llewelyn to his name. He finally took up residence at his Swansea estate at the age of 21, following a socially and economically beneficial marriage to Emma Thomasina Talbot (1806-1881) in 1833. John and Emma had seven children; Thereza (1834-1926) (married Nevil Story Maskelyne); John (1836-1927) (married Caroline Julia Hicks Beach); Emma Charlotte (1837-1928) (married Henry Crichton in 1863 and became friends with the Reverend Francis Kilvert); William (1838-1866); Elinor Amy (1844-1887); Lucy Caroline (1846-1920); and Sybella who died in infancy.

Like his father, John's interests and passions in life led to connections with some of the most influential figures of Victorian Britain. He was a pioneer of photography, astronomy and horticulture, and a great public benefactor and champion of liberal causes. John was elected Fellow of the Royal Society in 1836, and Fellow of the Linnean Society a year later. He was also High Sheriff of Glamorgan in 1835.

John and Emma forged a dense network of social connections, predominantly through relatives and their advantageous marriages. John's younger brother Lewis married Bessie de la Beche in 1838, daughter of the famous geologist, Sir Henry de la Beche (1796-1855). Lewis himself took a prominent role in the Swansea area, running and founding local spelter and steel companies and acting as MP for Swansea from 1855-1892. Lewis and Bessie's children included Harry, a barrister; Amy (1845-1935) who took over her father's spelter-works and became one of the first female industrialists as well as a novelist and literary critic for *The Spectator*; and Mary, known as Minnie, a leading lepidopterist, who married John Cole Nicholl of Merthyr Mawr. Traherne Moggridge was a grandson awarded a FRS following his seminal study of trap-door spiders. Traherne also produced botanical drawings used at Kew, and corresponded with Charles Darwin about the evolution of wild orchids.

Emma's social links developed the network still further, connecting the Llewelyns with the Nicholls of Methyr Mawr, Trahernes of Coedriglan and Franklens of Swansea, and with her family's estates of Penrice and Margam, the former, home of her mother, Lady Mary Lucy Fox-Strangways and the latter, home of brother, Christopher Rice Mansel Talbot.

Of all John's achievements, it is perhaps the development of photography that is his lasting legacy and of greatest value to the history of Penllergare. The many hundreds of surviving photographs of the estate provide an invaluable insight into the appearance of the valley landscape in the mid-nineteenth century. Emma's cousin was Henry Fox-Talbot. John, his future son-in-law, Nevil Story Maskelyne, and his friend and distant relation, the Reverend Calvert Richard Jones, were founder council members of the Photographic Society of London, now the Royal Photographic Society, founded in 1853. John worked with all the

various processes, including the daguerreotype, photogenic drawing, calotype and the wet collodion, and invented a new process using oxymel.

Queen Victoria was much impressed with John's work and ordered copies for the Royal Collection. His compositions have subsequently been recognised for their genuine period charm and realism, as opposed to the more 'stuffed shirt' imagery or descriptive cliché approach. As Gerald Gabb of the Swansea Museum has commented, John *wasn't only a photographer; he was an artist*. John was also the first botanical photographer, and sent images to William Hooker at Kew.

### *Developing Penllergare*

In the context of this rich hotbed of local and national connections and sources of knowledge, John set about continuing his father's development of the family seat of Penllergare. Following Lewis Weston's retirement to Sketty Hall in 1833, John embarked on a number of projects, some of which were mapped by 1838 (figure 5), and others recorded either in photographs or on the first detailed Ordnance Survey map of 1876 (figure 16), three years before John and Emma retired to Wimbledon.

As already discussed, on John's return and Emma's arrival in 1833, the Cadle drive was complete, forming a backbone to the rest of the landscape. Work on the three lodges then took place in 1833 and 1834; a Lower Lodge at the southern entrance to the estate, and a Middle Lodge and Upper Lodge at the entrance and exit of an area of parkland halfway along the carriageway, the former possibly involving the reworking of an existing building connected to the old Nydfwch estate. The mansion house was rebuilt in 1835-7, modifying and incorporating the 1810 extension, and two further lodges, the North Lodge and Keeper's Lodge had been constructed by 1838.

John employed a popular nineteenth century architect, Edward Haycock of Shrewsbury (1790-1870), to design the house and lodges. Haycock had trained with Sir Jeffrey Wyattville, and is now considered to be a competent Greek Revivalist of the period, but a less successful architect of the Gothic style. Haycock completed a number of commissions in Wales and the Border Counties, including alterations to Sketty Hall for John's parents and work on the completion of Margam Castle (1830-5), designed by Thomas Hopper, specifically working on the stables, terraces and lodges for Emma's brother, Christopher Talbot. In comparison with Talbot's contemporary work at Margam, John's Penllergare was a far more modest affair, following the neo-classical villa style for the house and a picturesque, Swiss-chalet style for the lodges.

### *A Picturesque Landscape*

John did not, however, hold back on the grandeur of the landscape, damming the Afon Llan and creating two lakes and waterfalls. The Upper Lake, and dam for the Lower Lake, were in place by 1838, with the flooding of the Lower Lake completed by 1839, when the *Cambrian* reported that John Dillwyn Llewelyn had *formed the Upper and Lower Lakes, which impound vast quantities of water, at about one-fortieth of the cost of the public reservoirs which hold no larger quantity* (8). In 1910 it was reported that the construction of the lakes was *greatly aided...from an engineering point of view by his [John Llewellyn's] intimate friend, the late Mr William Hicks-Beach, who possessed a great genius as an engineer, but unhappily died before the promise of his youth could be brought to fruition*. The article went on to state that as many as a thousand men were employed on the project *during a period of great trade depression in and around Swansea* (6).

The lakes, waterfalls and boathouses, together with the remaining lengths of river, formed a regular subject for John and his family's photographs, particularly during the 1850s. The more dramatic shots of the tumbling Upper Falls and rocky meandering river, contrast with tranquil views of the lakes, reflecting trees and often featuring a carefully positioned moored rowing boat. Such photographs not only provide evidence for the appearance and state of the valley when completed, but also give us an idea of how the Llewelyns viewed and perceived their landscape. Furthermore, it indicates how John Llewelyn wanted his park to be viewed by others, as, right from the outset in 1854, John was regularly exhibiting his photographs of Penllergare in London.

The numerous compositions of Penllergare convey a Romantic and Picturesque sense of untamed nature. Despite being entirely engineered, apart from the underlying valley topography, many views included leaning trees, drooping ivy, rough river and lake shores, and dense under-storey planting amongst the woodland. Even where manmade structures are included, such as footbridges and railings, they are not ornamental, perfectly formed pieces of iron work, but rustic, irregular and wooden. The end result evokes a sense of exploring and experiencing wilderness, away from the fast-developing industrial town of Swansea and into a 'natural' world.

Stylistically, such Picturesque and Romantic landscapes were more characteristic of the late eighteenth and early nineteenth century, moving one state on from the more *intricate* landscapes of designers such as William Emes (employed by Talbot at Penrice) and towards more '*distressed*' scenery advocated by aesthetic commentators such as Richard Payne Knight

and poets such as William Wordsworth (5). One of the most famous examples of such scenery being Thomas Johnes's Hafod, a picturesque valley landscape near Aberystwyth, laid out in the 1790s and early 1800s and featuring torrents, rock-cut paths, rustic arches and extensive planted woodlands.

Penllergare's 1830s valley landscape could be said, therefore, to have been rather old fashioned in its design. This may once again reflect the influence of Lewis Weston Dillwyn, starting to transform the valley as early as 1818 and bringing up John with an eye for the style of an earlier generation. Certainly with regards to the house, there is a pattern of conserving the work of previous generations, both in the 1810 and 1835 rebuilding projects. Perhaps this indicates a shared reticence to demolish the past, and in turn help establish a greater sense of longevity of ownership of Penllergare for this wealthy family.

#### *Horticulture*

In some respects, however, Penllergare was anything but stuck in the past, exhibiting planting and structures that were at the very cutting edge of Victorian horticulture and science. Particularly well known was John's pioneering orchid house, first built in 1836 and then converted in 1843 into an epiphyte house for non-terrestrial orchids, with the addition of a hot waterfall. This was the first time an exotic natural habitat was created in Britain and was described and illustrated by John, a Fellow of the Horticultural Society, in the *Journal of the Horticultural Society* in 1846. The house was inspired by the descriptions of Guiana by the plant collector, Robert Schomburgk, and some of the heating system may have been devised with help of George Loddiges.

Orchids were a Victorian passion, widely collected and propagated. John is said to have sponsored orchid collecting expeditions with James Bateman of Biddulph Grange, Staffordshire. In Curtis's *Botanical Magazine* a Guatemalan orchid is described which was discovered by James Bateman's orchidist, George Skinner (1804-67), first flowered in the stove of James Bateman, and by 1842, grew in the *rich and well cultivated collection of Dillwyn Llewelyn Esq.* (7).

James Bateman created the quintessential Victorian garden planted with a wide range of newly introduced exotic species, at Biddulph Grange, with his friend, Edward Cooke from 1842. Cooke was married to the daughter of the Llewelyns' family friend and notable nurseryman, George Loddiges. This is just one example of the well-connected Victorian horticultural world forming the context to Penllergare's more exotic planting.



Penllergare was particularly famed for its collection of rhododendrons and azaleas. The Llewelyns' continued contact with the Hooker family, and through them, Kew Gardens, undoubtedly influenced the collection, especially as Joseph Hooker returned home with over twenty-eight new species of rhododendron from an expedition to the Himalayas in 1848-51. The best London nurseries supplied John with the latest discoveries, with evidence of business with nurseries such as Lees and Loddiges.

John appears to have been an avid planter, as described by Emma in 1841 – *he is so busy now, planting Ghent azaleas, hemlock spruces, deciduous cypresses, yews, laburnums, & Norway maples and Weymouth pines down by the Lago Maggiore [the Lower Lake]*. Later, in 1886, Pettigrew reports on mature specimens of Hemlock Spruce, *Taxodium sempervirens* (Mexican swamp cypress), *Wellingtonia gigantea* and *Cryptomeria japonica* (1842). Penllergare was not alone in its tree collection. Singleton Abbey, Clyne Castle, Margam Castle and Tredegar Park all developed good contemporary collections of exotic conifers. John would have been particularly aware of those at Singleton Abbey, the home of John Vivian, his friend and rival in local flower shows, and, of course, the collection at his brother-in-law's home of Margam. Gardening tips and specimens were also shared with John's great photography friend, Henry Fox Talbot who was developing his garden at Lacock Abbey in Wiltshire. In 1852, Henry wrote to John recommending the climber *Tasconia manicata*.

John and Emma's gardener was John Nunns (1828-1900). His death was reported in the *Gardeners' Chronicle* where he was described as a *well-known gardener* who had served as head gardener to John D Llewelyn at Penllergare for twenty-six years. When John and Emma retired to Wimbledon, they took Nunns with them suggesting a close bond between employer and gardener. Nunns's father had built up a nursery and seedsman business in Leek, in an area still known as Nunns Gardens, and John Nunns acquired a job as a second gardener in Westbury-on-Trym in 1851, before moving to Penllergare in 1861. John Nunns is the earliest head gardener to be identified to date, although presumably he replaced a head gardener working during the major period of Penllergare's transformation from the 1830s onwards.

Penllergare's evolution under John and Emma can be seen summarised in the 1876 Ordnance Survey map (figure 16). Both lakes are visible, at this stage referred to as the *Fish Pond* (The Upper Lake) and *The Lake* (The Lower Lake), surrounded by a dense planting and complex network of woodland walks, with steps and terraces immediately below the house. Each lake has a boathouse, and the Upper Lake has a further building, known in photographs as

the Shanty. To the south of the house, lawns and shrubberies lead to the walled garden, modified and extended with additional horticultural buildings.

A large quarry between the walled garden and the drive is thought to have provided much of the building stone for the new house, lodges and hard landscaping. Its absence on the 1838 tithe plan implies it was either opened in the 1830s, or possibly excavated at a later date. A watercolour of 1864 records how the quarry was made into a feature with waterfall, pool and summerhouse (figure 12).

Immediately around the house, photographs and watercolours record a flower garden of mown lawn with a bedding pattern that attempted formality, and winding gravel paths that led off into the rhododendron and azalea-filled woodland. A quintessentially Victorian formal terrace along the east front bears a small cannon, and some topiary. To the west of the house stood the Equatorial Observatory, built in 1851-2. Astronomy was another of John's passions combined with a dark room for developing photographs. Once again John was inspired by his father, who had visited the observatories of Sir James South and that of *Mr Jenkins* in Swansea, and had his own telescope at Sketty Hall. In the new Penllergare observatory, during the 1850s, Thereza Dillwyn and her father took some of the earliest pictures of the moon.

Another scientific first for Penllergare was the Swansea meeting of the British Association for the Advancement of Science in 1848, at which John and his father exhibited the first electrically powered boat on the Upper Lake. Notable guests at this event were Sir Charles Wheatstone and Sir William Grove, and the *Cambrian* reported how John and his *talented countryman Mr B Hill* (Benjamin Hill of Clydach, an expert on galvanism) had adapted an ordinary rowing boat that held six people for the demonstration.

### 3.4 **'The Last Penllergare Squire': Sir John Talbot Dillwyn Llewelyn, 1879-1927**

In 1879 John and Emma moved away from Swansea, and retired to Wimbledon. Penllergare passed into the hands of their eldest son, also John, aged 43 and married to Caroline Julia Hicks Beach, daughter of the former Lord Chancellor, Sir Michael Hicks Beach and sister of the famous Chancellor of the Exchequer, Lord St Aldwyn. Together they had eight children; Gwendoline (1867-1944); William (1868-1893); Charles Leyshon (1870-1951) (married Katherine Lister Venables); Gladys (1880-1959); and three children who died in infancy.

Like his father and grandfather, John Talbot was very involved with local politics, becoming high sheriff in 1878 and mayor of Swansea in 1891, as well as MP from 1895 to 1900, and was made a baronet in 1890. He maintained his family's philanthropic role in the local

community, being a member of the Swansea Poor Law Union's Board of Guardians, and actively involved with the Miner's Provident Fund. John was also regarded as the founder of cricket in South Wales, initiating clubs and establishing a ground at Penllergare, and was the president of the Cambrian Archaeological Society, excavating a bronze age barrow at Mynydd Garngoch on the Penllergare estate when he was only nineteen.

John's role in the evolution of Penllergare's designed landscape was relatively minor when compared to the work of his grandfather and father. Close examination of the detailed Ordnance Survey maps for the period reveal minor alterations to field boundaries, or vegetation cover, but no major overhauls in terms of overall layout. Strangely absent from the 1898 Ordnance Survey map were the Upper Lake boathouses, and by 1916 the Lower Lake boathouse has also been demolished. Timber structures, it is presumed that they reached the end of their useful life.

Possibly John's greatest impact on the Penllergare estate was on the landscape setting of the Valley Woods. Under John's ownership, Penllergare's coal reserves were exploited on a commercial level. Between 1878-87, Cefngyfelach Colliery was established as a private venture of a local Swansea resident, Edward Rice Daniel. In 1896 a mineral railway was built to connect the colliery with the Great Western Railway, and the railway was extended to connect the Tir donkin Colliery, which opened in 1899. By 1901, a new colliery was sunk in the woods at Penllergare behind Tir Dwncin Farm. Not only did these coalmines alter the character of the landscape, they also had a social impact creating a fast-growing colliery community. In particular, the settlement near Mynydd Gors Eynon began to grow and, in 1899 became known as Penllergaer.

Towards the end of his period of ownership, in 1919, John's son, Charles Venables Llewelyn became a founder member of the Wales Committee for the newly founded Forestry Commission. Around 250 acres of the valley were leased to the Commission, initiating subsequent commercial forestry later in the twentieth century and fundamentally changing the character of the former, predominantly deciduous, woodland.

Meanwhile, John's inherited passion for horticulture maintained Penllergare's national profile as a garden of repute. From 1891 John was on the Council of the Royal Horticultural Society (RHS) and its vice president, a member of National Auricula Society, president of the Horticultural Club, a Fellow of the Linnean Society, president of the national potato, chrysanthemum, carnation and picotee societies, and patron of the National Dahlia Society. In 1907, John received the RHS Victoria Medal of Honour outstanding contribution to

horticulture. He converted the orchid house to propagate camellias and, in 1911, propagated a hybrid rhododendron (*griffithianum* x *thomsonii*) *Pengaer* which received an RHS Award of Merit. In 1927, Sir John's obituary in the *Gardeners' Chronicle* stated that *no man served British horticulture more worthily than Sir John, and no one was more beloved by his fellow men* (9).

Rhododendrons and azaleas continued to be the principal attraction of Penllergare to journalists and visitors. In 1881, a report in *The Cambrian* mentioned Mr Llewelyn's newly introduced Japanese azalea, and five years later, Pettigrew noted the *immense quantities* of rhododendron species and hybrids, and praised their careful cultivation at Penllergare. Species noted by Pettigrew included *R. Viviani*, *R. eximium*, *R. Hodgsoni*, *R. barbatum*, *R. fulgens*, *R. cinnabarinum*, *R. ciliatum*, *R. Fortunei*, *R. Thompsoni*, *R. arboreum* and *R. calophyllum*.

As well as being a contributor to the *Journal of Horticulture and Cottage Gardener*, Andrew Pettigrew was the head gardener to Lord Bute at Cardiff Castle. His detailed description of Penllergare was full of praise for Mr Llewelyn and his *genial and intelligent gardener, Mr Warmington*. He approached Penllergare along the Cadle drive, describing views, and precipices and increasing *grandeur*, with valley sides well covered *with heavy timber, principally oaks*, into which were growing the aforementioned exotic conifers. He also observed many ferns including *Osmunda regalis*; waterlilies; the *observatory garden*, which was *entirely devoted to the culture of the rarest and choicest florist flowers*, alongside rockeries, pits and frames; the adjoining *new garden*, pleasure grounds with choice trees and shrubs including *Cryptomeria japonica*, *Thuopsis borealis*, *Cupressus Lawsoniana*, *Wellingtonia gigantea*, *Araucaria imbricata*, *Hemlock Spruce* and many others, broad gravel walks, a lawn tennis ground and a *cosy summerhouse*; and goes into great detail about the five-acre walled *kitchen garden* containing *forcing and plant houses*, *Melon ground*, and *gardener's house and bothy*.

Further praise was showered on Penllergare in 1895 when H. Honeywood D' Dombrain wrote about it for the *Gardeners' Magazine* commenting that *the avenue leading up to the house is no prim formal arrangement of rows of trees but a beautiful half-wild combination of all kinds of lovely things*. Similarly in 1910, an article in the *South Wales Daily News* called Penllergare a *Glorious Domain* hidden away from the local industrial areas, with woodland made special by its undergrowth of rhododendrons and azaleas, and countless daffodils. *For beauty and scenery there is nothing in the whole land of Morganwg to excel Penllergare*.

John's other role in the history of Penllergare was to initiate what was to become an indefinite love-affair of Penllergare for the local public. The grounds were open to the public

three times a year, with special openings for local Sunday Schools. The new Penllergaer Council School logged Nature Study Excursions on the Penllergare estate, arranged by Sir John. The enjoyment of Penllergare, which this public access encouraged, remained and grew beyond John's death, leading to a sense of public ownership throughout the twentieth century, to the present day.

### 3.5 **The Richards Family, 1927-1936**

In 1893, John lost his eldest son and heir, William, in a shooting accident. This was not only a tragedy for the Llewelyns, but also for Penllergare itself. The next in line, Charles, had married Katherine Minna Venables, and made Llysdinam in Radnorshire/Powys his home. Consequently, Penllergare ceased to be the Llewelyn family home and main concern, and was occupied and maintained by the butler and his family, Charles Richards of Trellech.

The Richards family lived in part of the house. Indoor staff ceased to be employed, but estate staff were retained including gardeners, woodsmen and keepers. The gardens, lawns and conservatory were looked after by Mr Edge, who lived in the Gardener's House with his two sons, and also ran a nursery in the walled garden throughout the 1930s. The head-keeper was Mr Isaac Davies and the trees, shrubs, watercourses and paths were maintained by a team of woodsmen.

The 1936 Ordnance Survey map records the final, pre-war state of the landscape (figure 19). When compared to the map of 1916 (figure 18), a number of changes to the vegetation cover are evident, in particular, virtually all of the Upper Lake is indicated as marsh, together with large areas of the Lower Lake. Two boathouses are shown on the Lower Lake, suggesting ongoing recreational use and Tirdonkin coal mine had returned to grassland following its flooding and closure in 1928. Of most significance, however, for the layout of the Penllergare landscape was the realignment of the Llangyfelach road. This had been straightened from the village and across the top of the valley, cutting off the length of river and walks above the upper lake and running over a new Melin Llan Bridge.

### 3.6 **Decaying Paradise, 1936-1999**

In 1936, the furnishings and contents of the house were sold off, including the internal fittings of the Equatorial Observatory, and four years later the mansion, Home Farm and 266 acres were acquired by the Bible College of Wales as a place of refuge for Jews fleeing Nazi persecution. The exiled Emperor of Abyssinia, Hailie Selassie, visited the Bible College for two weeks when his nephews were studying there. Hailie Selassie's godson recalls how the Emperor was a great friend of the principal of the Bible College, Rees Howells, who lived in

the Upper Lodge. Later in the Second World War, Penllergare was occupied first by British troops and then by the US army who either lived in the mansion, or in huts either side of the path to the observatory.

Glamorgan County Council acquired Penllergare House in 1954 with the intention of converting it into a school. In the same year, the valley was leased to the Ministry of Agriculture, Fisheries and Food for 997 years, and today DEFRA still holds Glyn Shilling Farm and part of Tir Dwncin, leased in 1958. The land agent during this period was Rees Richards and Co., under which management, improvements were made to various estate buildings.

Commercial forestry, instigated by Charles Llewelyn in 1919, continued to take place across the estate throughout the early twentieth century. A large area north of the valley woods was leased to the Forestry Commission in 1932 for a period of 999 years (now Penllergaer Forest). Planting began in 1933, and was carried out annually so that by 1961 there were over 600 acres of Japanese larch, Norway spruce and Sitka spruce, employing nine men. Twelve acres of bare land and eighty-four acres of woodland were leased in 1954, and the whole eastern side of the valley was designated for planting.

The next major turning point for Penllergare was the demolition of the house by Glamorgan County Council in 1961. Two years later, perhaps feeling some regret over the loss of the historic family home, much of Penllergare was repurchased by Sir Charles Michael Dillwyn-Venables-Llewelyn, 3<sup>rd</sup> Baronet (1900-76).

Other than commercial forestry, the Victorian park and gardens was also subjected to irreversible change and developments in the second half of the twentieth century. The Lower Lake was drained down in the 1960s, apparently to avoid Reservoir Act liabilities. The A483 swept away parkland and drives to the west, including Home Farm, during the mid 1970s. The construction of the M4 in 1977 wiped out the top of the valley, isolating Melin Llan. The development of the Civic Centre in the 1980s removed the remains of the mansion, its outbuildings and, with little respect to the historic layout, laid out a new drive and car park over the gardens. Not only have all these major changes had a physical impact on the Victorian landscape, they have also irreversibly altered its character, introducing, depending on the direction and strength of the wind, background traffic noise.

Following the post-war repurchase of parts of the estate there were several attempts to find an appropriate and profitable use of Valley Woods. The scheme finally adopted in 1991

stipulated that, in return for enabling residential and commercial development, the public would gain free access on foot to what was to be a country and water park.

In support of their application the developers proposed “*to recreate the grounds of the former country house, to open them to the public and, in so doing, to conserve a large area of hitherto neglected countryside...*”; To do otherwise the developers argued, would, “*...ensure that the area continues to decline into an over-grown, unmanaged wasteland, beset by periodic vandalism and fires and denied to public access.*”

In the event, the public benefit was not delivered and the estate did continue to decline into overgrown wasteland, affected by anti-social behaviour, criminal damage and an unsafe atmosphere.

### 3.7 **Restoring Paradise: The Penllergare Trust, 2000 onwards**

During all the developments and procrastination of the late twentieth century, Lewis Weston Dillwyn’s and his son and grandson’s famed, beautiful gardens and park have gradually decayed. The semi-wild nature of the original, 1850s landscape perhaps obscured the impact twentieth century neglect was having on the Llewelyns’ paradise, but comparison of old and modern views today soon highlights how far removed the parkland is from its nineteenth century state.

However, Penllergare remained constant in one respect – the enjoyment the valley has given and still gives to local residents and people of Swansea. *Echoes from Valley Woods* has numerous accounts of locals recalling fond memories of fishing, swimming, exploring ruins, and generally mucking about as children and teenagers, particularly during the 1960s and 70s. Though neglected by its owners and commercial speculators, Penllergare continued to capture the imagination and remained important to the local public. It is this enthusiasm for Penllergare that prompted The Penllergare Trust, established in 2000, to attempt to save this historic and cultural landscape from falling into further dereliction.

## 4.0 SITE CONTEXT

### 4.1 Conservation Designations

Penllergare Valley Woods is subject to the following conservation designations (figure 1):

i) *Scheduled Ancient Monuments*

The Equatorial Observatory and the Orchidaceous House are Scheduled Ancient Monuments (ref GM410(SWA) and GM596(SWA)). This designation gives each structure robust legal protection.

ii) *Listed Buildings*

The Equatorial Observatory is also a grade II\* listed building, for being *an extremely rare example of a mid nineteenth century private observatory* and one of only two such structures in Wales. The nearby buildings of Bryn-rhos farm, formerly part of the Penllergare estate, have also been listed (grade II).

iii) *Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales*

Penllergare (sic) (PGW(Gm) 54 (SWA)) has been identified as a Grade II landscape and is considered to be *a very important picturesque and Romantic landscape of the mid-nineteenth century...by a nationally important figure in horticulture* with an unusual photographic record, an intact structure despite the loss of exotic planting and with the remains of a *pioneering orchidaceous house*. The boundary of the registered landscape (figure 1) includes the whole length of the wooded valley from the M4 to Cadle Mill, incorporating the Civic Centre. Substantial areas are also designated as forming the *essential setting* of the registered landscape.

iv) *Tree Preservation Order*

A blanket Tree Preservation Order extends across the whole of the wooded valley, referenced City and County of Swansea P17.7.4.484.

v) *Penllergare Cultural, Archaeological and Historic Landscape Database*

This database, curated by the Dyfed Archaeological Trust, now forms the Historic Environment Record (HER) for Penllergare, and researchers are directed to it as the official HER by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW).



The database identifies a number of sites and structures across the Valley, and provides a short written account of the history of each item, together with a grid reference, unique Primary Record Number and digital links to relevant photographs and fact files on associated individuals. The following twenty-seven sites and monuments have been entered into the *Penllergare Cultural, Archaeological and Historic Landscape Database*:

Primary Record No.	National Grid Reference	Site or Monument
01244w	SS 624259710	Cadle Mill and village
04917w; 04924w	SS 628009881	Eastern woodland walk
04985w	SS6237499110	Flower Garden
0495w	SS624309934	Bridge at the end of the Upper Lake
02621w	SS626919804	Lower Lake and waterfall
04880w	SS627069819	Lower Lake boathouse
04943w	SS627709797	Lower Lake eastern boathouse
04907w	SS623769721	Lower Lodge and gates
04949w	SS6245199488	Melin Llan
04959w; 04989w	SS6233198084	Nydfwch track
04957w	SS6228498014	Nydfwch
04986w	SS6227899079	Observatory Garden
00985w	SS 622589909	Observatory
04848w	SS624139879	Orchid house
02112w	SS623299906	Penllergare mansion
01361w	SS 625719867	Penllergare quarry
04956w	SS 624239934	Railway
04964w	SS6273298694	River walk
04955w	SS624239933	Steps at the end of the Upper Lake
04819w	SS6240399138	Terraced woodland garden
04844w	SS6269098506	The Drive
04866w	SS 625279887	The old stone bridge
04954w	SS624129929	The Shanty
01362w	SS624629907	Upper Lake and waterfall
04845w	SS6271198592	Upper Lodge
04847w	SS 624059878	Walled kitchen garden
04913w	SS625599840	Weaver's Lodge or Middle Lodge

The location of these sites and monuments is plotted on figure 22.

#### 4.2 Ownership and Occupation

The ownership of Penllergare Valley Woods is illustrated on figure 21, and summarised as follows:

- Valley Woods, Terrace Gardens and Coed Nydfwch

Owner: Llysdinam Trust

Lessee: BJ Land Holdings Limited on a 125-year lease

Since 1991, BJ Land Holdings Limited has been required to provide and maintain Penllergare Valley Woods as a country park for public access and recreation, as part of a Section 106 Agreement in exchange for planning permission for the Parc Penllergaer housing development, which allowed for enabling works such as the transit sewerage system, currently unadopted.

The Walled Gardens and area surrounding Parc Penllergaer

*Owner:* Penllergaer Desmesne Land Settlement Trust, subject to a residual building agreement in favour of Bellway Homes Wales Ltd.

Swansea City and County Council are understood to be negotiating a deed of variation whereby the Council retains an interest in the provision of public access in accordance with the objectives of the Penllergare Trust.

The Civic Centre, car park and Equatorial Observatory

*Owner:* the City and County of Swansea.

Upper and Middle Lodges

*Owner:* Private

M4 and A48 culvert

*Owner:* The Highways Agency

Overhead Power Transmission Lines

Subject to wayleaves

Tip site east of Valley Woods

Responsibility of BJ Land Holdings Limited

Foul Water Sewers

Responsibility of BJ Land Holdings Limited, unadopted.

#### 4.3 **Planning and Policy Context**

The following section summarises the planning and policy context. More detail is provided in the Audience Development and Access Plan.

*City and County of Swansea Unitary Development Plan*

Penllergare Valley Woods is covered by the following policies in the City and County of Swansea Unitary Development Plan (due for formal adoption mid 2008):

**EV6 Ancient Monuments and Protection of Archaeological Sites**

*The Council will seek to protect, preserve and enhance Scheduled Ancient Monuments and their setting, and also unscheduled archaeological sites and monuments and their settings listed in the County Sites and Monuments Record held by the Glamorgan Gwent Archaeological Trust's Curatorial*

*Division. Where proposals affect sites and areas of archaeological potential, applicants will be required to provide the following information:*

- i) An assessment or evaluation of the archaeological or historic importance of the site or structure.*
- ii) The likely impact of development on the archaeological site, and*
- iii) The measures proposed to preserve, enhance and record features of archaeological interest.*

#### **EV7 and EV8 Extensions/Alterations to Listed Buildings and Demolition of Listed Buildings**

*Extensions or alterations to a listed building will be supported where they safeguard the following:*

- i) The character of the listed building in terms of its scale, design, materials and features which it possesses that are of special architectural or historic interest; and*
- ii) The historic form and structural integrity of the building.*

*The change of use of listed buildings will be permitted where this contributes towards the retention of a building without having an adverse effect on its character, special interest or structural integrity. Permission will not be granted for the total or substantial demolition of a listed building other than where there is the strongest justification.*

#### **EV11 Historic Parks, Gardens and Landscapes**

*Development that unacceptably adversely affects the character or setting of registered Historic Parks and Gardens or the character of Historic Landscapes will not be permitted.*

#### **EV20 New Dwellings in the Countryside and**

*In the countryside new dwellings will only be permitted where:*

- (i) The dwelling is required for people engaged in full time agricultural, forestry work or other activities supporting the local rural economy who need to live on the premises rather than a nearby settlement, and*
- (ii) There is no alternative existing dwelling available in nearby settlements and there are no existing buildings on the farm or forestry unit suitable for conversion to residential use, and,*
- (iii) the proposed dwelling is located as close as possible to the existing farm buildings or forestry complex.*

#### **EV21 Rural Development**

*In the countryside non residential development will only be permitted where it can be demonstrated that:*

- (i) It is beneficial for the rural economy or rural employment, or*
- (ii) It meets the overriding social or economic needs of the local community, or*

*(iii) It is an appropriate development associated with farm diversification, sustainable tourism and recreation, or nature conservation and does not adversely affect the viability of an established farm unit, or*

*(iv) It provides an acceptable economic use for a redundant building(s) or previously developed land, or*

*(v) It is essential for communications, telecommunications, other forms of utility service provision, minerals or renewable energy generation.*

*Proposals for any of the above would need to demonstrate that:*

*(a) The development needs to be located in the countryside rather than in a nearby settlement, and*

*(b) The business is viable and financially sustainable, and*

*(c) The proposal is in accord with the conservation and design policies of the plan.*

#### **HC25 Lliw/Llan Valley**

*The further development of the Lower Lliw Valley Reservoir and Llan Valley Woods to provide for sustainable recreation and tourism within a framework of protecting and enhancing natural heritage and historic environment is proposed.*

*Details of this policy include:*

*The Llan Valley is an attractive steeply sloping wooded valley at Penllergaer and is in private ownership. This area has considerable potential for recreational use, particularly as it is strategically located in relation to the motorway. The majority of this woodland area forms part of the Penllergare historic park and gardens and its further development for recreational purposes should respect the character and setting of the historic park and garden as specified within Policy EVI 1.*

*Eastern areas of the valley are covered by the following policy:*

#### **HC26 Informal Recreation**

*Opportunities for informal recreation in the countryside and within the urban greenspace system will be promoted provided that:*

*(i) There would be no unacceptable significant adverse harm affect harm to the character or appearance of the countryside or urban greenspace,*

*(ii) There would be no unacceptable significant loss of amenity to people living in the vicinity or to the enjoyment of other countryside users,*

*(iii) There would be no significant adverse harm to sites of importance in terms of natural heritage and the historic environment, and*

*(iv) Access can be provided by a choice of modes of travel, but particularly on foot, by cycle and public transport.*

Areas covered by policies HCI (housing site for ten plus dwellings – now developed as Parc Penllergaer) and ECI (Employment Land) lie adjacent to Penllergare Valley Woods. The area of old parkland between the former drive and the modern boundary of Parc Penllergaer does not appear to be covered by any policies at all. The walled garden is covered by historic park and garden policy EVI 1, but has been excluded from policy HC25. Also lying adjacent to the historic landscape are areas covered by policies EV27 (protection of SSSIs and National Nature Reserves), and EV23 (green wedges Gorseinon and Llan Valley) which seek to protect landscape openness and character.

*People, Places, Futures - The Wales Spatial Plan (2004)*

This document produced by the Welsh Assembly stresses the importance of Wales's high quality landscapes and how their preservation and enhancement will be *increasingly important to the long term ability of Wales to be a place where people choose to live and work.*

*City and County of Swansea Tourism Strategy 2006-11*

The strategy identifies the potential for Swansea to become a major regional centre for tourism, supported by the Wales Spatial Plan. It is hoped that tourism will contribute towards the Council's stated vision for Swansea to become *one of Europe's foremost year-round maritime destinations for leisure and business tourism, offering a unique blend of high quality recreational, sporting and cultural experiences in an outstanding environment.* Under Area 5: M4 Corridor, Penllergare Valley Woods is identified as a key location and site for tourism, with the *products required being Golf course and leisure resort with country park at Penllergaer (depending on planning) and Regeneration of Penllergare Valley Woods including observatory with photographic links.* The strategy actions include *Support the regeneration of Penllergare Valley Woods* citing the relevant stakeholders as The Penllergare Trust and the Countryside Council for Wales.

#### 4.4 **Wildlife Designations and Data**

The ecological habitats on the site were surveyed in 2002, and a simplified map is included as figure 23.

In Swansea's *City and County's A Local Biodiversity Strategy and Action Plan (2006)*, Penllergare was selected as a candidate for a *Site of Interest for Nature Conservation (SINC)*.

The Countryside Council for Wales and the Forestry Commission have identified Plantations on Ancient Woodland Sites (PAWS) in the upper valley and eastern side of the lower valley. Although there is limited historic evidence for Ancient Woodland, site evidence supports the view that pasture woodland and ancient hedgerows (figure 23) have contributed to the semi-natural woodland habitats.

Habitats of principal importance for conservation of biological diversity are said to include:

Wet woodland

Wood pasture and parkland

Lowland mixed deciduous woodland

Ancient and/or species rich hedgerows

Lowland dry acid grassland

Purple moorgrass and rush pastures

Eutrophic standing waters

Plant species of special county interest include:

Wood club-rush

Wood small-reed

The sub-erect bramble

Narrow Buckler-fern

Smooth stalked Sedge

Pendulous Sedge

Species included in the Countryside Council for Wales Category A, List of Globally Threatened Plants include Bog Asphodel and Whorled Caraway.

Penllergare is well known for its bluebells, and was once famous for daffodils. Extensive areas of the woodlands are affected by invasive exotic weeds including Himalayan balsam, bamboo and *Rhododendron ponticum*. Bracken, although native, also acts as an invasive weed on the site. Japanese Knotweed and related species occur in isolated pockets.

Penllergare Valley Woods also provide an important *transit site and reservoir of breeding woodland birds* (18). A 2001 survey identified fifty-nine species of birds in the Valley, forty-four of which are thought to nest in the woods. Most observed birds were the wren, robin, wood pigeon, blackbird and chaffinch. Buzzards, red kite, greater spotted woodpecker, sparrow-hawk, dipper, tawny owl, song thrush, kingfisher and yellow wagtail have also been observed.

Brown trout are common, and salmon spawn upstream. The Lower Lake is said to contain recently introduced coarse fish.

Mammals observed include rabbit, fox, bats, grey squirrels, mink and badger. Otters and foxes were hunted at Penllergare during the nineteenth century, and both are believed to be present.

#### 4.5 **Access and Accessibility**

##### *Getting to Penllergare*

The April 2008 visitor survey revealed that 84% of respondents travelled to Penllergare Valley Woods by car, 10% walked and only 2% used public transport. This reflects the reality of the park, bounded on two sides by major roads which sever the site from many of its nearest residents.

The nearest bus-stops are located at the Swansea Council offices, at the Midway Café on the A48, and on the A483 west of Parc Penllergaer, and south of Cadle Mill (figure 24), within a short walk of the site boundaries. These provide the only means of convenient public transport to the site. The nearest railway station is some distance away at Cockett. There are no National Cycle Network routes running in close proximity to Penllergare, the nearest located along Swansea Bay, leading up to Cockett railway station. The valley is used, however, by local cyclists and horse riders and cycle storage is being erected next to the Council offices for use by the staff and members of the public.

##### *Entering the Valley Woods*

There are currently three principal entrances into Penllergare and a number of subsidiary and informal gateways (figure 24). The northwest entrance shares the drive and car park with the Council offices. A signposted path leads into the woods from the car park via a kissing gate. The northeast entrance runs off a lay-by and footpath alongside the A48, and follows a track into the woods which also provides vehicular access for forestry vehicles. Gates and a further barrier near the top of the Upper Lake prevent unauthorised vehicular access to the Woods. Both northern pedestrian entrances link to the wider path network around the woods, although there is limited directional signage to welcome unfamiliar visitors. As these entrances are linked to informal parking areas, they are the most well-used access points, leading to a focus of public activity around the northern end of the valley. A further principal entrance follows the original historic estate entrance, through Cadle and past the Lower Lodge. This offers vehicular access to the Woods for authorised vehicles only. Pedestrians can either access the Woods via the drive itself, or via a footpath off the drive

that follows the riverbank. This entrance also offers visitors a picnic site. Two additional entrances run from Parc Penllergaer and through the eastern boundary of the site, to the Lower Lake.

In addition to these three principal entrances, there are a number of informal pedestrian access points including further links with Parc Penllergaer. The Trust's proposal for a suspended walkway through the M4/A48 culvert at the head of the truncated valley, linking Valley Woods to Penllergaer Forest and the motorway service station, has been shelved on the advice of Forestry Commission Wales, pending resolution of anti-social behavioural problems in their area.

#### *Walking around the Valley*

The Valley itself is served by a network of pedestrian routes of varying quality and accessibility. The most accessible path through Penllergare is the old drive, which is wide, surfaced and gently sloping. Pedestrian routes through the woods are predominantly worn mud paths or made up of rough hardcore, linked with steep sloping paths or historic stone steps. River crossings are limited to three bridges; a metal vehicular bridge with a barrier, and a single beam footbridge, between the Upper and Lower Lakes, and a second single beam footbridge crossing the river below the Lower Lake. There are no benches within the Woods, excepting a few picnic tables at the southern entrance.

Interpretation and guides for walkers is limited to a bilingual visitor leaflet, a walk routes leaflet and map in English only. This map is also displayed at the three principal and one secondary entrances.

#### *Remote access*

Additional remote access to Penllergare is provided by the well-illustrated and informative Penllergare Trust website. From July 2007 to June 2008 the website received 13,725 hits. The website also sells the latest publication on Penllergare's history, *Echoes from Valley Woods*. Publicly-funded studies and surveys are deposited at West Glamorgan Archive Service for public reference. The Swansea Heritage website also provides online access to the early historic photograph collection of Penllergare in the mid nineteenth century.

## **4.6 Community Involvement**

In putting together *Echoes from Valley Woods*, The Penllergare Trust interviewed a large number of local people and recorded their memories of Penllergare. Poetry and quotes from



local children were also sought and included in the publication, as were first-hand descriptions and correspondence from family and visitors over the past two centuries. Together, these accounts reveal the strong sense of continuity and community ownership of the site, and how Penllergare appeals to a cross section of society. Past and ongoing involvement of the community includes the following initiatives:

#### *Community Engagement and Education Programme*

Given the lack of human and financial resources of the Trust at its inception, Trustees decided to concentrate on two fields of activity: Community engagement and education (C2E); together with gaining as much knowledge and understanding as possible about the place through archival research and surveys to inform future restoration and management. It was only in 2005 that sufficient funds became available to enable the Trust to take preliminary steps in making Valley Woods a safer and more functional place for visitors.

The Trust has been running a Community Engagement and Education Programme (C2E) for some nine years. This consists of an on-site and in-school Local Schools Programme, involving projects with five local primary schools; community events, primarily consisting of guided and themed walks, and talks to outside organisations (over 160 to date), as well as an audio history archive. The Penllergare Valley Woods Forum, representing the views of local people and stakeholders, provides a regular link between the users and the Trust, and the Friends of Penllergare Valley Woods. The programme is funded from 2008-2012 with a Big Lottery *People and Places* award.

#### *Friends of Penllergare Valley Woods*

The Friends of Penllergare is affiliated with The Penllergare Trust. The purpose of the Friends is to raise funds, promote and support the Trust's activities, and also provide a programme of meetings, site visits and events, together with a specific Friends publication and a Trust newsletter. Members are charged a £10 annual subscription. There are currently 200 subscribers (over 300 members).

#### *Website contributions*

Community involvement is also achieved through the Trust's website which requests any personal archives, memories and photographs to add to their knowledge of Penllergare's history; and seeks suggestions and ideas for future management of the Valley, as well as views on its current condition.

#### *Partnerships*

So far the Trust has established the following informal partnerships and relationships:

- City and County of Swansea

- The Forestry Commission
- Blaenymaes, Portmead, Penplas Development Trust Limited (BPP)
- Five local schools

• School of the Built and Natural Environment, Swansea Metropolitan University

- British Trust for Conservation Volunteers (BTCV)
- Countryside Council for Wales
- Penllergaer and Llangyfelach Community Councils
- The Gower Society
- Swansea Council for Voluntary Service
- Welsh Historic Gardens Trust

*Public Consultation*

Formal public consultation was carried out in Spring 2008. Key findings of the consultation were:

- The majority of respondents visited Penllergare 1 to 5 times a year; 17% never visited, but supported the work of the Trust;
- 84% of visitors travelled to Penllergare by car;
- Most visitors knew about Penllergare because they were local, and had lived in the area a long time;
- Most visitors went to Penllergare Valley Woods to walk, although many also enjoyed the site for its wildlife, quietness and scenic beauty;
- 70% of respondents visited the Upper Valley and the Lower Valley about the same amount, with no preference for one area;

• The favourite feature at Penllergare was the Upper Falls;

- The presence of both off-road vehicles, including quad bikes and motorcycles, as well as burnt out, abandoned vehicles, are the main factors that put visitors off from visiting the Valley. The final car wrecks were removed during the survey period;
- Trees and heritage were both cited as topics visitors would like to know more about, with a clear demand expressed for guided walks, interpretation boards, guide books and interpretative maps;
- Woodland management, benches and picnic areas were all popular choices for park improvement;
- Of the respondents, 44 came from Swansea, and 10 came from further afield. Two respondents were disabled, and the majority were white European, retired and aged 65 or over.

#### 4.7 Management, Maintenance and Administration

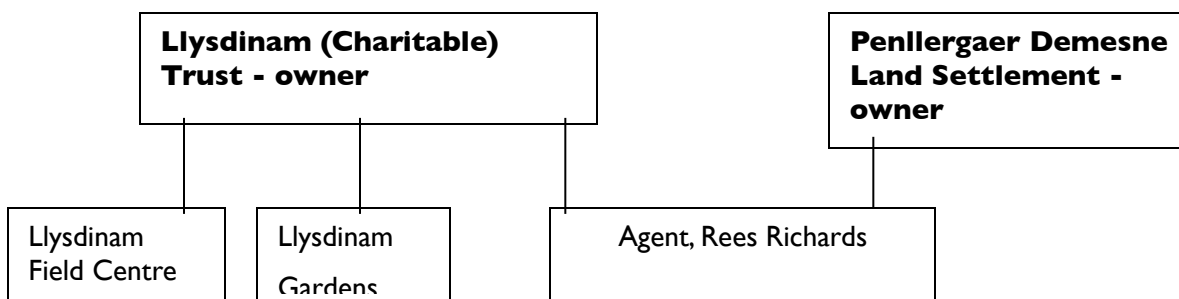
The ownership and legal status of Penllergare is quite complex, and has, in recent years, left the responsibility for managing and maintaining the landscape in limbo. The Penllergare Trust was established in 2000 as a registered charity and company limited by guarantee to address this situation. Following years of neglect due to protracted negotiations about the future of Penllergare, the Trust was set up:

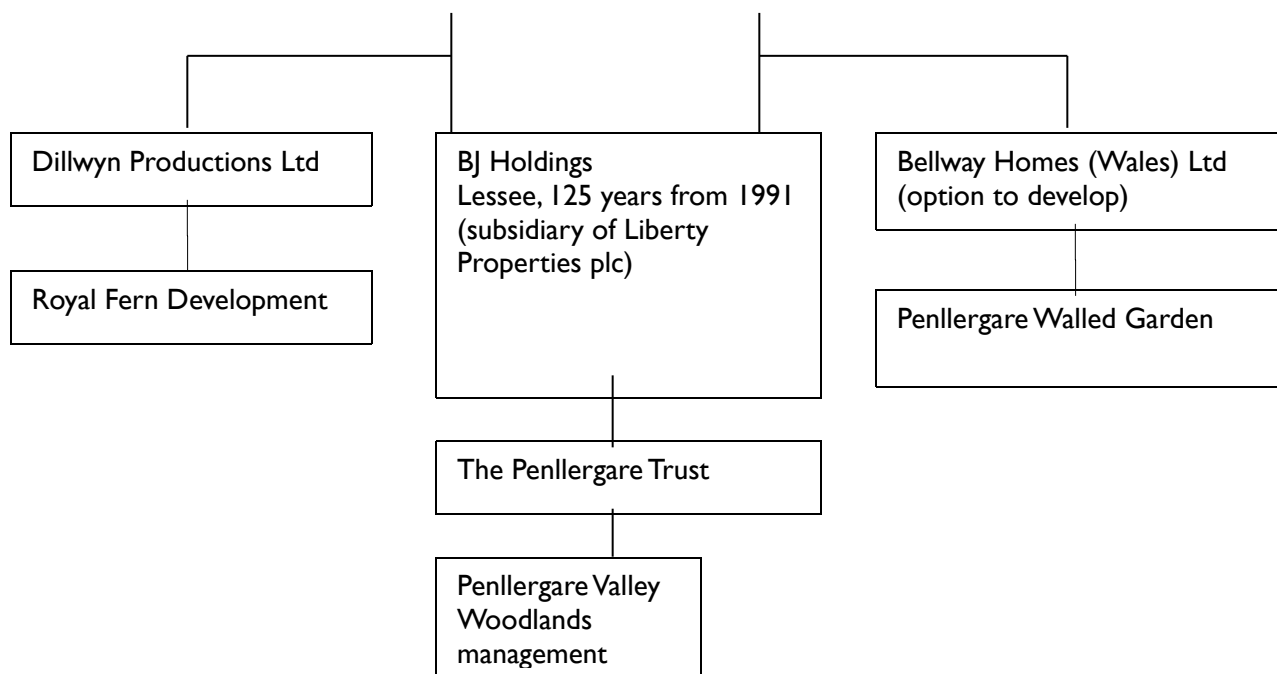
- *to further the protection, conservation and restoration of the cultural landscape of Penllergare.*
- *to protect and enhance Penllergare`s diversity of wildlife.*
  - *to provide an oasis in the surrounding urbanisation for free, quiet enjoyment by local people and visitors on foot.*
- *to promote knowledge and appreciation of Penllergare, its history and biodiversity.*
- *to provide sustainable training and employment (including volunteers).*

The Trust comprises of five trustees, a volunteer company secretary cum project manager, and the salaried Head of C2E, all of whom have expertise in historic landscape management and Penllergare’s heritage. There are six meetings a year and invitees include representatives from The Gower Society; Blaenymaes, Portmead and Penplas Development Trust; a local resident and user of the Valley Woods; and the County Councillor for Penllergaer ward.

The Penllergare Trust operates a de-facto management regime, with the intent of acquiring a secure interest in the tenure of the Valley Woods in the near future. Work by the Trust to date has included removing burnt-out cars, clearing scrub, woodland regeneration and revealing historic stone steps. The Trust has also invested in essential infrastructure including 14km of footpaths, kissing gates, a vehicle bridge, two footbridges, and vehicle gates and barriers. These have helped control access into the Valley and improve the security of Penllergare. The increasing popularity of the Valley Woods with walkers helps to improve the security of the site by ensuring a degree of public presence, complemented by the woodland management team and volunteer wardens from time to time.

The current administrative organisation of Penllergare is summarised below:





Despite the Trust's efforts to conserve the Penllergare over recent years, it has not had the legal or financial capability to make major progress with the management and restoration of the site. Consequently, although the worst effects of misuse have been curtailed, the overall condition of Penllergare remains poor. Examples of some of the landscape's weaknesses identified by the site survey are listed below:

- degraded and uneven path surfaces;
- the loss of specimen trees and shrubs;
- exposed sewage pipe across the river;
- overgrown and neglected areas encouraging further littering and minor vandalism, leading to a spiral of decline;
- the poor visual quality of the lakes and river;
- overgrown lakes and river banks;
- limited signage, interpretation and sense of welcome;
- risks to buried archaeology from adjacent tree growth;

The Trust has raised some £260,000 for the benefit of Valley Woods, supplemented by voluntary contributions valued at £237,000. A further £509,000 has already been raised for activities and works over the next four years.

These grants are restricted to specified purposes including:

## C2E

A Big Lottery Fund three-year grant of £260,000 (80% of the total cost) under its *People and Places* programme, towards the cost of employment of a project manager, Head of C2E, a volunteer and training coordinator and whole-life education coordinator to achieve specified outcomes in health and well-being, learning and social inclusion, as well as safeguarding the environment.

## *Better Woodlands for Wales*

The tradition of high-quality woodland management to be revived at an initial cost of £384,000, with a grant of £238,000 from the Forestry Commission. During 2008-12 Valley Woods will benefit from restored Ancient Woodland, planting of new native woodlands and improved condition and diversity of existing, neglected woodlands. Local communities will benefit from improved access for recreation, training and employment. In the longer term, the woodlands could become a source of revenue through sustainable harvesting. *Better Woodlands for Wales* has allowed the continued employment of three full time workers, known as the Woodland Management Team. They manage the woodland and paths, and carry out general maintenance works, under the direction of the Trust's volunteer project manager. All are local residents.

Specialist works are undertaken by external contractors as necessary. Volunteer wardens and Friends are also involved with landscape improvements and litter picking.

## 4.8 **The River Llan**

The river Llan drains a mainly rural catchment north of Swansea, which historically included some coal pits, a large tinplate works, railway, and more recently, motorway upstream of the site. It is part of the Loughor catchment, a typical Welsh river with steep upper catchment, and the river flow reacts quickly to rainfall. Downstream, the river drains a more urban landscape at Fforest-fach, before flowing into the Loughor estuary, a European Special Area for Conservation (SAC). There is one licenced surface water abstraction within the site. The river is said to support brown trout and salmon, and may have some value for sea trout.

Since 2001 there have been four recorded potentially polluting incidents along the river Llan:

- December 2004 Sewage leakage upstream
- September 2005 Sewage manhole discharge on site due to blockage
- February 2007 Sewage discharge 200m SW of Midway cafe

- June 2008                      Siltation of the river due to upstream works

The Tawe, Loughor and Gower Catchment Abstraction Management Strategy (Environment Agency, 2007) identifies that there is water available for abstraction on the river, including higher levels of 'non-consumptive' use (provided that low flows are protected) for hydro-power.



## 5.0 SIGNIFICANCE AND OBJECTIVES

This Statement of Significance seeks to summarise what it is that makes Penllergare Valley Woods so important nationally and locally. On the basis of this understanding, broad objectives are identified to direct future management and conservation.

### 5.1 Statement of Significance

The values that contribute to the local, national and international importance of Penllergare can be grouped under the following five themes:

i. *Historic Designed Landscape*

Penllergare has been registered by Cadw on account of its partial survival as a very important picturesque and Romantic landscape of the mid-nineteenth century created by John Dillwyn Llewelyn, a nationally important figure in horticulture. The unique photographic archive, the survival of the underlying structure of the landscape, and the ruined orchid house and walled garden are also cited as primary reasons for registering Penllergare. Despite the neglect of recent decades, the well watered and wooded landscape still retains the original designed qualities of magnificence, surprise, beauty and seclusion.

ii. *Local Community Green Space*

Penllergare has provided the people of Swansea and the local area with a highly valued, informal, public open space for over a hundred years. It also forms part of an important green wedge of countryside between the M4, A483 and the spreading conurbation of Swansea, providing the only substantial recreational space north of the city. This has been recognised with a blanket tree preservation order and in the proposals of plans and strategies by the local authority to focus attention on Penllergare and make it fully accessible as a community woodland and country park.

iii. *History of Science and Technology*

The activities, innovations and social network of the owners of Penllergare placed the landscape, by association and physical intervention, at the centre of some of the most advanced scientific and technological developments of the nineteenth century.

- Photography; as the home of John Dillwyn Llewelyn, Penllergare played a special role in the history of photography as the subject of some of the earliest artistic photographs, at a time when the technology was still being refined.
  - Astronomy; with its own private observatory, Penllergare became the site of early astronomical observations, made more significant when combined



with the Llewelyn's pioneering development of photography resulting in some of the first photographs of the moon. Today, the observatory is the second oldest equatorial observatory in Wales.

- **Physics;** Penllergare was the site of the pioneering experiments in electricity, in particular one of the first demonstrations in the world of an electrically propelled boat.
- **Natural History;** Penllergare contributed to Lewis Weston Dillwyn's study on the Flora and Fauna of Swansea, and his 1805 *Botanists' Guide*.
- **Horticulture;** the passion of the Llewellyns for gardening, planting and cultivation placed the landscape at the forefront of horticultural science, exemplified by the pioneering design of an orchid house that received national coverage by the horticultural press.
- **Botany;** connections with some of the leading nurserymen, plant collectors and directors of Kew gave Penllergare a link with the latest plant introductions into the UK, in particular, newly discovered rhododendrons.
- **Industry;** Penllergare was the home of the Cambrian pottery works entrepreneur, Lewis Weston Dillwyn at the time of its very highest quality production (and subsequently with Lewis Llewelyn Dillwyn for Etruscan ware); the landscape's geology lent itself to mineral exploitation with clay excavation and the later coal mining which contributed significantly to the character and spread of the modern local urban landscape.
- **Engineering;** the creation of the lakes and waterfalls were examples of the Victorians' incredible drive for projects on a grand scale, built with durability and apparent effortlessness to create a dramatic natural landscape.

iv. *Wildlife Value*

Penllergare Valley Woods supports a number of natural habitats and offers visitors a valued opportunity to observe and enjoy wildlife. Of particular importance for the ecological significance of the site are veteran trees, rhos grassland, river habitats, ancient woodland sites and adjacent SSSI.

v. *Cultural Value*

Penllergare remains close to the heart of many local people who have known the Valley all their lives, and have cherished memories of the estate as expressed in *Echoes of Valley Woods*. Penllergare and the Llewelyns are synonymous with charitable and philanthropic gestures in the surrounding villages and towns including schools, hospitals and poor houses, as well as Penllergaer church and Parc Llewelyn. The various political roles taken by the Llewelyns of Penllergare are important to the cultural history of Swansea.

## 5.2 Objectives

On the basis of the above historic analysis and statement of significance, the following objectives for conservation and management are put forward for consideration:

- i. as a priority, to stabilise and conserve the scheduled and other archaeology, and the surviving historic landscape fabric of Penllergare, *in situ* including, earthworks, built structures, ground levels, specimen and veteran trees, and key views;
- ii. to conserve the historic character of Penllergare by the active management of the estate, woodland and park landscape, its core features and areas, to the *last significant design phase*, based on the best available evidence (Ordnance Survey of 1876, photographs and written records) but subject to avoiding works which would endanger the scheduled archaeology, or increase the impact of modern development on the landscape;
- iii. to enhance appreciation, interpretation and intellectual access to Penllergare's heritage, through interpretation, publications and events;
- iv. to conserve and enhance biodiversity primarily through the management of the existing landscape rather than by the creation of the new habitats;
- v. to seek funding and partnerships towards conservation and management projects consistent with coherent priorities, phasing and a programme of works;
- vi. to display copies of key archival evidence and artefacts to improve public appreciation of the site through partnerships with the Swansea Museum and West Glamorgan Archive Service;
- vii. to seek to retain and enhance protection of the Penllergare landscape through the planning system;
- viii. to improve access and welcome to the Valley for people of all abilities and increase access to the maximum degree practicable consistent with the characteristics of the site, and avoiding use of the private car;

- ix. to improve the quality of facilities for visitors including basic refreshments, toilets, benches, picnic tables and the provision of car parking appropriate to the use of the site;
- x. to build on the sense of community ownership, volunteer involvement and responsibility, and minimise anti-social activity in the park;
- xi. to improve the economic and environmental sustainability of Penllergare Valley Woods, and establish a secure financial basis for the coherent management of the Valley partly through increasing returns from activities;
- xii. to involve people of all backgrounds and abilities in the improvements, enjoyment and upkeep of Penllergare.

## **6.0 GENERAL ISSUES AND PROPOSALS**

## 6.1 Protection of the Historic Landscape

### *Issues*

The following issues currently threaten the survival of the historic landscape:

- Penllergare Valley Woods currently lack an owner able to invest both capital and revenue in the protection, conservation and management of the historic landscape. Although largely owned by a charitable trust, the majority of the area is leased to a property company which, despite the existence of a section 106 planning agreement, has no effective control or management, leaving the historic landscape at risk of neglect, vandalism and misuse. It is, in effect, an extensive area of blighted urban fringe that the unitary authority has indicated cannot be supported by care revenue expenditure. It is currently an unsustainable public amenity and historic landscape.
- The landscape is relatively well protected from further development through the Unitary Development Plan policies EV11 and HC25. However, still at risk are the areas excluded from such policies, including a central area of parkland west of the drive, near the houses of Parc Penllergaer, and the immediate setting of the landscape outside the registered boundary, such as around Cadle to the south. The development of Royal Fern Golf Club and housing to the east of the Valley Woods could also pose a threat to the setting of the historic landscape, in particular, in views from the carriageway and Graig Nydfwch Wood. The development of peripheral parts of Parc Penllergaer has already had a serious negative visual impact on the western side of the Valley. The observatory, and ruins of the orchid house, have statutory protection, but the former is now marooned and in poor condition, isolated from the rest of the landscape by the surrounding Council office car park, while the latter is a ruin at risk of ongoing decay and vandalism.
- Surveys by the Dyfed Archaeological Trust have gone a long way in identifying, locating and researching component features and sites to archaeological standards. The resulting database now guides researchers and the Trust. However, it is in a digital GIS format, which limits accessibility for day-to-day use. The fullest possible understanding of the site is essential for informed conservation.

### *Proposals*

- i. The Penllergare Trust, *de facto* occupier of the majority of the land, should seek to acquire a secure, long term tenure of the whole surviving registered historic landscape together with its essential setting. The *surviving* landscape excludes those areas already developed for housing, Council offices and car park. Acquisition should include the area of the walled garden, albeit that this may only be separately or sequentially acquired, possibly by another partnership body also eligible for lottery and public funding. This proposal, and the work of the Trust, support the objectives of the landowner, the Llysdinam Trust, including promoting applied research, education, and best practice in silviculture and horticulture. Furthermore, restoration of Penllergare Valley Woods would enhance the reputation of the landowners, and add long term value to the estate.
- ii. Promote the continuing protection of the historic landscape through Local Development Frameworks and the planning process. In particular, promote the allocation of Section 106 funding from any future nearby developments for the delivery of the Country Park planning consent, and promote the revision of the Cadw Register boundary to include the one area of parkland currently within the *essential setting*.
- iii. Ensure that the GIS records are also available to Trust staff as hard copy and digital reports as a basis for integrated planning and management of the site.

## 6.2 Physical Access to and within Penllergare

### *Issues*

- Swansea City Council are increasing use of their offices and car park during weekdays, limiting informal use of the car park as a means of access. Other potential parking areas at Midway Cafe and Cadle are perceived as insecure.
- Although the Trust has erected basic signage at entrances, Penllergare suffers from a poor sense of welcome. Consultation has also highlighted that uncertainty about whether or not access is allowed has also discouraged visitors.
- The audience development analysis has identified the existing and perceived difficulties of getting to Penllergare by public transport.
- The consideration of options for visitor facilities and parking at Penllergare will determine, to some extent, the location of primary entrances. Figure 29 illustrates the location options considered as follows:

- P1 Parking at the Midway Cafe and lay-by site.
- P2 Parking in woodland adjacent P1, with direct access off the A48.

- P3 Parking in woodland at the north-west corner of the woodlands, accessed off the Council office entrance drive.
- P4 Parking on hardstanding adjacent to the walled garden, on the edge of housing at Parc Penllergaer.
- P5 Parking within or adjacent to the site at the Cadle Mill entrance.
- P6 Parking at the Keeper's Lodge site.

Many other entrances are possible for pedestrians from residential areas, but only the above six options are considered to offer some prospect for vehicle access off the public highway. Each option has been assessed against criteria listed on table 1 below.

<b>Car Park Option</b>	<b>Impact on the landscape</b>	<b>Car Park Security</b>	<b>Accessibility for visitors</b>	<b>Cost</b>	<b>Capacity</b>
P1	Parking at the lay-by or cafe site would have no impact.	Currently with a poor reputation.	Accessible off M4 junction, but distant from the walled garden with some steep paths.	High land purchase cost for the cafe site. Scope for partnership with cafe owners.	Cafe site high capacity, including coaches.
P2	Parking within the woodland would have some impact on tree loss.	Within site boundary.	Accessible off M4 junction, but distant from the walled garden with some steep paths.	Moderate construction cost.	Low capacity, coaches could drop off in the lay-by.
P3	Some tree loss within the woodland.	Some benefit from office security.	Good, scope for easy access to walled garden, slopes down to river.	Assume within land acquisition. Construction cost moderate.	Limited capacity in the woodland; overflow potential in the office car park.
P4	No impact; existing hard standing.	Close to private houses.	Excellent access to walled garden,	Potentially high land cost, low	Limited area.

			but within residential area and difficult for new visitors.	construction cost.	
P5	Tree loss within the site, no impact along old road.	Currently with a poor reputation. Poor scope for supervision. Existing problems with gate entrance.	Very remote from the core visitor attractions of the walled garden and waterfall.	Moderate construction cost within the woodland.	Scope for overflow capacity.
P6	No impact; good views of the site.	Currently private.	Poor, narrow access through residential area. Remote from walled garden and waterfall.	High land purchase cost.	Low capacity due to area and access.

Further options to the east of Valley Woods, such as those which may arise following implementation of the Royal Fern development would be, like option P6, remote from the areas of core visitor appeal at the Waterfall and walled garden.

### *Proposals*

- i. Of the six options examined, P3 appears to be the most practicable option, offering visitors reasonable access to the core areas. The slope of the existing pathway to the north-east would need to be modified to achieve an accessible circuit link. However, this option is dependent on consent from Swansea City Council to use the access, and erect suitable entrance signage on the A48. If this option cannot be achieved, P1 represents a higher capacity option, and P2 remains a further option. P4 offers valuable scope for regular access by horticultural trainees, volunteers and staff. P1, and P5 would remain viable as free, informal parking for local, regular visitors. P3 also has the advantage of being the location of the nearest bus service stop, and also

the entrance for a large 'captive' audience, lunchtime workers from the Council offices.

- ii. Consult with Swansea City Council to agree how overflow, weekend car parking might be accommodated within the existing office car park for visitors to Penllergare.
- iii. Seek to enhance public transport and cycle access links by improving the weekend bus service, timetable labelling to include *Penllergare Valley Woods*, and linking to the Sustrans National Cycle Network route 4 at Gower Way, Gowerton. Promote sustainable transport on the website and leaflets.
- iv. Install improved bilingual welcome signage at every entrance.

### 6.3 Physical Access within Penllergare

#### *Issues*

- There is insufficient waymarking of routes, and therefore visitors are not guided on the length and difficulty of walks around the Valley Woods once on site.
- Occasional use by horse riders churn up paths making access difficult for many visitors.
- Bridges essential for visitor circuits are either missing or are inaccessible for wheelchairs and pushchairs.
- Challenging topography limits access within the woodlands, up and down the valley sides.

#### *Proposals*

- i. Extend the primary stone-surfaced access circuits plotted on figure 24, to include access to all the main features of the landscape (including walled garden, waterfall, and recreated *Old Bridge*) primarily by reinstatement of historic paths and drives. Historic routes affected by the M4 construction will need modification to reinstate gentler slopes.
- ii. Recreate *Old Bridge*, and modify existing bridges, wherever feasible, to allow access by wheelchairs and pushchairs.
- iii. Consult further on the scope to designate a single route (the old main drive) as a permissive cycle route only, subject to trials and acceptable conduct.
- iv. Ensure accessible routes are clearly indicated on signage, leaflets and more effective waymarking around the site.
- v. Investigate the feasibility of a bridle circuit, distinct from the footpath network.



- vi. Ensure all site furniture (simple slab benches, fishing platforms, interpretation and signage) meets accessibility requirements.

## 6.4 Interpretation, Education, Volunteers and Skills Training

### *Issues*

More interpretation of the history of Penllergare, both social, scientific and horticultural, has been requested by visitors. In the light of the prevailing situation with tenure the policy of the Trust is to limit on-site interpretation and signage to the minimum necessary for safety and waymarking.

From its inception the Trust has operated a school programme, which has been commended by teachers and pupils. This programme could be taken further with greater use of the landscape as an outdoor classroom for a variety of subjects. The Trust currently works with five primary schools, but school visits from these are limited because:

- to maximise personal attention and in the interests of safety, only 30 children from Year 5 and 6 only can visit at any one time;
- visits are limited to a maximum of two and half hours;
- there are no facilities, and in particular, no toilets or sheltered area to eat lunch;
- no one can provide teaching in Welsh at present;
- many schools are not able or willing to provide transport to the site. —

Penllergare offers limited training opportunities at present, although the significant potential for training in conservation and countryside management has been identified. The Association for Real Change, who promote the learning and training of people with disabilities, is a corporate member of the Penllergare Friends group, although have yet to play an active role at Penllergare. Training is severely limited by the lack of accommodation in the form of a training room or other basic facilities.

Penllergare Valley Woods is used by the Swansea Metropolitan University's School of Built and Natural Environment, as well as Gorseinon College, both of whom are seeking greater partnership working with the Trust.

Beyond the current volunteer project manager, the use of volunteers is limited at present due to the need of supervision and lack of a volunteer coordinator. However, the Big Lottery will fund full-time posts to address these deficiencies. The Woodland Management Team is readily capable of working with volunteers; the Trust estimates that the value of contributions by volunteers was nearly £117,000 from March 2006 to March 2007.

### *Proposals*

- i. Establish organisational and interpretative links with Swansea Museum and West Glamorgan Archive Service, which should be the deposit of choice for artefacts. For example, the Museum are willing to lend framed historic photographs for use at events and exhibitions. This should be expanded to link a heritage trail with other Llewelyn sites in Swansea.
- ii. Develop an interpretation plan for the site which is fully bilingual, and provides links between publications, website and leaflets, entrance signage and interpretation, including printed guides, mobile phones audio tours and downloads, and subtle *in-situ* interpretation through waymarking, carved benches and identification of original photographic locations. The *Safari Guide* approach promoted by Land Design has particular potential at Penllergare as a personal record of a visit encouraging active engagement and learning by all ages.
- iii. Develop and extend the current role of volunteers and trainees, with woodland work, to embrace masonry, horticulture, stewarding, interpretation, wildlife, and fisheries. This should be achieved by building on existing, and developing new partnerships, for example, with BTCV who have a service level agreement with the probation service. Training provision should also be written into the preliminaries of any specialist contract works.
- iv. Interpretation should be developed and implemented throughout the project, to include temporary interpretation during works such as guided walks, and before and after images.
- v. Further develop education, learning, volunteer and training programmes as set out in the Access, Audience Development and Training Plan through the Big Lottery *People and Place C2E* project.

## **6.5 Audience Development**

### *Issues*

Only six of the fifty five respondents to the April 2008 *Have Your Say* questionnaire found out about Penllergare initially through The Trust's outreach, education or community activities.

The Trust has intentionally kept publicity low-key during this initial period to avoid raising

public expectations and losing audience when the landscape is still in such a poor condition. Instead, audience development to date has focussed on providing information through publications, promotion of current restoration works and guided walks and talks, in order to ensure that those who visit Penllergare are informed of the reasons for its current condition, and the initiatives in place to overcome this. Leaflets are available as downloads from the website and are distributed at guided walks and talks, as well as by the woodland management team and volunteer wardens on an opportunity basis.

The Trust is keen to extend its current C2E Programme and will do so with the assistance of the Big Lottery funding, with particular emphasis on the following categories of potential visitors who are currently under-represented in visitors on site:

- Locally resident adults, particularly those under 65.
- External visitors and tourists
- Children and teenagers of school age
- Single females
- Parents with toddlers
- People with disabilities
- Ethnic minorities
- Non-car owners

There is a lack of Welsh literature at present. The website is only in English, and does not cater for Welsh language users.

Penllergare is not on a well-trodden tourist circuit, but lies alongside the M4, the major tourist route.

The Access, Audience Development and Training Plan for Penllergare identified an issue with the image of Penllergare, perceived by many as a derelict site lacking investment. There was also a general lack of awareness by local people and visitors, partly because the site has received only limited promotion.

The Trust has yet to establish a recognisable identity, which would help with its marketing potential and promotion. The Trust has a low-key marketing approach limited to the website, publications, leaflets, the C2E programme and features in local press.

### *Proposals*

- i. Community outreach can be achieved through a wide range of partnerships including, for example, the Gateway Gardens Trust – *a unique heritage-based charity enabling access to the beautiful historic parks and gardens of Wales*. It provides *free, tailor-made visits to wonderful gardens in Wales..., covering transport costs, admission, special guided tours and when possible, light refreshments, for education, respite and fun!* Further proposals for audience development and community engagement are set out in the Access, Audience Development and Training Plan.
- ii. The website and marketing literature should convert progressively to a bilingual format.
- iii. For the local communities, the Trust have adopted a nomenclature of *Penllergare Valley Woods* which accurately reflects the character, appeal and facilities at the site, as a community woodland. However, this does not adequately reflect the second identity of the site, as historic gardens which it is planned to open to the public. *Gardens* implies a distinct set of facilities summarised as *loos, brews, and views*, but including plant sales and flowers. Penllergare has to promote this double identity, or adopt a new, inclusive and clear branding, such as *Penllergare's Secret Valley* or *Penllergare: Valley, Woodland and Gardens*, which could include the community woodland, waterfall, and gardens under the one heading.

## 6.6 Site Furniture, Infrastructure and Security

### *Issues*

Litter is currently collected by a volunteer warden and there are no litter bins. Dog waste bins are provided at each of the main entrances.

There are problems with the unadopted sewage pipe, owned by BJ Holdings, which serves the industrial estate, motorway services and Parc Penllergaer. The Trust does not wish to take responsibility for it.

Penllergare Valley Woods has suffered from a number of acts of vandalism and anti-social behaviour over recent years, undoubtedly encouraged by the apparent lack of upkeep and poor condition of the landscape. The landscape once provided a secluded, unstaffed, tempting and challenging environment inviting reckless driving by motorbikes, quad bikes, amphibians, and car thieves, as well as arson, vandalism of structures, some graffiti, fly-tipping and general littering. The dumping of stolen and burnt-out vehicles has been a serious issue over the last decade; however, this problem has been largely resolved through the erection of entrance barriers, work by the police, and removal by the Trust. Direct contact is maintained between the Trust, police, and the Council's environmental health services.

Of the forty-five responses to the question *Does anything ever put you off visiting Valley Woods?* in the April 2008 *Have Your Say* questionnaire, thirty-two noted security issues including unauthorised vehicles, burnt-out cars, fear of being alone, vandalism, fear of youngsters, and insecure parking. Areas affected by vandalism, arson and fly tipping were also flagged up as respondents' *least favourite areas*.

#### *Proposals*

- i. The key to protecting the landscape from damage appears to be to create secure gateways and boundaries. The Trust has achieved secure gateways, but some further work with boundaries is required.
- ii. The Trust should avoid taking on the unadopted sewer.
- iii. Site furniture should be limited to robust, appropriate and picturesque features, including rustic footbridges modelled on the historic record, simple oak slab benches, timber waymarking posts. Consideration should be given to Swansea City Council's standard route marking convention.
- iv. Forest roads and main drives should be surfaced, compacted and cambered to a fine, dark grit finish to match the historic views. The Trust should continue to upgrade waymarked footpaths, including concealed stone drainage to footpaths subject to waterlogging.

## **6.7 Visitor Facilities**

#### *Issues*

The Midway Café off the A48 lay-by is the only refreshment outlet within the vicinity of Penllergare Valley Woods, and is about to be reopened. There are no visitor facilities, and no toilets on or near the site.

The Trust have mixed views on the issue of charging for entrance to all or special areas of the Valley Woods. In order to create viable and sustainable access to the historic landscapes, the Trust consider that the following minimum are required:

- an education and training room for use by school visits and trainees, urgently required to meet the Trust's current Big Lottery Fund contract;
- basic offices for Trust staff, employed to deliver the above;
- simple toilet and refreshment facilities, to enable the Trust to promote the site during and after conservation works and, ideally to generate income to support the long term management costs

Six options have been considered and are illustrated in figure 29:

- V1 Acquisition of the Midway Cafe could enable the development of a large capacity restaurant and training and learning facility, with plenty of car parking and capacity for coach visits. It could also generate income from passing motorists.
- V2 To avoid high capital acquisition costs, a new building within the north-east woodland corner could create a similar but smaller facility, more attractive to visitors but of high construction cost. Both options are a considerable distance from the core features, over 500 metres from the walled garden.
- V3 Acquisition of the Swansea Council staff bungalow would create immediate staff offices and learning facilities, close to the existing car parking and within 200 metres of the walled garden and observatory.
- V4 Would require the stabilisation, repair and conversion of ruinous walled garden buildings, including lean-to bothies and, possibly, the Gardener's Cottage. Conversion and repair costs would be high per square metre, but create highly attractive, if small size, spaces. Only the Gardener's Cottage has the potential floor area for education use. The walled garden is over 200 metres from the car park option P3, which is probably too far for toilet facilities.
- V5 Would involve a new building in woodland at the far southern end of the site.
- V6 The site of Keeper's Lodge is understood to be a building plot on the market, which would require a new building. Although central to the western site boundary, only one path links the site to the main visitor circuits, and it lies 700 metres from the walled garden, almost 1 km from the waterfall.

Each option has been assessed against the following criteria:

<b>Facilities option</b>	<b>Impact on Landscape</b>	<b>Access to Visitor Circuits</b>	<b>Potential for income generation</b>	<b>Re-use of historic/existing structures</b>	<b>Cost</b>	<b>Capacity</b>

V1	None	500m from core visitor features	High	Adapt existing	High, acquisition and adaptation	High
V2	Loss of woodland trees, avoid sloping site, attractive setting.	500m from core visitor features	Moderate	New build	High build cost	High
V3	None	Good access to gardens and waterfall	Moderate	Use existing	Low	Limited as existing. Adaptation could improve.
V4	Positive impact	Good access to gardens, but remote from main visitor car park	Moderate	Convert historic	High	Limited
V5	Loss of woodland trees	Very remote from core features	Moderate	New build	High build cost	High
V6	None, good views	Remote from core features	Low	New build	High build cost	Limited

### *Proposals*

- i. While V1 has the greatest potential to deliver financial returns, V3, reuse of the bungalow, dependent on consent from Swansea City Council, has scope for providing a short term solution at moderate cost. V4, conversion of walled garden buildings has longer term potential for learning facilities. Short-term training facilities could be provided at V2 or adjacent to V3, and later redeveloped as the main entrance, cafe and toilets for visitors.

## 6.8 **Landscape Management**

### *Issues*

The three-strong Woodland Management Team is progressively bringing the woodland back into management, and restoring footpaths. Each member of the team has a chain saw certificate. The Team is currently funded through the Better Woodland for Wales grant scheme which is unlikely to meet the long term cost of maintenance works. Survey works

over several years have identified key vegetation, specimen trees and shrub to be retained and protected. The objective is to manage the landscape as recorded in 1876.

There is limited open space management, with limited areas of bracken control and periodic arson affecting vegetation. There are no livestock on site excepting occasional strays.

### *Proposals*

- i. Identified plantations on ancient woodland sites (PAWS) should be progressively converted back to native woodlands by commercial thinning of conifers and encouragement of natural regeneration, except where these coincide with the core garden areas. Under the Better Woodland for Wales agreement.
- ii. The main central area of historic parkland should be progressively thinned, fencing reinstated, and grazing reintroduced using robust, ideally locally traditional, breeds of cattle, managed under a Tir Gofal agreement.
- iii. Areas of open ground previously woodland or plantation should be replanted using locally native trees and shrubs following bracken control, and managed with the long term aim of achieving continuous cover. Under the Better Woodland for Wales agreement.
- iv. Woodland open ground management, including periodic cutting or seasonal grazing with temporary fences, should be used to retain the open character and habitats of previous pasture woodland areas.
- v. Other areas of plantations should continue to be managed, ideally under a continuous cover regime, with a view to producing net income from woodland management in the long term.
- vi. Identify and retain veteran and specimen landscape trees to their maximum safe biological life.
- vii. Boundary fences and hedgebanks should be progressively repaired, replaced and cut or laid as appropriate, starting with bounding livestock areas, or where there is a history of trespass or misuse.
- viii. Unsurfaced, informal footpaths should be maintained by cutting a two to four metre swathe at least once each year, and ditches crossed using simple plank bridges with rustic handrails. Steps, where necessary, should be stone or timber edged, wet paths drained with a stone-edged drain.
- ix. Main public circuit paths, main drives and access tracks should be maintained as stone-surfaced tracks, with large-sized stone, reclaimed aggregate hardcore, overlaid by fine crushed rock or grey grit free of visible wastes. Tracks should be graded,



cambered and rolled at five year intervals, to remain substantially free of large puddles. Verges should be flail-cut or strimmed at least once each year, two metres wide.

- x. Public access routes should be inspected annually to any hazards including potentially dangerous trees requiring tree surgery or felling; routes may need to be diverted away from key veteran habitat trees which cannot be made safe. Known risk areas should be inspected more regularly.
- xi. Conserve, retain and repair any surviving iron parkland railings.
- xii. Manage the riverside by periodic cutting back of invasive exotic weed species within five metres or more of the stream, including Himalayan balsam, confirmed *Rhododendron ponticum* and coppicing a proportion of young trees, to improve light to the water and views along the river, in consultation with the Environment Agency.

## 6.9 Sustainability and Biodiversity

### Issues

Sustainability is, in essence, about ensuring that activities today do not reduce the choices for future generations. The following initiatives in managing Penllergare seek to improve sustainability:

- improve the quality of the local environment, reducing the incentive to travel further afield
- increase the capacity for pedestrian and cycle access to the Valley Woods
- facilitate the use of public transport to visit the site
- recycle garden wastes through composting
- minimise waste arising from visitor facilities
- minimise the use of noxiously treated timbers
- encourage the use of local produce
- use hardy plant stock of local provenance
- minimise the use of inorganic fertilisers and pesticides
- select long-lasting products for hard landscape features
- adopt energy conservation measures as part of any building refurbishment works and the preferential use of renewable energy and fuel.
  - wherever feasible, surface water drainage will be fed into groundwater
- protect and enhance biodiversity

Biodiversity is addressed specifically through the grassland and woodland management proposals, compliance with the law regarding protected species, together with the creation of new woodland areas. Further ecological surveys are outstanding. Peat is not required for use on the site, and peat-free plant suppliers would be selected. Herbicide use would be carefully managed, and minimised by the use of mulches produced on site.

#### *Proposals*

- i. As part of the detail design stage carry out a protected species survey of areas affected by works.
- ii. Investigate the potential for hydropower as part of the upper lake restoration works.
- iii. Review the potential for links to the Swansea Sustainability Trail via websites, the *green map* and leaflet.
- iv. Carry out bat, invertebrate, lower plant and riparian zone surveys.

### **6.10 Procurement, Project Management and Programme**

#### *Issues*

Project and management works need to be completed in ways which are demonstrably cost effective, yet also contribute to skills training, volunteer and other objectives, including building local skills and capabilities.

Key risk areas for the management of the project and site include:

- the need to grow community support and engagement
- the need to win the confidence and support of local agencies and partners, Swansea City Council, existing and neighbouring property owners
- arson, theft, vandalism, flytipping and antisocial behaviour
- technical challenges with, and cost estimation of, structural masonry, glasshouse, hydropower, lake works and desilting and potential wildlife issues
- the need or the acquisition of land rights
- lack of underlying revenue funding

#### *Proposals*

- i. Close site supervision and controls should continue to be developed by retention of the Woodland Management Team, and addition of skilled head gardener, to manage and monitor works on site, reporting to an experienced project manager. As much

as possible of the works should be carried out by employed staff, trainees and volunteers.

- ii. As agreed with the Big Lottery, skills training, volunteer involvement and community engagement should build on the planned C2E team by building partnerships with specialist training, volunteer and learning social enterprises.
- iii. Specialist consultants and contractors should be employed for technically challenging works, but with contract preliminaries requiring training, volunteer and community engagement.
- iv. The Trust will need to continue to build confidence and capability by adopting progressively more challenging projects, ensuring that each phase addresses both urgent conservation needs and community engagement.
- v. The Trust will also need to develop project priorities in response to opportunities to secure land rights, as and when they arise.
- vi. Sustain the Penllergare Forum as a mechanism for local community consultation, but also seek to establish formal, regular liaison with Swansea Council.

## 6.11 Income Sources

### *Issues*

Given that the Trust will be seeking to acquire land rights with limited speculative or productive value, the scope for income generation will be necessarily constrained. It is only through the work of the Trust to open up, restore and promote the landscape that limited opportunities may arise.

The potential to generate revenue from the site is limited by its nature, planning designations, and the Trust's own charitable purposes, including:

- *to further the protection... of Penllergare*
- *to provide an oasis in the surrounding urbanisation for free, quiet enjoyment by local people and visitors on foot...*

Consideration of a paid entry area has been excluded for the present time following consideration of the options with Trustees and the Penllergare Forum. In particular:

- local people have gained free access to virtually all parts of the site without restraint for many years
- the primary users are, at present, local residents familiar with the recent history of the site
- the waterfalls, which are a key feature for potential future visitors, are also a primary area for public access at present
- the creation of a pay barrier around the garden areas would be difficult to control and impact upon the essentially Romantic character of the landscape

- the potential for charging for access to the walled gardens, the only area already defined by potentially secure boundaries, is probably limited in value. A comparable exercise at Lydiard Country Park, Swindon, charges only £1.80 per head, with free parking and good quality facilities.

It is understood that the section 106 planning agreement for the funding and management of the Country Park has proved not to be workable, and that the City and County of Swansea are not prepared to take on the substantial financial liability. As a basic minimum, this liability is considered to include:

- a basic woodland management budget to periodically regenerate uneconomic woodlands
- annual safety inspections and works to the main public access routes and structures
- maintenance of listed and curtilage structures and scheduled monuments
- maintenance of secure boundaries and gateways
- statutory duties for control of weeds and pests
- removal of fly-tipped wastes
- Quarry Act obligations
- insurance premiums
- minimum administrative costs

The estimated costs associated with these elements are considered to be in the region of £100,000 per annum, identifying this as the minimum nett revenue target. These maintenance activities could be achieved by a mixed team of employed staff, volunteers, trainees and specialist contractors.

#### *Proposals*

- It is proposed to meet these costs using a wide range of sources to reduce exposure of the Trust to individual, specific risks. Each source is likely to be individually modest, but should include:

- Seeking a Tir Gofal agreement for Middle Park, say, £500 p.a.
- Better Woodlands for Wales long term woodland management grant for works to sustain the community woodland, say, £2000 p.a.
- Timber sales from productive woodland management, say, average 400m<sup>3</sup> p.a. sold standing at £10/m<sup>3</sup>.
- Parking charges for visitors using the Trust's own car park, say, £2 each for 10,000 cars p.a.
- Hydropower electricity sales, nett of maintenance costs, say, £10,000 p.a. (see appendix 6)
- Refreshment and shop sales from modest visitor facilities, say, £20,000 p.a.

- 
- Added value woodland craft produce, firewood, plant and produce sales from volunteer and training activities, say, £5,000 p.a.
  - Marquee pitches, location fees and commercial events, with a target of three events p.a. at £2,000 each.
  - The value of volunteer activity, primarily adding value to the minimum maintenance levels, but contributing towards some of the basic requirements.
  - Fees charged for horticultural, woodland and environmental training sessions and facilities.

The latter proposal is potentially important as a means of securing long term financial support from the Unitary Authority, health trusts and others in return for specialised services which may include a Forest School, horticultural therapy and similar activities. Two strategic options exist. Either to deliver training services primarily through partnerships with others, with fees relating purely to the provision of built facilities, basic administration and support; or to take on specialised services directly, employing skilled staff to deliver the full service. The latter option is considered to fall beyond the balanced approach implied by the Penllergare Trust's charitable purposes, and therefore it is proposed that the Trust should seek to develop formal partnerships with specialist organisations which have complementary objectives.

- ii. Following a substantial period of investment during the conservation and restoration works, the Trust will need to ensure that many events and activities are self funding, or generate small surpluses. Potential sources of minor net revenue, additional to the major sources listed above, include:
  - bushcraft and greenwood courses
  - fishing permits
  - education fees and overhead charges
  - commercial horticultural and woodland training sessions
  - orienteering fees
  - mobile phone interpretation call charges
- iii. During the project development stage, prior to formal site acquisition, prepare a detailed, business plan to demonstrate management, maintenance and viability of the site in the short and long term.



## **7.0 AREA PROPOSALS**

The following section outlines restoration, management and development proposals for individual areas of the site, as subdivided on figure 26. Proposals are also illustrated on the Masterplan, appendix 8.

### **7.1 Council Offices**

#### *History*

The site of the early eighteenth century house of the Price family. A small parkland was mapped around the house by 1813 with thick perimeter tree belt and approach drives from the west and north. The house and park were extended by 1830, with realignment of approach drives and local public roads, with extensive renovation and rebuilding of the mansion in 1836, and further drives, parkland and outbuildings to the north of the house plotted in 1838. Equatorial Observatory and new northwest wing of the house built by 1876; further alterations to the layout of the gardens north and south of the observatory were carried out between 1898 and 1916. The house and grounds purchased by the Bible College in 1940; requisitioned by the army during World War Two; sold to Glamorgan County Council by 1954; house and outbuildings demolished in 1961, except for the Equatorial Observatory. The site and Observatory were sold to Lliw Valley Borough Council in 1977. Civic Centre, car parks and new entrance drive from A48 built and laid out by 1981.

#### *Condition*

Civic Centre now Swansea City and County Council offices. The Equatorial Observatory is a Scheduled Ancient Monument but is in poor condition with evidence of damp penetration. A single storey unused staff bungalow lies east of the office block. The land to the northwest is well wooded and bound to the north by the A48 and junction 47 of the M4, and to the west by the A483. New housing has been developed to the south. Limited, peripheral areas of the nineteenth century gardens or parkland remain undisturbed but overgrown, and the Observatory is the only surviving built structure. The whole area remains under the ownership of the Council and is included with the registered landscape.

#### *Proposals*

- i. Seek an agreement for occasional, event or overflow use of the office car park and vehicular entrance for access to the Valley Woods.
- ii. Seek an agreement to enable the improved maintenance and interpretation of the Equatorial Observatory. Seek to reuse the Observatory for interpretation and education.

- iii. Seek to acquire the disused single storey staff bungalow and its immediate vicinity for the development of a short term Penllergare Valley Woods training and education room, and Trust offices. If this is unsuccessful, an alternative short term site will be required for the same purposes.
- iv. Secure the boundary between the Valley Woods and the office car park to control informal access and fly-tipping.
- v. Present information on the history of the house and grounds through interpretation and periodic tours for staff working in the offices.
- vi. Ensure that Council staff are informed about events, activities and attractions within the Valley Woods, and encourage regular access and participation perhaps including lunchbreak and after-hours volunteer and team building activities.
- vii. If training, Trust office and, possibly, education activity can be accommodated within re-used and restored walled garden buildings, seek to re-use and redevelop the short term facilities for visitor interpretation, toilets, cafe, craft and plant sales, to support the work of the Trust.

## 7.2 Upper Lake and Terraced Gardens

### *History*

Woodland plotted to the west of the river in 1813 and on both sides by 1830, some on the eastern side being designated as Plantation on Ancient Woodland Sites (PAWS). Flower garden at the top of the western valley side recorded in tithe apportionment and old mill, old bridge and rapids plotted along the river in 1838. Formal gardens in place by 1840s. River dammed and Upper Lake and falls formed shortly afterwards, known as *Fish Pond* by 1876. Terraced gardens with linking steps, circuit paths, lakeside walks, footbridges, a narrow gauge novelty railway, boat house and *The Shanty* also all in place by 1876; the old mill had been demolished. Boat house and *The Shanty* removed by 1898. Some silting up of the lake indicated in 1916 together with a new structure in the woodland to the northeast of the house and some minor realignment of the valley walks. Considerable silting of the Upper Lake by 1936, with almost the entire area plotted as marshland; northern tip of the valley cut off from the rest of the landscape through the realignment of the A48, to accommodate the M4 motorway. Western side of the valley shown substantially cleared of woodland in 1946.

### *Condition*

The area retains a number of striking historic landscape features including the Upper Falls, stone steps between drystone terrace walls, original paths and some original planting. Many paths are in poor condition or with limited accessibility, especially on the western side of the valley. The lake remains silted with diminishing areas of open water. Some repair work took



place on the Falls during the 1990s, and these remain a prime attraction for local visitors. An upstream gabion weir was also installed forming the new northern edge of the lake. The old stone bridge has been demolished and replaced with a sewage pipe and wooden decked bridge; the wooden bridge has been vandalised leaving it impassable. This area forms one of most well visited parts of the Valley Woods, due to proximity to public transport and car parks, and the attraction of cleared and restored historic features, in particular the Falls. The whole area is owned by the Llysdinam Trust, leased to BJ Holdings, and lies within the registered landscape.

### *Proposals*

- i. Survey the lake and potential silt deposition areas to confirm volumes and landform capacity; sensitive wildlife features needing to be protected, recreated or mitigated for; and detail measures required for the works. Secure land drainage and other consents as necessary including waste registration exemption.
- ii. Survey and record the Falls and dam structures to prepare detailed masonry, engineering and landscape schedules of repair and consolidation.
- iii. Clear trees and coppice bankside vegetation growing on the Upper Lake and restore the lower three quarters of the lake to its 1876 form and character by the excavation and removal of circa 18000m<sup>3</sup> of silt to a downstream deposition area, a kilometre distant, enabling an open bracken area to be restored as species-rich wet grazing pasture, part of the parkland. Clear the lake up to the upstream gabion weir, and reuse this for future silt trap management.
- iv. Repair the fabric and character of the Falls to original functioning condition. Remove graffiti.
- v. Replant woodland east of the lake informed by historic views and stump evidence, predominantly native oak woodland.
- vi. Install a low head hydropower Archimedes screw generator largely concealed within the earth bank east of the Falls, controlled to avoid reduction of water flows over the Falls during low flow period. Adopt a hydraulic offtake to reduce visual impact at the dam top level, if necessary. Install view plates, interpretation board and power generation gauge built into the generator house door, largely built into the hillside. Sell power generated to the Council offices, business park or national grid, within 250 metres. See attached feasibility study (appendix 6) which indicates a modest annual income. Basic maintenance would be carried out by Trust staff, with annual inspections.

- vii. Recreate the *Old Bridge* in traditional stone construction, to resemble the original as closely as possible, to form a key fully accessible part of the pedestrian circuit, also incorporating and concealing the sewage pipe.
- viii. Restore and where necessary, reset stone steps of this historic nineteenth century path network, either side of the Upper Lake, and improve safe access where essential with the installation of rustic wooden handrails to the east, and wrought iron to the more formal routes to the west.
- ix. Record and repair the drystone retaining walls, in particular those along the length of the drive.
- x. Reinstate the rustic cleft oak fence along the top of the drive retaining wall.
- xi. Selectively thin woodland to favour veteran and specimen trees and shrubs, coppice laurel and clear confirmed *Rhododendron ponticum*. Propagate specimens present, or in the historic record, on the site, and replant to recreate a high quality woodland garden, albeit without fine lawns and annual bedding recorded in specific areas of the gardens.
- xii. Survey, record and reopen key designed views and vistas.
- xiii. Reopen the main historic path routes, retaining as much original fabric as possible, restoring a fine, self-binding gravel or grit surface, as the primary visitor circulation routes.
- xiv. Modify the modern access tracks and barriers over the A48 river tunnel to create more accessible pedestrian and maintenance access.
- xv. In cooperation with the Highways Agency and Forestry Commission Wales consider a pedestrian link to the north of the M4, using an underpass walkway.

### 7.3 Cae Pant

#### *History*

Apparently part of the parkland around Penllergare house in 1830 and recorded as an enclosure called *Cae Pant* in 1838 with a plantation in the southeastern corner. Mature parkland trees plotted in 1876, an area incorporating an extension of the pleasure grounds from the north containing a perimeter walk, shrubberies and a circular seat or summerhouse. East-west boundary indicated by 1916; remained part of the designed landscape setting of the house in 1946.

#### *Condition*

Although overgrown with trees and shrubs, this appears to be a small, intact fragment of the landscape with rhododendrons and azaleas, and a few specimen trees including a very fine, mature Monkey Puzzle tree. Archaeologists have identified the terrace of an old road running 4m above and parallel to the main drive, which then appears to have been used as a

footpath lined with rhododendrons. Earthworks of other paths have also been identified. A modern path provides a route into the landscape from the adjacent housing estate. The area is owned by the Penllergare Demesne Lands Settlement and is included within the registered landscape.

#### *Proposals*

- i. Selectively thin trees and scrub to reopen a central part of the former parkland and pleasure grounds to create a gently sloping access route between the main drive and the Walled Garden, reopening the historic path. Manage the open area as lawn.
- ii. Identify the surviving ornamental shrubs, including rhododendrons, and consider the scope for propagation and planting elsewhere in the gardens.
- iii. Retain a dense woodland belt alongside residential boundaries and the Council offices adjacent.

## **7.4 The Walled Gardens**

### *History*

First plotted in 1830, and shown again in 1838 with a southern extension. First mention of an orchid house in 1836; orchid house improved in 1843. Garden paths, glasshouses, horticultural buildings, fruit trees recorded in detail in 1876, together with a slip garden to the east with pool and glasshouse, and plantation and open ground with kennels to the south. Glasshouse extensions and gardener's cottage built by 1898. New link path from the walled garden to a path around quarry laid out before 1916; walled garden used as a commercial nursery during the 1920s; and additional glasshouse erected alongside the gardener's cottage by 1936.

### *Condition*

The walled garden and slip gardens are now ruinous and overgrown, with some vandalism and fly-tipping. The garden walls themselves are in good condition in places, but have been breached or are compromised by tree growth in others. Lean-to bothies and other horticultural structures as well as the Gardener's Cottage are also abandoned and in a ruinous condition. Surviving historic infrastructure includes iron railings and gate, rusting hot wall boiler and pipes, path edging, nails for wall trained plants, and some fruit trees and camellias. The field once containing the kennels has been developed with housing, and the remaining plot of land around the Gardener's Cottage survives as coarse grassland. An area of hardstanding remains to the east of the Gardener's Cottage left over from the development of the adjacent housing estate, a path runs past this area, providing informal pedestrian access from the housing estate into the Valley Woods. The area is owned by the

Penllergare Demesne Lands Settlement and is included within the registered landscape, which also incorporates the site of the kennel field, now housing. The ruined orchid house is a Scheduled Ancient Monument. Dyfed Archaeological Trust has made a survey of the walled garden.

### *Proposals*

- i. Seek to acquire and restore the walled garden area and ruined structures as a horticultural training area, with restoration and high quality cultivation of the walled garden following the historic layout, conserving surviving historic features including the orchid house, dipping pool and path edging. Horticultural use of walled gardens is considered to be the only appropriate setting to the Scheduled Ancient Monument, the orchid house. Horticultural restoration and management should be carried out under the control of a working head gardener, directing teams of volunteers, trainees, Friends and community groups. The National Trust's walled gardens at Llanerchaeron and Knightshayes are managed on a similar basis. It is anticipated that cultivation could, so far as is now practicable and permissible, echo Victorian techniques, as well as meeting local training and community objectives. Cropping may vary from year-to-year, according to the availability and skills levels of trainees and volunteers, with unused areas laid to grass and, possibly, larger areas of conventional vegetables grown organically. The reconstructed peach house, for example, might be used to grow organic tomatoes. However, whatever is grown should be set out within the historic layout, paths and structures of the historic walled garden. It is not proposed that the walled garden should be managed on a commercial basis.
- ii. Survey the condition of the walls and structures and carry out stabilisation and conservation works as a first stage, clearing the walls of ivy and other invasive vegetation.
- iii. Secure the boundary of the walled garden to reduce informal access and discourage anti-social behaviour, but open on a daily basis as an attraction for visitors to Penllergare, and sell surplus produce. A small entrance fee could be charged but is unlikely to be economic to operate. However, selected lawn areas of the gardens could be used for community events and, occasionally, let as a marquee pitch for functions.
- iv. Seek progressive and phased restoration of the horticultural buildings, informed by conservation statements for each element. It is unlikely to be feasible to reinstate the full, working Victorian structures, and priorities should be informed by significance, potential viability and condition. For example, as and when the walled

gardens are adequately secure, seek scheduled monument consent to reinstate the orchid house, retaining all surviving fabric, as an act of interpretation, using the historic record, contextual information and *in situ* evidence to inform an accurate restoration. Heating could be provided using solar panels, electricity, bottled gas or other fuel to avoid impact upon the original coal-fired components which should be retained.

- v. Where restoration cannot be justified, some of the peripheral structures should be conserved and then reused by the addition of entirely reversible conversions to provide for horticultural training or associated uses, such as equipment and material storage, volunteers' mess room, gardens office, craft shelter, compost toilet, interpretation and education.
- vi. Structural replanting of the garden including wall-trained fruit should utilise varieties known at, or available to, the mid nineteenth century gardeners of Penllergare.
- vii. Seek to restore the Gardener's Cottage as an education and training room on the ground floor, with gardener's flat over.
- viii. The large, southern, slip garden to the walled garden could be fenced off and reused as a community orchard or vegetable allotments, to meet local demands.

## 7.5 The Quarry and Upper Lodge

### *History*

Upper Lodge clearly recorded by 1838. Quarry photographed in 1856 and illustrated with a summerhouse in 1864, but not clearly mapped until 1876, when surrounded by coniferous woodland, a circuit path around the quarry linking the drive and walled garden, and with a small structure high up in the northwest corner (presumed to be the summerhouse). Upper Lodge photographed 1852, plotted with a small, enclosed garden by 1876, altered again by 1898. Summerhouse removed by 1898 and quarry referred to as *Old Quarry*. Quarry plantation extended by 1916 and cleared by 1936 leaving rough grassland and mature trees along the drive and within the quarry itself only. Scrub and grassland in 1946.

### *Condition*

The Upper Lodge has been demolished, although the ruins of wall footing and foundations survive. The rock faces of the quarry are partially overgrown and wooded, and the remains of a waterfall survive in the top northwest corner, near the site of the earlier summerhouse. The surrounding vegetation is a mixture of deciduous woodland and scrub. An informal footpath runs from the adjacent housing to the Valley Woods with recently erected bollards to restrict access to pedestrians only. The Quarry and adjacent woodland is owned by the

Penllergare Demesne Lands Settlement. The ruin of the Upper Lodge and its immediate vicinity is in private ownership. Both fall within the registered landscape boundary.

#### *Proposals*

- i. Thin out trees and vegetation within and on the quarry walls, carefully retaining its picturesque and dramatic historic character.
- ii. While it will not be possible to restore the waterfall due to the loss of the Home Farm pond which supplied it, investigate the potential for tapping suspected sub-surface water-courses, withholding and slow release of storm water in the open drain, to extend the life of the waterfall effect, with potential for release of stored water during events.
- iii. Provide an accessible path surface into the quarry, and a secure route around the quarry.
- iv. Seek to acquire the ruins and site of the Upper Lodge to allow for integrated management and prevent new development. Conserve the ruins and provide basic interpretation.

## **7.6 Eastern Valley Woods**

### *History*

Farmland in 1813; some clumps and belt plantations planted on the valley slope by 1830. Partly *Wood on east of carriageway* in 1838 and partly farmland and meadow. Increasingly wooded by 1876 and 1898, but retaining farmland to the northeast and southeast, east of the Lower Lake. Larger number of tracks and access routes through plantations by 1916, suggesting increased use for commercial forestry; Tir-donkin Colliery also established by this date on the eastern boundary of the area. The area remained a mix of woodland, scrub and open farmland by 1936 and 1946, with the northern boundary imposed with the realignment of the A48.

### *Condition*

The Eastern Valley Woods remain a patchy mix of scrub, conifer plantation (partially designated as *Plantation on Ancient Woodland Site*), deciduous woodland and some open grassland areas. Some historic paths remain as earthworks or still in use. Relict veteran pollard oaks in conifer plantations retain evidence of attempts to ring girdle, a discredited form of weeding young plantations. An access track for forestry vehicles runs from the northeast corner of the woodlands from the A48, and along the line of a sewer pipe. Apart from a small area of land belonging to the Dillwyn Settlement, the whole area is owned by

the Llysdinam Trust. The area is split between lying within the registered landscape, and lying within the essential setting of the registered landscape.

#### *Proposals*

- i. Improve accessibility over the Sapper bridge, and improve the local landscape quality, by constructing a timber or a stone-clad bridge to encase the sewer pipe. Install collapsible bollards to limit vehicle access, but retain a 3.0m wide bridge to allow for 5 tonne estate maintenance traffic. Divert the riverside path around the bridge piers.
- ii. Improve accessibility of the riverside path leading down to the Lower Lake.
- iii. Increase the sense of welcome at the Midway Café lay-by entrance with improved signage and interpretation.
- iv. Manage as partly ornamental, community woodland, retaining historic landscape character, fabric and archaeology.
- v. Reinstate natural characteristics to engineered drainage structures, in particular, the concrete slab-lined shute below the quarry, by the removal of modern materials and allowing natural percolation through the strata, as was previously the case.

## **7.7 Middle Lodge Park**

### *History*

Farmland in 1813; some tree planting indicated by 1830. Known as *park west of carriageway* and *park east of carriageway* in 1838, with *wood in park*. Remained as informal parkland with mature specimen trees in 1876; shown as half parkland and half rough grassland in 1898 with the two areas subdivided by a fence by 1916, with a further fence subdividing the park west of the drive. This latter boundary was straightened and realigned once again by 1936, with a further upstanding boundary erected along the western side of the drive. Treeless open grassland by 1946, with the adjacent rough grassland grown over with scrub.

### *Condition*

Part of the park west of the drive has been developed with housing leaving a belt of grassland with a line of visually intrusive modern houses on the horizon. The drive provides a level hard surfaced route for pedestrians, and maintenance vehicles. East of the drive, the vegetation consists of bracken, rough grassland, scrub and woodland, with views across the valley and to the hills beyond. The remaining parkland between the housing and the drive belongs to the Penllergare Demesne Lands Settlement, and does not currently fall within the registered boundary but is considered part of the essential setting of the landscape. The land to the east of the drive belongs to the Llysdinam Trust.

### *Proposals*

- i. Seek to acquire and restore both sides of the drive as landscape parkland with topped grassland and open-grown parkland trees. Secure the boundary of the area and reintroduce grazing with cattle grids or locked gates on the drive and kissing gates at all pedestrian entrances and pathways.
- ii. Replant parkland trees and clumps at a greater density, offset and parallel to the western boundary of the park to create a parkland character setting to the adjacent housing.
- iii. Reopen views to the east by thinning trees and scrub, to favour oak parkland trees.
- iv. Seek to acquire the ruins and site of the Middle Lodge to allow for integrated management and prevent new development. Conserve the ruins and provide basic interpretation. In the longer term, the foundation plinth would provide an attractive viewpoint and site for a sheltered seat, halfway along the main drive.
- v. Use part of the bracken-dominated burnt-over area as a silt deposition area for silt from the Upper Lake, to improve agricultural pasture and wildlife values.

## **7.8 Lower Lake**

### *History*

Recorded as *Meadow for new fishpond* in 1838, and lying alongside other meadow and farmland. River dammed to create Lower Lake, filled in 1839; by 1876 with boathouse, cascade and islands. Some silting around the lake edges indicated in 1898. Second boathouse built on the dam by 1936. Remained a large body of water in 1946, although area around northern inlets were becoming increasingly silted. Dam breached and lake drained in the 1960s for safety reasons, creating a rhos-type habitat and then partially re-flooded in 2002 with a small off-stream lake with the Afon Llan in a new channel by-passing the cascade during the second half of the twentieth century.

Archaeologists have identified a second phase in the construction of the cascade, which reduced the double cascade to one at the southern end and possibly involved the construction of small brick structures containing hydraulic ram, generator, water supply pump or similar equipment. Based on the building materials, this phase of construction has been dated as late nineteenth or early twentieth century, and therefore presumably work carried out during the ownership of Sir John Talbot Dillwyn Llewelyn.

### *Condition*

Works of 2002 have created a small Lower Lake but left intrusive hard landscaping and an engineered inlet channel with little sensitivity for the historic landscape. Lack of



management of the lake edges has allowed the growth of scrub and young trees, which will rapidly enclose the lake and outcompete Rhos habitat. Boathouses have been demolished, although foundations of the 1830s boathouse remain. The cascade is derelict. Whole area within registered landscape and owned by the Llysdinam Trust.

#### *Proposals*

- i. Carry out extensive coppicing of the banks of young trees and scrub to maintain the open aspect of the historic lake area, and maintain marsh habitat possibly by grazing. This may not prove to be readily achievable due to ground conditions.
- ii. Retain the option for the long term restoration of the Lower Lake including the dam and cascade by reconstruction of the clay core dam embankment. This would be a major task requiring an impoundment licence and, probably, registration under the Reservoirs Act. To retain this option in the shorter term, survey the cascade and carry out essential clearance and conservation works to stabilise and protect the cascade structure.
- iii. Retain the old boathouse as a stabilised ruin in the medium term.
- iv. Provide some accessible fishing pegs for the current lake.

## **7.9 Graig Nedd fwch Wood**

#### *History*

Part of the land and woodland around Nydfwch in 1813, and apparently open ground with clumps of parkland trees in 1830. Crossed by the main drive in 1838 which was flanked either side with woodland which incorporated a lodge at the northern end, known as Middle or Weaver's Lodge. Agricultural land above the woodland, known as *Bank Nudfach*. Almost entirely wooded in 1876, with rough ground and widely spaced mature trees on *Bank Nudfach* and new walks, a number of upstanding field boundaries and a quarry over the remaining areas. Very few changes to the area from 1876 to 1936; much of woodland cleared by 1946.

#### *Condition*

Remains scrubby woodland and bracken-dominated grassland. Archaeological surveys have identified the location of the Mathews' Nydfwch mansion, thought to have been demolished in the early 1820s. Earthworks of the former drive to Nydfwch identified, together with a series of other terraces and earthworks that may relate to former gardens. Whole area within registered landscape and owned by the Llysdinam Trust.

#### *Proposals*

- i. Following the planned woodland replanting, control bracken and manage woodland to retain open viewpoints from the track and house site.
- ii. Avoid damage to field archaeology, and provide basic interpretation of the house site.

## **7.10 Southern Woodlands and River Valley**

### *History*

Farmland north of Cadle Mill in 1813. Small areas of woodland indicated on the valley sides in 1830. Crossed by the main drive or carriageway in 1838 and made up of farmland on the higher ground, with meadow, woodland and lodge plotted along the valley bottom. Mixed woodland above the drive and east of the river in 1898; larger open areas of pasture woodland and meadowland in the southern area around the lodge and Cadle Mill.

Footbridge over the river built by 1916. Fewer areas of meadow and more woodland cover by 1936; patchy woodland coverage with more open ground by 1946.

### *Condition*

Remains a mixture of woodland, grassland and scrub. Lower Lodge remains occupied but the original building has undergone a number of insensitive extensions and alterations. The drive remains a well-used, level pedestrian route, with a functional steel barrier to prevent unauthorised vehicle access alongside the Lower Lodge. Modern footpaths run through the woodland on the eastern side of the drive, along the river, and on the western boundary. The river features a number of visually intrusive and mostly breached concrete weirs. Pentregethin Road has been cut off by the dualled A483. A small area of meadow south of the Lower Lodge provides a public picnic site. Except for the Lower Lodge, which is in private ownership, the whole area is owned by the Llysdinam Trust and falls within the registered landscape.

### *Proposals*

- i. Seek advice on the treatment of the concrete weirs from the Environment Agency.
- ii. Manage as a mosaic of woodland, open ground and open drive verges consistent with the historic record.
- iii. Improve the sense of welcome and visual quality of the southern entrance, with a replacement, robust gateway, designed to reflect the character of the historic gateway.
- iv. Improve the accessibility and drainage of modern paths along the river bank, and encourage greater use of these ancillary paths, and the picnic site with waymarking.

- v. Conserve and repair the driveway entrance bridge. Lay, prune and replant boundary hedges with temporary fence protection, alongside the drive.

### **7.11 Glan-yr-afon Fields**

#### *History*

Farmland since at least 1813. Separated from the river meadows by the mill race by 1830. Southernmost field subdivided by 1936, but original field pattern restored by 1946 and demarcated by well-wooded field boundaries.

#### *Condition*

Remains as partly overgrown pastures lying outside the registered landscape and owned by the Penllergare Estates Ltd. Western boundary incorporates the disused mill leat to Cadle Mill.

#### *Proposals*

- i. Retain and reinstate management of the extensively grazed pastures, albeit that they add little to the accessible parts of the Country Park.
- ii. If the Lower Lake is to be restored, consider re-using part of the leat to convey water to a small hydropower generator, selling power to the grid.

