



1. INTRODUCTION

The Land Management Plan of Carradale covers an area of **6704.3 ha** which is an amalgamation of four Forest Design Plan areas: *High Clachaig* (1124.2ha), *Deucheran* (3365.6ha), *Grogport* (1362.7ha) and *Deer Hill* (851.8ha).

The LMP of Carradale is located on the eastern coast of the Kintyre peninsula in Argyll and Bute, next to Carradale and Grogport villages and opposite to Islands of Arran for the east side and Gigha for the west side. The grid reference is **NR 7647 4244** and is geographically situated at latitude (55° 37' 26" East) and longitude (-5° 33' 7" North). The nearest routes are A83 which links Muasdale with Campbeltown, B842 which connects Carradale with Claonaig and B879 which links Carradale with Campbeltown.

This woodland is composed of different habitats such as blanket bog peats, heathland habitat and native and non-native broadleaves with high range of biodiversity, supporting a wide variety of animals and plants and providing vital environmental services; such as carbon sequestration, and reduction of soil erosion. Timber production will remain as the primary role in the area of the forest, however the LMP of Carradale will be delivered as a multipurpose woodland, with a strong environmental focus, mitigating the impact through landscaping and recreation as additional objectives. Productive conifers have generally grown well, with much of the forest now in its second rotation.

High Clachaig include a number of acquisitions from neighbouring estates, bought in the late 60's and 70's, except for the Allt Mor zone which was purchased in 1987. Most of the area was planted with Sitka spruce and some patches of larch and Lodgepole pine in 1980/81, except Clachaig Water and Allt Mor planted in 1988 and 1991, respectively.

Deucheran was acquired by the Forestry Commission in 1938, with small areas added later from neighbouring estates. Rhonadale was planted around 1940. From 1971 to 1973, the hill ground was planted. Further hill ground was purchased in 1974 from the Glen Barr Estate, being planted between 1980 and 1984. In 1991, around Loch Chromain took place further plantations. In addition, since 2002, over 850 hectares around Cruach nan Gabhar is been used as part of a the Beinn an Tuirc and Deucheran hill windfarms as a development environmental mitigation. The primary aim is to improve the eagle range by extending favourable hunting habitat away from the turbines.

The majority of the *Grogport* area was bought in 1938 from the Carradale estate, whereas the Sunadale section was acquired in 1951. In the past, the forest was managed in three parts namely Craigmhor, Brackley and Sunadale. In 1997, all of these were merged with some additional new ground above Grogport to form the existing 1362.7 ha block. Planting of this area was carried out between 1948 and 1955. The main species are Sitka and Norway spruce, broadleaves along the Carradale River and a few areas with larch and Lodgepole pine.

Deer Hill was mostly purchased in 1938 from the Carradale Estate and planted in the decade of 40's, while the Grogport section was acquired later and planted in 1979. This area contains high variety of tree species such as Douglas fir, Norway spruce, native and non-native broadleaves, Lodgepole pine, Scots pine and as predominant species Sitka spruce.



2. PROGRESS (ON PREVIOUS PLAN)

The FDPs High Clachaig and Grogport were approved in 2004 and 2011, respectively, with Deucheran and Deer Hill approved in 2007. Mid Term Reviews were not carried out in High Clachaig and Grogport.

The LMP of Carradale has improved and promoted biodiversity and diversification in the past 10 year, increasing the area of minority species such as Douglas fir, lodgepole pine and Norway spruce, as well as native broadleaves.

The FDPs also implement the removal of exotic species such as western hemlock and rhododendron, especially after finding some larch infected by *Phytophthora ramorum* in 2013.

In 2002, *The Central Kintyre Habitat Management Plan* (CKHP) was created after merging the Habitats Management Plans for **Beinn an Tuirc windfarm** and **Deucheran Hill windfarm** due to ecological and ornithological similarities. The CKHP has been prepared, agreed and managed by members from Scottish Power Renewals (SPR), E.ON, Scottish Natural Heritage (SNH), the Royal Society for the Protection of Birds (RSPB) and Argyll and Bute Council (A&BC) which meets once a year to review the progress and the objectives. Deucheran Hill has been leased to E.ON and Beinn An Tuirc is being leased by Scottish Power Renewables, being operational since 2001. The main purpose for these sites has been to mitigate against possible negative impacts arising from the presence of the windfarms in the area on European protected bird species. The CKHMP has been incorporated and designed a Black Grouse management plan in the area. Most of the areas in CKHMP are maintaining the moorland and open ground condition and providing foraging for the European protected bird species, ensuring the Black grouse population remains stable.

The Kintyre way was opened in 2006. This popular Long distance walking route runs through the LMP Area sections of which from part of the main strategic timber transport scheme haul route across Kintyre way.

Some areas of windblow have occurred over the whole of Carradale LMP area. Additionally the windblown parts located in Rhonadale have a difficult access due to steepness.

The planted commercial forest which was laid out in old locations of Ancient Woodland Sites or Plantation of Ancient Woodland Sites (PAWS) have progressively been restored with native species.

The Communities, Recreation and Tourism team has decided to reduce the recreation zones (paths and signs) due to a low density of visitors, estimated to be less than 5,000 visitors a year.

A new access route was

constructed across the Carradale LMP area to extract timber, however the timber haul route linkage from Rhonadale to Deucheran has not yet been carried out.

Enhancement of the accesses and views around archaeological features across the LMP were performed.

No recent thinning has been undertaken.



3. ISSUES

- There are significant areas of windblow in Deucheran to clear, especially in Rhonadale with some pockets of damage in the north of Deer Hill, South of Grogport and West of High Clachaig. Due to safety issues in working blown timber on steep slopes and particularly in Rhonadale this timber will be abandoned and try to restore it through natural regeneration.
- The Kintyre Way utilises long sections of the forest road, which is not ideal. However, where alternatives timber haul routes exist these will be used.
- Renewables – it's quite likely that Deucheran Windfarm will increase the size of turbines and install more turbines in the area when the lease expires. In addition, in 2020, there is another project currently at planning appeal to establish a new windfarm named Clachaig Glen Windfarm with 14 turbines. In 2016, a new nest of a European protected bird species was found in LMP of Carradale and it will be necessary to follow the evolution of this nest and if they finally establish here.
- Invasive exotic species - There are considerable areas of rhododendron and western hemlock in the south, west and east of Deer Hill those rhododendron areas infected with *Phytophthora ramorum* need to be treated as soon as possible. In addition, these invasive species are spreading very fast in the open areas or where the growth of the trees in restocked areas is slower in comparison with these species *i.e.* Rhonadale and on the road B842 in the north Grogport.
- Any commercial forest in ASNW or PAWS will generally be restocked with native species for environmental benefits.
- Rhonadale area – there is a short period of time each year to work and extract the timber in the area due to European protected bird species restriction. Additionally, most of this area has steep ground, reaching in some place more than 33%, making necessary the extraction of timber using skyline and a more expensive and slower operation. On the other hand, the proposed timber haul route linkage from Rhonadale to Deucheran is still being negotiated and assessed.
- Coupes structure/size and density of road infrastructure need further consideration in order to improve the economic appraisal and fit coupe shapes more adequately to the landscape scale.
- Phytophthora ramorum – In order to avoid more infections, all the larch in Carradale will be removed as soon as reasonable, including felling any Larch in the adjoining coupes wherever is possible. Any new infection will be dealt with as soon as possible and following the SPHN guidance.
- Thinning - The DAMS scores suggest future thinning potential is limited in the area. The areas which gather the following conditions could be thinned: high forest, crops between 18 and 25 years old, Yield Class ≥ 12 , DAMS score ≤ 17 , forest road within 200 metres and slope $< 33\%$.
- Presence of Red Squirrels - An occasional red squirrel has been seen along the Carradale River. In order to improve and promote the suitable habitat, this area will be planted/restocked with favourable species for red squirrel such as Norway spruce, yew, birch and rowan.
- Timber winch extraction limited to 12,000 m³ per year.
- Low impact systems will be promoted where it is possible.



4. PLAN OBJECTIVES

The management of **Forestry Commission Scotland's National Forest Estate** is guided by *The FES Strategic Directions* (2013-2016). These directions/guidelines form the basis of *The West Argyll District Strategic Plan* (2014-2017) – all due for imminent update:

1. **Healthy** - achieving good environmental and silvicultural condition in a changing climate.
2. **Productive** - providing sustainable economic benefits from the land.
3. **Treasured** - as a multi-purpose resource that sustains livelihoods, improves quality of life, and offers involvement and enjoyment.
4. **Accessible** – local woodlands and national treasures that are well promoted, welcoming and open for all.
5. **Cared for** – working with nature and respecting landscapes, natural and cultural heritage.
6. **Good value** – exemplary, effective and efficient delivery of public benefits.

The contribution that Carradale can make to deliver these national priorities will be in the following ways:

HEALTHY

- Increase resilience to climate change through species diversification, removing diseased trees and planting alternative species.
- Remove and deal with invasive species such as rhododendron and western hemlock, and improve the threatened habitats and biodiversity.
- Continue with *P. ramorum* management as per FES guidance.
- Implement National deep peat restocking / restoration policy where appropriate.
- Manage watercourses and private water supplies following the UKWAS standards, Water Framework Directive and Forest and Water guidelines within UKFS to maintain and improve water quality.

PRODUCTIVE

- Timber production – commercial conifer areas and diversify timber market by planting more diverse productive species. Review the production forecast commitment through revised felling and thinning plan (may be modified to accommodate *P. ramorum* felling).
- Manage productive zones with correct species choice for site type restocking in line with district goals for diversity. Follow FES Restocking Strategy.
- Implement road maintenance and construction programme required to service harvesting operations, contributing the 75 km target in the Strategic Plan.
- Windfarms – new windfarm projected by 2020.



TREASURED

- Landscape improvements through, species diversification, redesign hard edges, shapes and sizes of timber harvesting and creating a more natural tree line.
- Continue to work with local communities (stakeholder consultation, drop-in meeting,...) within LMP process to ensure access and facilities are fit for the purpose.
- Improve and maintain the main paths, picnic areas, parking and view from the top of Deer Hill through increased species diversity and open space, enhanced use of LISS and integrated management of open space within woodland.

ACCESSIBLE

- Develop forest road network.
- Maintaining the Car Parks, Picnic Sites and the forest walks in Deer Hill. Retain and improve the views in at Cnocnan Gabhar in Deer Hill to encourage repeat visits and provide a “must see” destination for visitor and local communities.

CARED FOR

- Landscape improvement that responds to landform and respects natural features.
- ASNW and PAWS restoration, increasing the area of native broadleaves throughout design plan area for added biodiversity benefits linking to internal and external ASNM site (Deucheran & Grogport).
- Enhancement and protection of open habitats and linkages, beneficial for a pair of Golden eagles, grouses and red throated divers.
- Development of native woodland habitat networks, contribution to the 20% target for broadleaved woodland cover.
- Removing of invasive species.
- Protection and enhancement of cultural heritage assets as per FES guidelines.
- Protection and improvement water features and water supplies.

GOOD VALUE

- Maintain infrastructures in order to sustain and increase the visitor number
- Facilitate energy infrastructure required by national policy in balance with other objectives.

All themes:

- Compliance with UKWAS & UKFS guidance for certification and sustainable woodland management in the United Kingdom.
- To comply with all the other relevant guidance, legislation and policies, FD Strategic Plan and overarching FCS plans.



Summary of Proposals

The Forest District's Strategic Plan for West Argyll Forest district includes a vision statement, to which each individual Forest Design Plan (FDP) (or LMP) will make a contribution. *The District Vision Statement* states that "West Argyll FD will be a key land manager in Argyll, producing quality timber for the market, providing sustainable employment in both the public and private rural sectors, and opportunities for renewable energy projects. We will also provide well-managed native woodlands for wildlife and places for enjoyment for visitors and local communities". The new *Land Management Plan of Carradale* contributes to the District Vision by seeking the following outcomes:

1. ECONOMIC CONTEXT

- Approval for around 140ha/year of felling and restocking.
- Timber production from felling and thinning operation are currently estimated at around 56,000 m³/annum. On average 50 lorries a week.
- Construction of 3 kilometres of new forest road will be required to access coupes and for extraction of timber, which requires Prior Notification and Environmental Impact Assessment (EIA) determination. Length of new roading required must achieve a satisfactory balance between cost and coupe size, with design minimising the need for spur roads.
- Plant 15ha of trees in open ground.
- Landscape enhancement requires implementation of felling and restocking designs.

2. ENVIRONMENTAL CONTEXT

- Improvement of the habitat for European protected bird species, maintaining the moorland and open ground condition and providing foraging for the golden eagles, ensuring the red grouse population remains stable.
- Development of habitat network framework for native woodland, open space and riparian corridors. Some of the broadleaved riparian areas are being invaded by conifer regeneration and need to be removed.
- Develop appropriate buffers along watercourses and around waterbodies. Removing conifers around Loch a' Chuirn (Coupe 34014) with a 50 metres buffer, improving the upland heathland and improving the habitat for pondweed.
- Bog restoration will be carried out in some areas as per design.
- ASNW & PAWS restoration of around 40ha following the felling programme. These sites are subject to a 20 metre buffer to reduce the threat of conifer regeneration.
- Elimination of rhododendron and western hemlock as per district strategy.
- Species diversification or change due to Climate Change Agenda, national targets for broadleaves, UKWAS and plant health issues.



3. SOCIAL CONTEXT

- The picnic areas and car parks facilities will be maintained.
- Protection of the public water supply for Carradale through design of adequate riparian buffers.
- Removing trees at Cnocnan Gabhar in Deer Hill in order to improve and retain the outstanding views. Keep the forest walks open.
- Landscape enhancement with particular views from public road, ferry routes and the Kintyre way.

Stakeholders & Consultation

There are a number of key groups and organisations that will be able to contribute to the project through support and advocacy:

- FD's statutory stakeholders: **Scottish National Heritage** (SNH), **Scottish Environment Protection Agency** (SEPA), **Scottish Water** (SW), **Historic Environment Scotland** (HES), **Scottish Government Agriculture and Rural** (SGRAPID) and **Argyll & Bute Council** (A&BC).
- FD's Non-statutory stakeholders: **Confederation of Forest Industries** (Confor), **Royal Society for the Protection of Birds** (RSPB) and **Scottish Wildlife Trust** (SWT).
- **Argyll Timber Transport Forum** (ATTM): will be consulted in relation to the access forest and the impact of timber transport on the public road network, local communities and the environment.
- **The East Kintyre Community Council**
- **Neighbours**: where identifiable, Forestry Commission will send a letter within 1 kilometre buffer around the boundaries.
- **Windfarms**: E.ON and Scottish Power Energy

Following the public consultation drop-in draft proposals will be prepared and circulates to the above stakeholders for further considerations and comments.