

Mungrisdale Common Scrub Creation Report

Executive Summary

Compartments 2, 3, 5, 6 and 7 are in acceptable or good condition for scrub establishment and vegetation growth. Compartments 1 and 4 are in need of attention, requiring around 10% replanting to get scrub numbers up to spec, change of management plan is required as some areas have proven not suitable for tree establishment. All fences were stock proof and no stock were present with in enclosures upon inspection. All fence posts and strainers on all compartments are at the end of life and will shortly start to collapse, likely making it accessible to stock over the next couple of winters. The wire net is in a reusable condition for majority of sections.

Introduction

Woodland Scrub planting was undertaken on Mungrisdale Common in early 2009 as part of a wider Higher Level Stewardship Agreement held by Mungrisdale Commons Association. The work was undertaken under option HC17 - Creation of Successional Areas and Scrub, and capital items FSH2010 - Sheep Fencing, FDS - Fencing Supplement, TSP = Planting Tree & Shrubs, TT - Tree Tube and Stake, GF -Wooden field/river gate. In addition, the option HC11 - Woodland Livestock Exclusion in included in the HLS agreement. Planting was undertaken in 5 compartments, totaling some 38.65ha, as detailed below. In addition to the areas of scrub/woodland creation, two further compartments were enclosed to protect existing scrub - Young Wood (dwarf oak woodland) and Swineside (juniper scrub).

Cpt No.	Name	Area (ha)
1	Roughten Gill	5.47
2	Glenderaterra North (Girl Guides Wood)	5.57
3	Glenderaterra South	2.07
4	Glenderamackin	14.16
5	Southern Fell	11.38
6	Young Wood	14.00
7	Swineside Juniper	9.00

The plantings were of three distinct species mixes, a birch/oak mix on the dryer ground, alder/willow mix in the wetter areas and an understory “scrub” element of rowan/hazel/hawthorn/holly. The planting was of a low density with 500 trees planted per hectare, an open structure, with large areas of open ground. Tree stock was bare root “whips”. Each compartment was stock fenced, under permission from the Secretary of State (Commons Act 2006 - Section 38), obtained by Natural England. The compartment boundaries/locations are provided in Appendix 2. In addition to the protection offered by the stock fencing, trees were planted in 1.2m tree tubes supported by hardwood stakes.

Maintenance History

There has been ad hoc maintenance throughout the HLS agreement in response to sheep trespass, episodes of bad weather, flooding/landslip, vandalism, etc. In addition, there has been specific,

Targeted Maintenance as follows:

- 2010/11 Assessment made in late 2010 of tree attrition rates and maintenance requirements for tubes and stakes. Dead trees accounted for 3-10% of those planted in each compartment and a relatively low number of tubes & stakes required replacing. Replacement of trees, tubes and stakes undertaken in early 2011 with application of chemical bracken control around each tube.
- 2012 Further “tidying-up” work undertaken - removing any tubes/stakes not associated with a live tree, further bracken treatment. Land slip in the same year led to the requirement of remedial fencing works to maintain the compartments as stock free.
- 2014 Spring survey after heavy snow/winds during the 2013/14 Winter, identifying tree attrition rates, tree damage (wind and/or browsing), tube damage (tops folded by wind and/or come away from stake/tie), snapped stakes, damaged fencing, dense bracken, etc. Specifications prepared and work delivered winter 2014/15, focusing in 4 compartments. Several thousand stakes replaced - using a higher spec (32*32*1350mm)
- 2016 Various remedial works after Storm Desmond. In particular; landslip in Glenderamackin and Glenderaterra North damaging fences, uprooting numerous trees and scattering many hundred tubes.
- 2017/18 Work Parties to straighten tubes after strong winds, gather up damaged tubes & complete fence repairs.
- 2019 HLS Site check/Aftercare visit by NE staff - identified further maintenance requirements detailed and tendered for contractors to complete the works.
- 2020 In December Contractors restocked the failing compartments with trees and new tubes and stakes. Removed all damaged tubes and made good tubes where possible. Checked and repaired all the fences and water gates replacing lost posts and rails where needed.

Current Compartment Condition

Cpt 1 - Roughten Gill:

Re-planting following the Natural England inspection and the early beat-up planting has created a rather dense planting in the lowest part of the compartment, with few trees at the top end, the last restock concentrated on planting new trees further up the compartment, which has been successful with around 80% success, although alive the growth rates are slow on the 2020 restocks, with birch only just emerging from the tubes and the Hawthorn at only 90cm to 1m in most cases . Wind damage has continued to be a problem here, and 5-10% of tubes require some “righting” & repairs. The most concern comes from the left side of the gill looking up, this mid section along with the top area of the gill has the majority of the losses and only a handful of slow growing successful trees. This area suffers from High wind exposure, lack of soil to stabilize guards, lack of nutrients and soil for the trees and prone to drought through the summer. Stock trespass has appeared to have stopped resulting in great growth rates on the more established trees and a noticeable vegetation change . Damage to water gates from high water flows and vandalism has not occurred as with previous reports, which is a positive outcome for the project. The fences while currently stock proof have a very short lifespan left. Signs of extreme post rot and some snapped posts, including strainers have started to occur. This compartment will need work to comply with Natural England expectations.



Compartment 1. Roughten Gill righthand side. You can see the left hand side is already droughted out, and nearly all trees have failed on that side.



Failing Strainers and posts are similar on all fencelines.

Cpt 2 - Glenderaterra North (Girl Guide Wood):

This section is currently fully stock proof, as a result the trees particularly birch, rowan & hawthorn have had brilliant growth rates. The attrition rate is low here, with only a handful of the 2020 restock trees failing, accounting for some empty tubes on site. This compartment is meeting the goals of the scheme, and the 2020 replacements are showing good signs of being established to the point they are safe from sheep in the next 2 to 3 years.



Glenderterra Compartment 2.



Glenderterra Compartment 2.

Cpt 3 - Glenderaterra South:

This compartment has great growth rates on the established trees, and was clear of livestock the day of inspection, although has had some short term stock ingress by sheep at certain points within the year, these had been quickly removed, and no damage to the trees or vegetation were noticeable. The fence has started to fail, with the posts rotting and the staples falling out of the posts as they dry out. No gaps visible or sections requiring immediate attention. The site probably requires around 150 trees (10%-15%) to hit its original target, and the site has a large bracken bed in the center that has very few trees within it. The bracken is so dense here that it has likely caused previous losses, resulting in the scrub being around the boundary of the compartment, but doing very well. Natural regeneration of gorse has swamped some sections of trees, with the trees only visible as they emerge from its canopy, this is currently adding diversity to the site and protecting the trees, but may cause issues going forward, increasing fire risk and access issues. This site is on the border line of passing a Natural England inspection, They may be happy with it if they deem the gorse regeneration as a positive scrubland outcome.



Glenderaterra Compartment 3.

Cpt 4 - Glenderamackin:

This is the largest compartment and perhaps the most visited by the recreational users of the Common. The trees that survived the original planting are again doing very well here, with the birch and rowan to 15ft and hawthorn well above the tubes, although there are large sections of failures and poor growth rates. There are a no gaps under the fence where sheep could enter the enclosure, and the water gates are still performing well, the top upstream

water gate has some gaps in the debris under it, but is highly unattractive to livestock, and unlikely to be of any risk to the project. The down stream water gate is intact, but erosion has made some gaps a sheep may be able to squeeze under during low flows. Some additional rails or moving around of the rocks for the summer period may be required. The fence is stock proof, but again the posts and strainers are starting to fail.

High winds have also occurred here, knocking over or de-stabilizing trees and tubes, along with deep bracken beds . Approx. 10% of tubes require re-staking or removing. The success of the largest trees are located close together creating a strong section of almost woodland density, the trees out of this section have grown slower or have been planted in the 2020 restock. The lack of size of these trees is likely to be to do with the competition with the bracken on the left side of the beck (looking downstream) and the poor rocky, drought prone terrain on the right side of the beck. The bracken bed and the rocky section make up almost 70% of the site, leaving the site sparsely populated, and not where the expectations of the project would have hoped at this stage. Some remediation would be required, but some foundations are there. **Cpt 7 Monitor for sheep ingress, remove sheep and repair gaps as needed.**



Glendermakin Compartment 4. Strong established trees in the foreground, but very few trees on the right hand side bracken bed. Even fewer trees on the left hand side of the stream where there is only a thin layer of soil on top of free draining aggregate.



Compartment 4 windfallen trees.



View of compartment 4 looking downstream.



Failed strainer and undermined watergate on compartment 4.

Cpt 5 - Souther Fell:

The birch and rowen in this compartment are doing particularly well, with trees of 10-15 ft. The wind damage to the tubes is less here, with very few tubes requiring re-staking or removing. Sheep ingress has been massively reduced since the 2020 repairs and the spread of trees across the site is highly visible from the A66. Although the site may require a handful more trees to match the exact number of the original planting plan. The success and rates of growth of the established ones, along with the dispersal across the site, would be a clear indicator of successful scrubland creation on this site.



Souther Fell Compartment 5.

Cpt 6 - Young Wood

Good regeneration is evident and compartment continues to be free from livestock trespass. The fence remains upright and stock proof, it is likely to need replacement posts and further works in the coming years.



Compartment 6 Young wood.

Cpt 7 - Swinesdale Juniper

Juniper regeneration is evident in many areas within the enclosure. Billberry & heather shoots show no signs of browsing. The fence is in a generally stockproof condition all around, but again posts will need to be replaced in the coming years.



Noticable vegetation change either side of the fence



Swineside Compartment 7.

Recommendations:

Cpt 1 Remove fallen tubes from site to tidy them up and keep the site looking good. The guards are as likely to kill the trees in some of these sections as the wind is folding them over preventing growth. To complete the scrub numbers and dispersal required the use of larger 60-90cm trees to be planted unguarded would be recommended, Rowan, Hawthorn, willow and Alder would be suitable for this, and may allow slow regeneration of the poorer soil and exposed areas of the compartment. This is a lower cost solution with ideally 1500 trees to be planted to ensure we have enough survivors to populate the compartment. The fence is currently standing, so monitor for sheep ingress and repair the gaps as needed.

Cpt 2 Monitor for sheep ingress, remove sheep and repair gaps as needed.

Cpt 3 The only section requiring trees is in the bracken bed on the steep section, establishing trees in here has proven difficult. The recommendation would be to use 100 of 90-150cm trees planted without guards to out compete the bracken. A mix of hawthorn and alder would be recommended as they are naturally more resilient to the deer grazing. The gate at the far end of the track needs a chain, and the fence could do with some staples put in to keep the wire attached. Then monitor for sheep ingress and fix gaps as needed.

Cpt 4 Remove fallen tubes from site to tidy them up and keep the site looking good. To complete the scrub numbers and dispersal required the use of larger 60-90cm trees to be planted unguarded would be recommended, Rowan, Hawthorn, willow and Alder would be suitable for this, and may allow slow regeneration of the poorer soil and exposed areas of the compartment. This is a lower cost solution with ideally 1000 trees to be planted on the right side of the beck. In the Large bracken bed the use of larger 90-150cm trees without guards would be recommended. Mainly using Hawthorn to resist against deer. Planted in dense clumps of 50 to create self protecting pockets of scrub. The fence is currently standing, so monitor for sheep ingress and repair the gaps as needed.

Cpt 5 Monitor for sheep ingress, remove sheep and repair gaps as needed.

Cpt 6 Monitor for sheep ingress, remove sheep and repair gaps as needed.

Cpt 7 Monitor for sheep ingress, remove sheep and repair gaps as needed.

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