

# Appendix XV

## Clunes Mountain Woodland Project



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# Background

The concept of a native mountain woodland project was initiated by the then local Conservation Forester, Dave Whitaker, in 2003 when he compiled the “Clunes and Glengarry Mountain Woodland Restoration Project”. In 2014 a further report compiled for FES (Forest Enterprise Scotland) by Dian Gilbert and Andy Scobie “The status of montane willow populations on selected Scottish mountains – Lot 2” identified some of the montane scrub remnants found on parts of the open hill of Clunes. This described the state of the remnants and it was clear that browsing pressure from deer was negatively impacting on its extent.

The area where there is potential for mountain woodland development covers a total 4470ha gross in Clunes and Glengarry Forests. See the Clunes Glengarry mountain woodland map on page 7. Within this area there will be inland rock & scree habitat, blanket bog and high elevation areas too severe for trees. The Glengarry mountain woodland project will be addressed in the Glengarry Land Management Plan (LMP).

## Clunes mountain woodland zone

### Area

The mountain woodland project zone within Clunes Forest covers 1640ha occupying the entire open ground of Clunes Hill.

### Elevation range and topography

Elevation ranges from 220m ASL in the SE of the site to 917m ASL on the summit of Meall na Teanga. There are aspects in all directions.

The topography is moderate slopes in the NE upper reaches of Coire Bhan in central Clunes and steep to very steep elsewhere. There are four coires in the northern section: Meall Odhar Beag, Meall Odhar Mor which are north facing and Coire Leacachain and Coire Lochan which are SE facing.

### Hydrology

There are five main mountain streams “Allts”: Abhainn Chia-aig , Allt Bhan and Allt a’ Mhanain which flow south, and Allt na Faing and Allt Glas Dhoire Mor which flow SE.

Elsewhere there are multiple minor watercourses which drain the site in all directions.

Wet flush dominated habitats lie within a range of between 440m and 700m elevation on the northern, western and southern slopes of the Meall na Teanga/ Meall Coire Lochain/Meall Odhar range.

# Climate

The climate model splits Clunes Hill into three climate types: Cool and wet (highly and severely exposed), sub alpine and wet (highly and severely exposed) and sub alpine too exposed for forestry.

These climate types roughly align to elevation (see the Clunes Glengarry mountain woodland map on page 7). The cool and wet climate type generally lies below 450m elevation with the sub alpine and wet lying between 450m and 680m elevation. The sub alpine too exposed for forestry lies mostly above 680m with the exception of the summits of Meall Breac and Leac Chorrach. This area occupies 486ha.

The young native woodland in upper Chia-aig lies in the cool wet climate type as does the lower half of the proposed afforestation site in east Gleann Chia-aig. The upper half of this site ventures into the sub alpine and wet climate type.

The climate type sub alpine – too exposed for forestry - hosts most of the montane scrub remnants found on Clunes Hill.

# DAMS (detailed aspect method of scoring)

DAMS is a decision tool devised by Forest Research which determines the probability of damaging winds occurring. Its main use is applied to forests to determine risk to windthrow. The DAMS model uses a combination of observations from tatter flag observations, aspect, elevation, topographical exposure, valley shape and direction. The lowest scores 0 to 17 relative shelter with 0 as the most sheltered. Above a score of 17 describes relative exposure.

The Clunes mountain woodland project zone ranges from a score of 15 on the lowest elevation on south facing slopes to a score of 27 on the mountain summits.

# Habitats:

## General habitats

(see the Clunes mountain/montane area habitats map on page 8)

Habitat type	Area (ha)
Upland heathland	795
Blanket bog	464
Montane heath	344
Total	1603

## Special habitats

Within and out with these general habitat types there are special habitats, some of which are quite rare (see the Clunes Woodland special habitats map on page 9) :

- Wet heaths contain some oceanic bryophytes and lichen communities.
- Snowbed communities.
- U7 and U10 communities.
- Wet flushes with localised wet flush areas in the montane heath and upland heathland areas.
- Inland rock and scree.
- Calcareous grassland
- Tall herb & fern communities

## Montane scrub species

The survey carried out in 2003 which informed Dave Whitaker's "Clunes and Glengarry Mountain Woodland Restoration Project"- report include the following:

- Dwarf birch *Betula nana* on blanket mires on the lower slopes of Meall a' Choire Gas and Ben Tee (Glengarry Forest)
- Downy willow *Salix lapponum* on the rocks and crags of Meall Odhar (Clunes Forest)
- Dark-leaved willow *Salix myrsinifolia* on the rocks and crags of Meall Odhar (Clunes Forest)
- Whortle-leaved willow *Salix myrsinites* on the rocks and crags of Meall Odhar (Clunes Forest)
- Tea-leaved willow *Salix phylicifolia* on the shores of Loch Lochy (Clunes Forest)
- Least willow *Salix herbacea* growing prostrate in the montane heath and in shrub form through the tall herb communities at lower levels.
- Juniper *Juniperus communis* growing in bush form at lower levels and prostrate form (nana) on crags and montane heath.
- Rowan and birch are growing in the areas inaccessible to deer.

## Long term objectives

- To enable the slow expansion of naturally regenerating native species up the watercourse riparian areas.
- To enable the slow expansion of naturally regenerating and planted native species uphill of the current upper margin of the forest.
- To enable the ecological connectivity wooded and scrub habitats.
- To improve the resilience of the montane scrub habitat through natural regeneration and the introduction new material to ensure pollination and seed production is possible.
- To enable effective deer management to secure all of the above.

# Management proposals during the LMP

Secure the establishment of the new native woodland planting on the carbon code site in upper Chia-aig in the cool and wet climate type. Maintain fences and gates.

Construct an ATV track up to 3175m in length through this site to aid establishment operations and to support long term deer management in the northern section of the mountain woodland zone.

Plant the proposed afforestation area in east Gleann Chia-aig to restore the ancient woodland inventory ghost wood. This will link the PAWS area to the south with the ancient semi-natural remnant and upper Chia-aig young native woodland to the north and help close the gap to the montane scrub remnants to the NE. Most of this area lies in the cool and wet climate type zone. Some montane scrub will be planted in the upper reaches of this site which lies just inside the sub-alpine and wet zone.

Establish the areas which are undergoing natural regeneration on the open ground areas in the SE section of the cool and wet zone.

Remove the non-native regeneration and the rhododendron from 5ha of open ground in the SW section of the cool and wet climate zone close to the CPI regeneration zone.

Restore the hagged peat area of upper Chia-aig and restore the large hagged high elevation (sub-alpine and wet), blanket bogs of Coire Bhan and Meall Breac if access and funding permits.

Increase deer culling to reduce the population to healthy and sustainable levels apt for these habitats – around 0-3 deer/km<sup>2</sup>. This will be especially helpful to enable the expansion of the montane scrub.

Montane scrub will require interventions to secure its resilience and expansion. Cuttings may be taken and cuttings from elsewhere can be planted on site. It may be possible to work with our neighbouring Arkaig Community Forest to manage the cuttings and grow them on in their nursery on the edge of Clunes Forest.



Forestry and  
Land Scotland

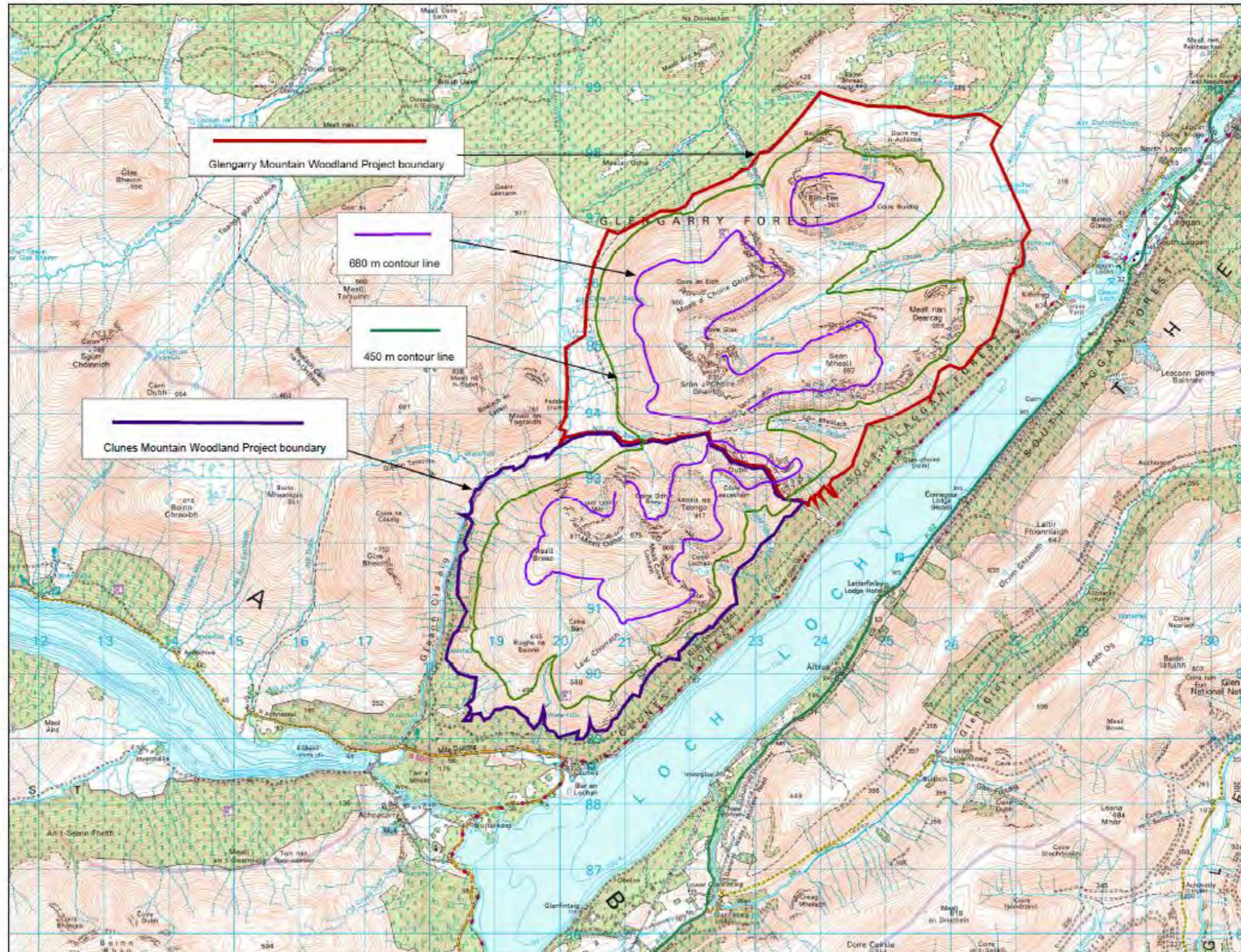
Coilltearachd agus  
Fearann Alba

### Clunes Glengarry Mountain Wood

Author: Catriona MacIennan

Scale @ A2: 1:40,000

Date: 13/02/2023



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Clunes Mountain/Montane area

Author: Catriona MacIennan

Scale @ A1: 1:10,000

Date: 13/02/2023

Legend

Next Perspectives  
In Contours (Scott.)

- Index
- Intermediate
- Contour\_60m0
- Contour\_40m0
- Clunes\_Boundary0
- Glegary\_Boundary0

Conservation Sites

- Mountin Willow Survey
- SchilPants
- Watercourses

Habitat Survey Polygons

- BLANKET BOG
- broadsward, mixed & yew woodland
- INLAND ROCK CUTS ROOFS & SCREE HABITAT
- MONTANE HEATH
- OLIGOTROPHIC OR DYSTROPHIC LOCH
- OPEN MOSAIC HABITATS ON PREVIOUSLY DISTURBED LAND
- UPLAND BIRCHWOOD
- UPLAND FLUSH, FEN & SWAMP
- UPLAND HEATHLAND
- UPLAND OAKWOOD

Forest Roads

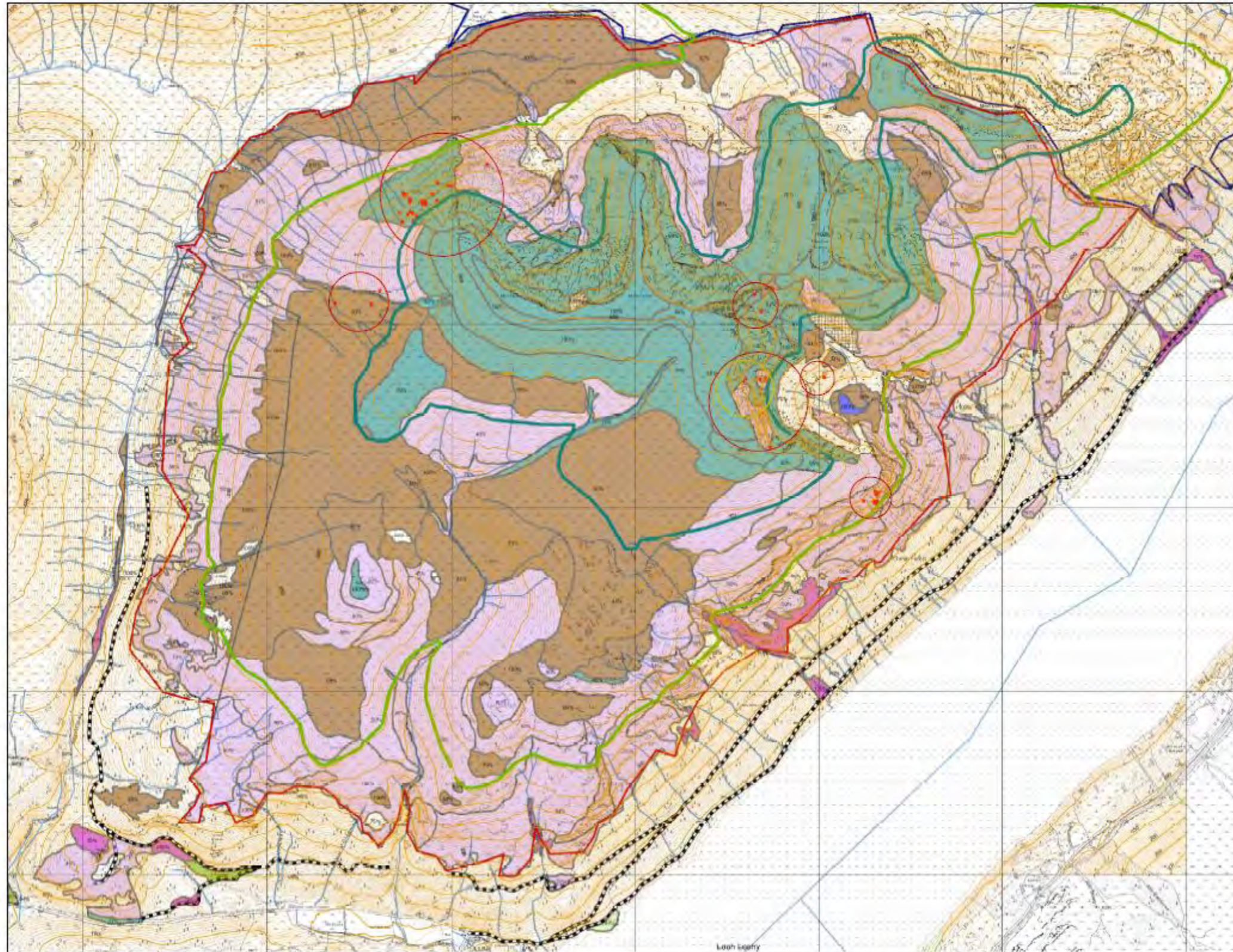
- Forest Roads

0 0.075 0.15 0.3 0.45 0.6 km



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Loch Lagan





### Clunes Mountain woodland

Author: Catriona MacIennan

Scale @ A2: 1:25,000

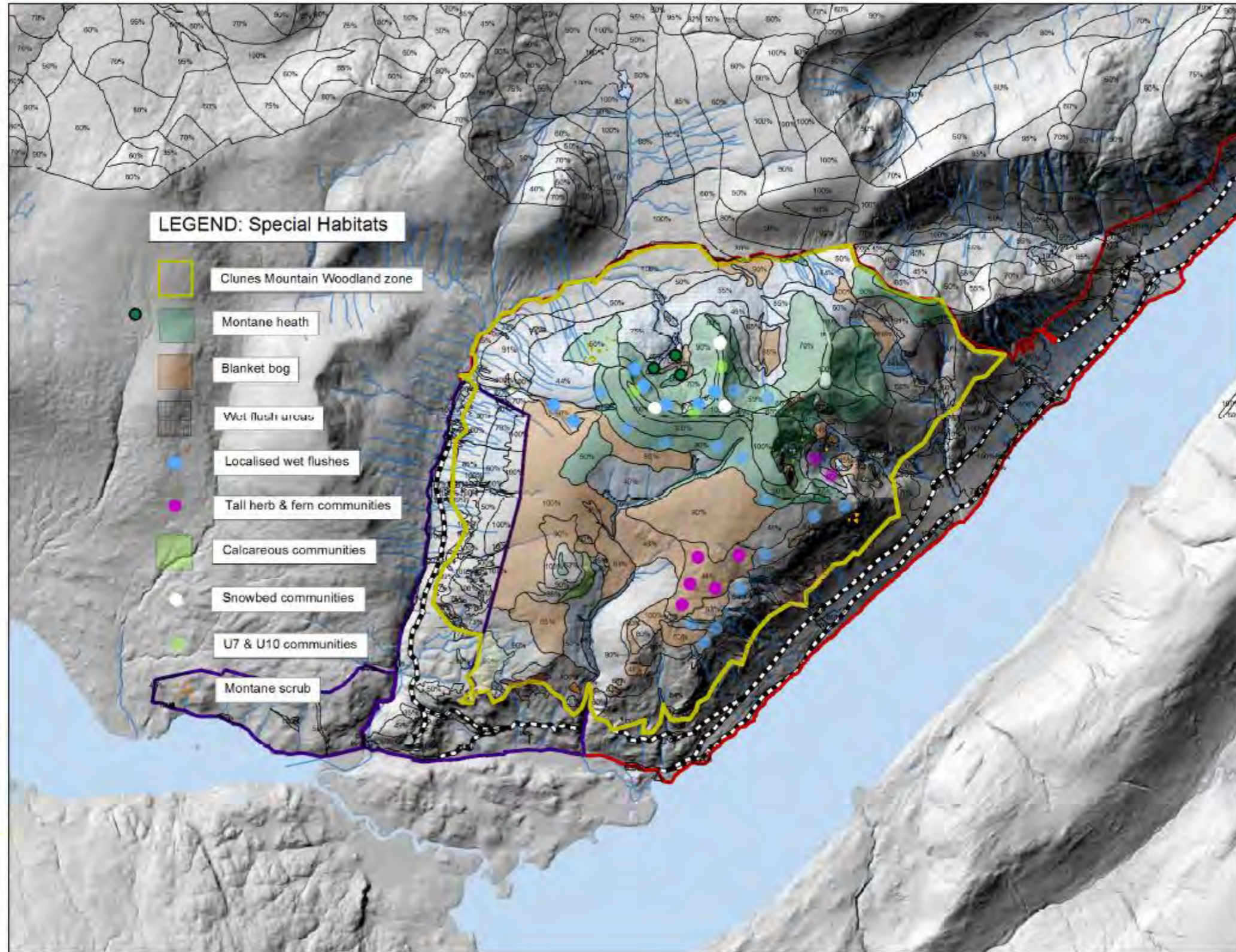
Date: 24/04/2024

#### Legend

- Clunes\_Boundary3
- Habitat Survey Polygons
- Conservation Sites**
- Conservation Sites
- Blocks**
- Clunes
- Loch Arkaig
- Forest Roads**
- Forest Roads
- Watercourses

#### LEGEND: Special Habitats

- Clunes Mountain Woodland zone
- Montane heath
- Blanket bog
- Wet flush areas
- Localised wet flushes
- Tall herb & fern communities
- Calcareous communities
- Snowbed communities
- U7 & U10 communities
- Montane scrub



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