The Slamannan Bog Restoration Project – Summary of the First Year

The Slamannan Bog Restoration Project began in September 2014 with the aim of restoring at least 150 hectares (ha) of degraded raised bog habitat in the Slamannan Plateau. The project is focused on an area of peatland called Fannyside Muir, 3km from Cumbernauld.

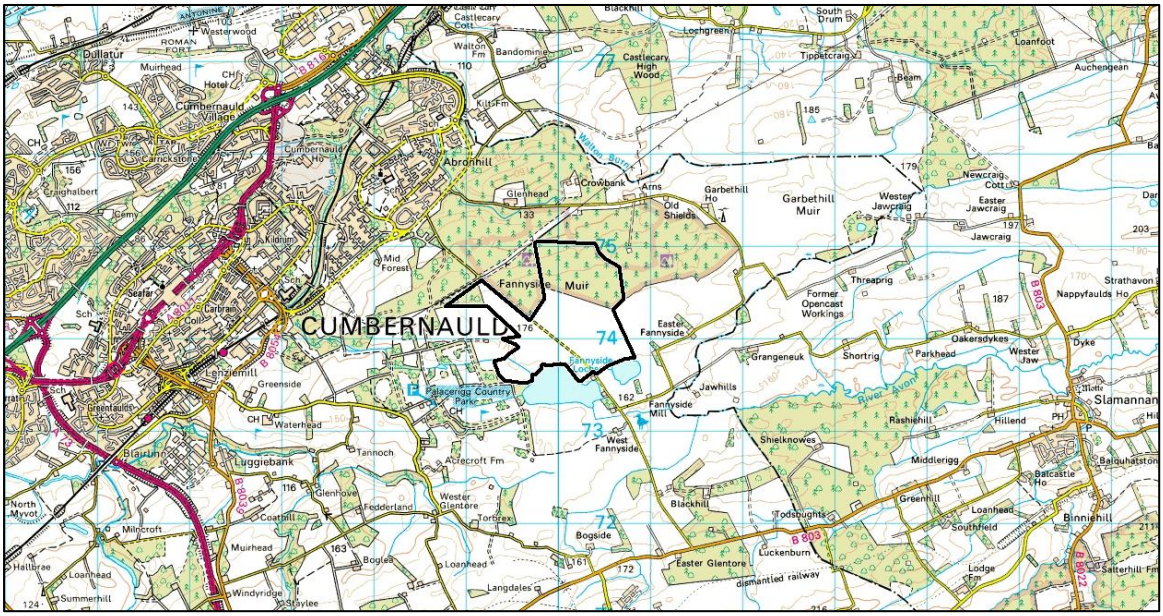
The project is managed by Buglife Scotland in partnership with landowners Forestry Commission Scotland (FCS), North Lanarkshire Council (NLC), Scottish Wildlife Trust (SWT) and additional stakeholders Royal Society for the Protection of Birds (RSPB) and Scottish Natural Heritage (SNH).

The production of a Management Plan and the work associated with the restoration of bog habitats at Fannyside Muir has been funded by WREN grant BAF14 - 'The Slamannan Bog Restoration Project' and through contributions of the European Union to the EcoCo LIFE+ project LIFE13 BIO / UK / 000428 *'Implementation of integrated habitat networks to improve ecological coherence across the CSGN'.* This work was supported by SNH as part of the Peatland Action project and contributes to Scotland's National Peatland Plan and North Lanarkshire Council's Bog Action Plan.

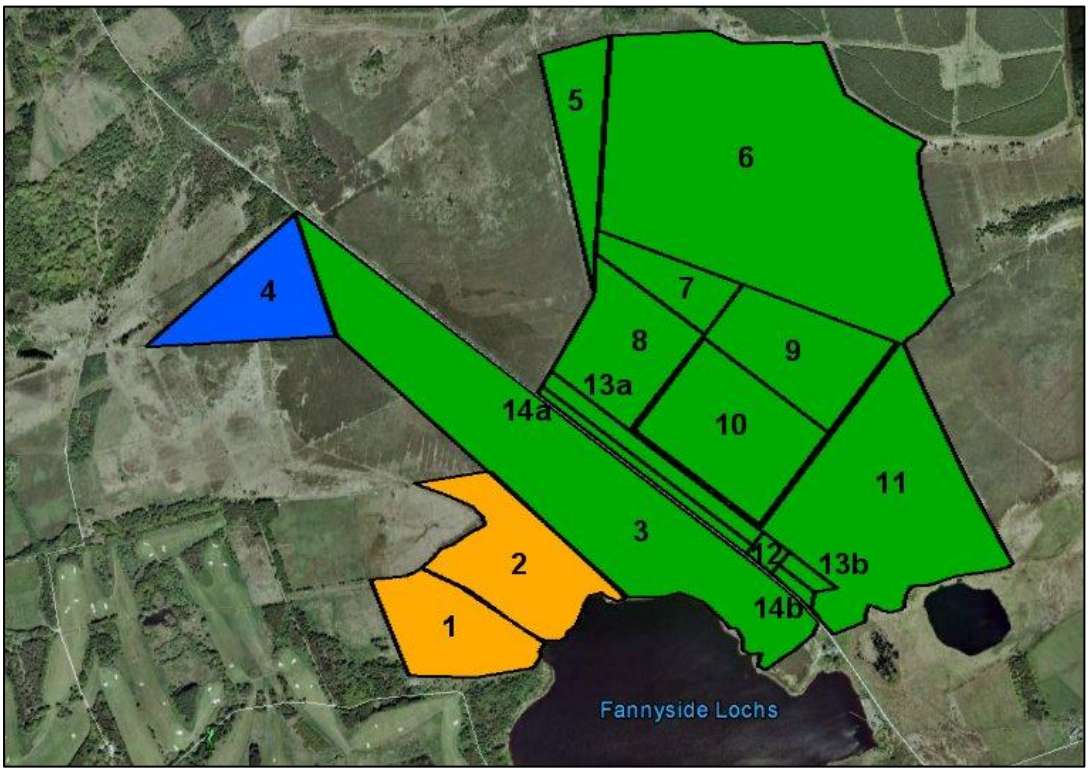
Progress in the first year of the project is summarised below:

- Production of Management Plan '*Fannyside Muir Bog Restoration Project: Management Plan, 2015-2024' w*ith detailed objectives and prescriptions for the management of the core 150 ha of the site, for the next 10 years.
- Habitat Regulations Assessment of proposed works carried out by SNH based on management plan and a detailed document prepared by RSPB Scotland to help inform the Habitat Regulation Assessment. Written consent from SNH giving the go ahead for restoration work to begin was obtained on the 11th August 2015 (Verbal consent given at the end of July).
- Openspace (Cumbria) Ltd began restoration work at Fannyside Muir on the 12th of August, following a public tendering process. All work was completed by the 15th September. Deadline for completion of all works was 20th. This is the earliest date that over-wintering Taiga bean geese have returned to the Slamannan Plateau.
- During 2015 910 peat dams and 90 reinforced plastic piling dams were installed across ~110 ha of the site to raise and stabilise ground water levels on the bog.
- A 670 m long trench bund was installed parallel to Fannyside Road to help retain more water on the bog (as a replacement for failed cross-tracking technique).
- Scrub and regenerating conifers (approx.0.6 ha) were removed from the site entrance area. Volunteer work parties have cleared scrub from the railway bund.
- Two new bog pools of 25m x 25m in size were created as potential roosting habitat for Taiga bean geese and other wildlife.
- Network of 32 hydrological monitoring dipwells were installed across the site to complement groundwater loggers that were installed in September 2014. Significantly raised ground water levels were recorded in restored areas.
- Monitoring of the site included 7 fixed vegetation monitoring quadrats, 32 mini vegetation quadrats, specialist breeding bird and protected species surveys, reptile surveys, moth trapping, butterfly timed counts and a variety of other invertebrate surveys (aquatic surveys, pitfall traps, sweep netting).
- Fixed point photography and aerial photographs of the site were taken.
- A total of 478 species were identified within the core project area during the first year.

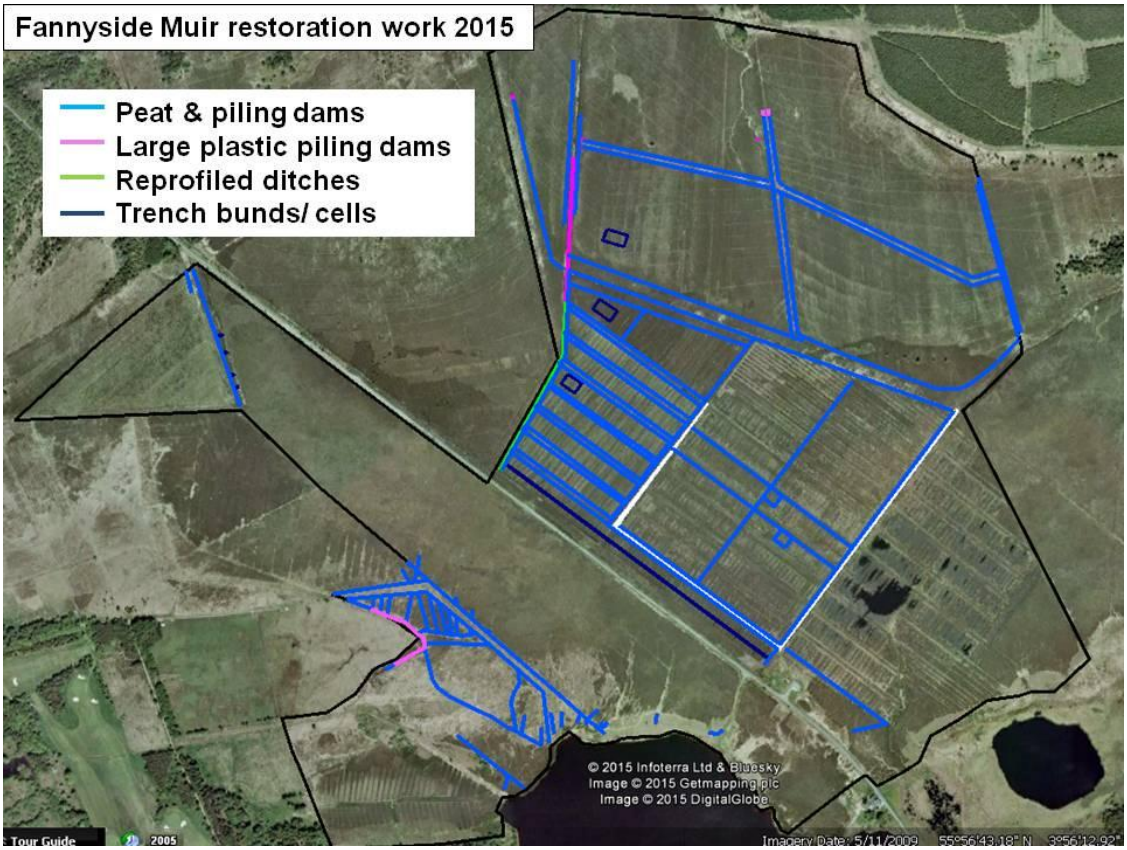
Appendix i. Maps



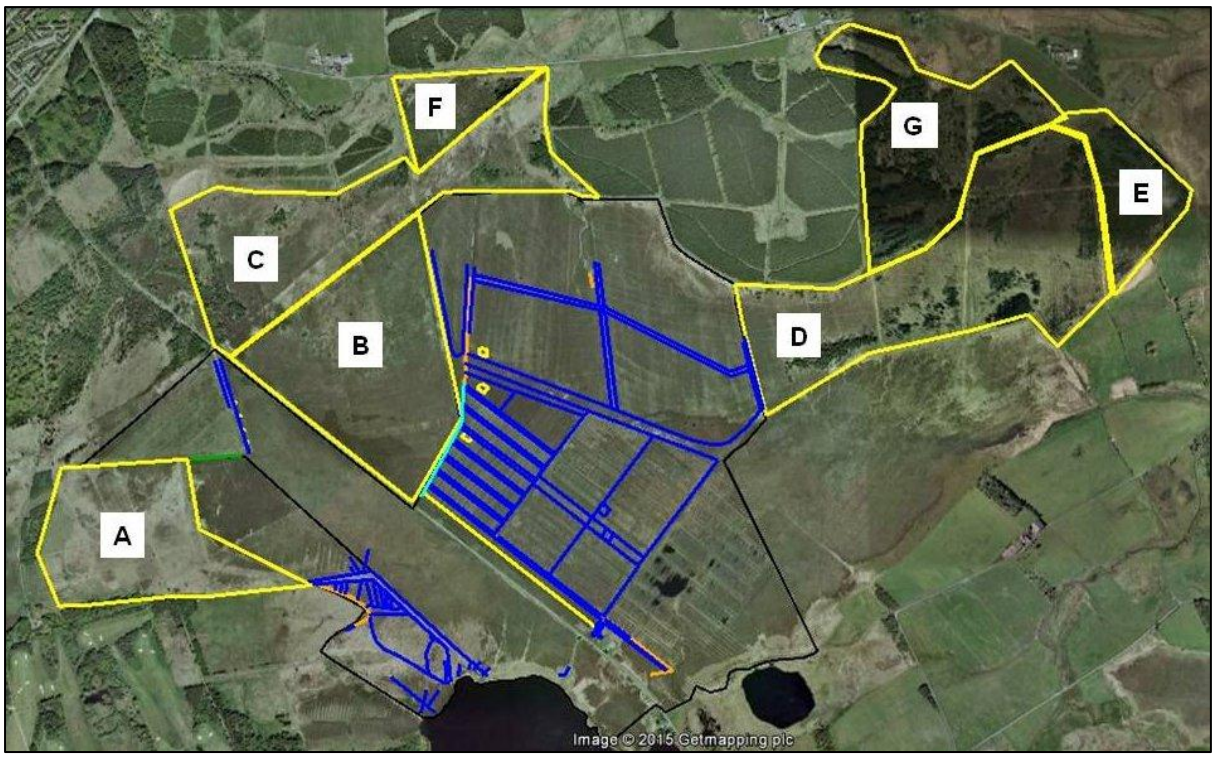
Map 1: Location of Fannyside Muir bog restoration site
Core project area outlined in black. 3km east of Cumbernauld on the Slamannan Plateau.



Map 2: Compartments and land ownership within restoration area.
North Lanarkshire Council (NLC) in orange; Forestry Commission Scotland (FCS) in green and Scottish Wildlife Trust (SWT) in blue. Numbers relate to Compartments mentioned in the Management Plan.



Map 3. Overview of restoration work carried out at Fannyside Muir during 2015.



Map 4. Newly identified areas adjacent to the core project area.
A: North Lanarkshire Council-owned land. B-G: Forestry Commission-owned land. All of these areas are outwith the boundaries of the Slamannan Plateau SSSI and SPA.

Appendix ii. Photographs

Figure 1. Installation of trench bund in Compartment 13a.
Top Left: Excavator installing trench bund (2 m deep). Top Right: Compressed surface of peat bund prior to capping with a dome of peat and vegetation. Bottom: 0.5m high cap of peat and vegetation along top of trench bund.

Figure 2. Peat dams on ditch between Compartments 7 and 8.
Left: Just after installation. Right: Late September- blocked ditches filling with water.

Figure 3. Installation of 4m deep plastic piling dams on large ditch between Compartments 5 and 6 at Fannyside Muir.
Clockwise from Top Left: First 4m piling dams being installed on deep boundary ditch.; Large eroded ditch prior to installation of piling dams.; Manual adjustment needed during installation of piling dams.(this one with peat back-filled for extra support); Supported piling dam before bracing timbers installed.; Same ditch very full of water in late October 2015.

Figure 4. Large ditch in Compartment 2 at Fannyside Muir before and after installation of reinforced plastic piling dams.
Left: Before work began. Right: Same ditch in late October 2015 after 3 days of rain.

Figure 5. Reprofiling steep-sided boundary ditch.
Left: Before work began (Facing north-east). Right: Reprofiling and peat dam installation along ditch with excavator (Facing south).

Figure 6. Installation of new 25m x 25m pool in Compartment 10 at Fannyside Muir as potential roosting habitat for Taiga bean geese.

Figure 7. Aerial photograph showing extent of 'roost pools' in Compartment 11
Taken using a 'kite camera' in September 2015 with assistance of RSPB Glasgow & South West Scotland staff and volunteers.

Figure 8. Monitoring at Fannyside.

Top Left: Water logger. Top Middle: Dipwell and mini-vegetation quadrat. Top Right. Species from control vegetation quadrat (Sphagnum sp., Cranberry, Cross-leaved heath, Round-leaved sundews). Centre Right: Reptile monitoring tile. Centre Left: Light trap (in gully between Compartments 1 and 2). Bottom Left: Five Common lizards (on abandoned duvet) in car park/ entrance area. Bottom Right: Sampling bog pool for aquatic invertebrates.