

West Region Aros Park Land Management Plan



Appendices

We manage Scotland's National Forest Estate to the United Kingdom Woodland Assurance Standard - the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification. We are independently audited.

Our land management plans bring together key information, enable us to evaluate options and plan responsibly for the future. We welcome comments on these plans at any time.



The mark of responsible forestry



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Appendix I - Land Management Plan Brief

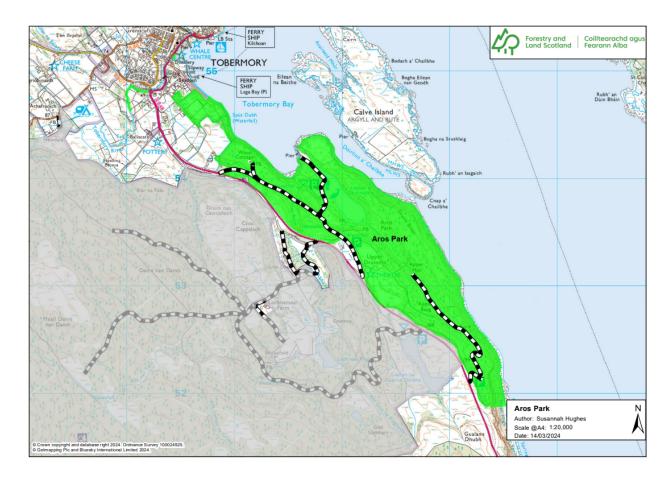
1. Key background information

Aros Park is a woodland of high amenity and conservation value close to Tobermory, enjoyed by locals and visitors alike.

Introduction

Aros Park LMP encompasses 191 ha of land

This management plan will replace and renew the previous Land Management Plan of Aros Park (SF File Ref 033/W/A/13(3))



Silvicultural Potential

Across the plan area elevation ranges from just sea level at the coast, up to 100m at Druimfin. The forest sits within "Stepped Rocky Coastlands" landscape type with low stepped headlands and ridges following a SE/NW alignment.

The prevailing cool & wet climate is conducive to good conifer tree growth although the combination of soil types and varied topography (exposed and sometimes steep combined with very flat, wet areas) can limit the choice of tree species. Climate change predictions suggest that the climate will become generally warmer, with drier summers and wetter winters.

The Aros Park Estate is a mixture of policy woodlands, broadleaves and a previously afforested conifer area being restored back to PAWS. Approximately 80% of the site is under woodland cover of (55% broadleaves, 25% conifer), with a further 3% having been felled awaiting restocking and the remaining 20% given over to open ground, open water (loch) an agricultural lease and recreational areas.

The current split in terms of age classes structure is approximately:

- 0% establishing crop (0-10 years)
- 7% thicket (11-20 years)
- 8% pole stage (21-40 years)
- 0% mature (41-60 years)
- 85% old forest (61+ years)

Age diversification is therefore minimal with a predominantly old forest.

There is a very little larch within the forests (0.1ha).

Operational Access

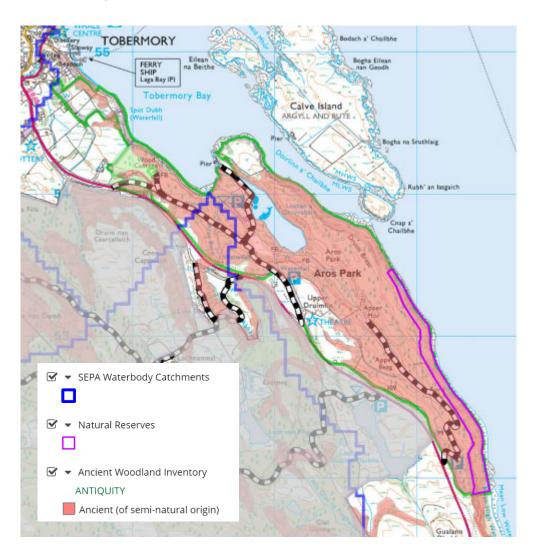
The forest has two discrete forest roads: the first, 2.4km, is primarily recreational from the north and the second, 1.3km, is a timber haul route existing onto the public road away from the public access to the south.

Environment

The richness of the natural environment on Mull is well known both across the UK and internationally. The island is known as a nationally important area for a variety of species including raptors such as White Tailed Eagle, Golden Eagle and Hen Harrier. There is a SSSI designation within Aros Park, Sound of Mull cliffs, and the whole of the isle of Mull is designated as an Environmentally Sensitive Area and the surrounding seas form the Inner Hebrides and the Minches Marine Special area of Conversation.

All the afforested areas are Ancient Woodland sites within the plan area and the SSSI area is a Natural Reserve, 12ha (1/3 of the designated area).

There are no SEPA waterbody catchment areas within Aros Park although the Allt nan Torc river (primarily in Aros forest) runs down the series of waterfalls as the Aros Burn and thence into the sea.



Cultural Environment

There are no scheduled monuments within the plan area, although there are a number of undesignated sites, mostly in relation to the history of Aros Park and its Victorian heritage.

Landscape

NatureScot Landscape Designations show the FLS land area to be mostly Stepped Rocky Coastlands.

Community Use

There are no Rights of Way runs within Aros Park although a network of formal trails which are mostly part of the Core Path network run through the forest.

A variety of community leases exist through the woodland including:

- the Walled Garden
- Mull Theatre
- Grazing lease
- Fishing lease

In 2019, land around the old sawmill and pier was purchased by the Tobermory Harbour Association and work has been ongoing to restore these structures for community use.

Argyll and Bute Council's Local Development Plan LDP2 has been consulted on in 2019 and the revised plan identifies Aros Park as Countryside Areas.

Neighbouring reservoirs / fisheries

The public water supply for the majority of Mull comes from the Mishnish lochs but this catchment is outwith Aros Park and there are no known private water supplies within the forest Lochan a'Ghurrabain offers fishing opportunities via permit.

Wildlife Control

Deer control in Aros Park is undertaken by direct Wildlife staff but is difficult due to the high recreational nature of the forest, the topography and its proximity to the town of Tobermory. Deer ingress is impacting on the natural regeneration of trees within Aros Park.

2. Strategic drivers

To realise the vision as set out in the Scottish Forestry Strategy 2019-2029, six priorities for action have been identified for implementation:

- Ensuring forests and woodlands are sustainably managed
- Expanding the area of forests and woodlands, recognising wider land-use objectives
- Improving efficiency and productivity, and developing markets
- Increasing the adaptability and resilience of forests and woodlands
- Enhancing the environmental benefits provided by forests and woodlands
- Engaging more people, communities and businesses in the creation, management and use of forests and woodlands

To demonstrate how we will have regard to the Forestry Strategy in our work, we have identified the relevant Forestry Strategy 'Priorities for Action' in our Corporate Outcomes section of the FLS Corporate

Plan 2019-2022. These, alongside key issues and site specific challenges, have informed our draft land management objectives, as illustrated in Table 12 below.

3. Draft land management plan objectives

- Support and enable investment in facilities and access for both locals and visitors to the isle of Mull.
- Continue to manage policy woodland silvicultural system
- Continue to work with the community on facilitating and progressing opportunities for community involvement in the forest given its close proximity to Tobermory.
- Work with the community to protect the important Victorian heritage of Aros Park Estate.
- Improve SSSI (Sound of Mull Cliffs) to ensure favourable condition, and restore broadleaf Plantations on Ancient Woodland Sites (PAWS) including the SSSI buffer; develop and implement a plan to reduce and contain Rhododendron ponticum
- Facilitate solutions for management of herbivore impact to support species diversity and ground vegetation as well as encouraging natural regeneration.

4. Stakeholders

- Scottish Forestry
- NatureScot
- **Argyll & Bute Council**
- **Argyll Fisheries Trust**
- Argyll Timber Transport Group (ATTG)
- Scottish Environment Protection Agency
- Historic Environment Scotland
- Mull & Iona Community Council
- West of Scotland Archaeology Service (WoSAS)
- Royal Society for the Protection of Birds (RSPB)
- Mull and & Iona Community Trust (MICT)
- Rural Payments and Inspection Division (RPID)
- Scottish Water (SW)
- Mull Deer Management Group
- Visit Scotland
- **Holiday Mull**
- Association wildlife tour operators
- Scottish Southern Energy
- Scottish Water
- Mull Museum
- Mull Native Woodland Group
- Neighbours

- **Tobermory Harbour Association**
- Mull Theatre
- Leasees/Permissions (Fishing, Grazing, Walled Garden, Disc Golf)

Appendix II: Analysis of Previous Plans

The previous Forest Design Plan covering the LMP area ran from August 2013 to present.

Objectives	Achievements/Changes	Relevance to the plan revision
Policy woodland & PAWS restoration: 11.3ha felling and 11.1ha restocking	All felling achieved Restocking started but not completed as NR still in progress and hampered by herbivore browsing and Rp.	Ensure restocking completed
Roading 0.1km	All necessary roading complete	No further roading
Timber production (0.1km p.a.)	Achieved	Further felling for next plan
Landscape design from key viewpoints requires coupes to be felled as per Management map to deliver planned enhancements	Felling achieved	Landscape enhancements continuing through further felling identified
Creation of habitat networks ongoing beyond the ten years of this plan; ongoing commitment to felling and restocking	Completing establishment objectives will enhance habitat network growth	Continue establishment objectives
PAWS restoration requires conifer removal, control of exotic regen (to go well beyond current plan)	Successful initial Rp removal but no subsequent follow up	Initial treatment area to have follow up work and further areas threatening SSSI to be included in plan.

Appendix III: Background Information

Context: History of Plan

4.1 Original Landowners

Very little historical information is available about the Aros Park area before 1700. It has been said that Spanish galleons and warships used Sput Dubh waterfall to fill up their ships' freshwater supplies. The Duke of Argyll originally owned most of Mull, but the lands around Tobermory were purchased in 1788 by the British Fisheries Society with a view to developing the bay as a major fishing port. This never came to fruition due to the island location and lack of a local fishing tradition.

4.2 1845 – Alexander Crawford

The Society's holding was then bought by David Nairn in 1844 and the AROS ESTATE formed when Nairn sold Tobermory to the Crawfords in 1845. Copies of maps held in the Museum of Tobermory show that in 1770 the farm known as Drumfin had very little woodland, but consisted mainly of pasture grounds. However, by 1847 both the Admiralty Chart and the Aros Estate map indicated that the house was set in about 300 acres of woodland with a network of walks in place including the coastal path to the town, a summer house and stables. In fact, the estate mansion house, Aros House (originally called Drumfin House), was built in about 1825 by Hugh MacLean, the 16th and last Laird of Coll.

4.3 1873 – Alexander Allan

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Having purchased the estate in 1873 the Allan family, shipping magnates from Liverpool, were then in residence until 1959. The sale particulars produced by Crawford give a detailed picture of the estate in 1873; by then the wooded area is quoted at 600 acres. From the Allan's game books, the shootings and fishings were of very high quality. It is interesting to see that few Red Deer were shot on the estate during the late 19th century; typically 2 or 3 in any seasonal month. In addition, Roe Deer were shot in similar numbers (now not found on Mull at all). Alexander, who took over the estate after the death of his father Bryce in 1874, lived until 1927. So, for over 50 years he was the guiding force in the development of the property. He was the first provost of Tobermory and was regarded as a 'benevolent dictator'. He gifted Aros Hall to the town, developed a new and reliable water supply and was responsible, through the Town Council, for the town's supply of electricity by a hydro-electric scheme on the Tobermory River. During his stewardship, it seems the area of Aros Park became increasingly a place where the townspeople were welcome to come and enjoy the surroundings.

4.4 1959 – Forestry Commission Scotland (FCS)

When FCS purchased Aros Park in 1959 from Alastair Hugh Allan, along with other parts of the estate, the family had already moved out of Aros House and lived at Linndhu. The land to the west was planted and the house leased out; reportedly the house was stripped of all oak paneling internally and lead from the roof. The Army were subsequently invited to demolish the house in 1962 as a

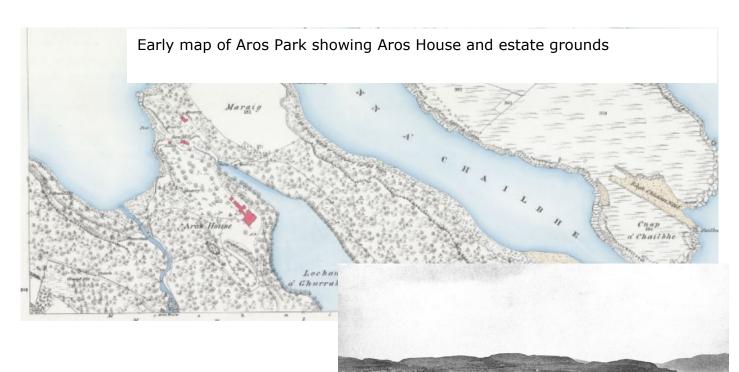
training exercise, reportedly because of the subsequent incurable dry rot. The stone was mainly used to create the car park; an ignominious end to what must have been a fine building (see Fig. xx).

Remaining artifacts which relate to the heyday of the park include:

- The deep water pier where puffers could moor at all states of the tide
- Stone buildings near the pier, one of which was a water-driven sawmill
- The walled garden where produce was grown for the household
- The remains of a small hydro-electric plant which supplied the house
- The remainder of workers' housing along the track running south from the loch
- The network of 'promenades' and the policy plantings of specimen trees and shrubs
- Coastal path linking the house to the town, enabling household staff to get to work

FCS initially preserved the park as an area for quiet leisure pursuits such as walking and fishing; very little changed until 1996. The provision of car parking and toilets were rightly considered minimum requirements but the overall fabric of the area declined. The relentless spread of the invasive rhododendron, R.ponticum had given the drive and many of the walks a very dark, 'closed in' atmosphere; many excellent views had been lost and the walks were in a particularly poor state of repair (the shore path was positively dangerous).

In 1996 work began on a major refurbishment project jointly funded by FCS, MFST and AIE (Argyll and the Islands Enterprise) Leader+ funding, with some volunteer 'in-kind' contributions.

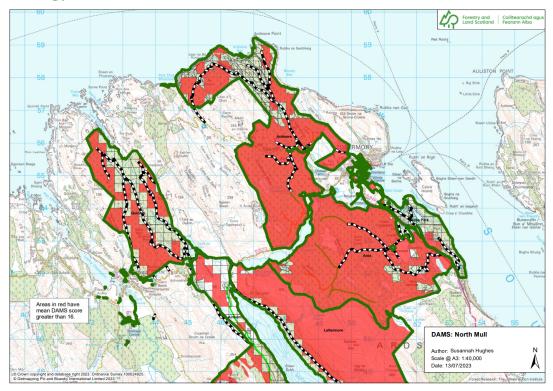


Photograph of Aros House: Licenced by St Andrews University Library (project 229) (Records of the Scottish Cultural Resources Access Network (SCRAN), Edinburgh, Scotland)

Aros House and Cobermory Bay

Physical site factors

Geology, Soils and landform



The solid geology of the area comprises intrusive igneous Basalts, Dolerites and Comptonites, with Tertiary extrusive Basalt lavas forming narrow bands within these.

The high DAMS scores shown across other parts of FLS' estate in Mull are not found within Aros Park which for the most part is much more sheltered.

The steeper slopes are typically Upland Brown Earths and podzols, associated with Basalt outcrops. But poorer flushed Blanket bogs are typical in both sites with higher elevation and with flatter topography. Where some drainage has been possible, peaty gleys are found.

No detailed soil survey data is available yet for Aros Park as the focus on peatland areas has taken priority in line with FLS policies.

Water

Water is an important component of Aros Park LMP area with a series of waterfalls being a dominant feature of the park. Enhancement of riparian corridors have been undertaken as deconiferisation has progressed and has benefits for both water users and woodland and open habitat networks. Broadleaved woodland will be envisaged here, either by planting or preferably by natural regeneration, where soils, climate and seed sources are suitable. Creation of partially shaded riparian corridors will benefit fish and freshwater shellfish populations.

WATER QUALITY: private

Under the Water Framework Directive, the water quality assessments for all waterbody assessed is Good - Allt nan Torc (Aros).

WATER SUPPLIES:

Private water supplies utilise forest burns where properties are not served by mains water, and the few that are present within Aros Park are recorded on our GIS mapping layers to ensure they are prioritised during any works within the forest. Both the intake for the supplies and the catchment areas upstream are identified. The public water supply for the majority of the island comes from the Mishnish Lochs to the north of Aros, outwith this plan area.

Slope instability – there are no slope instability areas identified within the North Mull LMP area.

Renewable Energy

Some 30 or so small scale woodfuel plants were running on Mull throughout the period of the last last plan including the hospital, the biscuit factory, hotels and the swimming pool and Crannich Farm ran a wood chip supply business on the island. Lack of firewood merchants on the island is currently an issue. There are no small-scale hydro schemes being pursued on FLS land within the plan area and there has been considerable opposition to any windfarm proposals on Mull in the past.

Climate

Continentality is low (3 to 5), the forests being close to or adjacent to the sea. The climatic region is described variously for coastal sections as 'warm, moist or wet' and for more inland parts as 'cool, wet'. Exposure is mostly moderate to severe and high open tops are classed as 'cool, wet, too exposed for forestry'.

Climate projections point to a warmer climate with lower summer rainfall and higher winter rainfall. DAMS scores vary across the area of the plan.

The climate is mild, wet and windy, with average annual temperatures around 8 – 9°C and precipitation above 1800 mm per year. Although snow is less prevalent than eastern and central Scotland, the region is subject to rain bearing South Westerly winds. Humidity levels are high throughout the year, rarely sinking below 70% relative humidity. The wet conditions contribute to soil leaching and development of gleys and bogs where soils are insufficiently free-draining.

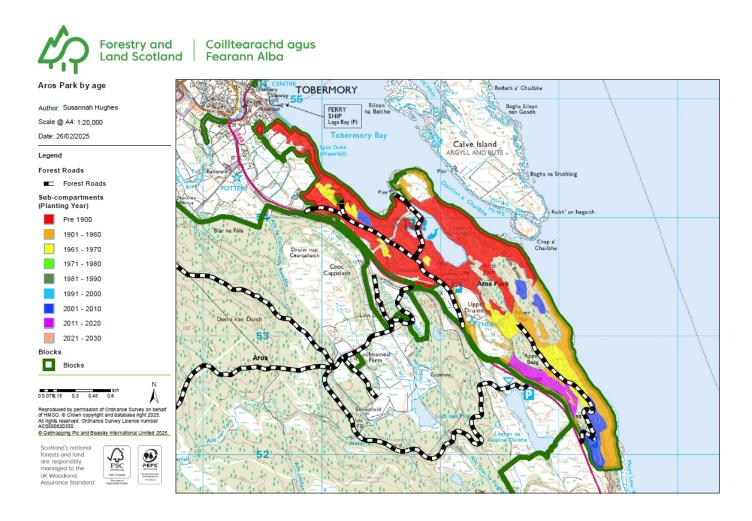
Coupe structure follows windfirm boundaries where possible to alleviate windblow risk. Mounding rather than ploughing will be preferred for cultivation, to minimise runoff and erosion risk. Retention of naturally regenerated broadleaves along coupe buffers will be encouraged to aid formation of windfirm edges.

The existing forest

Age structure, species and yield class

There are social, landscape and biodiversity grounds for increasing diversity, along with possible benefits for countering possible effects of climate change. However, the objectives vary widely across the areas with the primary objectives in some being the restoration of both temperate rainforests and peatlands.

Whilst others are more suited to commercial conifer plantations, with predominantly Sitka spruce being the main species suited to thrive in the area. Brown earths are mostly restricted to PAWS sites and areas of existing native woodland, especially in Aintuim and Salen.



Neighbouring Land Use

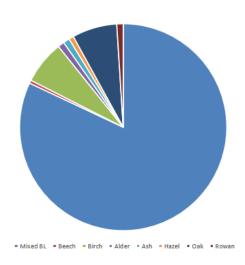
Native woodland habitat networks are developing within Aros forest to the west, linking areas of Ancient Woodland. This linkage also spreads to the north to the town of Tobermory.

The Sound of Mull Cliffs SSSI continues to the south along the steep coastal cliffs but outwith these woodland areas is a mixture of land use including agriculture and crofting lands.

Species Choice

As any areas for replanting are on Ancient Woodland sites, they are returning to broadleaves. The SSSI designation is for Upland Ashwood. In the policy woodland area around the lochan there are social, landscape and biodiversity grounds for increasing diversity, along with possible benefits for countering possible effects of climate change.

Broadleaves



There is just 19ha of Sitka spruce and unmapped policy conifer woodland.

Timber

Aros Park has produced good quality timber on the areas that were planted commercially after acquisition of the land. However, just two small coupes of conifers remain to be felled before the area returns to a fully non-commercial forest. It is not envisaged any productive broadleaves will be planted within the forest for hardwood timber.

Access

Access to the recreational facilities in the north of the park is via the forest road entrance gate down the original estate driveway. The entrance to the south at Apper Mòr accesses the remainder of the commercial crop and feeds directly onto the main public road between Tobermory and Salen. The two roads are linked for pedestrian access only.

Cultural Heritage

There are no scheduled monuments listed under the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). However, there are a number of unscheduled sites within the Park, mostly relating to the Victorian heritage of the site eg Aros House site including the walled garden.

Landscape

Landscape character assessment

Mull is mentioned within NatureScot's (SNH) Argyll & Firth of Clyde landscape character assessment for the area. There are two main landscape character's across the area: Stepped Cliffs and Terraces and Stepped **Rocky Coastlands**

Mull is classed as an Environmentally Sensitive Area (ESA) in terms of its landscape. However, the scheme is designed to encourage farmers to adopt environmentally friendly practices and to maintain and enhance particular habitats and landscape features.

Low headlands are particularly noticeable around Tobermory Bay, which itself is a coastal indentation. The policy woodlands and rhododendron generally conceal some of the smaller scale features, such as rocky outcrops and ledges, but these are more evident again in the northern area. Here the mosaic of woodland and marginal pasture remains. Extensive conifer woodlands extend down to the park within the Aros block and extended into the park's southeastern section. The latter is being increasingly diminished as restructuring replaces conifer stands with native woodland and open space. The estate character of the park is still much in evidence, rather than small-holdings. Estate buildings, such as the lodges, sawmill, and game keeper's house are reminders of this. Urban fringe development around Tobermory is more evident than isolated cottages.

The Aros Park forest is located on the coast, to the south of Tobermory on the Isle of Mull. A large part of the site, centred around Lochan a' Ghurrabain, consists of a former designed landscape and policy woodland belonging to Aros House which was demolished in 1960 (approx.). Whilst the southern section of the Aros Park block consists of previously commercial conifer plantation, temperate rainforest and open land.

The forest is set within a wider landscape defined by NaturesScot as Stepped Rocky Coastline Landscape Character Type (LCT) and is described as:

- Distinctive coastal low stepped headlands and sheltered bays.
- Undulating, eroded moorland on lower fringes of the high stepped basalt.
- Low ridges broadly follow a south-east/north-west alignment, with ribbon lochs in the glens.
- Indented coastline; low headlands have a distinctive stepped profile.
- Open moorland broken by rocky outcrops and ledges.
- Extensive conifer forests on lower slopes of plateau.
- Diverse, patchy mosaic of woodland, bog and marginal pasture on lower fringes of moor.
- Small estates influence the landscape character in some sheltered coastal bays.

Within this landscape, the Aros Park forest block has four distinct Local Character Areas (LCA):

- Historic Aros Park
- Aros Park Coastal Woodands
- Apper Mor and Beag Glen
- Druim Fionn Ard

Historic Aros Park LCA:

This landscape forms the core area for the visitor experience to Aros Park. It is centred around Lochan a' Ghurrabain, the visitor facilities where the former Aros House once stood, former estate buildings and structures in varying condition, dramatic waterfalls and a network of path routes through the former policy woodlands including the coastal path. The woodlands are

mostly deciduous and are characterised by the former policy woodlands and a fringe of temperate rainforest where the woodlands meet the steep and rocky coastline.

The proposals within this land management plan consist of maintaining the long term retention of the mixed broadleaf woodlands and continuing the rhododendron control in areas such as along the accessible parts of the coastal footpath. It is predicted that these operations should not adversely affect the existing character of this LCA.

Aros Park Coastal Woodlands LCA:

Centred on the eastern side of the Druim Breach ridgeline, this area has much less human presence than the Aros Park Historic Landscape LCA giving way to it appearing to be more rugged and 'remote'. It is characterised by the fringe of dense temperate rainforest on the steep ground and rocky crags overlooking the Sound of Mull, Tobermory Bay and Doirlin a' Chailbhe. This is reflected by the SSSI designation of the coastline, to the south of Calve Island, for native woodland. On the upper shallower slopes near the ridgeline, the land is characterised by former commercial forestry operations and is currently restocked for native woodland restoration.

The proposals for this LCA are for minimum intervention within the exiting native woodlands and for the former commercial forestry areas to transition to native and mixed broadleaf woodlands. The SSSI buffer shall be the priority area for Scottish rainforest restoration work and rhododendron removal. This work would create a beneficial affect to the local landscape character and is in-keeping with the local landscape.

Apper Mor and Beag Glen LCA:

This area is characterised by the confined nature of the narrow U-shaped glen hemmed in by the steep ground of Druim Breac to the northeast and the crags and steep ground rising to the A848 in the southwest. It is further characterised by being the last active area of commercial forestry within the Aros Park forest block. At the present time, the two coupes of commercial conifer remain and the rest of the valley floor and sides are in clearfell whilst remnants of native and mixed broadleaf woodland are found on the upper margins of the glen.

The proposals for this LCA are to clearfell the remaining commercial conifer plantations and establish native broadleaf species. In the long term this should restore the site and integrate the existing commercial forestry site with the native woodland.

Druim Fionn Ard LCA:

Located on the eastern edge of Apper Mor, this LCA is characterised by small scale settlements, Mull Theatre and open agricultural land, some of which is used for grazing. The landform is frequently pockmarked with rocky knolls and mixed broadleaf trees enclose field and property boundaries.

This LCA will be unaffected by the proposed forestry operations.

Views:

The most accessible views out of the forest block occur from the coastal path and top of the waterfalls path with frequent open views over Tobermory Bay to Calve Island and Tobermory itself. Elsewhere within the forest, open views across Lochan a' Ghurrabain are obtainable from points along the circular path around the edge of the loch whilst short range and localised views of the waterfalls are obtained from the local path network and viewpoints. It is envisaged that the existing key viewpoints shall be maintained though vegetation management within the existing visitor zones. Elsewhere, it is not anticipated the proposals will create a significant change to the existing views.

From outwith the forest block, views of the whole forest are limited due to terrain and tree cover. However, the most extensive views of the forest occur along the coastal edges, primarily from Tobermory to the north, from the ferry route through the Sound of Mull and from Drimin (Vpt 2) in the east as shown by the red dashed line on Map 4.

To the north, the proposals would be barely perceptible from Tobermory and the forest appearance is likely to remain unchanged. Views of the eastern coastline would yield the largest noticeable changes in the form of removal of a band of conifer, extending the native woodland and reducing the amount of visible open land over time. in the medium to long term, this would represent a positive change as the landscape is restored from commercial forestry to Scottish rainforest.

Designations

Sites of Special Scientific Interest and SAC/SPA

One-third of the Sound of Mull Cliffs SSSI lies within Aros Park and the rest of the designated area runs to the south.

Landscape

None of the forest falls within a national or local landscape designation

Environment

Priority Species

- Open hill-tops are used by raptors, including White Tailed Eagle, Golden eagle and Hen harrier.
- Barn owl barrels are sited in several places.
- Various species of bats (Daubenton's (LBAP), Natterer's (LBAP) and Pipistrelle (UKBAP, LBAP).
- Badger setts have been present in the forest historically, though most are now unused.
- Otters are known to use the riparian networks, but no holts are known.
- Invasive Mink are present within the plan area.
- Bryophytes, ferns and lichens are found especially within the Sound of Mull cliffs SSSI.

- Plants within the park include butterfly orchids and birds nest orchid recorded around the lochan.
- Lepidoptera has not been recently surveyed but sightings of day flying moths in 2024 included Cinnabar moths

Biodiversity

Deadwood

The ecological potential for deadwood is generally for the LMP forested area. The highest ecological potential for deadwood is found in the established woodland and in PAWS areas.

Social factors

Recreation & Community

There is one formal recreation facility comprising a car park and multiple trails following many of the original Victorian Estate paths. The refurbishment of the old sawmill and pier on land recently acquired by the Tobermory Harbour Association complements and secures the identity of the Park as a recreational space to be enjoyed by all. An all ability path and fishing area was installed around part of the loch although work is required to bring this up to full specification. Further works have been identified on both the coastal and waterfalls trails which are in a variable state of repair. As well as being an important site for the residents of the island and community groups, the island of Mull is a hugely popular visitor destination especially for people wishing to enjoy the outdoors and experience the wildlife the island has to offer. Whilst not a formal recreational offer, a variety of other routes are used as part of longer circular walks around Tobermory, Aros and the northern end of Mull.

There is a strong community on Mull, due in part to life on an island bringing people together with a shared love of place.

Appendix IV: Concept Tables

Objective	Opportunity	Constraint	Concept
Encourage and invest in facilities and access for both locals and visitors to the isle of Mull.	High footfall of visitors through one of Mull's most popular woodland sites .	Cost of maintaining facilities can be considerable High footfall requires maintenance of existing facilities.	Work with community groups accessing funding to improve facilities as opportunities allow.
Facilitate solutions for management of herbivore impact to support species diversity and ground vegetation as well as encouraging natural regeneration.	Successful herbivore management would result in regeneration being allowed to establish fully across all sites	Resident populations of deer on very steep ground are a logistical obstacle in addition to the proximity of the park to Tobermory town and the high number of visitors within the park; prevailing wind direction and topography/backdrop impedes deer control.	Identify areas for tracks to enable more extraction, undertake thermal drone surveys to establish location and numbers of resident population in addition to any neighbouring ingress.
Continue to manage policy woodland silvicultural system	The park provides an interesting mix of species which results in an attractive site for visitors	Small areas of Sitka still remain to be removed within the policy woodlands.	Plan to fell these pockets within the first phase of the new plan.
Work to improve SSSI (Sound of Mull Cliffs) from unfavourable condition to improving, and restore PAWS	Seed sources prevalent across areas of PAWS which will help establish broadleaf buffers to SSSI	Despite previous works on removing R. ponticum, it continues to thrive and spread within the park both on	Obtain multi-spectral drone footage to establish focus for R. ponticum intervention and timing of works across the site

including the SSSI buffer; develop and implement a plan to reduce and contain R. ponticum		previously treated and non-treated sites.	focussing on the SSSI buffer as a priority.
Continue to work with the community on facilitating and progressing opportunities for community involvement in the forest given its close proximity to Tobermory.	Tobermory Harbour Association are nearing completion of their current project in the old sawmill and pier.	Walled Garden group have not been able to take on the project they had hoped	Continue to work with these groups taking forward projects as they are assessed for feasibility.
Protect the important Victorian heritage of Aros Park Estate and work with the community when opportunities arise.	An unusual collection of features within the park relating to its history in the early 20 th century	Some structures are unsafe or unable to be promoted under current conditions	Continue to work with community groups where funding opportunities may arise to improve some features.

Appendix V: Deer Management Plan

Background

This Deer Management Plan (DMP) outlines the deer management issues and priorities for Scotland's National Forest Estate in Central and North Mull, managed by Forestry and Land Scotland. The DMP underpins the Land Management Plan. However, this DMP is based on best available information and wider issues for deer management across the whole of West Region still remain to be addressed. The DMP also relates to, and should be used in conjunction with, FLS Deer Management Strategy.

In line with the Scottish Government's consultation on Scotland's Strategic Framework for Biodiversity "Tackling the Nature Emergency" we recognise that reducing herbivore impacts is one of the biggest levers we have in Scotland for reducing biodiversity loss and enabling regeneration at scale.

National & Local objectives

National strategies and objectives:

- Contributing to <u>Scottish Forestry Forestry Strategy</u> (also includes Climate Change)
 Deer will be managed to help ensure Scotland has a healthy, diverse ecosystem, contributing to our climate change objectives, whilst also contributing to our national and local economy in line with Scottish Government objectives and public interest.
 - Lower deer densities to 2-7 per km² to ensure the above objectives can be met sustainably.
 - o Ensure all designated sites are in favorable condition
 - o Achieve less than 10% leader browsing damage on all first year restock coupes.
 - Ensure Stocking Density Assessment at year 5 achieves productive forest objectives of 2500 per hectare.
 - Ensure all designated sites are in favorable condition meaning that the features for which SSSIs or Natura sites are designated are in satisfactory condition; or are recovering, with the necessary management measures in place, such that NatureScot (previously SNH) predicts, using expert judgement, that the land will in due course reach favourable condition.
- Deer Management Strategy <u>Deer management strategy Forestry and Land Scotland</u>
- Scottish Biodiversity Strategy <u>Biodiversity strategy: consultation gov.scot (www.gov.scot)</u>
- Outcome 2 of the FLS Corporate Plan 2019 2022 is most relevant to this Deer Management Plan:

- "Looking after Scotland's national forests and land" "Scotland's national forests and land are looked after; biodiversity is protected and enhanced; and more environmental services are provided to people".
- The scale of FLS property allows, "whole landscape management, restoring, enhancing and linking habitats", "to adapt forests and land to increase their resilience and protect and enhance natural assets so they can continue to provide for us".

Local strategies and objectives:

The main objective of deer management within the West Region is to manage deer populations at a level that is compatible with FLS environment and other management objectives. The aim is:

- to prevent unacceptable damage to commercial tree crops:
- to maintain or enhance biodiversity in key areas;
- to protect all designated sites.

Deer will be managed to help ensure Scotland has a healthy, diverse ecosystem, contributing to our climate change objectives, whilst also contributing to our national and local economy in line with Scottish Government objectives and public interest.

Management of the deer population will be done in a professional, humane and cost-effective way, ensuring the physical wellbeing of the remaining deer populations within the forest boundaries. Venison income will be optimised and opportunities to create revenue from recreational deer management permissions (RDMP) will be taken, but without compromising the over-riding issue of minimising negative impacts by grazing herbivores.

In the Strategic Plan area, the urgent short- and medium-term aim is to achieve deer browsing levels that allow successful establishment of young trees (planted and natural regeneration) including soft conifers and broadleaved species. Given the scale of native woodland restoration and creation that is planned across the area, including species that are extremely vulnerable to grazing/browsing pressure, we propose that reducing deer densities to the lower end of the spectrum outlined in national targets, i.e. ideally, < 2 deer / km², will be required but note that this will need to be achieved in stages, working with available resources and supported by effective ongoing monitoring of herbivore impacts.

The Central and North Mull DMP is also informed by the Mull DMG Deer Management Plan.

What are we going to protect?

The FLS land holding in Central Mull comprises four forests – Salen, Crannich, Aintuim and Lettermore – and three forests in North Mull – Ardmore, Aros and Quinish; together these cover approximately 7,900 hectares. The area is characterised by mountain and coastal landscapes of national and international significance. The mountainous terrain supports a range of designated habitats and species with areas of high ecological and heritage value. The land includes hills, glens draining into coastal waters of significant importance, some with international designations, and a

range of habitats including blanket bog; upland heath; wet flushes, springs and lochs; rivers; conifer plantations and native broadleaved woodland. Priority open habitats, particularly blanket bog and wet flushes have been mapped and require protection from high grazing and browsing pressure. However, some of these habitats benefit from grazing, albeit at low levels, so sustainable numbers of deer need to be maintained - as an important element of properly functioning ecosystems.

Areas suitable for native woodland expansion have been identified. Of the forested ground, 90% is under conifers – predominantly Sitka spruce and Lodgepole Pine – and 10% is under broadleaves. Median Yield Class of Sitka Spruce is 12 and Lodgepole Pine is 6 but there is significant variation across the area and within forests.

Some designated sites may be particularly impacted by deer browsing and deer management. Salen and Aintuim in Central Mull support Ancient Semi-Natural Woodland (ASNW) and Aros and Quinish (North Mull) also have significant areas of PAWS, for which FLS has an obligation to restore 85% to native woodland.

In addition to the planned felling works identified in the previous Land Management Plan, a high amount of extra felling has had to take place across the majority of these forests due to Statutory Plant Health Notices (SPHNs) being issued where larch has been infected by P.ramorum. Coupled with the effects of Covid on contractor resource on the island, this has resulted with an unusually high proportion of unplanted land requiring restocking. Beat-ups are required in many sites across the forests and those in Crannich in 2022 were unsuccessful again.

Geography

The locality is defined by seascapes and rugged or mountainous country inland. The land-holding comprises hills and glens, draining to coastal waters. Much of the area is characterised as Stepped Rocky Coastlands and Stepped Cliffs and terraces. The rugged terrain and difficult access constrain opportunities for carcass retrieval from the open hill. Retention of open space within forests will also be essential for deer control. Mull is a hugely popular tourist destination and all roads on the island are well used by visitors and local residents, which must be accommodated when planning for deer management and control.

Many of the FLS forests on Mull are contiguous land apart from Salen (Central Mull) and Quinish (North Mull) which are isolated forests. Whilst this is currently bounded by open space, planned woodland creation will eventually link native woodland habitat between Aintuim, Lettermore and the neighbouring Aros forest. Successful establishment of native broadleaf woodland will be highly dependent on achieving a significant reduction in herbivore pressure in the short – medium term.

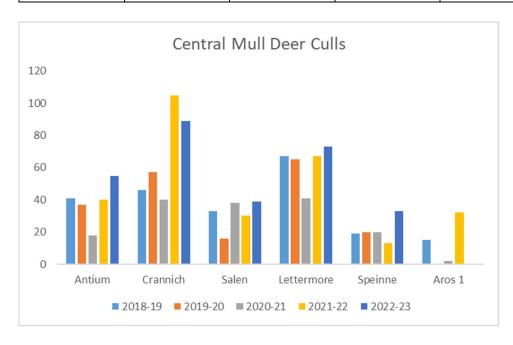
Deer Species (and other herbivores/feral pigs)

Red deer are the main deer species and remain at a high density. Fallow deer are present in low density in other parts of Mull and a single Sika stag has been found a few years ago. There are no Roe deer, feral goat or feral pig sightings in the Strategic Plan area.

What have we done to date?

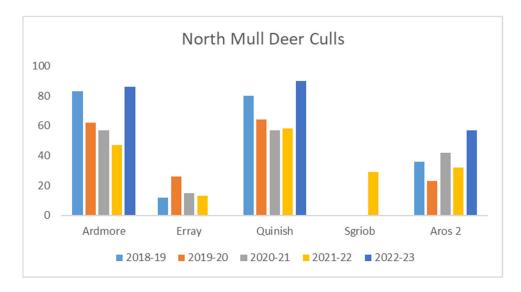
Cull over the last five year period for Central Mull:

		T Contra	1		
	2018-19	2019-20	2020-21	2021-22	2022-23
Antium	41	37	18	40	55
Crannich	46	57	40	105	89
Salen	33	16	38	30	39
Lettermore	67	65	41	67	73
Speinne	19	20	20	13	33
Aros 1	15	0	2	32	0



Cull over the last five year period for North Mull:

	2018-19	2019-20	2020-21	2021-22	2022-23
Ardmore	83	62	57	47	86
Erray	12	26	15	13	0
Quinish	80	64	57	58	90
Sgriob	0	0	0	29	0
Aros 2	36	23	42	32	57



A DPA for the whole of Mull conducted in 2015 estimated populations around 30 deer/km². This had dropped to 17 by 2018 and it is estimated that figure is now around 12 deer/km². This is backed up by the population model which demonstrates there has been a significant reduction in numbers over the last ten years. However we are working towards reducing the number further to a level commensurate with our objectives within the LMP.

Population numbers in hot spots have increased in recent years, caused by in-migration from neighbouring landholdings. Deer density varies from medium to high on neighbouring land; from SNH deer count taken in 2019 by helicopter survey. But these figures do not show areas where deer are concentrated and it misses deer within forests. Where deer number are low enough, hotspots can be tolerated and can be prevented from spreading.

However, deer densities of under 5 deer/km² are necessary, to allow establishment of broadleaved trees and mixed conifer species. The data suggest that a cull of at least the upper recommended figure would be required if the native woodland restoration, native woodland creation and broadleaved restocking programmes proposed across the Plan area were to be wholly successful.

Have an evidence-based approach

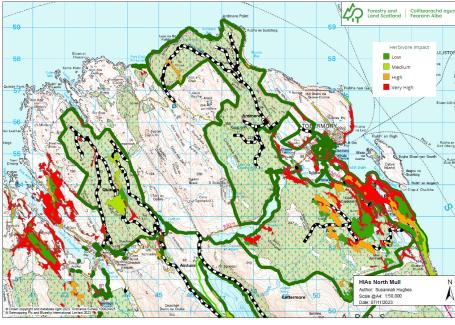
Deer Population Assessment surveys were undertaken by Strath Caulaidh in 2015 across the Mull Deer Management Group area using dung count methodologies (Faecal Accumulation Rate method and Faecal Standing Crop method). Although there are various caveats and weaknesses attached to these, they are standard methodologies commonly used for assessing deer population dynamics. These assessments resulted in an estimate of 30 deer/km²

Stocking Density Assessments: proportion of restock browsed at Year 5 has been assessed, primarily in Crannich where plots show that there are between 19 and 22 live trees found per plot.

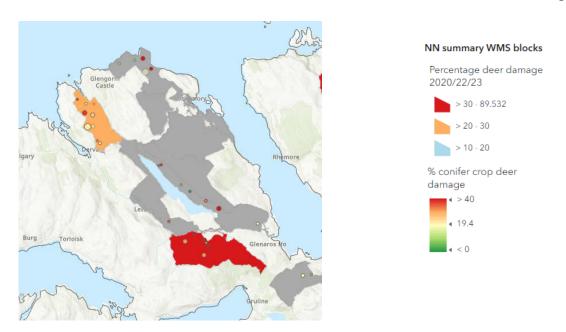
NatureScot Helicopter survey in 2019 indicated low numbers on FCS land and between 6 and 11 deer/km² on neighbouring land; however this does not show deer under tree cover, just deer present on the open hill at the time of the count.

Herbivore Impact Assessments as part of Native Woodland in Scotland Survey (NWSS) indicate very high to high browsing levels in Central Mull: around Lettermore, also in Crannich and the Aintuim face. However HIAs on the shores of Loch Frisa are currently medium impact as are large areas of Salen forest. For North Mull, areas within the internal fence at Quinish are low to medium but outwith the fence are very high. Ardmore has high levels of impact whereas a large area of Aros forest surveyed shows consistently very high and high impact.





Nearest Neighbour Results indicate there are issues with deer damage in crops varying from areas with more than 30% damage (especially Crannich and Quinish) down to less highly impacted sites around 20%. Some sites in Ardmore and Lettermore fall within less than 20% damage.



Nearest Neighbour surveys, Herbivore Impact Assessment and Natural Regeneration surveys will be carried out in relevant establishment coupes. Stocking Density Assessments assess tree crops in Years 1 and 5 following restock and include note of any herbivore damage. It is likely that deer population assessments based on dung counts will continue to be used but in future, drone surveys may be used to ground-truth these indirect methods.

Link to Deer Dashboard

Most of the data used to create this DMP can be found in the FLS Deer Dashboard.

Population Modeling and Future Culls

									Т				
	Popn at	Popn at		No per	Kid % of	Recruit-	Recruit-	Total		Female	Male	Popn	No per
Financial	1st April	1st April	Total	100ha	pop at	ment	ment	Recruit-		pop 31st	pop 31st	31st	100ha 31st
Year (FY)	(Start FY)	(Start FY)	Popn	1st April	1st April	Female	Male	ment		Aug	Aug	Aug	Aug
2021	592	592	1184	15.0	30	89	89	178		681	681	1362	17.3
2022	583	521	1104	14.0	30	87	87	175		670	608	1278	16.2
2023	465	424	889	11.3	30	70	70	140		535	494	1029	13.0
2024	374	346	720	9.1	30	56	56	112		431	402	833	10.5
2025	301	281	583	7.4	30	45	45	90		347	327	673	8.5
2026	243	229	471	6.0	30	36	36	73		279	265	544	6.9
2027	195	186	381	4.8	30	29	29	59		225	215	439	5.6
2028	157	150	308	3.9	30	24	24	47		181	174	355	4.5
2029	127	122	248	3.1	30	19	19	38		146	141	286	3.6
2030	102	99	200	2.5	30	15	15	31		117	114	231	2.9

					% Cull	Female Pop	Male Pop at	Total Pop
Financial		Female	Male	Total	Achieve	at 31st March	31st March	31st
Year (FY)	Set % Cull	Cull	Cull	Cull	d	(End FY)	(End FY)	March
2021	30.0	98	160	258	18.9	583	521	1104
2022	30.0	205	184	389	30.4	465	424	889
2023	30.0	160	148	309	30.0	374	346	720
2024	30.0	129	121	250	30.0	301	281	583
2025	30.0	104	98	202	30.0	243	229	471
2026	30.0	84	80	163	30.0	195	186	381
2027	30.0	67	64	132	30.0	157	150	308
2028	30.0	54	52	106	30.0	127	122	248
2029	30.0	44	42	86	30.0	102	99	200
2030	30.0	35	34	69	30.0	82	80	162

Protection Options – cull/fence/tubes

Deer culling across the LMP area is carried out by a combination of direct FLS staff and contractor resource. The main challenge in these parts of Mull is not resident deer populations but a highly migratory population of transitory red deer moving across FLS forests. Deer estimates do not easily allow a full understanding of the full impact of these populations on the crop.

Priorities are to maintain existing livestock and deer fencing and to use contract culling to support the deer control undertaken directly by the FLS Wildlife Ranger team.

If increased deer culls do not result in the improvements to restock protection, new deer fences will also be required as per maps attached. An example of the success of this approach can be seen in South Mull where a strategic fence has allowed the remaining deer to be brought under control and has brought about successful regeneration across this forest. Some internal fencing will also be established as temporary regenerative plots primarily in Aros where establishment has failed to date.

Strategic deer fences such as Loch Frisa to Bellart are to be maintained. Any fences no longer required are to be removed as and when operational conditions allow.

Infrastructure

New tracks are to be constructed to facilitate wildlife operations. Tracks will also be integral to establishment of the proposed / potential woodland creation areas and these will be incorporated into the planting and natural regeneration proposals.

How will the objectives be met?

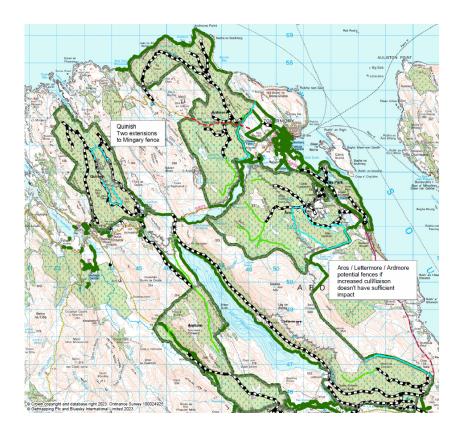
To prevent regulatory action, deer numbers need to be reduced in order to allow successful establishment of the increased amount of felled land.

- 1. Use of both FLS wildlife team and contractor resource to achieve culls and continue to bring deer management under control.
- 2. Increase the contractor resource to assist in achieving this.
- 3. Drone count could be undertaken to update figures from the helicopter survey in 2019.
- 4. Temporary fencing will be used in Aros forest broadleaf areas using a series of 10×10 and 20×20 areas to encourage regeneration.
- 5. If no shooting rights are obtained in east of Salen, a fence must be erected fence between blocks.
- An annual review will be held each August between the Wildlife, FM and Planning teams to
 monitor progress against targets and assess implications of any Nearest Neighbour / Beat up
 results collated through the year.
- 7. Improving access by increasing ATV tracks and new forest road network: these will be identified by Wildlife team e.g. at Lettermore and passed to the Planning team for permissions and thence construction. Two such tracks have Prior Notification permissions and can proceed in Aros forest.
- 8. Increased larder capacity will be explored for delivery within the next five years.

If no improvement to the success of establishment is found by the end of Year 2 of the plan and deer numbers are still above 10/km², the following measures will also be applied:

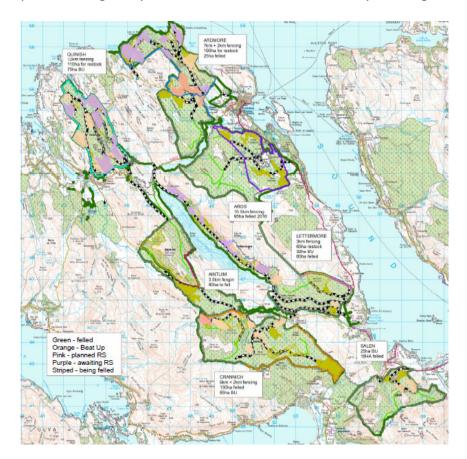
- 9. Use of extra FLS resource based on Mull as opposed to contractor resource to allow focus on lower volume of migratory deer causing failure of crop.
- 10. Strategic fencing will be renewed as per the attached maps if there is no solution found to the high number of migratory deer (short term priority and long term priority).

Although culls have regularly been met across the island, a significant increase in cull targets will be set; this will require a similar increase in resources. Given the unique challenges of working on an island, this increase in resources will be met through a combination of use of an Apprenticeship leading to submitting a business case for going back to a second full time ranger based on the island.



Areas in blue identified for fencing if deer numbers do not fall below 10/km² after two years.

If a landscape scale approach can be successfully adopted across North and Central Mull, a less intense annual cull would be sufficient to maintain deer numbers at sustainable levels; this is provided migratory deer numbers are also reduced by FLS neighbours.



Areas identified for strategic fencing if required in longer term.

Regular monitoring, including Nearest Neighbour surveys; Natural Regeneration surveys and Herbivore Impact Assessments will continue and if levels of damage remain high in particular areas then culls will increase in those areas, to be achieved by rearranging staff resources. Consideration is being made to include HIA surveys as part of the next deer management framework contract, which is due for renewal in 2024. Standard monitoring of fell/ restock and woodland creation sites will be undertaken, with additional monitoring sites included if required.

This DMP will be reviewed regularly, as a minimum at years two, seven and 10, to consider if the proposed actions have led to reductions in herbivore pressure and if these impacts are sufficient to promote acceptable growth of desired species.

Collaborative working opportunities

FLS undertakes landscape-scale deer management across its land in the LMP areas but opportunities to work more closely with partners across a wider area will be explored. As part of the Deer Working Group Recommendations, we will seek out opportunities where FLS can take a collaborative approach to achieving Deer Management Objectives.

FLS will continue to participate in the Mull DMG, also with immediate neighbours, to identify where there is a mutual benefit to cross boundary culling agreements.

FLS will continue to work with NatureScot to identify opportunities to address issues with neighbouring resident deer regularly migrating onto FLS land.

DMG present

The Mull Deer Management Group (DMG) covers all these forests. FLS is a member of this Group. No specific issues are identified within the DMG at present.

Venison

FLS subscribe to the Scottish Quality Wild Venison (SQWV) scheme. All venison is quality assured and sold to Highland Game. The Mull larder adjacent to the Aros office services the LMP areas.

Appendix VI: Provenance guidance chart

Species	Guidance
SS	Improved QSS standard throughout
	Alaska (ASS) provenance may be considered (if
	available) for its slower growing properties in
	specific locations. i.e Short Rotation Forestry
	(SRF) in Windfarm renewables developments.
VPSS	Limited use in best locations
SP	High rainfall type specified as standard. W20
NSP	From the nearest appropriate zone near CFR
	areas
LP	Only ALP being used in mixture with SS on poorer
	sites
DF	Seed stand or coastal origin
ESF	Czech or central European
NF	Registered seed stands
GF	Scottish registered seed stands
WH	Registered seed stands with low fluting
WRC	Scottish seed stands
NS	Seed stands, Eastern European or Harz
JCR	Northern Japanese range
NBL	Region of Provenance 10, Native Seed Zone 106
XC	PSSB will advise on any other minor species
Notos: DS	SCP can provide the most up to date guidance on

Notes: PSSB can provide the most up to date guidance on provenance selection including advice on best suited seed stands. Virtually all seed supplied by PSSB comes from registered seed stands and is based on geographic area compatibility. Use of VPSS has declined as seed orchard QSS improves and this also has a wider genetic base for resilience purposes.

Appendix VII: Abbreviations used in the plan

Abbreviation	Meaning					
FLS	Forestry and Land Scotland					
LMP	Land Management Plan					
ASNW	Ancient Semi-Natural Wood	lland				
PAWS	Plantation on Ancient Wood	dland Site				
ATV	All Terrain Vehicle					
На	Hectare					
MAI	Mean Annual Increment (Av	verage annual growth a tree of stand of trees has				
	experienced to a specific ag	re)				
MI	Minimum intervention (min	imum level of management)				
PEFC	Programme for the endorse	ement of forest certification				
YC	Yield Class (Index of potenti	al productivity of even-aged stands of trees.				
	Measured in units of cubic i	metres per hectare per year)				
LISS	Low Impact Silvicultural Sys	tem				
CCF	Continuous Cover Forestry					
EIA	Environmental Impact Asse	ssment				
FSC	Forest Stewardship Council					
UKWAS	UK Woodland Assurance Standard					
UKFS	UK Forestry Standard					
RBMP	River Basin Management Plan					
UKBAP	UK Biodiversity Action Plan					
SEPA	Scottish Environmental Protection Agency					
SF	Scottish Forestry					
ESC	Ecological site classification	(based on soil and climate information)				
DAMS	Detailed Aspect Method of Scoring (A modelled windiness score used to					
	calculate the probability of damaging winds occurring)					
SPA	Special Protection Area (bir	ds)				
SAC	Special Area of Conservatio	n (habitats)				
SPHN	Statutory Plant Health Notic	ce				
Species	SS = Sitka Spruce	NS = Norway Spruce				
	HL = Hybrid Larch	JL = Japanese Larch				
	EL = European Larch	SP = Scots Pine				
	NF = Noble Fir	WRC = Western Red Cedar				
	WH = Western Hemlock	LP = Lodgepole Pine				
	MCP = Macedonian Pine	MC = Mixed Conifers				
	CAR = Common Alder	MBL = Mixed Broadleaves				
	BI – Birch (downy/silver)	HAZ = Hazel				
	OK = Oak (robur/petreae)	ROW = Rowan				
	HAW = Hawthorn	GWL = Goat Willow				
	RS = Restock	Rp = Rhododendron ponticum				

Appendix VIII: Unexpired PN /EIA determination

PN APPROVALS

ATV Track: AK2T 11/03/2025

EIA APPROVALS

No EIA Approvals

Appendix IX:

Approval Documents for EIA determinations

No EIA Approvals

Appendix X: SSSI Sound of Mull Cliffs

Sound of Mull Cliffs - Site of Special Scientific Interest

Designated Site Management Plan

Start Date of Plan: 2025 End Date of Plan: 2030



Supporting Documents

- Annex 1 Map of extent of scheduled area
- Annex 2 Aerial photograph of extent of scheduled area
- Annex 3 Map of the felling years of the adjacent areas
- Annex 4 Citation
- Annex 5 List of Operations Requiring Consent
- Annex 6 Site Condition Monitoring 2021
- Annex 7 Restocking plans for SSSI and adjacent area.

Description

The designated feature of the Sound of Mull Cliffs is that of upland mixed ash woodland. The geology of the cliffs, basalt and scree slopes, supports

mixed native woodland and the associated vascular of base rich soils. The terrain of the site is very steep and rough making it virtually inaccessible. As a result, deer numbers are relatively low although there is a resident population in and around the cliffs. The site has not been planted with conifer or other non natives although adjacent sites have been previously.

It is anticipated that some control of invasive non-natives may be required. Any management in the area will have to consider breeding raptors in the area as there is likely to be seasonal (and potentially diurnal) timing constraints. This will be mitigated through the FLS work plan system by the district environment team and in consultation with RSPB.

FLS currently only managed 1/3 of the site area. Mobile deer populations require a successful reduction in numbers across the whole site to achieve sustainable browsing levels, capable of improving the status of the SSSI to Unfavourable: Improving

Overall Management Aims & Objectives for each designated site

Long Term Management Aims

- Protect and enhance woodland features
- Promote expansion of native woodland onto adjacent land

Management Objectives

- Protect native woodland from regeneration of non-native invasive species by implementing control on adjacent land and, if necessary, throughout the designated area
- Control deer browsing on FLS land where accessible to promote regeneration of native species
- Allow for expansion of the native woodland onto adjacent areas after the removal of the current conifer crop.
- Ameliorate status of SSSI to Unfavourable: improving

Designated Sites covered by this Plan

Designated	Site	Site	Total Area of	Area	%	% on	Annex containing
Site Name	code	Type	designated	within	Within	NFE	NATURESCOT
			site (ha)	LMP (ha)	LMP		documentation
Sound of	1448	SSSI	33.13	12.44	38.3%	38.3%	Annexes 4-6
Mull Cliffs							

For further detail on the designation refer to the NATURESCOT documentation in the above listed annexes, which refers to the entire designated site area. The remainder of this plan will refer in detail to the element of the above designated site on the NFE.

The Land Management Plan which incorporates this site is Aros Park. It is under revision to be completed in 2025.

Features on the NFE and condition

Only features that exist on the NFE within this LMP are listed in the table below.

Site	Feature	Feature	SCM Condition	Condition on	Management
Type	description	code	(Date assessed)	NFE	Classification
SSSI	Upland	1448	Unfavourable,	Unfavourable,	High herbivore
	mixed ash		Declining	Declining	impacts;
	woodland		(19/05/2021)		Potential spread of Rp

Upland mixed ash woodland

The woodland feature of The Sound of Mull Cliffs is confined to the steep slopes/cliffs on the North West coast of Mull, south of Tobermory. The geology of the site gives rise to base rich soils and associated native woodland and vascular plants, also noted in the SMS (annex 6) is the lower plant interest of the site.

The browsing levels are low and this is unlikely to change due to the steepness of the terrain largely inaccessible to most browsers/grazers however a normal deer cull will be beneficial so as to allow for native woodland expansion on areas which are more exposed to browsing/grazing.

Although the observed regeneration of non-native invasives is low/absent, the threat remains as there is adjacent conifer crop in at Apper Mor and Rhododendron ponticum in Aros park. Control of regeneration will be required on adjacent sites and may be required on the designated site.

Appropriate Assessment/s undertaken on work contained within the LMP
N/A
Section 7 Approvals, agreements & signatures
I confirm that the above management plan which covers the section of SSSI "Sound of Mull Cliffs" (Site code 1448) within Forest Design Plan "Aros Park" contains the necessary detail, content and mitigation measures to comply with the statutory requirements contained within the Nature Conservation (Scotland) Act 2004 and in particular in relation to Part 2, Chapter 1, Section 14 (d), which covers consents via an agreed management plan (i.e. "NATURESCOT's consent under section 13 is not required in relation to carrying out an operation of the type described in subsection (1) of that section –(d) in accordance with the terms of a management agreement between NATURESCOT and the public body or office-holder carrying out the operation").
NATURESCOT Signature Date
NATURESCOT Name:
NATURESCOT Job Title: Operations Officer
Address
Email
Contact telephone number
FLS has a corporate requirement under UKWAS (5 th edition) and under the FLS Framework Document to manage <u>all</u> designated sites in accordance with plans approved by the statutory authority, I therefore sign below to approve the contents of this plan in relation to the designated site of Sound of Mull Cliffs SSSI that fall within its boundary on the NFE.
FLS Signature Date:
FLS Name:

Pressures and proposed actions

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
SSSI	Upland mixed ash woodland	Adjacent conifer crop	Clearfell in line with LMP approval.	Proposed felling date currently 2025/26	Annex 3. There are local timing constraints related to breeding birds. This may influence how and when the coupe is worked and the implementation of all management in the area due to disturbance potential. The FLS workplan system will be used to advise on specifics for each work item that arises.
		Regeneration of non-native invasive plant species	Control of rhododendron and other non-natives species in designated area by appropriate methods in line with the Forestry Commission Practice Guide "Managing and Controlling Invasive Rhododendron" Consider alternative methods by agreement with NATURESCOT.	Treatment where possible (able to access safely) within the lifetime of this plan.	As above regarding breeding bird interest. Access is limited with areas of steep and unstable ground. Rainforest money for multi-spectral drone to survey and subsequently remove exotics within zoned areas: 2 = SSSI buffer; 1 = SSSI; 3 = Policy woodlands Iterative strategic plan to be put together for Rp control; see INNS plan in LMP Appendices. For INNS removal within the SSSI itself, there may be an element of bryophyte sensitivity to be considered prior to any clearance eg a light touch around any inaccessible gorges with potentially

			unusual species. A H&S assessment will be undertaken as to the ability to remove INNS around these inaccessible areas.
Seeding in of invasive non natives	Control of rhododendron and other non-natives species in area adjacent to the designated area by appropriate methods.	Contract work undertaken in Aros park; follow up required in buffer.	previously cut areas requiring follow up
Deer browsing	Monitor browsing using Herbivore Impact Assessment.	3-yearly	Non-native thermal drone survey to assess inaccessible areas in 2025 and repeat in 2028.
	Continue to use regular thermal drone counts of deer numbers Deer numbers will need to be managed on a management unit	Expect to remove 5 stags, 5 hinds and 3 calves from Apper Mor each year.	The terrain in the designated site makes it inaccessible for deer control and extraction. Tracks are being identified for construction to aid extraction.
	scale (Aros 2).		Supplementary tree planting groupings to be identified once initial follow-up Rp control undertaken and protected by fenced enclosures. This will increase seed source and tree survival while deer pressure is reduced, allowing a faster recovery back to woodland.

Operations within the LMP that could impact on the designated features on the NFE

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments				
Clear felling of adjacent site. Most of the site will be clearfelled by machine.		Harvesting operation to go through FLS workplan system. Timing constraints will apply where necessary to avoid disturbance to breeding birds.	2026	Annex 3. Although not a designated feature, timing constraints will apply where necessary in order to avoid disturbance to breeding birds.				
Restocking of adjacent site.	The area surrounding the designated site is in the land management plan for native broadleaves following the removal of the existing conifer crop.	Natural regeneration where possible. If supplementary planting is required, local provenance will be used. Deer culling to continue at current level. If required, fencing may be used.	Dependant on above.	Annex 7. Although not a designated feature, timing constraints will apply where necessary in order to avoid disturbance to breeding birds.				
Rhododendron control	Mature bushes, greater than 1.3m will be cut, the resulting lengths burned on site and the stumps treated with chemical to prevent regrowth. Small bushes, less than 1.3m will be treated with foliar application of chemical. This is in line with FC Practice Guide "Managing and controlling invasive rhododendron" C. Edwards 2006.	Rhododendron control operations to go through the internal workplan system.	Treatment where possible (able to access safely) within the lifetime of this plan.	If other alternative and more appropriate control methods become available during the timescale of this plan, these will be agreed with NATURESCOT for application in the designated area.				

Appendix XI: Invasive Non-Native Species Plan

A. HISTORY OF R.ponticum WORKS

- 2003: 394 man hours spent on rhododendron clearance (from April 2003 to December
- 2004: Weed wiping: rhodie regen. and stump regrowth in large cleared area left of main drive (some rhodie and conifer regen. pulled) Bud rubbing trial: set up by Forest Research on area re-cut early 2004 (FR may use Aros Park to set up multiple control method experiments outwith the MFST area) New cutting of rhodie to left of main drive
- 2005: Himalayan knotweed around car park sprayed (remainder to be weed wiped) Rhodie cut in winter to be sprayed. Continue weed wiping in floristically sensitive areas (See Figure 2)
- Post 2005: Plan to tackle Himalayan knotweed to south of lochan and Hypericum (blueberry not considered a threat at this point)
- 2015: R.p around waterfall walk, the main drive and down towards the lochan removed
- 2018: Big Contract to remove Rp bordering SSSI along cliffs and down towards forest road.

B. 2025 SUGGESTED PROGRAMME FOR RECOVERY (see map of Zones)

Aros Park has challenging access to areas of the site so work programmed must be achievable. The aim will be to achieve a BL woodland within the southern half of the park potentially over two rotations. During the current emerging rotation we are aware there will be a small percentage of SS regenerating amongst the BL. The situation will be monitored to ensure there is no threat to the SSSI but this remaining small % may be tolerated and small areas within the regenerated forest will be identified for felling when feasible eg past thicket stage, with only BL being kept in this final species selection. This is a more pragmatic and practical approach to achieving the aim of NBL woodland across this area of the park due to heavy constraints, both financial and personnel.

Scotland's Rainforest funding: this is critical to successfully undertaking this INNS work to protect the designated SSSI site from the increasingly large seed source on the land above the steep cliffs.

Fencing: widescale fencing is the least preferred option given the potential for deer to be contained within SSSI rather than excluded. A fence would be more feasible in the area outwith FLS ownership, at the southernmost extent of the SSSI where topography makes this more feasible and would prevent deer migration into the SSSI. Deer control will be

focussed on reducing the threat to tree establishment by resident red deer populations and any migratory deer from the south. The park has been zoned in terms of priority as follows (see Fig. 1 zones, and detailed Task sheet, Fig.3):

ZONE 1: BUFFER TO SSSI (see Fig. 4)

- PN approved for new tracks and track extensions March 2025; Existing tracks to be upgraded.
 - Deer lawn created around old gardener's cottage.
- Thermal drone survey to be repeated regularly and database updated to build picture of resident deer; initial survey March 2025 (deer)
- Potential survey by boat of base of SSSI (thermal scope only)
- Construct tracks early (machine)
- Estimate Rp coverage using aerial photography
- Contract to remove identified Rp: stem injection / cut / treat
- Ground preparation for planting (machine)
- Supplementary Planting: minimum three small enclosures to be erected, possibly seed islands as per MICT/Ardura (plant species such as oak, hazel maybe SP); could flat plant birch.
- Monitor NR coupes annually both pre and post supplementary planting; if insufficient growth of broadleaves, wider scale fencing must be erected at Yr 5 to ensure better tree coverage within coupe
- Yr3 or Yr5 follow up rhodie spray of Rp removal area (mulching investigated as a form of control but no evidence to ensure effectiveness)

ZONE 2: SSSI

- Scottish Rainforest: Multi-spectral drone footage will be used to assess the presence of any Rp within the SSSI and a decision taken on its accessibility in terms of removal.
- There will be an element of bryophyte sensitivity which must be considered for any Rp clearance within the SSSI itself. Around inaccessible gorges a light touch should be taken with the possibility of unusual lower plants.
- Consent for INNS work identified to be undertaken will be as part of the approved SSSI plan.

ZONE 3 – POLICY WOODLANDS: NORTH OF PARK

A multi-spectral drone survey will be undertaken further into the plan by Year 5 to ascertain the extent of Rp and other invasive species present and draw up a timeframe and strategic plan to tackle INNS in this area (lower priority than SSSI and buffer)

All invasives within the policy woodlands (from the lochan up to the north) will be contained and managed, but these are lower priority to Zone 1 which will be the primary focus of funding initially.

ZONE 4 – DRUIMFIN

INNS removal not a priority in this zone as currently not a major threat to the area.





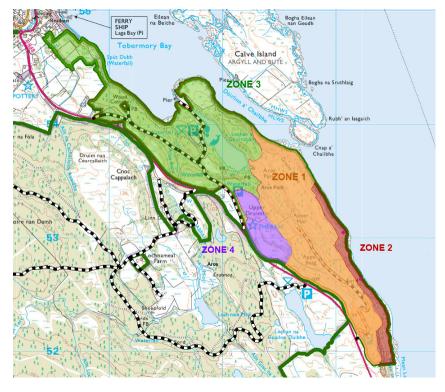


Figure 1 – Zonation of Aros Park

FERRY SHIP Laga Bay (P) Tobermory Bay Calve Island Cnoc Cappalach

Figure 2 – Areas of R.ponticum previously treated since 2005

Figure 3 – Task chart											Year	r										
		20)25			20)26			20	27			2028				20)29		2030	
Task	1/4.	2/4.	3/4.	4/4.	1/4.	2/4.	3/4.	4/4.	1/4.	2/4.	3/4.	4/4.	1/4.	2/4.	3/4.	4/4.	1/4.	2/4.	3/4.	4/4.	1/4.	
Deer Control:																						
cull as required; 5 stags 5 hinds 3 calves. Assessment every 5																						
years.																						
Build tracks for extraction: coupe 70508																						
monitor browsing every 3 years (HIA)																						
Thermal Drone to find locale of population (minimum)																						
Harvesting																						
Remove remaining conifer coupe																						
Control of exotics:																						
Survey & Assess INNS in Zone 1 Buffer (Aerial)																						
Survey & Assess INNS in Zone 2 SSSI (Drone)																						
Survey & Assess INNS in Zone 3 Policy (Drone)																						
Monitor NR in felled and regenerating areas (HIA)																					L	
Plan contract for removal Zone 1																						
Plan contract for removal Zone 2																						
Plan contract for removal Zone 3																						
Natural regeneration:				G																		
Monitor NR in felled and regenerating areas (SDA)																					L	
Ground Preparation for planting																						
Plant exclosures post INNS work in open area 70525																						
Fencing: Create deer enclosures 70525																						
Lower Plants:																						
survey in SSSI if areas accessible post Drone results																					1	
meet quinquennially with Nature Scot																						



managed to the

Assurance Standard.

> bing

UK Woodland

Figure 4 – R.ponticum identified from aerial photography, Priority Area

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Appendix XII: Scoping report (SF only)

Appendix XIII: Reservoir dam inspection report

RESERVOIRS (SCOTLAND) ACT 2011 FLOOD RISK MANAGEMENT (SCOTLAND) ACT 2009

STATEMENT FOLLOWING A VISIT BY A SUPERVISING ENGINEER

Reservoir : Lochan a Ghurrabain

Owner : Forestry and Land Scotland

Great Glen House Leachkin Rd

Inverness, IV3 8NW

(W Region)

Location : Isle of Mull, about 2km SE of Tobermory.

Co-ordinates NM 520538 lie within the water area

Enforcement Authority : SEPA

Strathallan Ho Castle Business Park Stirling, FK9 4TZ

Inspecting Engineer : Dr A K Hughes 07341 338092

Next 10 year Inspection : before 9 August 2016 (but not necessarily needed as 'low'

risk designation by SEPA)

Previous SE Visit : 23.2.2023

Supervising Engineer : Alan Dickerson 07712751042

(low risk, not needed) Civil Engineering FLS

Apex 1, 99 Haymarket Terrace

EH12 5HD

Date of Visit : 3.4.2024

Accompanied by :

Weather : Overcast, showers

(NB Gauge readings approx: dam crest 0 m)

Water Level : Gauge reading -400 mm (-0.4 m)

Spillway depth About +20 mm above the sill

C Floods & Reservoirs Safety Low 'risk' designation by SEPA Category

NB: left hand or right hand refers to looking downstream

HISTORY

This reservoir appears to be an enlarged natural lochan, and has been in existence since before 1872. It was probably constructed in order to power the sawmill c100m d/s, via the lade which used to exist immediately to the right of the existing spillway. Until 2010, the mill structure was used as a fish hatchery for the trout fish farm that was situated on the lochan, water being piped from the reservoir. The lease and all responsibility reverted to the FLS. Since 2019, now sold to Tobermory Harbour Trust. They have recently erected a sign near the buildings designating this area as Aros Waterfront, asking for development ideas; but highlighting dangerous structures buildings, pier and slipway. 'Keep away dangerous structure' signs have been attached to each structure. But in 2024 the buildings were being renovated as a centre and the pier & slipway had been fully restored.

DAM STRUCTURE

The dam comprises a small concrete and masonry structure approximately 1.5m high and 5.0m long. This structure is flanked by earthen wingwalls. The stone revetment on the upstream LHS bank should be monitored for erosion, especially 5m u/s. Otherwise there are indications of weathering / erosion. The leaks in the spillway are significant but apparently stable, though additional observed, to be watched further.

VEGETATION GROWTH ON THE DAM / EMBANKMENT

The vegetation both up and downstream should be cut back regularly, to maintain grass cover. There are some small trees inc Rhododendrons growing especially downstream that should be removed, ideally cleared all the way down to the sea. There is much re growth, worsening, so priority to be continued please. 2024, the shrubs now completely enclose the d/s channel and need to be removed, along with a fallen trunk on the spillway apron.

PRESENCE OF SPRINGS OR WET SPOTS

The three known flows of water, approx. 11/s, through the RH (east) wall under the bridge were not so apparent this year due to low water levels. The issue of water through the wall on the LHS (west), just beyond the spillway apron was not seen. 2 additional leaks through the wall, through open joints near the apron level, RHS between weir and bridge were not seen, previous flow approx. 11/s. Spillway leaks are significant and should be monitored as below. The RHS leaks are probably from the disused lade immediately to the right. Also there is a significant leak through the invert by the valve c2l/s.

CONDITION OF DRAINS

There is no system of drainage associated with this dam.

EROSION OF EMBANKMENT BY ANIMALS, VEHICLES ETC.

There is vehicular traffic over the dam, including to a private property and a considerable number of pedestrians. In 2018-19 FLS way marker signs were erected, for a lochan trail. The bridge over the spillway is in a poor deteriorating condition & replacement should be considered.

The road leading to the dam has been resurfaced with water bound aggregate in 2014. But there is a tendency to ponding of water on the top of the dam following rain. In the past aggregate has been added to the approaches and grips have been formed so that this ponding has been reduced. This work should be repeated as & when. The access road to Aros Park car park c1.5km was bitmaced in 2020-21.

7. **CONDITION OF SPILLWAY / OVERFLOW**

The approach to the spillway tends to become overgrown with reeds, lilies etc. At the time of the inspection, the channel was clear. As a minimum it should be kept clear for the full width of the spillway by an open gap through the lilies until clear water is reached. There is a detached 150mm dia pipe just u/s.

The concrete weir overflow is mainly in fair condition although there is some erosion over most of the length on the upstream face about 25-30mm below top level.

In 2013 a large piece of nearby felled trunk had landed on and broken the plastic pipe just d/s of the valve. However the pipe is obsolete so it doesn't need to be repaired. All debris should be removed as it occurs and before it can build up and cause damage or obstruction. 2024 a trunk is to be removed.

The spillway apron itself continues to gradually deteriorate. (See comments against photographs below). Because of the low depth of water in the spillway examination of the holes was possible. Previously it has been evident that the apron is a (minimum 25mm) thin layer of course mortar or concrete over rocks or bedrock

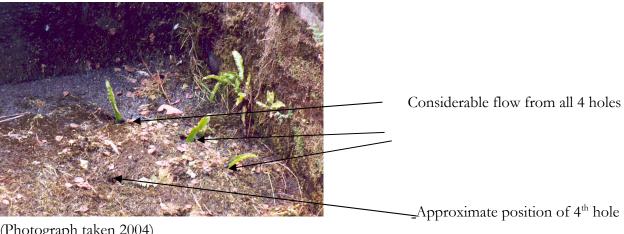
Equally it was possible to notice the flow of water from all four holes known previously (including the newer hole) - as noted on the photographs that follow. From previous observation of the upstream foundation of the weir wall - seated on rock - it would seem that ingress is likely to be defuse and difficult to seal, needing draw down to repair. However no obvious whirl pools or eddy currents were present upstream.

The channel from the end of the concrete (i.e. approximately from the bridge onwards downstream), has a stone invert and masonry walls for a short distance, before reverting to earthen banks. The masonry remains in generally poor & worsening condition. The d/s end LHS & a RHS section have collapsed. This should be repaired but at least kept under observation so the channel is clear and banks un-eroded. There is a drop of about 300mm off the end of the spillway apron just before the bridge.

The issue of water from beneath the scour valve was obvious. In 1995/96 an unsuccessful attempt was made by the fish farm owner to seal this flow. Again this should be a concern but the structure seems stable bedded on rock. The void under the valve is 'hand' size and the flow is difficult to measure, likely c21/s.



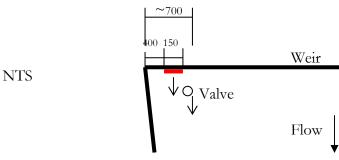
(Photograph taken 2004)



(Photograph taken 2004)

The flow of water at the junction of the wall and the apron as shown in the sketch below was not evident this year with flow over the weir. This flow may also be associated with the significant flow from under the valve (installed in c1980) rather than being something new and separate.

Any scrub growth within the spillway area should be removed before it disrupts the apron and/or wall.



(All dimensions mm approximate)

CONDITION OF VALVES ETC.

The supply pipe to the fish hatchery that was, is controlled at the reservoir end by a 9" sluice valve. This valve has been operated during the annual inspection, but not this visit (2024). The valve is left open so flow conditions are similar to when the hatchery d/s was in use. The valve key is held by the West Region office at Salen Aros Mull. Region staff usually check the reservoir and occasionally should see that the valve operates freely and properly. About 18 turns are needed to fully open/close the valve.

There is a tee off the supply pipe, just beyond the bridge, which is fitted with a push / pull flat gate. However the supply pipe joint has been disconnected here (& is now broken beside the valve as described above) and as this continues to be the case, the gate is obsolete. This gate had fulfilled the previous Inspecting Engineer's requirement for a means to lower the water in the reservoir. The gate was not locked and was not tested. It is assumed the gate valve would operate freely. As before the handle to this valve was broken. This may be due to use or it may be due to debris. Any debris wedged beside the pipe should be removed. As mentioned above, all such debris should be removed as it occurs and before it can build up and cause damage or obstruction.

INSTRUMENTATION AND MONITORING

There have been no known significant events during the past year.

There is a gauge u/s in the loch immediately to the right of the spillway. This gauge is, and apparently always has been, off plumb. It was reset in 2003/04. It is essentially plumb from side to side, but leans backward modestly. The gauge is to be read & noted by Region staff in the Blue Book held at the Salen Aros office.

MISCELLANEOUS

The reservoir is situated in Aros Park, just off the A848, Tobermory to Craignure road. Vehicular access is possible along approximately 1km of forest road, that was part bitmac surfaced & potholed, but now fully bitmac since 2020-21.

Aros Park is a well-used local amenity, with many visitors. There is a (2018-9) way marked Lochan trail.

Despite the number of visitors, there are no signs of vandalism.

The reservoir is used for fishing. A sign notes 'Tobermory Angling Assoc fishing by permit only. From Tackle & Books' Tobermory'

The fish farming for trout in the reservoir has ceased.

The banks of the reservoir are heavily vegetated with no signs of instability.

REQUIREMENTS OF THE INSPECTING ENGINEER

The requirements and recommendations of the Inspecting Engineer (2006) are included as an appendix to this report. The position with regard to these requirements is as follows:

15.3 (i)	some vegetation clearance is undertaken periodically to promote good grass cover to enable overtopping to take place	Ongoing
15.3 (ii)	a channel, at least as wide as the overflow weir, be cleared through to the body of the lake at all times	As required
15.3 (iii)	all valves are operated over their full range at least once a year and a record made of their operation	Ongoing
15.3 (iv)	when conditions are right, that repairs are made to try to stem the leakage through the overflow. These repairs should be agreed with an All Reservoirs Panel Engineer	Not done
15.3 (v)	consideration be given to repairing/replacing the bridge over the spillway	Not done
15.3 (vi)	a full scale scour test is carried out at least once a year and the water left to run until the flow runs clear and is free from sediment.	Ongoing
15.4 (i)	Water levels are recorded at least once a month;	Ongoing
15.4 (ii)	A record be kept of valve operations	Ongoing
15.4 (iii)	the Supervising Engineer and Forestry Commission Ranger keep the leakages under observation for signs of increased flow or increase turbidity	Ongoing
15.4 (iv)	any confusion in the way that water levels are read should be resolved.	Done

SUPERVISING ENGINEER'S COMMENTS 12.

- Lochan a Ghurrabain reservoir is in fair to poor deteriorating condition, with no changes of significance evident since last year.
- The vegetation including shrubs, both on the dam, including the US face and spillway walls and downstream especially Rhododendrons (have become overwhelming & getting worse, 2024 now completely enclosed); should be cut back on a regular basis. On the crest grass cover should be encouraged and maintained.

- The dam top/crest (ie the road over) should continue to be reshaped and offlets (grips) maintained, to prevent water from ponding there.
- Any sudden increase in flows from the leaks under the valve and in the apron and under the bridge should be reported to the Supervising Engineer.
- 12.5 The repairs to stem the leakage through the overflow should be carried out when conditions permit. Draw down, diversion, pumping and syphoning, to allow access to the bed on the upstream, would be needed. The scheme worked up should be agreed with an All Reservoirs Panel Engineer.
- More of the small trees inc Rhododendrons around the area & d/s to the sea should be removed becoming critical as they are overwhelming & getting worse. 2024 now completely enclosed.
- Debris should be removed from the spillway area as soon as possible after it appears, and any such rubbish also removed from around the downstream valve and outflow channel. 2024 a trunk to be remove.
- Dry stone wall revetment on the LHS upstream & lining the channel downstream should be monitored for erosion and preferably repaired when possible - to ensure protection of the dam earth & d/s channel. This is becoming much more significant. RHS upstream by the old lade should be watched for erosion too. The condition of the d/s walls is getting worse, the LHS end & a RHS section have collapsed (since c2014).
- Some flow through the scour pipe should be maintained to keep the reservoir in a similar condition to when it was used by the hatchery, now ceased. Previously this could be seen without lifting the flat valve downstream, with the pipe joint continuing to be disconnected. But now water also flows into the pipe through the breakage beside the scour valve, so it's not so obvious. So the scour valve should also be exercised periodically and left partially open please.
- An 'on site plan' could be prepared in the next year or so under the revised 'risk' based legislation
- 12.11 Region to consider normal H&S issues eg slips trips falls, drowning, water borne diseases. For overhead electricity lines nearby; there are 2 different signs 1 warning drivers of clearance and 1 fishermen when casting.
- 12.12 Region should consider replacing the bridge soon, especially as it' on the way marked Lochan trail.

Alan Dickerson Supervising Engineer

Date: 3 April 2024

Appendix

14 CORRECTNESS OF PARTICULARS IN THE PRESCRIBED FORM OF RECORD REQUIRED TO BE KEPT UNDER SECTION 11 OF THE ACT

I examined the Prescribed Form of Record Relating to the Reservoir for the period 11 June 1987 until 22 July 2005. During this time the water level has been read usually once a month. During this time the maximum water level recorded was 0.11m on the 13 February 1998 and the minimum level -0.54m on 25 April 2003, although there seems to be some confusion in taking the readings, I recommend any confusion in the way that water levels are read should be resolved.

I have the following comments on the various parts of the Form as follows:

- Part 1 I recommend water levels be recorded monthly
- Part 2 No comment.
- Part 3 Amendments are required as a result of this inspection.
- Part 4 Additions are required as a result of this inspection.
- Part 5 No comment.
- Part 6 No comment.
- Part 7 No comment.
- Part 8 Entries are required for the levels associated with the dam and the maximum height. I also consider a better description of the 'any other means' of lowering the level, including sizes and capacity, could be made.
- Part 9 The weir length should be corrected it is 3.5m in length.
- Part 10 No comment.
- Part 11 No comment.

15 FINDINGS AND RECOMMENDATIONS OF THE ENGINEER

15.1 Findings

My findings as a result of the inspection are that:-

- (i) Lochan a Ghurrabain is retained by an earthfill and concrete structure;
- the reservoir lies within Category C, as defined by the publication 'Floods and Reservoir Safety'; (ii)
- the reservoir lies within Category I, as defined by the publication 'An Engineering Guide to (iii)Seismic Risk to dams in the United Kingdom'.

Recommendations as to Measures to be taken in the Interests of Safety under Section 10(6) 15.2 of the Act

None

15.3 Other Measures Recommended to be taken but not requiring Supervision by a Qualified Civil Engineer within the Meaning of the Act

I recommend that:-

- (i) some clearance is undertaken periodically to promote good grass cover to enable overtopping to take place
- (ii) a channel, at least as wide as the overflow weir, be cleared through to the body of the lake at all times
- (iii) all valves are operated over their <u>full</u> range at least once a year and a record made of their operation
- (iv) when conditions are right, that repairs are made to try to stem the leakage through the overflow.

These repairs should be agreed with an All Reservoirs Panel Engineer

- (v) consideration be given to repairing/replacing the bridge over the spillway
- (vi) a full scale scour test is carried out at least once a year and the water left to run until the flow runs clear and is free from sediment.

15.4 Measures Recommended in the Interests of Improving Monitoring and Supervision under Section 11 of the Act

I recommend that:

- (i) Water levels are recorded at least once a month;
- (ii)A record be kept of valve operations
- the Supervising Engineer and Forestry Commission Ranger keep the leakages under observation (iii)for signs of increased flow or increase turbidity.
- any confusion in the way that water levels are read should be resolved. (iv)

15.5 Matters of Maintenance and Safety of Personnel/Public

None.

15.6 Matters to be watched by the Supervising Engineer in accordance with Section 10(4) of the Act

I recommend that the Supervising Engineer visits the site at least once a year and pays attention to any settlement, movement and leakage and in particular:-

- watching for increased or more turbid leakages; (i)
- (ii)ensuring that the valves are operated and records are kept of the operations;
- ensuring that the Prescribed Form of Record is being kept. (iii)
- watching for signs of increased erosion of the spillway channel. (iv)

15.7 Recommendations as to the Date of the Next Inspection

The next inspection by an Inspecting Engineer under Section 10(2) of the Act should be undertaken within 10 years of this inspection, i.e. before 9 August 2016.

Dated this19day ofOctober 2006	Signed AK
Hughes	
	Member of Panel AR
	as constituted under the Reservoirs Act 1975

This inspection report results from a visual inspection of the reservoir's condition on the date of the inspection. No liability can be accepted in respect of any defects not visually apparent or that arise subsequent to the date of the visit. It is important that the Undertaker or their agents, reports as soon as possible any change in the condition of the reservoir to the Supervising Engineer.

Appointment to All Reservoirs Panel until 31 May 2011.

Appendix XIV: Visitor Experience Plan

FLS Visitor Experience - site planning Nov 2022

Suitable for: single sites that have a small amount of facilities, to larger sites that perhaps has a visitor centre or tenant business operating there. It might be a collection of smaller sites that are connected to a much larger site.

Once the form is completed send to Lucy Hadley who will be in touch to discuss your project and delivery timescales.

Date: Completed by:	Revised May 2025
Region / Site	West/ Aros Park
What is special about this site?	Situated on the Isle of Mull on Scotland's wild and rugged west coast, Aros Park is a wonderful place to visit whether local or visitor to the island. The main attractions are the lochan which is partially accessible and the informal coastal trail linking AP to Tobermory, the islands largest village. Across the west of the park there are truly breathtaking views of Tobermory's famously colorful buildings. The park is the historic site of the Allan family estate; some of the estates' heritage infrastructure is still visible on site including the walled garden and the old hydroelectric building. Care is advised on these old and degrading structures. There is an expansive lawn (the site of the house) which is one of the few large flat recreational areas near Tobermory.
Current site facilities (Car parks, trails, benches, artwork, wildlife viewing etc.)	The facility currently has two internal trails; one around the lochan and the other taking you to Aros Falls (previously Allain view) via the "waterfall" trail. There is also an informal link to Tobermory along the coastal 'trail' which provides spectacular coastal views. The coastal trail is key in attracting visitors and facilitating wider access given its direct pedestrian link to Tobermory within easy walking distance for reasonably fit visitors. Crucial that this is maintained given the presence of THA and offers an alternative into Aros Park without having to use the car.

Date: Completed by:	Revised May 2025
	Toilet facilities in the park have been closed since the CV19 pandemic. There is an issue with the private water supply, which only has enough capacity in the winter months when the park is least busy. The Tobermory Harbour Association have successfully undertaken a CATs application in order to bring the old harbour and its buildings back into active use. This is nearing completion and these facilities will include toilets which will be available to the public. FLS have assisted THA in getting a mains water supply into the park.
	The wooden infrastructure in Aros Park needs monitoring and replacement of some of this will be required.
	There is an 'active play' trail in the park much of this is nearing end of life. It is well considered and reasonably well used. The type of equipment is formal and likely not something FLS would deliver now, favouring more natural play opportunities.
	A local group has an active permission to have a nine hole frisbee golf course within the northern area of the park. This is used by visitors (for free) as well as local afficionados.
	There is ample wildlife spotting opportunities on the isle of Mull and it is an extremely popular destination for travellers looking for wildlife experiences; there are approximately 600,000 visitors coming to the island each year
Corporate (green) signage	Current
Primary, secondary,	Primary sign at the main entrance.
green mileposts etc. This all needs removing	Numerous smaller signs.
but consider if we can replace with less, and where they should go	Signage within the park and on the island has been historically high, this is something the VS Team has been working with the local beat team to remedy as the cost of replacement is prohibitive and much of the signage is not achieving a clear purpose.
	Replacements needed

Trail portfolio analysis scores for trails

What does the recommendations say and have they been implemented?

The PA was revisited late in 2024, Aros Park is rated the 10th 'best' destination in West. It has a score of 6.65 with the average for West being 5.5. Aros Park has a slightly lower trail score partially due to the clunky layout at the beginning and the Lochan Trail ending with a strenuous section due to the landform.

Due to Aros Park being on Mull, one of Scotland's most iconic visitor destinations it is classified as a 'National Treasure'.

Current situation (issues / reasons for action)

Please see appendix 1 for additional guidance. The Aros Park Land Management Plan is currently under review and work has been carried out by the West Region Team to consider where and how improvements might be made to the park. This has been done in conjunction with feedback from the public consultations.

The site is currently broadly suitable for most users. However the standard could be improved to make the visitor experience more enjoyable and memorable. The cost of implementing this may need external funding but some actions should be taken over the course the next few years to make gradual improvements wherever we can.

The main issue with the site is that you are on an island and visitors want to feel a sense of connection to the coast. There are opportunities to build on this desire with viewpoints both around the coastal trail and with the potential creation of a new short route to the North overlooking Tobermory. This area has been identified as a possible area for an MTB skills area. Local team would like to work with interested groups to consider how a walking trail and skill elements could be safely combined or completed in parallel.

The layout, particularly around the car park is clunky and there is not clear definition of a start point. The VS Team are looking at this and will address as funding becomes available.

The route from the car park at the waterfall has lost its focal point as the "tower" was removed in 2023. It is still popular as a walk with locals and visitors to the island use the first 250m of path to get to an informal viewing area. We are reviewing this to consider how best to improve this, cost of course being an issue. There is currently no interpretation or arrival point at the Aros Falls car park although it is the first signposted area seen when travelling north from the ferries. Accessibility The most effective intervention in Aros Park would be to make the Lochan trail 'All Abilities', however if this is not technically possible then the creation of all abilities accessible trail should be considered. This trail was previously created as an accessible trail but no longer fits in the required specification and would require a planned upgrade.

Any current safety or maintenance issues?	A small bridge on the coastal route is nearing the end of its life and local team are working on plans to replace this.							
	Extensive wooded steps are currently nearing end of life. Consideration as to their replacement or upgrading required.							
	Aging play infrastructure as previously mentioned. This has been a popular addition to the park and an alternative would be ideal; a wildlife sculpture trail or climbable structures that encourage natural play would work nicely. The cost of implementing this would need external funding.							
	There are a number of trees in Aros Park and in close proximity to the trails that require some long term considerations. Visual tree safety checks should form the basis of ensuring visitor safety as and when required. Any arising issues or works should be recorded.							
	Issues with illegal motorbike access especially the West End of the park and the fields above the coastal trail which link directly to that route. Careful monitoring and signage required to help deter this activity.							
Current Onsite information / interpretation	Interpretation panels in the main car park. These are an old structure type, in a less than ideal location. The interpretation on the panels is being reviewed in 2025.							
Current Offsite	Previously a panel at the start of the coastal trail in Tobermory hosted							
information /	by the THA.							
interpretation	Not a comprehensive list but some of the websites which list AP:							
(inc. webpages and	https://www.walkhighlands.co.uk/mull/aros-park.shtml							
non-FLS info)	https://www.tobermory.co.uk/things-to-do-tobermory/outdoor-							
	activities/walks-around-tobermory/aros-park-walk/							
	https://visitmullandiona.co.uk/listings/aros-park-tobermory-walk/							
	https://www.visitscotland.com/info/see-do/aros-park-p247211							
	https://www.oban.org.uk/blogs/6-scenic-walks-on-mull-and-iona/							
	https://sobt.co.uk/walk-aros-park-tobermory/							
	https://gillianswalks.com/2022/10/29/aros-park-mull/							
What else is available	Tobermory village is a 45mins walk. There is a housing development on the							
nearby (not just FLS)?	northern end of the park, FLs would support and enable better active access							
	from the development, but cannot fund/ project manage this. There are other							
	informal routes from the park including circular routes further into the park							
	and back through the adjacent Aros forest, but there is not a large							
	recreational presence near the park.							

Yes. Aros Park is the main formal facility on the Isle of Mull and will be the focus of VS resources into the visitor offer. The other FLS forests on Mull mostly offer excellent walks for local's or those looking for more remote or challenging routes. Largely broadleaves/ semi-natural woodland combined with some policy woodlands in the park so the focus here is visitors.
Largely broadleaves/ semi-natural woodland combined with some policy
Aros park should be the premier FLS location on the Isle of Mull. It should offer accessible and entry level experiences that cater to as wide an audience as possible.
Mull has a considerable wildlife tourism market and we should consider opportunities to incorporate some element of this into the park. This might be best achieved by working with a commercial partner.
LA's have been looking at the LMP in conjunction with VS and Planning Team.
See accessibility comments above.
The main panel is being reviewed in 2025.
c k

Audience Who currently visits?

Rather surprisingly there is no official data on the number of people visiting Mull. Calmac latest corporate report states that there were 552,480 passenger journeys from Oban to Craignure, other ferry routes (Lochaline -Fishnish; Kilchoan – Tobermory) do not have published data. Some estimates suggest that the vast majority of this is tourism.

A proportion of the ferry passengers will be resident on the island(s), the island has a population of 3,000. A proportion of passengers will also be service providers, contractors etc. However estimates of tourist numbers visiting Mull are around 600,000 per annum (from external website).

The park has a mixed visitor profile, in line with the population of Mull and the makeup of the visitors to the island. Leans slightly older with mixed family groups also being popular.

A number of local groups use the park including the toddler 'Ardura Acorns' run by Mull and Iona Community Trust rangers, local scout group and schools. There is a strong local connection to the park and a sense of pride with some attendees at recent consultations remembering visiting the big house for school Christmas parties.

The park is an important site for the Tobermory Angling club who stock the lochan with trout and sell fishing permits.

The development approaching completion which has restored the old pier and sawmill buildings will open up the park further to non-vehicular traffic offering a water taxi service from Tobermory.

Appendix 1: Other considerations when conducting reviews

Visitor welcome

How is the overall visitor welcome? What do you think a visitors overall impression is of this site? Is there sufficient information to guide visitors activities on site? **Interpretation Panels**

Are there interpretation panels and are they in good condition? Is the information still relevant? Are they in the right place? Can everyone access the information on them? Have they been installed correctly? Do they need rebranding? Is the information on them consistent with the FLS website? Car park visitor flow

Is the car park easy to find from the main road? Is the car park surface in good condition? Is it clear where visitors are to park? Is there clear signage? Observe visitors using the space, does it appear they know where they are going or are they stopping at the same place confused?

Pay and Display machines

Are there pay and display machines on site? Are they working? Are they in the right place? If solar paneled is there enough light reaching them or are there branches that need to be cleared? Is the information on the machine correct? Does it look clean or is the information peeling off?

Building

Is there a visitor centre? Does it look well-kept and welcoming or does it need a tidy up and painting? When is it open? Are the opening times clear? Is this the main information point? Is that clear if you have just arrived?

Toilets

Are there toilets on site? Are they in good condition? Do they work? Are they needed? Are there similar facilities nearby? Can we collaborate with a third party and signpost visitors to better quality facilities?

Site signage

Way markers, mileposts and other site furniture. Does all site signage look in good order and free from rot/algae? Is it easy to find the trail head? Is the trail head information consistent with the information in the leaflets, on panels and on the FLS website? Are there sufficient rest points on the trail? Do you need to install a picnic bench, a bench or perch? Viewpoints

Are there any viewpoints on the trails? Are they still viewpoints or is vegetation obscuring the view? Is there a section crying out to be a celebrated view that just needs a little work to open it up? Does the viewpoint need a place for people to linger? E.g a bench or picnic bench?

Appendix 2 - Action Plan

Recommendations following site visit

Feature	Action	Rough costings to implement
Interpretation plan	Liaise with Design team 2025	
Replace small bridge (coastal trail)	2025	

Site photos





