Forestry Commission Scotland
Coimisean na Coilltearachd Alba

Scotland's National Forest Estate is responsibly managed to the UK Woodland Assurance Standard.

Map 4 - Analysis and concept Dalchork

Scale @ A1 1:25,000

Caithness and Sutherland Peatlands
Special Protection Area (SPA)
Special Area of Conservation (SAC)
RAMSAR
Cnoc an Alaskie Site of Special Scientific Interest (SSSI)

Ben Klibreck SSSI

Proposed new planting on ground belonging to Altnaharra Estate

Conifer strips planted back in 1980 along A836 will be gradually replaced by native broadleaves more suitable to the site conditions and less obtrusive in the landscape but still providing much needed shelter to the very exposed section of the public road.
In order to maintain the continuity of protection, native species will be planted between the existing shelterbelts and A836 in c. 10 years in advance of harvesting. We will work closely with Altnaharra Estate to coordinate the operations on both landholdings.

Proposed new planting on NFE

Existing open peatland

Proposed Dalchork Windfarm development area.

Ben Klibreck - Armine Forest Wild Land Area

Areas where relatively good tree growth is achievable using minimal cultivation and/or fertilisation will be restocked with appropriate native species to create native woodland

Areas of poor tree growth, where SS YCL 8 is unlikely to be achieved without intensive drainage and fertilisation, and where successful peatland restoration due to peat conditions is ulikely, groups of native broadleaves and SP will be planted, and natural regeneration of both conifers and broadleaves will be encouraged to establish successional woodland. This type of woodland will contribute positively to biodiversity, carbon balance and lanscape.

Areas where soil conditions alow for good tree growth will be restocked with conifers.
Some of these sites might be capable of producing biomass/woodfuel grade crop - lower planting densities might be considered.

Dalchork - current situation:
- Significant areas of open bog, some under designations, adjacent to productive coupes planted with non-native conifers;
- Increasing areas of recovering peatland (restored using Peatland Action Fund);
- Significant areas of unsightly wind-damaged conifers , which need to be harvested relatively quickly to prevent income losses due to timber deterioration and to improve the visitor experience;
- Watercourses with no or little broadleaves around, suffering from overshadowing due to conifer crops planted right up to the banks, or, when banks were left unplanted, with no organic matter or shadowing required to improve aquatic environment;
- Water quality deteriorating within Loch Beannach Drinking Water Protected Area (DWPA);
- Conifers growing on deep peat, where repeated fertilising is required to maintain acceptable growth rates;
- Questionable greenhouse gases balance: some areas of afforested deep peat, subjected to intensive drainage regime and with poor tree growth rate are likely to be releasing significant amounts of CO2 and methane;
- Unsightly big clearfell coupes – result of extensive felling undertaken to remove wind damaged and/or infected crop (by Dothistroma Needle Blight - DNB);
- Low representation of native species.

Roadside coupes along A836 were design back in the 1990s, making the area visually attractive. This good design will be preserved by keeping the same pattern of woodland and open space in next rotation.

Area of restorable deep peat.
Significant peat depth (0.5 - <4.0 m);
poor tree growth rate ranging from YCL2 to YCL12, with majority of crops (both SS and LP) achieving YCL 6-8 with significant drainage and fertiliser input; high water table; presence of Sphagnum, adjacency to and strong hydrological links with both active and recovering bog (restored under Paetland Action Fund) make the area suitable for peatland restoration.

Water quality is a high priority in Dalchork. Riparian woodland will be planted along watercourses to enhance aquatic environment and to create protective buffer between productive forestry and watercourses.

New native woodland planting proposal

What we want to achieve
- Active and recovering bog areas protected from non-native conifer regeneration by buffer of native, riparian and/or successional woodland;
- Positive greenhouse gases balance: according to yield classes achieved in previous rotations, peat conditions and hydrologic links with adjacent active or restored bog, forest block will be divided into commercially productive, native/successional woodland and peatland restoration zones;
- Further increase of restored and recovering peatland area;
- Productive conifer coupes with wind firm edges, designed to use existing open ground, watercourses and land form as natural boundaries;
- Watercourses with wide protective buffers of riparian woodland, screening them from any possible negative impact of future forest operations and improving the aquatic environment and overall water quality;
- Loch Beannach DWPA catchment area screened from possible negative impact of forest operations by increased area of open bog and successional/riparian and native woodland;

Loch Beannach - part of Lairg & Strath Brora Lochs SPA & SSSI

Loch Beanach is a source of drinking water. Special protective measures will be agreed with Scottish Water prior to, and applied during any forest operations taking place within the Drinking Water Protected Area (DWPA) and/or on sites where water pipelines are located.
In next rotation substantial protective buffer of open peatland , riparian, native and successional woodland will be created around the loch to minimise any possible negative impact of future forest operations on the quality and quantity of water in Loch Beannach.

Powerlines will have well established wide buffers to prevent trees falling onto the lines and disrupting energy supply.

Possible substation location

Strath Carnaig and Strath Fleet Moors SPA & SSSI

Archaeology will be protected during forest operations. Areas where ancient monuments are concentrated, will be subjected to conservational grazing by sheep or cattle where appropriate. More scattered remains will have protective buffers maintained or created as required.

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Special Protection Area (SPA)
Special Area of Conservation (SAC)
RAMSAR
Grudie Peatlands Site of Special Scientific Interest (SSSI)

Legend

- North Sutherland LMP area
- Forest road
- Planned roads
- New planting (Dalnessie)
- New planting on Altnaharra Estate
- New planting along A836
- Water pipeline
- Potential substation area
- Windfarm development area
- Loch Beannach DWPA

Archaeology

- Ancient Monument (S)
- Ancient Monument (U); Unscheduled
- Unknown
- Overhead powerline
- Restorable petland area
- Currently productive conifers
- Currently felled
- Currently planted with native species
- Natural reserve
- Currently open
- Open water
- Peatland restoration founded by PAF

Future habitats

- Native woodland
- Natural Reserve
- Open
- Open water
- Productive conifers
- Riparian woodland
- Successional woodland
- SPA
- SAC
- SSSI
- WILD LAND area
- Watercourses
- National Forest Estate

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