BALLOCH CASTLE COUNTRY PARK

WOODLAND MANAGEMENT PLAN

DESIGNED LANDSCAPE









Hyde Calvey Normand Heritage Perspective_

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1. PREFACE

This plan has been commissioned by the National Tree Collections of Scotland and West Dunbartonshire Council.

It has been jointly funded by the National Tree Collections of Scotland and Loch Lomond & The Trossachs Countryside Trust.

Iona Hyde, Chris Calvey and Paul Normand carried out the work during May 2014. They would like to thank both West Dunbartonshire Council and Tom Christian for their help in the production of the Plan.

Acknowledgement is given to Peter McGowan Associates and Christopher Dingwall for both their generous help and allowing use of their history of Balloch Castle and its designed landscape, found in Loch Lomond and the Trossachs National Park - Survey of Gardens and Designed Landscapes.

Client and Funder:

Funder:

National Tree Collections of Scotland Royal Botanic Garden of Edinburgh 20A Inverleith Row Edinburgh EH3 5LR Loch Lomond & The Trossachs Countryside Trust Carrochan Carrochan Road Balloch G83 8EG

This plan is endorsed by:

Tom Christian, Project Officer National Tree Collections of Scotland Donald Petrie Access officer West Dunbartonshire Council,



2. EXECUTIVE SUMMARY

2.1 BALLOCH CASTLE COUNTRY PARK'S DESIGNED LANDSCAPE

Balloch Castle Country Park extends over 217 acres (88ha) and covers the policies of the Castle. The existing landscape was designed in the 19th century and has retained the same structure since. The Park is bounded to the west by Loch Lomond and the River Leven, to the north by the Burn of Balloch, and to the east by its own woodland belts.

Balloch Castle Country Park has been included, since 1987, in Historic Scotland's Gardens & Designed Landscapes Inventory.

Balloch Castle Country Park has been described by Peter McGowan as 'an outstanding designed landscape that rates highly on all the values that make these places important culturally and as a recreational resource by society. Its contribution to local scenery is limited only by its relatively modest size, although when considered with its neighbour Boturich to the north it has a major effect. It is also an excellent example of a site in public ownership'.

2.2 PURPOSE OF THE WOODLAND MANAGEMENT PLAN

This plan has been commissioned by the National Tree Collections of Scotland and West Dunbartonshire Council.

It has been jointly funded by the National Tree Collections of Scotland and Loch Lomond & The Trossachs Countryside Trust.

The management plan's main purpose is to set out a clear vision for key woodland and arboreal elements of the designed landscape that will guide and inform future management decisions for the medium-term (20 years: 2014-2034) and set out sound, deliverable, and sustainable recommendations.

2.3 OVERVIEW

Balloch Castle Country Park is situated on the south-east shore of Loch Lomond on the edge of the designated National Scenic Area, half a mile (.8km) north of the town of Balloch that is within easy walking distance of it. The Park slopes gently westwards down to Loch Lomond, and the Castle is set on a high point taking full advantage of the spectacular views over the south end of Loch Lomond.

2.4 HISTORY

Balloch Castle Country Park is quintessentially a 19th century private estate, developed as a park at the beginning of the 20th century. First recognised as a country park in 1980, it was originally developed in the early 19th century. Both the park and Balloch Castle were built by John Buchanan, a partner in the Glasgow Ship Bank, Glasgow's oldest banking house.

2.5 EXISTING MANAGEMENT AND USE

Matters that are essential to the day to day management and use of the designed landscape are examined and explained and their performance considered.



The scope of this examination of the status quo is:

- Recreation, Access and Tourism
- Interpretation
- Existing Use
- Existing Facilities
- Biodiversity
- Existing Data, Surveys, Records, Agreements, Grant Aid, Etc

2.6 SITE DESCRIPTION

For the purposes of this Woodland Management Plan, the study area has been divided into 11 compartments as shown on Map 1 (Page 43).

These compartments have been chosen because the areas included in each have similar characteristics and the evidence on the ground suggests that they have historically been managed with similar objectives.

The native woodland type over much of the site is mixed broadleaved (oak-ash woodland), showing both upland and lowland characteristics that correspond to mainly National Vegetation Classification woodland types W8 (lowland ashwood), W9 (upland ashwood) and W11 with large areas of emergent woodland dominated by pioneer species. The loch shore woodland is remnant W7 alder/ash carr. Native woodland is mainly found in the north, north east and western loch shore. Regeneration of sycamore and ash throughout the woodlands is abundant. Native woodland is replaced with woodland of plantation origin in the south of the Park, particularly along the driveways, castle and walled garden.

Compartment	Name

1	Stable Wood
2a	Former Nursery
2b	Stable Wood Meadow
3a	Horsehouse Wood
3b	Over Balloch Wood
4a}	Meadows
4b}	
5	Parkland
6	Castle Core Area
7	Moat Wood
8a}	Loch Shore Woods
8b}	
9	Walled Garden and Arboretum
10	Moss O' Balloch Plantations
11	South Drive and North Drive Plantings

Rhododendron ponticum has been a major issue affecting all woodland in the Country Park in the past. An outbreak of *Phytophthera ramorum* in the Park in 2011 (see Head 9.5) initiated a programme of removal of *R ponticum*, as the major host species of the disease on site. The work has been completed but on-going maintenance is required to remove re-growth and new seedlings. The removal of the *R ponticum* is allowing natural regeneration and recovery of the woodland vegetation in many areas, particularly the field layer and understory. Other invasive species are present on the site but are generally localised.



The low numbers of browsing mammals within the site means that natural regeneration is abundant throughout the Country Park and is posing a major management issue in some areas. Views from the upper paths are being lost as the meadows and parkland below scrub up. Regeneration, particularly of ash and sycamore, and lack of mowing of the sward within the meadow areas is damaging their aesthetic and biodiversity interests, particularly in compartment 4a.

Drainage is an issue throughout the Country Park (see Head 9.3) which poses a significant threat to the long-term health of the existing trees and woodlands on site as well establishment of new planting.

Tree condition is another major issue affecting nearly all compartments. Much of the tree stock within the Country Park is mature and over-mature with significant decay and structural defects that render them potentially dangerous. The age of the trees is a significant issue.

2.7 EVALUATION OF WOODLAND AND TREE COLLECTIONS

The 88ha Balloch Castle Country Park is a rare find - a designed landscape in public ownership with its structure still largely intact (Ref LL&TTNPA). It is well-served by a network of formal and informal paths, many forming part of the Core Path Network for the area, and has a range of interesting features and facilities on offer. It is clear that the site is well-used throughout the year, both by visitors and local residents and that the Park is a highly valued area of public open space.

Since 1975 the site has been managed by the local authority, now West Dunbartonshire Council, and has been registered as a country park with Scottish Natural Heritage (previously the Countryside Commission for Scotland) since 1980 in recognition of the importance of the site as an accessible area of public open space with abundant opportunity for outdoor recreation.

By the turn of this century, however, the condition of the Park and its shrub and tree collection had deteriorated substantially. In particular, Rhododendron *ponticum* had taken hold throughout the woodland and plant collections, many of the aging specimen trees contributing to the value of the tree collection were in poor or declining condition.

The importance of the trees in the Park has long been recognised. West Dunbartonshire District Council, in 2002, in partnership with Forestry Commission Scotland, Scottish Enterprise Dunbartonshire and Loch Lomond and The Trossachs National Park Authority, were awarded a £2.4 million HLF grant towards a restoration project, undertaken during 2003-2006. The work undertaken during this period has restored much of the site to its former condition and has ensured that the Park remains an excellent example of a designed landscape in public ownership.

2.8 VISION, AIMS AND OBJECTIVES

The vision, aims and objectives are clearly described.

It is envisaged that Balloch Castle Country Park will remain an important area of public open space and an invaluable community resource. The designed landscape will remain largely intact, much as it was when the site was brought into public



ownership in 1915 with a mosaic of well-maintained native woodlands, meadows, parkland, formal gardens, avenues and arboreta.

The tree and shrub collections will be enhanced extended and developed to represent one of the finest collections in the west of Scotland in public ownership and will be valued both locally and nationally.

The principal aim of this Woodland Management Plan is to prescribe a plan of operations to bring the woodland and tree resource at Balloch Country Park to a standard that can help to deliver the vision.

The main management objectives are:

- To enhance the contribution that Balloch Castle Country Park makes to the National Tree Collections of Scotland
- To bring the woodland back into favourable condition
- To maintain a safe, healthy tree population
- To provide a high quality visitor experience
- To extend and enhance the contribution that the trees and woodlands make to the habitat network and biodiversity value of the wider area
- To develop volunteer programme suitable for the site in association with other members of the National Tree Collections of Scotland

2.9 CONSTRAINTS AND THREATS

The physical constraints and threats that Balloch Castle Country Park are subjected to are examined.

They are:

- Mammal Impact
- Visitor Pressure
- Drainage
- Invasive Species
- Plant Health Risk

These matters are discussed in detail, elaborating why it is important that they are confronted and the problems resolved.

2.10 OPPORTUNITIES

There is an urgent need to develop a Park-wide approach to interpretation of the tree and plant collections. Currently there is no indication on site of the importance of the tree collection.

There is a need to document Balloch Castle Country Park's collection of important trees.

Tree health and condition in the Country Park is a major issue that requires addressing through a Tree Risk Management Plan for the whole Park which zones and categorises areas in terms of level of use and frequency of inspection to ensure continued visitor and staff safety. The Risk Management Plan should incorporate priorities for annual monitoring and maintenance and allocate resources accordingly. A programme of replacement planting should be drawn up to accompany the Risk Management Plan.



Poor drainage is an issue throughout the Park. It is strongly recommended that a survey of the existing drainage system is undertaken to identify the problems and provide recommendations for action.

Plant health issues have been a major issue at Balloch Castle Country Park in recent years and this is likely to be on-going issue not only leading to further losses but also limiting species choice for future plantings. A Plant Health Action Plan is required for the Country Park that not only ensures that staff have access to information and training on plant health and the resources to manage and contain plant health issues as they arise but also to continue to manage and maintain the plant collection through new planting of disease tolerant species.

Anti-social behaviour, vandalism, theft and high visitor numbers have in the past constrained management of the Country Park and use of its available resources and continue to do so.

Over the past few years increased policing of the site has seen a reduction in antisocial behaviour and vandalism but issues are on-going and will continue to constrain management of the site and use of resources. There is an opportunity to learn from experiences elsewhere in the country by forging links and sharing experience with country parks located on urban fringe sites as well as urban parks.

Enhancement of the Tree and Woodland Resource is examined compartment by compartment.

Enhancement of Biodiversity Interests and Recreation, Access and Tourism are considered and opportunities for Education and Interpretation are proffered.

The suitability and benefit of a Volunteer Policy is explained and provision of administration, finance and staffing, the essential resources to manage the Country Park, is addressed.

2.11 RECOMMENDATIONS AND COMPARTMENT MANAGEMENT PRESCRIPTIONS

The recommendations that follow the Opportunities have been ranked according to priority in terms of timescale:

- High (H) undertaken as soon as possible
- Medium (M) undertaken within 5-10 years
- Low (L) undertake within 15 years
- Ongoing (OG)

2.12 RISK MANAGEMENT

The procedures involved in managing project work prior to, during execution and post completion are stated.

SWOT analysis examines the *Strengths* and *Weaknesses* within Balloch Castle Country Park's designed landscape as well as the *Opportunities* and *Threats* that it faces.

There is a necessity to develop a response to each *Weakness* and *Threat* as well as plan to make the most of each *Strength* and *Opportunity*. It is recognised that an apparent *Threat* could be viewed as an *Opportunity*.



3. INTRODUCTION

To progress Balloch Castle Country Park to full membership of the National Tree Collections of Scotland (NTCS) a woodland management plan, endorsed by West Dunbartonshire Council and NTCS, is now required for the key woodland and arboreal elements of the designed landscape.

The management plan's main purpose is to set out a clear vision for key woodland and arboreal elements of the designed landscape that will guide and inform future management decisions for the medium-term (20 years: 2014-2034) and set out sound, deliverable, and sustainable recommendations.

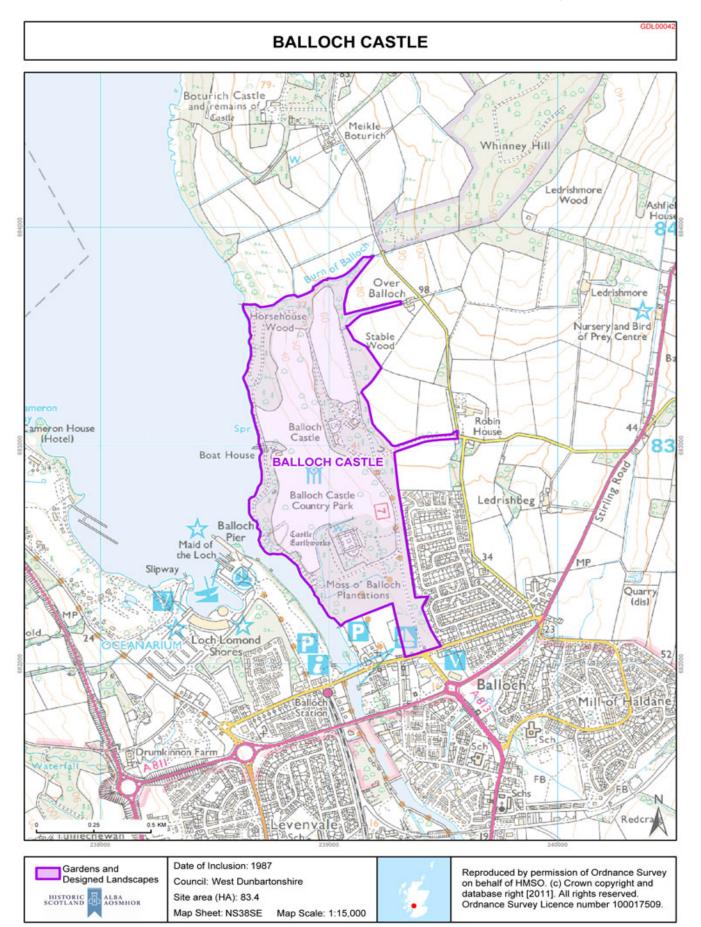
The plan has been prepared by: Iona Hyde, Arboricultural and Environmental Consultant; Chris Calvey, Arboricultural Consultant; and Paul Normand, Chartered Surveyor on behalf of the NTCS and West Dunbartonshire Council that owns and manages the designed landscape.

The designed landscape at Balloch Castle Country Park extends to c. 88ha and includes: 19th century parkland, late 19th or early 20th century plantings of rare and unusual trees, especially conifers, policy woodland, natural and semi-natural woodland, woodland walks, remnant commercial tree plantations, as well as more recent plantings.

Historic Scotland states that: The setting of Balloch Castle and its designed landscape is of exceptional scenic quality on the shore of Loch Lomond. The attractive layout of the grounds hosts an interesting collection of trees and shrubs and provides diverse wildlife habitats.

The extent of the area covered by this woodland management plan is defined on the map on the following page.





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4. OVERVIEW, HISTORY & SIGNIFICANCE OF THE DESIGNED LANDSCAPE

4.1 BALLOCH CASTLE COUNTRY PARK DESIGNED LANDSCAPE

4.1.1 Location

Balloch Castle Country Park is situated on the south-east shore of Loch Lomond on the edge of the designated National Scenic Area, half a mile (.8km) north of the town of Balloch that is within easy walking distance of it. The Park slopes gently westwards down to Loch Lomond, and the Castle is set on a high point taking full advantage of the spectacular views over the south end of Loch Lomond.

4.1.2 Management Plan Area

Balloch Castle Country Park extends over 217 acres (88ha) of the former 815 acre (330ha) estate and covers the policies of the Castle. The existing landscape was designed in the 19th century and has retained the same structure since. The Park is bounded to the west by Loch Lomond and the River Leven, to the north by the Burn of Balloch, and to the east by its own woodland belts.

4.1.3 Ownership

The designed landscape as described is owned by Glasgow City Council and leased to West Dunbartonshire Council.

4.1.4 Statutory Designations

Within Historic Scotland's Inventory of Gardens and Designed Landscapes, it is stated that the setting of Balloch Castle and its designed landscape is of exceptional scenic quality on the shore of Loch Lomond. The attractive layout of the grounds hosts an interesting collection of trees and shrubs and provides diverse wildlife habitats.

- The ornamental gardens and the use of the setting in the design continue to give Balloch Castle outstanding value as a Work of Art.
- There are historical associations with the Lennox family and the recent history of the Park has been recorded; but, in the absence of readily available plans and accounts of the designed landscape, it has some Historical value.
- The tree and shrub collection started by John Buchanan and continued by Gibson Stott gives Balloch high Horticultural value.
- The designed landscape at Balloch provides the setting for a house of exceptional architectural interest and has outstanding value in this category.
- The designed landscape on the southern shore at Loch Lomond has outstanding Scenic value.



 The north area of the Park provides a relatively undisturbed area of woodland along the Burn of Balloch and also lochside habitats.

Importance of the designed landscape as defined by Historic Scotland:

- Work of Art Outstanding
- Historical
 Some
- Horticultural }
 Arboricultural }
 High
- Silvicultural }
- Architectural
 Outstanding
- Scenic Outstanding
- Nature Conservation High

There is one listing for the designed landscape, excluding dwellings and other buildings that is:

	Listing Category	Date of Listing
The Walled Garden	В	29.03.1996





Early 19th century. Square walled garden. Squared and snecked rubble, harl-pointing; red sandstone quoins; sandstone slab coping swept up towards main wall. Droved red sandstone margined doors, cast-iron gate. Large depressed arch gate in E wall; red sandstone voussoirs; cast-iron gates.



There is one listing for a Scheduled Monument at Balloch that is:

	Category	Last Scheduled
Balloch Castle earthwork	Secular	31.12.1973

Balloch Castle is the name given to the house built in 1808. However, it purportedly incorporates stone from a much earlier castle that was sited closer to Loch Lomond's shoreline.

The earlier castle was the seat of the Earls of Lennox from the 12th century until 1652, when it passed into the ownership of Sir John Colquhoun of Luss.



Balloch Castle earthworks – Scheduled Monument

The photograph shows a wedge-shaped mound (it has a north-western, a southwestern, and an eastern side); its top is marked out here with a dried-up stand of Rosebay Willowherb. The ditch that surrounds the mound is the remnants of the castle's moat, best seen at the extreme right of the photograph, where the ditch runs along the north-western side of the mound.

4.1.5 The Loch Lomond and The Trossachs National Park Landscape Character Assessment

The Loch Lomond and The Trossachs National Park Landscape Character Assessment (<u>hhtp://www.snh.org.uk/pdfs/publications/review/140.pdf</u>) was carried out by Janet Swailes on behalf of Loch Lomond and The Trossachs National Park Authority and SNH. It provides a detailed assessment of the landscape character of the LLTT National Park area and considers the likely pressures and opportunities for change in the landscape and assesses the sensitivity of the landscape to change.



4.2 ASSESSMENT OF SIGNIFICANCE

4.2.1 Overview

Balloch Castle Country Park has been included, since 1987, in Historic Scotland's Gardens & Designed Landscapes Inventory. 'Balloch Castle (Country Park) is an outstanding designed landscape that rates highly on all the values that make these places important culturally and as a recreational resource by society. Its contribution to local scenery is limited only by its relatively modest size, although when considered with its neighbour Boturich to the north it has a major effect. It is also an excellent example of a site in public ownership' (Peter McGowan).



Ariel view of Balloch Castle and its designed landscape looking to the south east

Balloch Castle Country Park is quintessentially a 19th century private estate, developed as a park at the beginning of the 20th century. First recognised as a country park in 1980, it was originally developed in the early 19th century. Both the park and Balloch Castle were built by John Buchanan, a partner in the Glasgow Ship Bank, Glasgow's oldest banking house.

Though the Castle currently is unused, it is in the process of being made wind and watertight. Formerly, it was once the main visitor centre for the park, while also acting as the headquarters for the Countryside Ranger Service and Loch Lomond Regional Park Authority (the forerunner to Loch Lomond & The Trossachs National Park Authority).

As previously stated, the designed landscape at Balloch Castle Country Park extends to c. 88 ha and includes: 19th century parkland, late 19th or early 20th century plantings of rare and unusual trees, especially conifers, policy woodland, natural and semi-natural woodland, woodland walks, remnant commercial tree plantations, as well as more recent plantings. It also encompasses open parkland, formal gardens, meadow, play areas and shoreline. Its design and layout have remained largely unaltered since 1800, at the time the current castle was built.



Balloch Country Park is unique in being the only designated country park within Loch Lomond and the Trossachs National Park. Since the early 1990s Balloch Castle Country Park has hosted several major music events, including concerts by Oasis and R.E.M. that both attracted over 80,000 people to Loch Lomond.

4.2.2 Site History

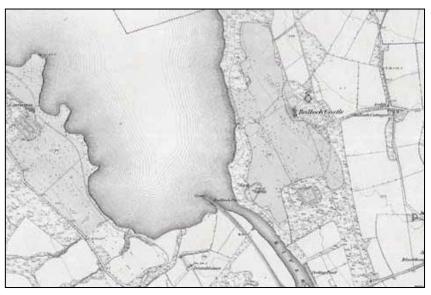
The designed landscape was developed in the early 1800s and has matured and retained a similar structure to date. No famous designers are recorded as working at Balloch and no original design plans are available.

Balloch was for several hundred years the stronghold of the Lennox family. The remains of their old castle, a mound surrounded by a moat, are still to be seen in the south-west of the Park and are scheduled as an ancient monument (See Head 4.1.4). In 1390 the Lennoxes moved to the island of Inchmurrin for greater safety but Balloch remained in their ownership until 1652 when the 4th Duke of Lennox sold it to Sir John Colquhoun of Luss.

It was John Buchanan of Ardoch, Glasgow merchant and banker, who commissioned London architect Robert Lugar, who had already begun work on neighbouring Tullichewan Castle in 1808 and who went on to design Boturich Castle for John Buchanan in 1830, to build the present Balloch Castle in 1809, described by Gifford & Walker (2002) as "a picturesque effusion of mock medievalism". With John Buchanan's move to neighbouring Boturich, Balloch passed briefly through the hands of Gibson Stott, before its sale to the Dennistoun-Brown family, who eventually sold it to Glasgow Corporation in 1915.

In 1975 the park was leased to Dumbarton District Council, before its registration with the Countryside Commission for Scotland as a Country Park in 1980. The park, which is now maintained by West Dunbartonshire Council, was the subject of a \pounds 2.4 million Lottery-funded restoration project in 2003-2006.

The present Country Park is largely unchanged from the landscape recorded by the Ordnance Survey 153 years ago.



Ordnance Survey 6" map 1861

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There are two main areas of pleasure grounds; the first, the Chinese Garden is immediately to the north of the Castle and consists of small terraced paths, in the shape of a capital D that encloses a seating area and fountain where there was formerly a pond. The whole is planted with Rhododendrons, Azaleas and specimen trees, some of the rhododendrons now reaching over 20ft in height and providing an impressive display in spring.

The Secret Garden, laid out in 1915 when Glasgow City Council purchased the estate, is the second area of ornamental planting, interspersed with woodland walks, and is outside the Walled Garden to the south of the Castle. Many of the original hedges are now overgrown although some topiary remains. Some new specimen trees, mainly coniferous species, have been planted, extending this area to the northeast into the parkland. A circular walk links the Castle with both pleasure gardens and follows a path through the northern wood to the shore of Loch Lomond, then extends south along the lochside past the slipway and the side of the old Balloch Castle and along the east bank to the River Leven towards Balloch.

The parkland has retained its character and is well stocked with individual parkland trees; the Park is not grazed and is maintained by cutting. It provides a fine setting to the house and is particularly significant from the loch and the opposite west bank.



Parkland trees including mature forest species and younger planting

The mixed deciduous woodland belts surround the Park and effectively screen it from the surrounding road and housing estate to the south. The northern area of wood adjacent to the Burn of Balloch is the least disturbed and least formal area. Moss Plantation to the south of the Park was planted in the early 1900s and has been partially felled for additional parking. The avenue plantings are an important feature of both road and pedestrian entrances and are underplanted with shrubs and bulbs.

The walled garden was laid out originally c 1808 as part of the improvements to the estate in the early 19th century. Its exact original layout is unknown but the 1st edition OS map shows it divided into four equal compartments by two intersecting paths. It is now laid out as a flower garden, with broad borders, planted with mixed shrubs and herbaceous plants along the walls, sub-divided by yew hedges, with gravel paths, lawns, trellised walks and central mosaic paving by Maggie Howarth. It was restored in 2005 with HLF funding.





Walled Garden trellised walk

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5. EXISTING MANAGEMENT AND USE

5.1 OVERVIEW OF RECREATION, ACCESS AND TOURISM

Balloch Castle was registered as a Country Park in 1980 in recognition of the importance of the site as an accessible area of public open space with abundant opportunity for outdoor recreation. Although no official visitor numbers are recorded, the Park is thought to receive in the order of 400,000 visitors a year.

Located on the edge of Balloch, Balloch Castle Country Park enjoys excellent road transport links with central Scotland, a direct train service to and from Glasgow and a bus terminus located adjacent to its main pedestrian entrance as well as extensive car parking within and adjacent to it.

The Park grounds are accessed via a network of formal paths and driveways providing walking and cycling routes throughout its extent. Several of the paths form part of the Core Path Network of the area (<u>http://www.lochlomond-trossachs.org/corepathmaps/Map%2049-A-Inset.jpg</u>).

Although the quality of paths varies, it is generally good. However the paths are not compliant with current standards for disabled access. The Shore Road and road through Horsehouse Wood in particular are not suitable for disabled access rendering circular routes of the Park inaccessible for some disabled visitors. In some areas the paths are unsurfaced and poor drainage is an issue (e.g. Coo Lane).



There are numerous colour-coded way-marked routes throughout the Country Park

There are three waymarked circular routes through the Country Park that are explained in the West Dunbartonshire Council (WDC) leaflet on Balloch Castle Country Park. The absence of orientation and interpretation in the Park and the lack of any means to dispense the leaflet within the Park mean that no information exists on the ground regarding the length of routes, destination, nature of terrain etc. The routes are difficult to follow and the way-marking is confusing.

National Cycle Route 7 and the recently designated long-distance walking route, the John Muir Way both pass through Balloch Castle Country Park.



In addition to the formal, recognised path network, there is an extensive network of informal paths that are clearly well-used and give an indication of the heavy visitor pressure that the Park experiences.



National Cycle Route 7 and the John Muir Way both pass through the Country Park

5.2 OVERVIEW OF INTERPRETATION

Currently, as already stated, there is no interpretation or orientation information within the Country Park.

The original orientation boards that were located at the Castle car park and entry points to the park were removed and replaced in 2005 as part of the HLF funded restoration scheme. The signage and interpretation installed used the templates for the interpretation and signage used by Loch Lomond and The Trossachs National Park Authority in order to ensure that signage throughout the wider area was standardised. Unfortunately, most of the signage in the Balloch area, including that in Balloch Country Park, was vandalised and eventually removed by the NPA in 2012 without any temporary information being put in place. A new interpretation strategy is currently being developed by the NPA which includes Balloch Castle Country Park and new signage should be in place by spring 2015.

WDC has produced a leaflet on Balloch Castle Country Park that gives some background information on history, wildlife and waymarked routes. Although available in the local Tourist Information Centre, copies of the leaflet are not available in the Park. The leaflet is not available on-line at present.

The NPA has produced a 'short walk' leaflet that although out-of-date and does not relate to the way-marked routes, provides some information on walking routes as well as some interpretative information on the Park's history. <u>http://www.lochlomond-trossachs.org/images/stories/Visiting/PDF/ActivitiesLeaflets/Balloch%20inside.pdf</u>

The lack of both interpretation and orientation information in the Country Park is a major issue that adversely affects visitor experience and enjoyment of the Country Park.



In the past the specimen trees and shrubs were labelled with metal tree labels but the labels were all subsequently stolen, along with some of the plants and staff do not consider reinstatement of similar interpretation appropriate. Following Alan Mitchell's assessment and recording of trees at the Country Park in 1985, a tree trail leaflet was produced but this is now out of print. No other interpretation exists relating to the tree collections within the Country Park.

5.3 OVERVIEW OF EXISTING USE

No visitor survey of the Country Park has been undertaken since the mid-1990s but it is clear that it is well-used throughout the year both by local residents and visitors to the area. Visitor numbers are thought to be in the order of about 400,000 per year. In summer, particularly during fine weather, car parking and toilet facilities are inadequate. Additional staffing is not available to deal with the pressures and problems (e.g. litter) experienced during such times and the staff must manage the additional workload within existing resources. Recreation within the Park is generally of a passive nature, although organised events and activities take place on a regular basis.

For the past four years WDC has used the Country Park on a daily basis during term time as a Forest School. 40 members of staff in the Council's nursery schools are now trained Forest School practitioners and the Country Park provides outdoor learning and play for all of the nursery schools in the District through 7 Forest School sites located throughout the district.

The WDC Ranger Service provides and organises various educational events and services using the Country Park, including a guided tree walk twice a year lead by Ian Sinclair from the Scottish Rhododendron Society, a Great Outdoors Festival and various educational events for schools and community groups.

The Country Park is well used by a number of community groups, such as Scouts and Guides as well as sports clubs but as no permissions are required to use the Country Park by such groups, no records exist of who uses it or how frequently.

A number of local businesses also use the Country Park, such as professional dog walkers and fitness instructors.

Sporting events are held throughout the year, including the weekly free Run n' Park 5K run held every Saturday morning, the annual Balloch 10K, the Loch Lomond Triathlon and the Bobath Dragon Boat Race. Other events such as the Loch Lomond Highland Games are hosted in the Country Park annually and since the early 1990s it has hosted several major music events, including concerts from Oasis and R.E.M., both attracting over 80,000 people.

5.4 OVERVIEW OF EXISTING FACILITIES

The only public toilets located within the Country Park are those in the Castle. The toilets are in poor repair and inadequate to cope with the level of use.

The Country Park has approximately 60 picnic tables and further 80 benches that are mostly memorial benches. Maintenance of the park furniture places a considerable strain on staff resources. The numbers of benches in some areas have resulted in a cluttered appearance and a memorial tree scheme has been initiated as an



alternative to benches in an attempt to avoid further benches being introduced to the site.

The Park has 3 play areas. There is a small outdoor gym and skate park located beside the car park at Moss O' Balloch. Two further play areas were developed adjacent to Shore Walk at the foot of the slope below the Castle as part of the HLF restoration project in 2005. The sites are very well used and suffer a consequent high degree of wear and tear. Again, maintenance of these areas requires a considerable commitment of staff resources. A new play area at Moss O' Balloch just outwith the Country Park was developed in 2013 that may help to reduce pressure on facilities in the Country Park.

The Boat House and slipway were restored as part of the HLF restoration project. The restored building is run as a kiosk cafe by West Dunbartonshire Council's social services department. Located on the loch shore near the play areas and on the Shore Walk, the cafe is a popular facility and a focal point for visitors.



Boat House Prior to Restoration (West Dunbartonshire Council)



Boathouse after restoration (West Dunbartonshire Council)

5.5 OVERVIEW OF EXISTING BIODIVERSITY

In 1992 the Leven Valley Initiative identified Balloch Country Park as a Site of Importance for Nature Conservation. At that time an ecological assessment was undertaken and a biological record completed. Those records have now been lost and it is likely also that the passage of time would render them of less value. The West Dunbartonshire Council Ranger Service has anecdotal records but has virtually no staff capacity to hold or update records.



In 2007, a joint Biodiversity Officer was appointed with the main purpose of forming the Dunbartonshire Biodiversity Partnership and to subsequently produce a Dunbartonshire Local Biodiversity Action Plan encompassing both East and West Dunbartonshire, and to co-ordinate the implementation of the actions identified.

The Dunbartonshire Local Biodiversity Action Plan (DLBAP) 2010-2013, created through a formal agreement with East Dunbartonshire Council and West Dunbartonshire Council, and co-funded by Scottish Natural Heritage represents the final action plan required to deliver full support of biodiversity conservation by local authorities and biodiversity partnerships across Scotland. The plan gives a very broad overview of the issues facing nature conservation in Dunbartonshire.

The Dunbartonshire Biodiversity Partnership was officially formed in December 2007 with the following aims:

- To conserve species and habitats in Dunbartonshire that are considered vulnerable or threatened on a local or national basis, and in turn to contribute to the conservation of global biodiversity
- To promote awareness of local natural resources
- To promote community engagement in, and ownership of, the practical conservation of natural resources
- To promote sustainable and wise use of natural resources.

The DLBAP identifies the following biodiversity priorities for the Clyde Valley region as:

- Reduce threats from non-native species, through action to eradicate or control target species, e.g. grey squirrel, *Rhododendron*, and particularly those listed in the Non-Native Species Framework Strategy for GB. Particularly proposals that:
 - remove and/or control the following invasive non-native species Rhododendron ponticum, Japanese Knotweed, Giant Hogweed and Himalayan Balsam
 - control grey squirrel through measures which support red squirrel recovery in line with the Scottish Red Squirrel Action Plan 2006 2011

Funding for West Dunbartonshire Council's biodiversity officer post was not renewed in 2008.

Updating of the Local Biodiversity Action Plan is planned in Partnership with East Dunbartonshire Council.

The main areas of nature conservation importance within Balloch Country Park are associated with the network of mature woodland, the areas of wild flower meadows to the north of the Castle and the wet grassland on and around the site of the old castle. The quarry pond and its freshwater and marsh habitat is a small but important aspect. The buildings are significant for bats with the courtyard buildings being home to some 800 pipistrelle bats.

The woodland also supports a rich fungal flora, including the uncommon *Boletus* calopus.

5.5.1 The Wildflower Meadows

The semi-improved grassland in compartment 4a at Balloch Castle Country Park was previously of relatively high quality contributing significantly to the local biodiversity and providing a rare habitat (neutral grassland) within the context of the National Park.



The management investment for retaining this feature was an annual grass cutting in September. The meadows have since been regenerated with unwanted trees and scrub which will have the effect in the fairly short term (within ten years) of degrading this habitat significantly and it will be lost completely within 20 years. The meadow was last cut in 2006.

The UK Biodiversity Action Plan for Lowland Meadows concluded that (the UK Steering Group Report, Vol. 2 (1995), unimproved neutral grassland habitat has undergone a remarkable decline in the 20th century, estimating that by 1984 seminatural grassland had declined by 97% over the previous 50 years and an estimated extent of less than 15,000 ha of species-rich neutral grassland survives today in the UK.

Greater butterfly orchid (*Platanthera chlorantha*) is still present within meadows, though as a much reduced colony than was previously present.

5.5.2 Woodlands

There is no recorded ancient or semi-natural woodland within Balloch Castle Country Park, although much of the woodland within the Park boundary is recorded as native woodland in the FCS National Forest Inventory. The woodland in the Park forms core areas of the forest habitat network of the area.

5.5.3 Mammals

In the UK, all bat species and their roosts are legally protected, by both domestic and international legislation. In Scotland, the key legislation that applies is the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Due to the well documented decline of bats over the last century, monitoring has taken place to assess remaining populations. The West Dunbartonshire Ranger, Gillian Neil, undertakes annual monitoring of the bat population in the Country Park via the Lomond Bat Group.

Currently there are 800 individuals Soprano pipistrelle Bats (*Pipistrellus pygmaeus*) within the courtyard buildings which is of considerable local significance. Brown Long eared Bats (*Plecotus auritus*) are also present within the Country Park. Bat mitigation work was undertaken prior to the repairs recently started to the Castle roof.

A programme of grey squirrel control was instigated in the wider Balloch/Boturich area but ceased in 2013. The numbers were reduced effectively during the control period but have since again increased since trapping and control ceased. Further control is required if numbers are to be kept below damaging levels.

Roe deer browsing impact is not a management concern as roe deer numbers are held artificially lower than the habitat would allow due to the frequent presence of people and dogs. The practice of avoiding the use of tree guards on newly planted trees reduces the probability of vandalism.

5.5.4 Birds

73 species of bird are recorded in or within 1km of Balloch Country Park, a list of which is available from the BirdTrack Database from the British Trust for Ornithology.



The woodlands provide suitable habitat for *Phylloscopus* warblers including chiffchaff, wood warbler and willow warbler. Blackcap has also been recorded together with a new record for Nuthatch which is in line with the trend for this species extending its northern range. Pied Flycatcher historically noted in some literature is regarded as inaccurate. Tawny owls are regular breeders in the country park woodlands.

5.6 OVERVIEW OF EXISTING DATA, SURVEYS, RECORDS, AGREEMENTS, GRANT AID ETC

Balloch Castle Country Park has been the subject of two Development and Management Plans (1981 and 1995) and several feasibility studies (mostly relating to use of the Castle) since it was leased to West Dunbartonshire Council.

West Dunbartonshire Council has received grant assistance at various stages in the past to assist with woodland management. The woodlands were all entered into the Scottish Forestry Grant Scheme (scheme no: 32900156) (now superseded) and further Forestry Commission Scotland funding has since been awarded under SRDP to assist with the eradication of *R. ponticum*.

In partnership with Forestry Commission Scotland, Scottish Enterprise Dunbartonshire and Loch Lomond and The Trossachs National Park Authority, West Dunbartonshire Council were awarded a £2.4 million HLF grant towards a restoration project for the Country Park. The restoration works were undertaken between 2003 and 2006 and restored much of the site to its former condition.

Individual small grants and donations from various organisations such as Friends of Loch Lomond and The Trossachs and the Woodland Trust have paid for tree planting projects and conservation works.



6. SITE DESCRIPTION

6.1 GENERAL MANAGEMENT ISSUES

For the purposes of the management plan, the study area has been divided into 11 Compartments as shown on Map 1 (Page 43). Map 2 (Page 44) shows the key features and the names of the paths as referred to in the following text.

These compartments have been chosen because the areas included in each have similar characteristics and the evidence on the ground suggests that they have historically been managed with similar objectives.

The native woodland type over much of the site is mixed broadleaved (oak-ash woodland), showing both upland and lowland characteristics that correspond to mainly National Vegetation Classification woodland types W8 (lowland ashwood), W9 (upland ashwood) and W11 with large areas of emergent woodland dominated by pioneer species. The loch shore woodland is remnant W7 alder/ash carr. Native woodland is mainly found in the north, north east and western loch shore. Regeneration of sycamore and ash throughout the woodlands is abundant. Native woodland is replaced with woodland of plantation origin in the south of the Park, particularly along the driveways, castle and walled garden.

Rhododendron ponticum has been a major issue affecting all woodland in the Country Park in the past. An outbreak of *Phytophthera ramorum* in the Park in 2011 (see Head 9.5) initiated a programme of removal of *R ponticum*, as the major host species of the disease on site. The work has been completed but on-going maintenance is required to remove re-growth and new seedlings. The removal of the *R ponticum* is allowing natural regeneration and recovery of the woodland vegetation in many areas, particularly the field layer and understory. Other invasive species are present on the site but are generally localised.

The low numbers of browsing mammals within the site means that natural regeneration is abundant throughout the Country Park and is posing a major management issue in some areas. Views from the upper paths are being lost as the meadows and parkland below scrub up. Regeneration, particularly of ash and sycamore, and lack of mowing of the sward within the meadow areas is damaging their aesthetic and biodiversity interests, particularly in compartment 4a.

Drainage is an issue throughout the Country Park (see Head 9.3) which poses a significant threat to the long-term health of the existing trees and woodlands on site as well establishment of new planting.

Tree condition is another major issue affecting nearly all compartments. Much of the tree stock within the Country Park is mature and over-mature with significant decay and structural defects that render them potentially dangerous. The age of the trees is a significant issue. Approximately 500 trees have been lost in the Park over the past 5 years as a result of disease and windthrow, a significant proportion of which were those planted as part of the designed landscape. The age of the tree stock suggests that there was little new planting during the latter half of the 20th century and as a result there is a lack of age diversity within planted elements of the designed landscape.





Warning sign in the car park

6.1.1 Compartment 1: Stable Wood

This compartment supports predominantly mature mixed broadleaved woodland, previously dominated by oak, ash and elm but with sycamore now becoming the dominant species. Much of the broadleaved component of the woodland is only about 30 years old. Mature beech, Scots pine and specimen conifers are also present throughout the site, suggesting it was managed as policy woodland in the past and as a component of the designed landscape. Groups of specimen conifers are also present throughout the site which may relate to the former use of the adjacent site (compartment 2a) as a tree nursery in the past. The understory is dominated by elder, holly and natural regeneration of canopy species. The site slopes gently downhill from east to west. Drainage is an issue in some parts of the site.

The western boundary of Stable Wood is delineated by a long-established track known as 'Coo Lane' which probably provided access to Stable Wood Meadow for stock management in the past. The track stops in line with Over Balloch Wood where it continues through compartment 3 as an informal path. In addition to Coo Lane, there is a network of well-used informal paths through the Stable Wood. The site is used by Forest Schools on a daily basis during term-time and temporary dens, informal seating and art work is found throughout the woodland. The eastern boundary of site represents the boundary of the designed landscape and marked by an outgrown hawthorn hedge.



Forest Schools uses Stable Wood as an outdoor classroom and play area

Hyde Calvey Normand Heritage Perspective



6.1.2 Compartment 2: Former Nursery and Stable Wood Meadow

This area comprises all of the woodland and meadows lying to the north of the car park, west of Coo Lane and east of Long Walk as far as Horsehouse Wood.

Compartment 2a: Former Nursery

Compartment 2a, the southern part of this compartment is the former Glasgow City Council tree nursery which has not been managed as a nursery since the Park was leased to West Dunbartonshire Council. The nursery is in a very neglected condition. The trees have been left to mature when they should have been transplanted many years ago and as a result are of poor form and unstable. Windthrow is evident in the stand and will continue as the trees gain further height. The proximity of this area to the car park means that there is significant opportunity to make better use of this area.

To the north of the nursery lies an area of unmanaged mixed broadleaved woodland, younger than Stable Wood but still well-established. The principal species are sycamore, ash, willow and rowan. Within this woodland there is a site compound used by grounds staff to store and burn green waste.

The proximity of the woodland to the car park means that the site is well-used. There is an area of more recent spruce plantation in the southern part of the woodland where a fire pit and temporary seating have been placed. Extensive litter and broken glass throughout the site suggests that some level of anti-social behaviour may be experienced within the site.



Fire pit and litter in compartment 3a

Compartment 2b: Stable Wood Meadow

Stable Wood Meadow lies to the north of the former tree nursery and woodland. This area is shown on historic OS maps as open grassland, although later editions also show a shelter belt running east-west across the site, sub-dividing it. The site appears to have been historically managed as a meadow and aerial photograph from 1969 indicate that it was still managed as a meadow at this point.





Aerial Photograph dating from 1969. The arrow points to Stable Wood Meadow

WDC staff are not aware that the area has been cut since the 1980s. As a result, the meadow is scrubbing up through natural regeneration with oak, ash, sycamore, willow and hawthorn, as well as having been partially planted. Planted species include oak, pine, maples, lime and horse chestnut. The Forest School uses a lot of willow for projects which is currently brought in from other sites. An area of Stable Wood Meadow has recently been planted with willow which will eventually be coppiced to provide an on-site source of material. The Forestry Commission Scotland native woodland survey of Scotland has identified much of Stable Wood Meadow as 'native woodland', although some substantial areas of meadow remain. The character of the area is now emergent woodland with open glades rather than meadow and the field layer vegetation is becoming rank. Horsetail (*Equisetum arvense*) is colonising the meadow areas and suppressing the field layer. Again, there is a network of well-used informal paths through this area.



Open Glade/Remnant Meadow in Compartment 2b



6.1.3 Compartment 3: Horsehouse Wood and Over Balloch Wood

Compartment 3a: Horsehouse Wood

This compartment comprises all of the woodland in the northern part of the Country Park including the belt of woodland extending down the hill from Over Balloch Farm and all of the woodland on both sides of Balloch Burn from the Boturich entrance to the Park in the north east corner to Shore Road. Again, the woodland here is representative of mixed broadleaved woodland, particularly W9 and W11 (but with a significant component of sycamore also present). There is a substantial area of planted beech woodland in Fairy Glen around Balloch Burn, where beech is also regenerating naturally. Some specimen trees are also present throughout this area including larch, spruce and horse and sweet chestnuts. Some mature small-leaved limes are present along Balloch Burn in the north east of the compartment. The woodland becomes slope alder/ash (W7) woodland at the foot of the slope above Shore Road and alder regeneration is prolific here.

Many of the trees within this compartment are mature or over-mature and suffering from significant structural defects and disease. Sycamore and ash regeneration is evident throughout the compartment. Many mature trees have been recently been lost in these woodlands as a result of storm damage which has had the effect of creating new glades and regeneration coupes. The ground flora in parts of the woodland, particularly those areas where the canopy has been opened up is becoming dominated by aggressive species. The main tarmac path (Glen Road) providing a circular route around the Country Park passes through Horsehouse Wood. It is very steep in places and the surface is in need of repair. Several informal paths lead off the main route into the woodlands. Again, these are not surfaced and their condition varies.

Fairy Glen and Balloch Burn, located along the northern boundary of the Country Park are typical 'picturesque' features of a designed landscape and provide an attractive and intimate woodland walk. The burn forms an accessible series of pools and waterfalls that visitors can enjoy either from the paths or from strategically placed benches. The woodland in Fairy Glen is dominated by beech, but many of the trees are over-mature and showing major physical defects. Beech regeneration is prolific in some areas. The paths through the woodland are not surfaced but are lined with stone and benched into the slope in some sections, so they were clearly constructed. The paths through Fairy Glen are in reasonable repair and their lack of formality contributes to the attractiveness of the site.

The post and wire boundary fence running along the northern boundary of Horsehouse Wood represents the northern boundary of the site and is in poor repair. The remains of the original iron estate fencing are still present along some sections of the boundary.

Drainage is an issue throughout the compartment, but particularly in the eastern part of the woodland at the top of the slope and adjacent to Stable Wood Meadow. Some of the drainage ditches through the upper part of the woodland are suffering from siltation or have collapsed.

Compartment 3b: Over Balloch Wood

The linear woodland extending from below Over Balloch Farm to Horsehouse Wood is an area of over-mature, unmanaged woodland, separated from Horsehouse Wood



by a post and wire fence in poor repair. This area of woodland does not lie within the Country Park boundary but is included within the boundary of the designated designed landscape. A significant ditch extends throughout the length of the woodland, connecting eventually with the drainage system in Horsehouse Wood but the ditch has silted up in places leaving the surrounding land saturated. The main canopy species present are ash, oak, beech, birch and sycamore with a holly understory. *R ponticum* is present within the woodland and does not appear to have been cleared when the other compartments were cleared following the *P ramorum* outbreak (see Head 9.5). There is evidence of deer browsing within the woodland and little natural regeneration as a result. The fields on either side are grazed and although stock is excluded from the woodland, the boundary fences are in need of repair.

6.1.4 Compartment 4: Meadows

Compartment 4, the areas lying to the north (compartment 4a) and south (compartment 4b) of the parkland, have historically been maintained as meadows, previously through grazing but more recently through mowing, since the planned landscape was laid out.

Compartment 4a:

The neutral grassland in compartment 4a has long been recognised for its botanical interest and is cited as one of the best examples of neutral grassland in the area in the Dunbartonshire Local Biodiversity Action Plan. Over recent years, constraints on staffing and resources have reduced mowing of the meadows, except for paths through the compartment. Planting of parkland trees has been undertaken throughout compartment 4a. Natural regeneration of ash and sycamore is being left to establish. Gorse banks have developed across the slopes of compartment 4a obscuring views from the upper path and benches and the diversity of the meadow is declining as aggressive species colonise and dominate the sward, particularly in the areas immediately adjacent to Horsehouse Wood.



Planted Parkland Tree Surrounded by Ash and Sycamore Regeneration in the Lower Meadow



Compartment 4b:

Compartment 4b, is lower-lying and poorly drained. The soil here is more acidic and the sward therefore representative of acid grassland. Again, lack of mowing and management within this compartment is resulting in succession. Regeneration is evident throughout the compartment of willow and birch in the wetter areas and oak and birch in the drier areas. Some planting of individual specimens has been undertaken throughout the compartment. Regeneration within compartment 4b is more established than that in 4a. Poor drainage is an issue within this compartment.



Looking into Compartment 4b from Compartment 5 (Parkland)

6.1.5 Compartment 5: Parkland

Compartment 5 is the area maintained as parkland. The parkland is extensive and a particular feature of the Balloch Castle designed landscape. This area is one of the best used areas of the country park. The compartment runs from the Castle at the top of the hill and the south drive down to Shore Road. The area is well-maintained and regularly mown throughout the growing season, although there are drainage issues within this compartment too, particularly at the base of the slope. The parkland is well-stocked with large open-grown mature specimens of oak, sycamore, ash, lime and horse chestnut. Younger planting with smaller, ornamental varieties including birch and cherries has been undertaken. Some of the mature trees within the parkland are in poor condition and there is evidence of vandalism.



Compartment 5: Maintained Parkland

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A new path was constructed through compartment 5 in 2005 as part of the HLF funded improvements to the Park and provides a link from the castle directly down to the loch shore.

Evidence on the ground and anecdotal evidence from grounds staff suggest that historically a path existed linking the Main Drive to the walled garden and arboretum (see map 2 for approximate location). During dry weather the route through the area becomes apparent on the ground and is tree lined along one Head.

An events area at the foot of the slope below the castle was developed in the early 1990's by the installation of a load-bearing ground protection system.



Fire Damaged Mature Larch Tree in Compartment 5

6.1.6 Compartment 6: Castle Core Area

This compartment comprises the Castle car park, the Chinese (Rose) Garden and the areas of formal garden and lawns immediately around the Castle.

The Chinese or Rose Garden was a late 19th century addition to the designed landscape. The garden is a series of terraced paths in a D-shape, enclosing a seating area where there was previously a pond and fountain. The garden is planted with a variety of specimen *Rhododendrons* and *Azaleas* with some specimen trees, in particular a pair of monkey puzzles and impressive tulip tree are worthy of note.

To the east of the Chinese Garden is the main Castle car park. Although extensive, the woodland setting of the car park means that the area is not incongruous.

There many fine specimen trees within the Castle core area including Wellingtonia, noble fir, grand fir, deodar, red horse chestnut, oak, yew, false cypress spp and sycamore. Many of the trees are mature/over-mature. Disease and storm damage have resulted in the removal of many trees from this area, including many Lawson cypress and an impressive Holm oak that stood directly in front of the Castle until it collapsed in a storm in 2012.





The remaining areas included in this compartment are formal beds planted with trees and shrubs, and lawns planted with specimen trees. These areas are wellmaintained, although poor drainage is a particular issue in the area to the west of Long Walk where new planting of individual trees is not establishing well as a result.

A storage compound it located within the car park which detracts from a generally tidy and well-maintained appearance of the area.



A small quarry pond is located to the east of the car park which has largely silted up.

Specimen trees in the car park in compartment 6

6.1.7 Compartment 7: Moat Wood

This compartment comprises the belt of woodland between compartments 4b and 5 and the loch shore path. The principal species are oak, sycamore, ash, thorn and beech with some planting of specimen trees, including pine, beech and horse chestnut with a significant component of yew in the northern end of the compartment. Part of the site of the original Balloch Castle and moat, which is now a Scheduled Monument, is located within this compartment but is indistinct on the ground due to the extent of natural regeneration and rank vegetation in the open areas. If left to establish, it is likely that damage to the moat will result from tree roots. There is a network of informal paths through the area, some of which seem to be eroding the edge of the moat.



There are serious drainage issues throughout the compartment and several ditches have silted up and hold standing water. The area is regularly flooded during the winter and following periods of heavy rain when the Shore Road can be under water for prolonged periods. Alder and willow regeneration is prolific in the wetter areas. Skunk cabbage is colonising large areas of the compartment extending into compartment 8. Some of the mature trees bordering Shore Road are in poor condition, particularly the beech, many of which have physical defects and extensive decay.



Skunk Cabbage in Compartment 7

6.1.8 Compartment 8: Loch Shore Woods

This compartment is divided into sub-compartments 8a (northern loch shore woodlands) and 8b (southern loch shore woodlands).

Compartment 8a:

This compartment comprises all of the woodland lying to the west of Shore Road, including the loch shore from the northern boundary south to the jetty and boat house. Alder, beech, ash, sycamore and birch are the principal species in this compartment. The native woodland type along this stretch of shore is W7, ash/alder carr and remnant carr woodland can be seen along the shore. The loch shore is suffering serious erosion throughout this sub-compartment and many trees are being lost as a result. Roots of mature trees are exposed and most of the soil on the foreshore has been washed away. Many trees have been windthrown and others are in danger of collapse. The extent of erosion is now such that it is threatening the integrity of the Shore Road in some places. Heavy use of the shore by visitors is adding to the problem. Alder is, however, successfully regenerating in the northern part of the compartment.



Loch Shore Erosion in Compartment 8a

Hyde Calvey Normand Heritage Perspective



Compartment 8b:

This sub-compartment is all of the loch shore woodland lying to the west of Shore Road and to the south of the jetty and kiosk. The main canopy species are oak, alder, lime, beech, birch and Scots pine with willow with birch regenerating throughout. Broom, gorse and dogrose are establishing along the edge of the path.

Considerable revetment work has been undertaken at different times along this stretch of shore line to stabilise the banks and reduce erosion while still retaining some areas of beach. Gabion baskets and walls have been used as the main forms of protection and although some erosion is still evident at the foreshore of the unprotected beaches, the stabilisation works have been successful. In some areas natural regeneration is establishing in the gabion baskets improving their appearance. The success of the revetment work is evident in the condition of the woodlands and the extent of natural regeneration and colonisation. This area is regularly flooded and inundated with water after periods of heavy rain, sometimes for prolonged periods.



Revetment work along edge of loch shore path

Some erosion is still occurring in unprotected areas and exposure of tree roots has compromised the stability of the trees.



Exposure of tree roots at foreshore



This is a popular and well-used part of the Country Park. Several picnic benches and tables are located throughout this compartment. Vandalism has been an issue here, in the past, and many of the mature trees show damage to an extent that their safe useful life is compromised.



Picnic benches in compartment 8b with fire damaged oaks in the background

6.1.9 Compartment 9: Walled Garden and Arboretum

The walled garden was restored and replanted as part of the HLF funded restoration works during 2003-6. Although there have been plant health issues within this compartment (see Head 9.5) the restoration of the walled garden has been successful and it is now a focal point and principal feature of the designed landscape. The garden is well-maintained and locked out-of-hours.



Restored walled garden (note stag-headed oaks to the north of the garden)

The area immediately to the south of the walled garden was developed as the Secret Garden by Glasgow Corporation soon after they took ownership of the site in 1915. This area has also been restored and is well-maintained, although problems with invasive species and declining tree health are evident.





The Secret Garden

The areas to the east and south of the walled garden are maintained as open lawn with shrub beds and specimen trees but the remainder of this compartment is largely wooded and represents the bulk of the tree collection at Balloch Castle Country Park site with many rare and unusual specimens. The area is stocked with a varied conifer collection set amidst mature oaks and some specimen broadleaves. There is no interpretation of the collection and to the casual visitor there is no indication of the importance of the site.



Grove of Fitzroya in compartment 9

Poor drainage throughout the site is having a detrimental effect on the health of trees, particularly the oaks, but also the specimen maples in the Secret Garden, many of which are in decline. Several yew trees within this compartment are dead or in decline but without further assessment it is unclear whether this is due to infection from *P. cinnamomi* or poor drainage.





Stag-headed oaks in lawn to the east of the walled garden

The removal of *R. ponticum* has opened up the site and the trees are now visible from the paths and lawns. Significant losses of trees (Lawson cypress) as a result of the *P. lateralis* outbreak have left open areas that are quickly being colonised by aggressive weeds and invasive species, particularly in the area to the west of the walled garden. Some new planting has been undertaken throughout the site with plant material provided by RGBE but if not maintained are likely to be lost through competition from more aggressive species. The areas to the south of the main path (running east to west) bordering compartments 10 and 11 have suffered many losses of trees over recent years and are regenerating with birch and willow. Colonisation of the area by bamboo species is a concern but still at manageable levels. Some western hemlock regeneration is evident throughout the site but, again, still at manageable levels. Further new planting has been undertaken along the external wall of the walled garden as part of the tree memorial/dedication scheme but much of this has failed.

The area immediately north of the walled garden is poorly drained and has been left unmanaged for many years.

6.1.10 Compartment 10: Moss O' Balloch Plantations

This compartment incorporates the area of woodland at the south of the designed landscape. Part of this site was cleared and developed as a car park and picnic area with a play park some years ago and improvements made to road access and the slipway to the River Leven (although the slipway does not appear to be in use). Again, poor drainage is a major issue throughout the compartment. Many of the trees, particularly the birch and oak, are in decline. There is no signage or orientation information within Moss O'Balloch car park to indicate that this is an entrance to the Country Park.

The woodland in this compartment is mostly secondary woodland arisen through natural regeneration and is dominated by pioneer species (willow, birch and ash), although some mature oaks and mature specimen conifers are also present. A deep ditch extending east to west through the compartment is lined on one side by beech which may have originally been planted as a hedge. Windthrow of individual trees



throughout the compartment has opened up regeneration coupes which are dominated by willow and birch with some ash, sycamore, pine and cypress regeneration.



Moss O' Balloch Plantation viewed from the car park in compartment 10

6.1.11 Compartment 11: South Drive and North Drive Plantings

Compartment 11 comprises the areas that flank either side of South Drive and North Drive. These areas are stocked with a variety of specimen trees and shrubs. Many of the shrubs have been lost as result of disease over recent years (see Head 9.5).

North Drive is well-maintained and supports a mix of broadleaves typical of avenue plantings in designed landscapes (oak, beech, lime) as well as some conifers, including some of the rarer examples in the collection (e.g. *Fitzroya*). The ground flora is laid to grass and regularly mown. Several trees have been lost from the North Drive over recent years and several remaining trees are in poor or declining condition. New planting has been undertaken but does not appear to follow a pattern, plan or structure. The North Drive borders adjacent farmland on each side and is separated by beech hedges which require 'gapping-up'.

South Drive leads from the main gateway in a straight then gently sweeping line as it approaches the Castle. It provides an impressive approach to the Castle as it gently climbs up through the site, flanked by mature specimen trees and woodland on either side before opening out to views across the parkland. Species include oak, beech, cypress, western and eastern hemlock, silver fir, hop hornbeam, yew, holly, larch, and pines. Unfortunately, many trees and shrubs have been lost from South Drive over recent years due to storms and disease and several of the large, mature remaining trees are over-mature and in declining condition. The woodland area in the south west of this compartment has had many tree losses and this combined with the removal of *R* ponticum has left the site open and untidy. Poor drainage is a serious problem throughout this area but work was underway in May 2014 to clear the ditches and re-instate the drainage system. The sward on either side of the South Driveway is mown to create a grass strip several meters deep but beyond this, the vegetation is not maintained and has become rank with aggressive species. The eastern plantings border the rear gardens of the residential properties on Inchconnachan Avenue, on the Mollanbowie Estate.



There has been pressure from residents to fell trees in the Park that overhang and shade their gardens and as a result there are some gaps in the canopy. Natural regeneration of various species including ash, rowan and sycamore is establishing.



South Drive

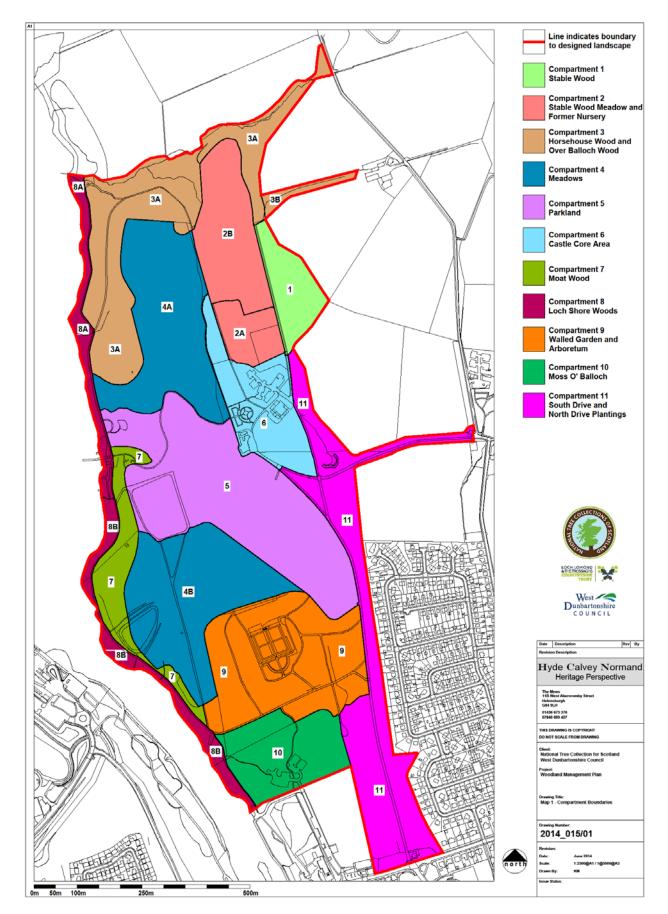
The area of compartment 11 lying to the north of North Drive and adjoining Stable Wood is poorly maintained, except the area immediately adjacent to the driveway which is regularly mown and planted with a variety of specimen conifers and broadleaves. The woodland lying to the east of this area is mixed broadleaved, with oak, ash, birch and willow the principal species. Many of the mature oaks and ash are in poor condition and in decline.

A former quarry in this compartment situated to the east the main drive has been maintained in the past as a pond. The site is now neglected and the pond is silting up and succumbing to succession. A boundary fence has been erected on two sides to deter visitors from using the area.

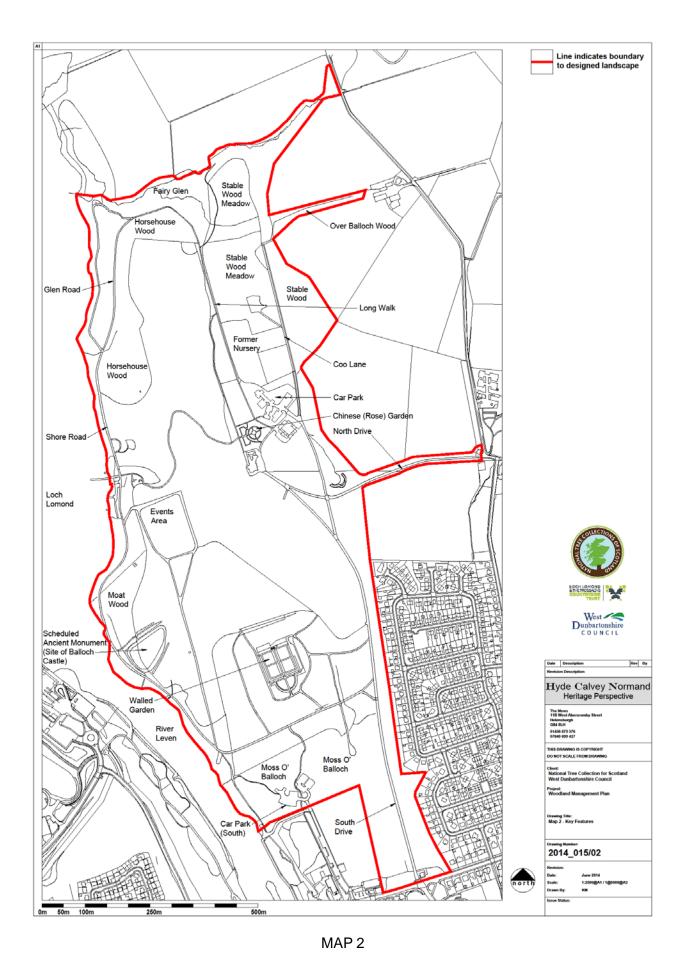


Quarry pond in compartment 11





Map 1





7. EVALUATION OF WOODLAND AND TREE COLLECTIONS

The 88ha Balloch Castle Country Park is a rare find - a designed landscape in public ownership with its structure still largely intact (Ref LL&TTNPA). It is well-served by a network of formal and informal paths, many forming part of the Core Path Network for the area, and has a range of interesting features and facilities on offer. Although visitor numbers are not documented, it is clear that the site is well-used throughout the year, both by visitors and local residents and that the Park is a highly valued area of public open space.

The designed landscape at Balloch Castle was developed in the 18th century by successive landowning families with a strong interest in horticulture and plant collecting before being bought by Glasgow Corporation in 1915 as 'Glasgow's garden' and named at that time 'Loch Lomond Park'. The main areas of horticultural and arboricultural interest at this point were the walled garden, the conifer arboretum surrounding the walled garden, the plantings around the South Drive, North Drive and Long Walk, and the areas immediately around the Castle including the Chinese (Rose) Garden, which was a late 19th century addition. The Corporation's Park Superintendents continued development of the grounds and plant collections and maintained the site to a high standard for the first half of the 20th century, adding the 'Secret Garden', an ornamental garden to the south of the walled garden, soon after the site changed hands in 1915.

Since 1975 the site has been managed by the local authority, now West Dunbartonshire Council, and has been registered as a country park with Scottish Natural Heritage (previously the Countryside Commission for Scotland) since 1980 in recognition of the importance of the site as an accessible area of public open space with abundant opportunity for outdoor recreation. By the turn of this century, however, the condition of the Park and its shrub and tree collection had deteriorated substantially. In particular, Rhododendron *ponticum* had taken hold throughout the woodland and plant collections, many of the aging specimen trees contributing to the value of the tree collection were in poor or declining condition and the Castle and designed landscape features were in poor repair.

Balloch Castle Country Park was first included in the Inventory of Historic Gardens and Designed Landscapes in 1987. The Inventory rates the horticultural, arboricultural and silvicultural significance of the site as 'high' (See Head 4.1.4).

The main areas of horticultural and arboricultural interest have not changed in the last 100 years and remain the walled garden, the conifer arboretum surrounding the walled garden, the Secret Garden, the plantings around the South Drive, North Drive and Long Walk, and the areas immediately around the Castle including the Chinese (Rose) Garden.

During the latter half of the 20th century it appears that limited new planting was undertaken, so that by the turn of this century, there was a lack of young and middle-aged trees on the site.

The Park is now maintained by West Dunbartonshire District Council, who in 2002, in partnership with Forestry Commission Scotland, Scottish Enterprise Dunbartonshire and Loch Lomond and The Trossachs National Park Authority, were awarded a £2.4 million HLF grant towards a restoration project, undertaken during 2003-2006. The work undertaken during this period has restored much of the site to its former condition and has ensured that the Park remains an excellent example of a designed landscape in public ownership.



The importance of the trees in the Park has long been recognised. Alan Mitchell measured over 50 trees on the site in 1985 and this information was used to produce a 'tree trail' interpretation leaflet, unfortunately now out of print.

In 2002 Martin Gardener of RBGE undertook a preliminary survey and assessment of the tree collection in the arboretum at Balloch Castle Country Park. He concluded that the collection is not unusual for a Victorian Scottish Estate but was still significant as a collection, as it was likely to be the best collection between the notable arboreta of Perth and those of Argyll. In his assessment, Martin Gardener noted that the collection included some fine examples of Picea orientalis and Athrotaxis laxifolia, an unusual species to find in conifer collections in Scotland. Mr Gardener particularly mentioned the Araucaria in the Rose (Chinese) Garden as notable because one of the specimens has deeply fissured bark as opposed to the normal smooth bark of almost every Araucaria in cultivation in the UK and Ireland. Of the species recorded in Martin Gardeners assessment 3 are now recorded as 'endangered' in the IUCN's Red List of Threatened Species, 1 as 'vulnerable' and 4 as 'near threatened' (see table 1 for Martin Gardener's species list and IUCN evaluation of the species). It is likely that some of the trees present on the site during Martin Gardeners 2002 assessment have been lost as a result of storm damage and disease.



Table 1: Preliminary Survey of the Conifer Species in the Arboretum of Balloch Castle Country Park by Martin Gardener (RBGE) 2003 and Current IUCN Evaluation of the Species (2014).

Scientific Name	Common Name	Country of Origin	IUCN Evaluation	
Abies koreana	Korean fir	Korea	Endangered	
Abies grandis	Grand fir	North America	Least concern	
Abies procera	Noble fir	North America	Least concern	
Araucaria araucana	Monkey puzzle	Argentina and Chile	Endangered	
Anthrotaxis laxifolia	King William pine	Tasmania	Endangered	
Calocedrus decurrens	Incense cedar	North America	Least concern	
Cedrus deodara	Deodar	Western Himalayas	Least concern	
Chamaecyparis Iawsoniana	Lawson cypress	North America	Near threatened	
Chamaecyparis nootkatensis	Nootka cypress	North America	Least concern	
Chamaecyparis obtusa	Hinoki cypress	Japan	Near threatened	
Chamaecyparis pisifera	Sawara cypress	Japan	Least concern	
Cryptomeria japonica	Japanese cedar	Japan	Near threatened	
Cupressus macrocarpa	Monterey cypress	North America	Vulnerable	
Juniperus recurva	Drooping juniper	China	Least concern	
Larix decidua	European larch	Europe	Least concern	
Picea abies	Norway spruce	Europe	Least concern	
Picea omorika	Serbian spruce	Serbia, Bosnia and Herzegovina	Endangered	
Picea orientalis	Oriental spruce	Japan	Least concern	
Picea sitchensis	Sitka spruce	North America	Least concern	
Pinus contorta var. latifolia	Lodgepole pine	North America	Least concern	
Pinus sylvestris	Scots pine	Europe to the Pacific Ocean	Least concern	
Pseudotsuga menziesii	Douglas fir	North America	Least concern	
Sciadopitys verticillata	Umbrella pine	Japan	Near threatened	
Sequoiadendron giganteum	Giant redwood	North America	Endangered	
Taxus baccata	Yew	Europe and North Africa	Least concern	
Thuja occidentalis	White cedar	North America	Least concern	
Thuja plicata	Western red cedar	North America	Least concern	

More recently, an assessment was made of the *Rhododendron* and *Azalea* collection on the site by Ian Sinclair of the Scottish Rhododendron Society. This was made principally to identify species to be retained during a programme of *R. ponticum* eradication. Some of these species *Rhododendrons* have since been lost to *Phytophthera ramorum*.

The Tree Register of Britain and Ireland, a registered charity that maintains a database of notable or 'champion' trees throughout Britain and Ireland based on size for their species has 8 records for Balloch Castle, one 'champion' for Britain and Ireland (*Acer palmatum ' Shishigashira'*) and 7 country champion records as shown in table 2.



Table 2: Records for Ballo	h Castle	Country	Park from	The	Tree	Register	of Britain
and Ireland							

TROBI	Genus and Species	Height	Dia.	Girth		
Tree	Property	(m)	(cm)	(cm)	@	Year
ID	Grid Ref:					
	Acer palmatum 'Shishigashira'					
36036		7.6	32	99	0.6m	2013
	Balloch Castle Country Park NS3914482484					
	Britain & Ireland Champion: Girth; Country Champion: Girth & Height; County Champion: Girth & Height					
SE of wa	Illed garden by path. Short single on 2013.)	main ster	n. (Joh	n Miller	and Ch	arles
158487	Aesculus x carnea Balloch Castle Country Park	19	97	305		2004
Country Champion: Height; County Champion: Height Comments Lower S drive; graft at 1.6m. Good domed crown and possibly 'Briotii'.						
	Aesculus x carnea					
158491	Balloch Castle Country Park	17	114	358		2004
Country Champion: Girth; County Champion: Girth Comments Drive S of Castle. Graft at 1.6m.						
158513	Chamaecyparis lawsoniana 'Stewartii' Balloch Castle Country Park	19	62	195	1.2m	2004



Country Champion: Height; County Champion: Girth & Height						
Comments						
SE from	SE from walled garden, towards S drive. Forks.					
	llex aquifolium 'Aurea Marginata'					
158496		17	50	157		2004
	Balloch Castle Country Park					
Country	Champion: Height; County Cham	pion: Girt	h & He	ight		
Comme	nts					
Gardens	, N. Female tree.					
	Picea rubens					
158504		24	39	123		2004
	Balloch Castle Country Park					
Country	Champion: Height; County Cham	pion: Girt	h & He	ight		
Comme	nts					
	Just SW of walled garden, in woods. Unconfirmed: downy shoot, big bud, scaly					
purple bark; small cone with flimsy, toothed scales.						
	Coliv cineres outon					
	Salix cinerea subsp. oleifolia					
158492		10	88	276	0.3m	2004
	Balloch Castle Country Park					
Country Champion: Girth & Height; County Champion: Girth & Height Comments						
N from castle						
NITOTIC	asue					
	Sorbus alnifolia					
158520		17	47	148	0.5m	2004
	Balloch Castle Country Park					
Country Champion: Height; County Champion: Girth & Height Comments						
Edge of parkland W of S drive (easily missed among young beeches)						
Lage of partialia w of e arre (eacily missed allong young becomes)						



Over the past 5 years, over 500 trees have been lost from the site as a result of disease or storm damage, including many specimens trees valued as part of the tree collection on the site. Many of the trees lost were mature specimens and the lack of planting during the latter half of the 20th century has resulted in a lack of middle-aged trees to replace these losses. Constraints on the management of the site, particularly plant health issues, the proximity of the site to a large urban population, invasive species, inadequate drainage and low staffing pose significant threats to the conservation of the tree and plant collections. It will be essential to ensure that adequate investment is made to effectively deal with these issues to ensure long-term the conservation and enhancement of the woodlands, gardens and tree collections.

West Dunbartonshire Council has recommenced a programme of planting throughout the site over recent years, mainly with parkland and native species. Natural regeneration throughout the woodlands is ensuring that woodland cover throughout the Park will be maintained. Recently RGBE has been providing plant material for enrichment planting of the arboreta within the Park and it is intended to continue a programme of planting over the coming years to ensure that the collection is conserved and enhanced. Once established this new planting will enhance the existing remaining tree collection and ensure that the Park's trees make a significant contribution to the National Tree Collections of Scotland as well as ensuring that Balloch Castle Country Park continues to represent one of the finest tree collections in the country in public ownership.



8. VISION, AIMS AND OBJECTIVES

8.1 VISION

In the ensuing twenty years it is envisaged that Balloch Castle Country Park will remain an important area of public open space and an invaluable community resource. The designed landscape will remain largely intact and laid out much as it was when the site was brought into public ownership in 1915 with a mosaic of well-maintained native woodlands, meadows, parkland, formal gardens, avenues and arboreta.

The tree and shrub collections will have been enhanced, extended and developed to represent one of the finest collections in the west of Scotland in public ownership and will be valued both locally and nationally.

The woodland resource, represented by a range of species and age-classes will be well-managed under a continuous-cover management regime. A range of wellmaintained recreational facilities will be on offer providing a high quality visitor experience in an exceptional setting.

The visitor experience will be enhanced by high quality interpretation facilities.

The biodiversity value of the site will be high and the area will be an important link in the habitat network of the area.

Through an education and volunteer programme, the local community will be involved in the day-to-day management of the site and will have a sense of community 'ownership' of the Country Park.

The Country Park will generate an income that will be directed back into its own conservation and upkeep of facilities.

8.2 AIMS

The principal aim of this Woodland Management Plan is to prescribe a plan of operations to bring the woodland and tree resource at Balloch Country Park to a standard that can help to deliver the vision.

8.3 OBJECTIVES

The main management objectives are:

- To enhance the contribution that Balloch Castle Country Park makes to the National Tree Collections of Scotland
- To bring the woodland back into favourable condition
- To maintain a safe, healthy tree population
- To provide a high quality visitor experience
- To extend and enhance the contribution that the trees and woodlands make to the habitat network and biodiversity value of the wider area
- To develop volunteer programme suitable for the site in association with other members of the National Tree Collections of Scotland



9. CONSTRAINTS AND THREATS

9.1 MAMMAL IMPACT

Although roe deer access the site from land to the north and west, the high number of visitors with dogs using the Country Park throughout the year means that deer numbers are low and consequently deer damage is limited. Likewise, there is a small rabbit population but, again, numbers are low and damage limited.

Through an intensive programme of grey squirrel trapping and control throughout the Balloch/Boturich area over a period of several years up to 2013, the grey squirrel population was vastly reduced. The trapping programme stopped in summer 2013 and grey squirrels are again beginning to colonise the area. Some minor bark stripping from squirrels was observed in the northern part of the Country Park. Recent damage is minimal at present but will increase if trapping in the wider area is not resumed.

9.2 VISITOR PRESSURE

The Country Park receives a high volume of use throughout the year and has in the recent past experienced a high level of anti-social behaviour with the woods being used for nefarious activities.

The proximity of such a sizeable and varied area of public open space, with a loch shore setting, to a large population, means high visitor numbers, particularly during fine weather. At such times the Country Park's car parking and toilet facilities are inadequate and low staffing levels allow anti-social behaviour to become a major issue.

Damage to trees and woodlands from fires, trampling, litter and theft of newly planted material has been a major issue in the past. Vandalism of facilities has been an ongoing problem. In 2012, West Dunbartonshire Council extended a bye-law prohibiting drinking of alcohol or camping in Balloch Castle Country Park. Combined with an increased police presence, particularly during fine summer weather, there has been a marked decrease in anti-social behaviour, although anecdotal evidence suggests that the problem has been partially displaced to other sites outwith the Country Park, particularly to a loch shore site at Boturich Estate, immediately to the north of the Park.

Theft of plants and vandalism remain on-going issues within the Country Park. New planting is now no longer protected or staked as this draws attention to its potential value and generally results in theft or vandalism. The plant collections were at one stage labelled but again this resulted in theft of plants (and labels). This is a major constraint to establishment of new plants and interpretation of the collection.

9.3 DRAINAGE

The drainage system at Balloch Country Park was mostly laid out when the landscape was designed and laid down in the 19th century. The drainage system in the northern and eastern areas appears to be a network of traditional tiled field drains while the southern, low-lying part is drained into the River Leven via a series of open ditches. Poor drainage is a major issue throughout the Park.



It appears that the field drainage system has been badly damaged in places over the years and poorly maintained. No maps exist of the location of the field drains, although existing long-serving members of staff have a good working knowledge of the drainage system and its problems.

In the southern part of the Park, the open ditches no longer provide adequate drainage. The drains do not flow or soak- away in many places. This is partly due to lack of maintenance and siltation in some areas but in others, where the ditches have been maintained or have recently been re-instated, lack of water flow is also an issue, suggesting that the ground water table is too high to facilitate drainage.

In some areas the situation is so bad that there is standing water in the drains all year. In 1971, a barrage was built across the River Leven at Balloch to optimise the water level in Loch Lomond for fishing, boating and tourism interests (ref: RCAHMS, Canmore ID 277883). The water level in the loch is now artificially high for much of the year. The increased level of the ground water table around the loch and increased loch shore erosion observed over the past 30 years are attributed to the barrage. Work has commenced to reinstate and improve the drainage system but the raised water table will limit the success of this.



Poor drainage is an issue throughout the Country Park with Darmera pelatum (see Head 9.4)

9.4 INVASIVE SPECIES

Invasive species have been an on-going issue at Balloch Castle Country Park over many years, particularly *Rhododendron ponticum*. Previous attempts to control *R ponticum* in the Park have been largely unsuccessful.

An outbreak of *Phytophthera ramorum* on *R ponticum* in the Park in 2011 resulted in a Plant Health Notice being served on West Dunbartonshire Council to remove all infected plants and those in the surrounding areas.



Funding was provided by Forestry Commission Scotland to eradicate *R ponticum* from the Park. Although work has been completed and has been largely successful, re-growth from cut stumps and seeding from adjacent sites is already apparent and means that work to keep the site free from *R. ponticum* will be an on-going management commitment.



Rhododendron ponticum is beginning to re-colonise parts of the site and will be an on-going management issue

Himalayan balsam (*Impatiens gladulifera*) and Japanese knotweed (*Fallopia japonica*) are also present on the site in localised areas and are treated annually by WDC grounds staff.

Bamboo (several species) is becoming a major issue in the arboretum and Secret Garden in compartment 9, particularly along the ditches and drains. Currently no action is taken to control this invasive species.



Bamboo is a problem in compartment 9 (Arboretum)

American skunk cabbage (*Lysichiton americanus*) is a becoming an issue in localised marshy areas of compartments 7 and 8b. Currently control of this species involves removing the flowers in spring to prevent further seeding.

These plants are very long-lived (up to 80 years) and can reproduce vegatatively, so complete removal of the plants is required to prevent spread and avoid long-term damage to existing ground flora and associated species. Dense populations of this species can alter hydrology of sites by impeding drainage.



'Escapees' from the Secret Garden are becoming localised problems in the lower, poorly drained areas of the Park, particularly *Darmera pelatum* (umbrella plant) in compartment 9.

Sycamore regeneration is a potential invasive in Horsehouse Wood and Stable Wood (compartments 1 and 3), and is likely to replace ash and oak in these areas if not removed. Regeneration of sycamore and ash within the meadows has also reached invasive levels, particularly in compartment 4a.

9.5 PLANT HEALTH RISK

Plant health has become an increasing issue in Scotland over the past decade. The introduction and rapid spread, often with devastating consequences in tree population of several diseases new to the UK has highlighted the importance of biosecurity and monitoring of plant health.

Plant health has been a major issue within Balloch Castle Country Park over recent years. In 2009 staff noticed symptoms of disease affecting several Lawson cypress trees. During 2010, these symptoms became more prevalent with many fatalities. Forest Research Plant Health Service was contacted. A laboratory analysis confirmed that the trees were being killed by *Phytophthera lateralis*, a pathogen thought to originate in Asia and that is the main cause of mortality in Lawson cypress in its native range in the West Coast region of North America. This was the first recorded case of the disease in the UK. A series of Statutory Plant Health Notices (SPHN) were subsequently served on West Dunbartonshire Council requiring removal of all diseased material and on-site burning.

P. lateralis is still an issue in the Country Park and felling to comply with the most recent SPHN was completed in May 2014. Lawson cypress was a significant component of the planting in the Park, particularly around the walled garden and Castle areas. To date almost 200 trees have been felled.

In 2010, it was also noted that there was a decline in the health of yew trees in the Country Park, particularly in the new yew hedging planted in the restored walled garden. Further investigation found that the trees were infected with *Phytophthera cinnamomi*. This disease is endemic to the U.K and can persist in the soil for many years after infected plants have been removed. *P.* cinnamomi cannot be eradicated or contained, so statutory intervention was not appropriate in this case. However, all infected trees (approximately 30 mature yew trees as well as the new hedging in the walled garden) were removed and material burnt on site.



Many yew trees have been lost to Phytophthera cinnamomi



It seems likely that the diseases arrived on site via nursery stock introduced to the site as a result of the restoration works undertaken during 2003-6.

In 2011 a further *Phytophthera* was identified in the Country Park, this time *Phytophthera ramorum* found to be infecting *R. ponticum* and also on a cypress tree. A statutory plant health notice was served on WDC to remove all infected plants and a subsequent grant from FCS facilitated the removal of *R. ponticum* from the site. *P. ramorum* has a wide range of host species and the legacy of the disease is a severely reduced range of species that can be planted within the Park.

Plant health is likely to be an on-going issue at Balloch Castle Country Park. The onsite staff are alert to the issues and well-trained to recognise disease symptoms and act accordingly. WDC has worked with Scottish Government and Forestry Commission Scotland to ensure that appropriate action is taken as quickly as possible to contain disease outbreaks. Bio-security measures have been put in place during disease outbreaks. The high volume of visitors to Balloch Country Park, often from far afield, means that the site is at a high risk of re-infection or from infection from new diseases brought in from elsewhere.



10. OPPORTUNITIES

10.1 PARK-WIDE ENHANCEMENT OF THE TREE AND WOODLAND RESOURCE

There is an urgent need to develop a Park-wide approach to interpretation of the tree and plant collections. Currently there is no indication on site of the importance of the tree collection. While Loch Lomond and The Trossachs National Park Authority is currently (2014) developing a signage and interpretation strategy for the wider area that will include Balloch Castle County Park, specific interpretation of the plant collection is required for both the casual and specialist visitor.

Problems with theft and vandalism have thwarted previous attempts at interpretation so any strategy will need to be robust enough to withstand these problems as they are likely to be on-going issues. The use of alternatives to the standard plinths/ panels and plant labelling should be considered, such as the development of a mobile phone 'app' that guides visitors around the site via a series of numbered waymarkers, robust enough to withstand vandalism, located at points of interest. An accompanying leaflet could also be produced (available for downloading on a Balloch Castle Country Park dedicated website or webpage) and available at local information points including shops, the local Tourist Information Office, LL&TTNPA HQ and at transport termini. A dispensing point within the Park would also be appropriate, such as in the Castle foyer, although previous attempts to have leaflet dispensers within the Country Park have not been successful.

Currently no comprehensive records exist on the tree collection in the Park, although brief assessments have been made at different times by various experts (see Head 7) all indicating that the collection is exceptional for the area. There is a need to document Balloch Castle Country Park's collection of important trees, including rare and uncommon species, champion trees, veteran trees etc by developing a digitally mapped Park-wide inventory that is the ownership of one member of staff charged with ensuring that it is updated regularly as new planting or felling takes place.

Balloch Castle Country Park has a high number of visitors throughout the year and in all weather. The senior chargehand for the site is an experienced and qualified tree surgeon but at present all felling and remedial work is undertaken on a reactive basis. Tree health and condition in the Country Park is a major issue that requires addressing through a Tree Risk Management Plan for the whole Park which zones and categorises areas in terms of level of use and frequency of inspection to ensure continued visitor and staff safety. The Risk Management Plan should incorporate priorities for annual monitoring and maintenance and allocate resources accordingly. A programme of replacement planting should be drawn up to accompany the Risk Management Plan.

Poor drainage is an issue throughout the Park as detailed in Head 9.3. These issues appear to have arisen from two problems. In the northern and eastern areas of the Country Park subterranean field drains have been damaged and poorly maintained while in the low-lying southern and western parts of the Park a series of open ditches and drains no longer adequately drain the site because of a combination of poor maintenance and an increase in the level of the water table brought about by the River Leven barrage built in 1971. Work was underway in May 2014 to reinstate the drainage system throughout part of this lower area but it seems likely that clearance of the ditches may only partially improve the situation if the water table is maintained at an artificially high level.



The long-term impact of poor drainage is a having a detrimental impact on tree health, particularly in compartments 9 and 10. To ensure on-going conservation of the existing tree collection in compartment 9, drainage improvements will be required. It is strongly recommended that a survey of the existing drainage system is undertaken to identify the problems and provide recommendations for action.

Given the drainage issues in compartment 9, there is a need to develop and enhance the tree collections in other areas of the Country Park. Compartments 6 (Castle Core Area) and 11 (South and North Drives) already support parts of the collection, and have suffered serious losses in recent years, opening up areas and providing opportunities for new planting. In compartment 6 (Castle Core Area), serious losses of shrubs as well as trees have opened up the area north of the Chinese Garden which is due to be planted in winter 2014/2015. There have also been a large number of losses from compartment 11 over recent years which have created significant opportunities for replanting within this area. Drainage improvements are already underway in both compartments. Planting in both areas could be part of a wider programme of development and enhancement of the collection in a planned manner in collaboration with NTCS and RBGE.

Plant health issues have been a major issue at Balloch Castle Country Park in recent years and this is likely to be on-going issue not only leading to further losses but also limiting species choice for future plantings. A Plant Health Action Plan is required for the Country Park that not only ensures that staff have access to information and training on plant health and the resources to manage and contain plant health issues as they arise but also to continue to manage and maintain the plant collection through new planting of disease tolerant species.

Although in a semi-rural location, Balloch Castle Country Park has suffered many problems associated with urban areas. Anti-social behaviour, vandalism, theft and high visitor numbers have in the past constrained management of the site and use of available resources and continue to do so. Over the past few years increased policing of the site has seen a reduction in anti-social behaviour and vandalism but issues are on-going and will continue to constrain management of the site and use of resources. There is an opportunity to learn from experiences elsewhere in the country by forging links and sharing experience with country parks located on urban fringe sites as well as urban parks.

10.2 ENHANCEMENT OF THE TREE AND WOODLAND RESOURCE BY COMPARTMENT

10.2.1 Compartment 1: Stable Wood

The use of Stable Wood by Forest Schools for educational purposes should be the main focus of management objectives for this compartment. Tree safety and condition should be a priority as well as the development of a canopy structure and composition that is representative of a native woodland and that enhances the biodiversity value of the site.

10.2.2 Compartment 2: Stable Wood Meadow and Former Nursery

Compartment 2a: Former Nursery

This compartment is not only under-utilised but the poor condition of the stand is becoming a management concern. Given its proximity to the car park and the Castle, there is considerable opportunity to develop the former nursery site into a



useable resource such as an arboretum or woodland garden or a facility linked to the use of the Castle.

Compartment 2b: Stable Wood Meadow

Much of the meadow has been converted to woodland through natural succession and planting over the past 40 years so that a mosaic of grassland and woodland has developed. The woodland here is more diverse than in other areas of the Country Park and is developing a more natural structure. The planting of specimen trees throughout the site will result in the development of a woodland structure similar to that found in traditional policy woodlands. This quieter area of the Country Park should be managed to improve biodiversity interests by maintaining the mosaic of developing woodland and grassland.

10.2.3 Compartment 3: Horsehouse Wood and Over Balloch Wood

Compartment 3a: Horsehouse Wood

Horsehouse Wood should be managed as another quieter area of the Country Park. Storm damage within the woodland over recent years has opened up glades and regeneration coupes and management throughout most of the compartment should focus on development of stands representative of the native woodland types that would occur here naturally. Tree condition and removal of *R ponticum* and sycamore will be on-going management issues within this compartment.

Fairy Glen is one of the most attractive areas of the Country Park and management here should focus on retaining and enhancing its current character. Tree condition is an issue here; particularly with over-mature beech which will require on-going monitoring and management. The beech regeneration should be thinned and managed to establish replacement trees. On-going maintenance to the paths will be required, particularly the narrow path leading up to the Boturich entrance to the Country Park.

Drainage, particularly in the eastern part of this compartment requires attention, particularly where it is affecting the path network. The existing drainage system has silted up and needs reinstatement. The path network would benefit from repair, maintenance and upgrading to reduce further damage.

There is an opportunity to improve the biodiversity value of the site by erecting bird and bat boxes on mature trees throughout the woodland and ensuring that a supply of standing and fallen deadwood in various states of decay is present throughout the woodland but out of view from public viewpoints to avoid use as firewood.

The fence along the northern boundary needs replacing and a solution found to the problem of continued vandalism of the fence between the Country Park and Boturich Estate near the loch shore. The Country Park, National Park, police and the landowner at Boturich may need to consider working in partnership to devise a solution to reduce the extent of damage and anti-social behaviour experienced in the field to the north of Horsehouse Wood.



Compartment 3b: Over Balloch Wood

Over Balloch Wood is not included within the boundary of the Country Park (although it is included in the designated designed landscape). This may account for the

apparent differences in management of the woodland. Management here should concentrate on the removal of *R. ponticum*, re-instatement of the drainage ditch and repair of the boundary fences to encourage natural regeneration of native species. This narrow strip of woodland receives few visitors and there is, therefore, the opportunity to develop biodiversity interests, particularly for birds and invertebrates by introducing woodland edge species such as crab apple, hawthorn, elder, guelder rose and blackthorn.

10.2.4 Compartment 4: Meadows

Compartment 4a: Northern Meadow

This important area of meadow is being lost to succession. Management within this compartment should aim to restore the botanical interest of the site and maintain it as a meadow in the long-term. A mowing regime should be resumed that maintains and enhances biodiversity interests. Sycamore and ash regeneration should be removed from the meadow areas and the gorse banks establishing at the top of the slope should be removed to restore views from the formal path network. Encroachment of aggressive weeds should be controlled so that they are limited to the edges of Horsehouse Wood where they will help to create good woodland edge habitat. The recently planted parkland trees should be maintained until establishment.

Compartment 4b: Southern Meadow

This area of acid grassland is gradually reverting to woodland. The trees here are longer established than in compartment 4a. There exists an opportunity to develop this area as an open-grown woodland with wide spacings between trees over a meadow. Some mowing will be required to maintain floristic interest. The wetter areas could be managed as wet grassland to encourage diversity of the sward and for invertebrates. Thinning of some of the areas of natural regeneration will be required.

10.2.5 Compartment 5: Parkland

This compartment is well-maintained and management here should focus on maintaining its parkland character. There is an opportunity to plant more parkland trees. The scale of the parkland and character of the site allows for large species of specimen trees and new planting should be with species such as oak, lime and horse chestnut to ensure that replacements are established by the time the existing mature specimens need to be removed. The drainage system within the compartment needs to be reinstated.

10.2.6 Compartment 6: Castle Core Area

There have been considerable losses of trees and shrubs from compartment 6 as a result of disease and storm damage. Many of the remaining trees and shrubs are mature and over-mature. A bank of specimen rhododendrons located in the area to the north of the Chinese Garden has been badly damaged by wind and it is intended to remove and replant this area in winter 2014/15. There is an opportunity here to enhance the tree collection by further planting in this area in a planned manner over



a period of several years to ensure diversity of age as well as species and develop the site as a recognised arboretum. The site compound and storage located within the car park is incongruous and a poor use of the site.

The Castle, courtyard buildings and North Lodge (compartment 11) are underutilised at present and while consideration of their future use is beyond the scope of this Plan, there is considerable opportunity to develop these buildings into a visitor, education and retail facilities.

10.2.7 Compartment 7: Moat Wood

The main focus for management within this compartment should be control of invasives (particularly skunk cabbage and re-growth of *R ponticum*), management of vegetation on the Scheduled Ancient Monument and monitoring of tree health and condition. The woodland should be managed in favour of native species with continued planting of specimen trees throughout (particularly beech, horse chestnut and Scots pine) to retain its policy woodland character.

10.2.8 Compartment 8: Loch Shore Woods

The main issue affecting compartment 8a is loch shore erosion. This is clearly having a detrimental effect on tree health and stability and the ability of these woodlands to sustain themselves through natural regeneration. The integrity of sections of Shore Road is likely to be compromised if stabilisation work is not undertaken in the near future. The focus of management in this compartment should be revetment and stabilisation of the foreshore, which should incorporate facilities to allow visitor access to the beach areas to discourage development of desire lines and reduce further damage to the banks from visitors climbing up and down from the path to the shore. Tree condition is also a concern in this compartment, and monitoring and remedial works will be an on-going commitment.

In compartment 8b, management should focus on removal of invasive species and thinning of natural regeneration to create native riparian woodland that protects the river bank and enhances the setting of the Shore Road.

10.2.9 Compartment 9: Walled Garden and Arboretum

This is the core area of the tree collection and the conservation, development and enhancement of the collection should be the focus of management here.

Drainage is a major issue throughout the site and poses a significant threat to the health of the existing trees and the successful establishment of new planting. Work is underway to reinstate drainage and assessment of the success of these works will have to be monitored before decisions are taken on the further planting. There have been large losses of Lawson cypress as a result of disease in this compartment and further tree losses are predicted as the oaks continue to decline because of poor drainage. The loss of a large number of trees from this compartment will further open up this previously sheltered area increasing the risk of windthrow of the remaining trees. An opportunity exists to re-establish a shelterbelt/buffer zone using species that can cope with the increased soil moisture.

Removal/control of invasive species should also be a priority for management, particularly bamboo and *R ponticum*.



10.2.10 Compartment 10: Moss O' Balloch

As with compartment 9, compartment 10 has serious drainage problems that require further investigation. The site has suffered many losses of mature trees in recent years and the health of the remaining mature tree population is in decline.

Regeneration of birch, willow and sycamore is prolific and while ideally it would be a significant addition to the Country Park to manage and plant this area as an extension to the tree collection, doing so should be a longer-term aspiration. Drainage issues within the site are likely to limit species choice and longevity.

10.2.11 Compartment 11: South Drive and North Drive Plantings

The South and North Drive plantings make significant contributions to the tree collection in the Country Park but there have been many losses of both trees and shrubs from these areas over recent years as a result of disease and storm damage. Many of the remaining trees and shrubs are mature and over-mature. As the main approaches to the Castle and Park, there is a significant opportunity here to enhance the tree collection by further planting in these areas in a planned manner over a period of several years to ensure diversity of age as well as species. The derelict North Lodge at the entrance to North Drive, the main vehicular access to the Country Park, is an unattractive and unwelcoming feature. This building is underutilised and could be making a significant contribution to the Country Park as a visitor facility, staff accommodation or by generating an income for the Park by leasing.

10.3 ENHANCEMENT OF BIODIVERSITY INTERESTS

Within Historic Scotland's Inventory of Gardens and Designed Landscapes listing, nature conservation at Balloch Castle Country Park is rated as 'high'. In particular, the listing noted that 'the north area of the Park provides a relatively undisturbed area of woodland along the Burn of Balloch and lochside habitats'. Currently few records exist for the Park and there is a need to introduce a system of biological recording and monitoring. The heavy use of the site by people and dogs will always limit the extent of biodiversity interests within the Park but the woodlands and meadows are of high (but declining) biodiversity value and opportunities exist to enhance these areas. Bat and bird interest in the Park is also high and again opportunities exist to enhance habitat for these species.

An opportunity exists to designate areas of the Park as 'quieter' areas and manage these areas with biodiversity interests as a key objective of management. In particular, the compartments that should be considered are: 2b (Stable Wood Meadow); 3 (Horsehouse Wood and Over Balloch Wood); 4 (Meadows); and 8a (Loch Shore Wood North).

Management of the woodlands in the quieter areas should be aiming to create and maintain stands representative of the native woodland types that would occur naturally on these sites with a diverse age and species composition. This will involve on-going control of invasive species, particularly *R ponticum* and sycamore where it is becoming an issue in Horsehouse Wood and Stable Wood and other invasives as they arise (e.g. Himalayan balsam, skunk cabbage, Japanese knotweed etc).

Management of deadwood to benefit biodiversity should also be a priority within these areas, ensuring that both standing and fallen deadwood in various states of decay are well-represented throughout the sites. The creation and maintenance of woodland edge habitat to these areas should also be a priority that will not only



benefit wildlife but may offer some protection to the woodland habitat by discouraging access into areas not served by paths.

10.4 ENHANCEMENT OF RECREATION, ACCESS AND TOURISM

The open spaces in and around Balloch including the Country Park with recently improved play areas and the restored walled garden in the Country Park provide a wide range of outdoor recreation opportunities for visitors and local people.

Balloch has a range of shops, hotels and restaurants, and importantly the Loch Lomond Shores development with its retail crescent, aquarium, sculpture trail and range of family activities, provides an essential service to summer visitors. Despite all of these attractions, the lack of indoor wet weather recreational facilities limits the opportunity to make Balloch an all-weather year-round tourist destination.

The Community Council for Balloch & Haldane with the assistance of Loch Lomond and The Trossachs National Park Community Futures Programme prepared a second Community Action Plan (2008-2011).

The plan was informed by a survey of local residents with the highest level of response (36%) praising Balloch Country Park and the recent improvements there as a result of the HLF restoration project. Top of the list for negative perceptions (21%) was anti-social behaviour.

The Plan identified the importance of tourism, recognising that visitors are currently the mainstay of the economy and that local people can benefit from the economic activity generated through tourism if this is well managed and balanced with the needs of residents.

The main priorities specified for tourism development in the plan were the need to improve path links between Lomond Shores and Balloch Park, and restoring and making more use of Balloch Castle.

The closure of the visitor centre at Balloch Castle was largely as a result of financial planning, and whilst this can be overcome in part by the information service provided by Lomond Shores and the local tourist information office, the early closure of toilets off-season each day is a negative for all users of the Country Park, particularly residents. The lack of any form of visitor information or interpretation in the foyer could be addressed at a small cost and its absence gives the impression that Balloch castle Country Park is a forgotten attraction.

The 7km of trails through the Park have been assessed as being of Grade 3 by a popular walker's website (<u>http://www.phototrails.org</u>). Grade 3 is in a range of 1 - 5 with 1 being the best and easiest to use to grade 5 the most challenging. Grade 3 is characterised by "Several features on these trails may more frequently reduce their accessibility for some people. There may be no resting points, long or steep gradients, a narrow path in places, poor surfaces or obstacles like kissing gates".

Generally the paths are much as a visitor would expect in a Country Park in terms of scope and quality but access for disabled users is poor. The three waymarked circular routes through the Park are difficult to follow and the way-marking is confusing. The routes are described in a WDC leaflet that is unavailable in the Country Park (see Head 5.1).



There is an urgent need to provide more information on access within and to provide a circular disabled access route that takes in at least part of Shore Road.

Local residents may be put off by the knowledge of occasional anti-social activities that occur in the Park. In that respect most visitors are unaware of such activities and use it with confidence. As a result of an increased police presence in the Country Park since 2012, anti-social behaviour is in reality sporadic and infrequent but the fear of encountering such behaviour effectively reduces the community use of this important public space. Seasonal Park Rangers are an important resource to retain in such a high profile area for visitors that encourages greater use by the community. There have been numerous initiatives and projects at Balloch Castle Country Park over the years, which have generally been financed as projects. On-going maintenance for new facilities beyond the life of the projects has not been granted additional finance or resources; this maintenance has had to be covered by already stretched existing resources. The development of any further projects or facilities at Balloch Castle Country Park will require further dedicated staff and resources.

In particular, there are opportunities to provide the following which would greatly benefit the visitor experience of the Country Park:

- Provide visitor information in the Castle foyer and develop a dedicated website for the Country Park that lists all events and activities taking place in the Country Park and provides visitor information on facilities in the Country Park
- Continue a programme of footpath improvement works, while developing an allabilities circular route of the Country Park and revision of the waymarked trails
- Create a full-time, permanent Ranger post dedicated to the Country Park
- Upgrade visitor facilities in the Park, particularly toilets and consider the development of wet-weather visitor attractions
- Develop stronger links between the Country Park and the local community and engender a sense of 'ownership' of the Park.

10.5 EDUCATION AND INTERPRETATION OPPORTUNITIES

In partnership with the Education department of West Dunbartonshire Council, Gillian Neil the countryside Ranger based at Balloch Castle Country Park delivers environmental education to schools primarily through the forest schools programme.

The education service provided has steadily grown in scale starting from just a few forest schools practitioners to 40 in recent years. Most of the Forest Schools practitioners are school or nursery teachers or education assistants largely from the primary school sector in West Dunbartonshire.

Stable Wood (compartment 1) in Balloch Castle Country Park is one of 7 forest school sites within the district and is the premier site for forest school activities in West Dunbartonshire. Use of the site is now so high that co-ordination of visits is required through a rota. An area of Stable Wood Meadow (compartment 2b) has recently been planted up with willow to provide raw material for forest school projects. There is an opportunity to develop another forest school site within the Park. The WDC Ranger Service provides and organises various educational events and services using the Country Park, including guided walks, a Great Outdoors Festival and various educational events for schools and community groups. The



Country Park provides significant opportunity for further development of an education and events programme but inadequate staffing prevents this realisation at present.

10.5.1 Educational Interpretation

Interpreting the special qualities of the area to visitors has been an important function since the days of the Loch Lomond Regional Park Authority. Balloch Castle Country Park was a high priority together with other key sites at Luss and Balmaha. The Castle was formerly an interpretive centre housing an exhibition during the Regional Park era with a new exhibition installed by the National Park Authority in 2003. At that time a range of interpretive panels were also positioned within Balloch Park as part of an early actions programme by the newly formed National Park.

It is believed the main exhibition from the Castle is in storage. Given that the Castle is unlikely to be re-opened as a visitor centre with exhibitions, interpretative provision will inevitably, at best, be limited to panels and leaflets.

Since the establishment of the National Park in 2002 the assumption has been that Interpretation of Balloch Castle Country Park should fit within the wider interpretive strategy for the National Park. In 2006 The Spark in the Park interpretation strategy was produced by the National Park Authority. It established a vision around four key themes, each one of which had implications for the way the Authority and other partners, including West Dunbartonshire Council, develop interpretation.

The themes remain relevant and equally applicable to the country park today:

- balancing recreational opportunity with sustainability
- providing a valued quality experience by offering visitors a wider range of opportunities for memorable and safe experiences of the Park
- raising awareness and understanding of the Park
- participation in the Park by welcoming and engaging with visitors and local residents
- delivering interpretation in physical forms (This remains a management challenge as interpretive installations are subjected to frequent vandalism.)

Although there is much that could be interpreted and many possible approaches fortunately Balloch Castle Country Park has distinctive qualities as a designed landscape with an impressive tree collection and therefore the focus of interpretation should seek to focus on these special aspects.



Vandalised interpretation plinth

The Loch Lomond and The Trossachs Countryside Trust Heritage Tree Programme interprets and helps to promote heritage trees in the National Park, supported by



Forestry Commission Scotland and the Loch Lomond and The Trossachs National Park Authority. The Trust aims to help identify and action opportunities to replace examples of key specimen trees which enhance the landscape and biodiversity around the towns, villages and settlements of the Park. Landowners, community councils, organisations or individuals are eligible to apply for interpretation, arboricultural remedial work, trees for planting, tree guards or for other support for local tree planting projects.

10.6 VOLUNTEER POLICY

Both the principle and support systems for volunteers are well established locally with The National Park volunteer programme and West Dunbartonshire Council volunteers engaged in a diverse range of activities. Central to the co-ordination and management of volunteers are the respective ranger services and volunteer works have been widely undertaken in Balloch Castle Country Park.

Volunteers are supported by a wide range of national initiatives, organisations and charities in recognition that volunteers contribute significantly to the environment in Scotland. Much of the work undertaken by volunteers is related to 'not for profit' activities such as practical conservation work for wildlife and supporting horticultural and recreational resources like Balloch Castle Country Park.

In order for even a small scale local volunteer programme in a country park to be successful and sustainable it requires co-ordination and time, usually given by a countryside ranger. The concern remains that a single person ranger service could not attend adequately to the many demands placed upon (s)he by visitors and the local community in terms of education, community liaison, and providing practical outdoor experiences. To add the co-ordination of a volunteer programme seems unrealistic. However, at Balloch Castle Country Park there is an identified need for a specific volunteer programme aimed at supporting the work of the estates / ground maintenance team.

Once a volunteer programme is established, experienced volunteers can:

- assist in leading groups of volunteers
- maintain good access for visitors
- participate in habitat conservation
- plan and assist with events
- contribute to environmental education
- deliver a wide variety of other project work including horticulture

Organising occasional volunteer days are helpful and have the benefits of involving the community and engendering a sense of 'ownership' in the local community. Developing volunteer programmes has been proven to be a worthwhile investment of time in many country parks.

One option is to form a Friends of Balloch Castle Country Park with an undiluted emphasis on managing the grounds, perhaps particularly the walled garden where local interest in gardening can be encouraged and harnessed.

Volunteers draw no salary, but they do demand investment. It is essential to have thought through and prepared a written Volunteer Policy that defines how, why and where the volunteers fit in.



The volunteers must be given a copy of the Volunteer Policy and know the scope of their duties and the paid staff must understand, through their contracts of employment, that volunteers will not replace them.

The hours of work given by volunteers should be recorded, assigning notional monetary values. The acceptability of such values for partnership funding purposes, if applications are made for external funding, is the primary reason for doing this.

It is essential to express appreciation for 'the job done' to all volunteers. It is probably their most important return, if they are not recognised they will inevitably become discontented and leave. Permanent staff should encourage volunteers; show them their appreciation and keep them informed and up-to-date. The Volunteer Programme would comprise:

- a written policy
- recruiting plan
- job descriptions

Volunteers - Opportunities

- Develop a volunteer or 'Friends of Balloch Castle Country Park' scheme, possibly linked to other NTCS sites and volunteer programmes
- Consider providing placements for apprenticeship schemes, for example, the RBGE Modern Apprenticeship scheme
- Consider the appointment of a further full-time countryside ranger to deliver a volunteer programme and assist with the management of this important resource

10.7 ADMINISTRATION, FINANCE AND STAFFING

Providing the resources to manage the Country Park is undoubtedly a challenge for West Dunbartonshire Council. Several feasibility studies have been undertaken in recent years to examine a range of financial options for future management.

Staffing and resources have been substantially reduced over recent years, with the current staff resource (5 full-time and 2 seasonal staff) inadequate to carry out all but routine maintenance and some reactive works. Delivery of additional works and on-going maintenance of works delivered through projects can only be realistically achieved with increased permanent staffing.

The Country Park has reached a point where increased funding is needed within 10 years, if many of its special qualities are not to be permanently lost.

Investigating further the options for generating income from the Country Park through a Public-Private Partnership initiative should be urgently considered. Income generated from such an arrangement will have to be ring-fenced for investment in the Country Park to conserve and upgrade the designed landscape and facilities that the Park provides. Currently only a modest income is generated from the Park and this is by other Council Departments, for example, the Boat House cafe is run by the social services department to provide employment and training opportunities but the small profit generated is directed back to social services. In the past retail and catering generated income was ear marked for the Regional Park Authority to fund the visitor centre but these commercial activities would fall far short of the current and future financial requirements.



Income generation within Country Parks is now accepted as a necessary practice in order to provide the funds for management. In these challenging financial times, if the Park is to thrive for generations to come, it will be essential to consider how the Council can work to address these demands and maximise the potential for profit and reinvestment.

The core premise of any proposed strategy is to encourage more people from West Dunbartonshire and beyond, to visit more often, stay longer, spend more and return.



11. RECOMMENDATIONS AND COMPARTMENT MANAGEMENT PRESCRIPTIONS

The recommendations have been ranked according to priority in terms of timescale:

- High (H) undertaken as soon as possible
- Medium (M) undertaken within 5-10 years
- Low (L) undertake within 15 years
- Ongoing (OG)

11.1 PARK WIDE RECOMMENDATIONS FOR MANAGEMENT

11.1.1 Tree and Woodland Resource

- Compile an electronic database linked to a digital map base recording all new and existing trees on the site that are considered to contribute to the National Tree Collection and update regularly as trees are planted/lost (H/OG)
- Produce a bespoke interpretation package for the tree collection that includes a mobile phone 'app', interpretation leaflet and tree trail (H)
- Map the drainage system throughout the Country Park and produce a maintenance plan prioritising areas for repair and identifying areas where the existing drainage system is inadequate. Take external advice on what action can be taken to address drainage problems (H)
- Extend and enhance the tree collection throughout the Country Park, concentrating on areas where poor drainage is less of an issue or can be easily rectified (H/OG)
- Produce and implement a Tree Risk Management Plan, which zones the designed landscape and categorises areas in terms of tree risk and frequency of inspections to ensure continued visitor and staff safety (H)
- Undertake an invasive species survey of the Country Park to map distribution and densities of invasive species and prioritise areas and species for clearance (H)
- Continue programme of *R. ponticum* eradication (M/OG)
- Produce a Plant Health Action Plan, ensure that Park staff have access to the Plant Health Register and receive training and regular plant health updates(<u>http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/riskRegist</u> <u>er.cfm</u>) (H)
- Continue to rely heavily where possible on new planting stock grown from seed collected on site or from material supplied by RBGE to reduce the potential for introducing disease into the site (H/OG)
- Introduce a programme of grey squirrel control in partnership with the Scottish Wildlife Trusts Red Squirrel Project Officer (Argyll & Trossachs) (M/OG)
- Continue programme of felling and replanting to improve age and species diversity throughout the tree collections and woodlands within the Country Park (H/OG)



- Monitor the establishment success of new unprotected planting throughout the Country Park and consider adopting alternative tree protection systems for different areas of the Park as appropriate (H/OG)
- Repair and maintain boundary features, including replacement of fencing, gapping-up of hedges, removal of redundant fencing and repair of breaches in walls and fences (OG)

11.1.2 Biodiversity

- Develop systems for biological recording for the Country Park (H/OG)
- Encourage the use of trained volunteers for biological recording (M/OG)
- Establish and maintain a database of species records for each compartment (H/OG)

11.1.3 Recreation, Access and Tourism

- Commission a visitor survey of the Country Park to gain insight into visitor profile, expectations and experiences (H)
- Install visitor counters at main entrance points (H)
- Provide visitor information in the Castle foyer and local information points within the village (H)
- Develop a dedicated website for the Country Park that lists all events and activities taking place in the Country Park and provides visitor information on facilities, walks, trails etc. (H)
- Develop an all-abilities circular route of the Country Park that allows for disabled access along Shore Road (M)
- In partnership with LL&TTNPA, review the existing network of waymarked trails and develop a network and method of waymarking appropriate to the site (H)
- Continue a programme of footpath improvement works (H/OG)
- Explore opportunities to upgrade visitor facilities in the Park, particularly toilets and consider the development of wet-weather visitor attractions (H)
- Consider development of new visitor/education facilities in the courtyard (M)
- Consider introducing car parking charges (M)
- Consider developing an annual programme of income-generating events (M)
- 11.1.4 Education and Interpretation
- Create a full-time, permanent Ranger post dedicated to the Country Park (H)



- Develop a year-round programme of educational events for adults and children aimed particularly at the local community (M)
- Consider development of a classroom and visitor facilities within the courtyard (L)
- Consider development of another area of the Park (e.g. Moss O' Balloch Plantation) as a Forest Schools site to cope with demand and reduce pressure on Stable Wood (M)
- Continue to work with LL&TTNPA to develop an interpretation strategy appropriate to the Country Park that focuses on the history and development of the site as well as the important contribution the site make to the National Tree Collections of Scotland (H)
- Ensure that the interpretation strategy includes orientation boards and information at all the entrances to the Country Park, including the pedestrian entrance at the foot of South Drive, Moss O' Balloch car park and the east riverside walk (H)

11.1.5 Volunteers

- Develop a volunteer or 'Friends' scheme the main focus of which is to deliver horticultural and conservation projects (H)
- Consider developing an apprenticeship scheme or placements for existing schemes such as the RBGE Modern Apprenticeship Scheme (M)
- Strengthen links between Balloch Castle Country Park and the other member sites of the NTCS (M)
- 11.2 COMPARTMENT MANAGEMENT PRESCRIPTIONS
- 11.2.1 Compartment 1: Stable Wood
- Manage Stable Wood as an educational resource with health and safety of trees a strong focus of management (H/OG)
- Encourage development of NVC woodland types appropriate to site conditions (OG)
- Thin the woodland in favour of native species and to remove sycamore (M/OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Encourage the establishment of understory species in the areas not used by Forest Schools (M/OG)
- Repair the eastern boundary fence and reinstate hawthorn hedge (M)
- Erect bat and bird boxes on mature trees throughout the compartment (M)
- Repair and upgrade the surface of 'Coo Lane' (M)
- Clear out ditches and reinstate drainage system throughout the compartment (H)



11.2.2 Compartment 2: Stable Wood Meadow and Former Nursery

Compartment 2a: Former Nursery

- Fell remaining trees planted as part of the nursery (M)
- Consider an alternative use for the site such as the development of a new arboretum or woodland garden (M)

Compartment 2b: Stable Wood Meadow

- Manage this as a 'quieter' area of the Country Park with biodiversity the principal objective of management (OG)
- Designate areas as woodland, glades and meadows so that appropriate management can be introduced (H)
- Manage the compartment to maintain the mosaic of habitats present and to ensure that biodiversity interests are maintained and enhanced (OG)
- Manage the emergent woodland in favour of native species, ensuring that a diverse age structure and species composition develops (M/OG)
- Encourage development of understory and woodland edge species (L/OG)
- Introduce a mowing regime for the glades and meadows, so that they are cut annually in late summer (H/OG)
- Consider enrichment with wildflower seed from compartment 4a if, after recommencement of mowing, the sward is found to be species-poor (M/L)
- Weed and maintain the area planted as willow coppice until establishment (H)
- 11.2.3 Compartment 3: Horsehouse Wood and Over Balloch Wood

Compartment 3a: Horsehouse Wood

- Manage this as a 'quieter' area of the Country Park with biodiversity the principal objective of management (OG)
- Manage the woodland to remove sycamore and encourage the development of recognised NVC woodland types appropriate to the site conditions (M/OG)
- Thin regeneration in glades and coupes in favour of better specimens and preferred species (M/OG)
- Encourage development and spread of native ground flora and understory (OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Manage the woodland to ensure that a healthy diverse woodland is maintained with all age-classes well-represented, including a proportion of over-mature trees (OG)



- Manage deadwood within the compartment in accordance with best practice (<u>http://www.forestry.gov.uk/pdf/FCPG020.pdf/\$FILE/FCPG020.pdf</u>) and produce a deadwood management plan (M/OG)
- Undertake occasional planting of specimen trees such as lime, horse chestnut, sweet chestnut and Scots pine throughout the woodland to perpetuate its policy woodland character (M/OG)
- Erect bat and bird boxes on mature trees throughout the compartment (M)
- Perpetuate the beech woodland in Fairy Glen to maintain the character of the site as densely wooded with an open woodland floor by thinning the beech regeneration in favour of better specimens, removing unwanted regenerating species and removing any over-mature or dangerous trees (M/OG)
- Repair and maintain footpaths through Fairy Glen without formalising them to the detriment of their character (H/OG)
- Repair and maintain Glen Road (H/OG)
- Replace the northern boundary fence and, in partnership with LL&TTNP and the landowner, consider options for reducing access to the Boturich Estate lochshore via the boundary fence and Balloch Castle Country Park (M)

Compartment 3b: Over Balloch Wood

- Manage this compartment as an extension to the 'quieter' area of the Country Park (OG)
- Reinstate the central ditch and drainage system through the woodland (H).
- Eradicate *R. ponticum* (H)
- Thin the woodland in favour of native species (M)
- Undertake enrichment planting with woodland edge species such as crab apple, hawthorn, elder, guelder rose and blackthorn (M/L)
- Repair boundary fences (M)
- 11.2.4 Compartment 4: Meadows

Compartment 4a: Northern Meadow

- Remove all ash and sycamore regeneration from the compartment (H)
- Reinstate annual mowing regime (H)
- Remove gorse banks from the areas below the formal paths to reinstate views (H)
- Manage a 2m strip around the edges of the meadow immediately adjacent to Horsehouse Wood as woodland edge (M/OG)
- Maintain recent parkland planting to establishment (M/OG)



Compartment 4b: Southern Meadow

- Thin areas of natural regeneration in favour of better specimens and undertake enrichment planting to ensure diversity of species (M/OG)
- Identify areas of meadow to be retained and reinstate annual mowing (M)
- Manage area of wet grassland through mowing and remove birch and willow regeneration (M)
- Reinstate path from South Drive to the walled garden (L)

11.2.5 Compartment 5: Parkland

- Continue planting of parkland trees throughout the compartment using large species such as oak, lime, horse chestnut, beech and specimen conifers to perpetuate the parkland character of the area (H/OG)
- Reinstate drainage system throughout the compartment (H)
- 11.2.6 Compartment 6: Castle Core Area
- Undertake all shrub clearance and felling works necessary (H)
- Draw up and implement a planting design for the whole compartment that develops the site as a recognised arboretum and plant collection in partnership with RBGE and NTCS (H)
- Re-located site compound and storage area to a less obtrusive site (H)
- Consider development of the courtyard buildings as visitor/education/retail facilities (L)
- Investigate drainage issues and reinstate an adequate drainage system throughout the compartment prior to new planting (H)

11.2.7 Compartment 7: Moat Wood

- Manage the woodland through thinning in favour of better specimens and preferred species to create oak woodland and alder carr (L/OG)
- Undertake enrichment planting with species associated with designed landscape policy woodlands such as beech, Scots pine, lime and horse chestnut, particularly adjacent to Shore Road to perpetuate the policy woodland character (L/OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Commence programme of skunk cabbage clearance (H/OG)
- Consult Historic Scotland on the management of the Scheduled Monument and consider applying for funding under the Ancient Monument Grant Scheme for removal of regeneration (H)



Clear out ditches and drains and reinstate drainage system (H)

11.2.8 Compartment 8: Loch Shore Woods

Compartment 8a:

- Undertake a programme of revetment works along the shoreline to halt erosion and undermining of the foreshore, embankment and Shore Road (H)
- Tree health and stability is being seriously affected by erosion should be a focus for monitoring and management (H/OG)

Compartment 8b:

- Thin natural regeneration in favour of native species and better specimens (M/OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Commence programme of skunk cabbage clearance (H/OG)

11.2.9 Compartment 9: Walled Garden and Arboretum

- Investigate drainage issues and reinstate an adequate drainage system (H)
- Continue programme of new planting and enhancement of the tree collection by planting up gaps in the canopy created by recent felling with tree stock supplied by RGBE (H/OG)
- Begin a programme of felling and replacement of the oaks to reinstate the shelterbelt and buffer around the walled garden and arboretum. Consideration may have to be made of species more tolerant of the wetter conditions (M/OG)
- Undertake a programme of specimen tree planting throughout gardens to the east and west of the walled garden to provide replacements for the existing mature trees. Again, consideration the of species more tolerant of the wetter conditions may have to be made (M/OG)
- Given the high number of dead and dying trees in this compartment, tree condition and safety should be a priority for management (H/OG)
- Reinstate understory of specimen shrubs (H/OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Commence programme of bamboo removal (H/OG)
- Reinstate area to the north of the walled garden as a formal garden (L)
- 11.2.10 Compartment 10: Moss O' Balloch Plantations
- Investigate drainage issues and reinstate an adequate drainage system (H)

- Thin the natural regeneration in favour of native species and better specimens (M/OG)
- Plant specimen trees and shrubs throughout the compartment to extend and enhance the tree collection (M/OG)
- Continue programme of *R. ponticum* eradication (H/OG)
- Erect bat and bird boxes on mature trees throughout the compartment (M)

11.2.11 Compartment 11: South Drive and North Drive Plantings

- Continue programme of reinstatement of drainage throughout the site (H)
- Draw up and implement a planting design for the whole compartment in partnership with RBGE and NTCS that ensures that this compartment continues to contribute significantly to the tree and shrub collection of the Country Park.(H/OG)
- Clean out the quarry pond and surrounding area and reinstate this as a feature of the designed landscape (M)
- Given the high usage if the site and the number of mature and over-mature trees present in this compartment, tree condition and safety should be a priority for management (H/OG)
- North Lodge presents a poor welcome to the site at present and consideration needs to be given to restoring and using this building (M)



12. RISK MANAGEMENT

12.1 Managing project work

There are various projects identified within this plan. Each project should be subject to the following steps:

1. Prior to execution of project

- Feasibility study undertaken
- Consultations with all interested parties
- Professional team selected
- Business Plan established

2. During execution of Project

- Professional management of project
- Correctly budgeted
- Fully funded (both Working & Fixed Capital)
- All planning approvals in place
- Managed and timed delivery of works
- Recruitment and training of staff (volunteer and employed) where appropriate
- 3. Post completion of Project
- Structured management team
- Evaluation of performance, detailing performance against budget
- Correctly funded marketing strategy
- On-going business review, allowing for evolution
- Correct curatorial and conservation management
- Managed public access

12.2 SWOT Analysis

SWOT analysis examines the *Strengths* and *Weaknesses* within an organisation as well as the *Opportunities* and *Threats* that it faces.

Strengths and *Weaknesses* are internal factors that West Dunbarton Council has some control or influence over. *Opportunities* and *Threats* are external issues that the Council cannot control.

There is a necessity to develop a response to each *Weakness* and *Threat* as well as plan to make the most of each *Strength* and *Opportunity*. It is recognised that an apparent *Threat* could be viewed as an *Opportunity*.

It should be remembered that in this case the SWOT analysis is for the benefit of west Dunbartonshire Council.



12.3 SWOT Analysis Table

Strengths	Weaknesses
 Significant place 	 The overall fragility of plant health
 Known as 'Glasgow's back garden' 	 Under managed woodlands
 Excellent example of a site in public ownership 	Current lack of interpretation
 Capable of hosting large open air events 	 No visitor surveys since the mid- 1990s
 The opportunity to set and maintain 	 Limited income earning capacity
high standards in the conservation of the Country Park	 Lack of public WCs
	 Lack of balance between use, income and conservation
Opportunities	Threats
 Good access from Central Belt 	 Vandalism and nefarious practices
 Loch Lomond marriage value 	 The continuous physical growth of the designed landscape
 Enhanced security and protection 	 Non-delivery of future funding
 Tree Risk Management Plan 	 Economic climate affecting tourism
 Plant Health Action Plan 	 Lack of archival background
 Income generating Public-Private Partnership initiative 	

12.4 The Focus

There are *Strengths* and *Opportunities* that allow for the designed landscape at Balloch Castle Country Park to flourish. It is considered a significant place and an excellent example of a site in public ownership.

There is now the ability to demonstrate, through this plan, the needs, ambitions and requirements of the Council to achieve a secure and continuing future for the designed landscape.

The landscape is a living art form (it cannot be hung on the wall and conserved as and when necessary) and needs continuous management, including the delivery of the programme of work encompassed in this plan. If the programme of work is not delivered, this is a massive constraint on its future and therefore the primary *Weakness*.



The collective expertise of the in-house management team, under the direction of the Access Officer, is a *Strength*. However, the team must ensure that correct, effective and successful bids are made to ensure the scale of funding required are made to deliver the programme of work. Most funding is now a competitive process. If that funding is not delivered, thus enabling the work to progress, this is the primary *Threat*.

12.5 Foot note

This plan should be used to guide the Council's decision making on the improvement and upkeep of the designed landscape.

The plan will help inform the decisions that the Council will make on scheduling the work by priority.

Due to the twenty year duration of the plan, it is essential that the cost of all project work is kept under constant review to ensure that inflation has been taken into account at the appropriate rate, when costings are originally projected (for example in Year 5, as well as at the time of delivery (for example Year 10).

The plan will be reviewed quinquennially.

