

Glassavullaun Commonage

2021 Ecological Survey



Final Report

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Glassavullaun Commonage

2021 Ecological Survey

1. Introduction

A baseline habitat condition and ecological survey and habitat management plan was prepared for the Glassavullaun Commonage in 2019¹ and the measures within same underwent screening for Appropriate Assessment².

A Commonage Management group was established for the commonage and the implementation of the management prescriptions in the plan began in 2020.

The management prescriptions in the plan set out to address the impacts highlighted in the report and to ensure that progress is made towards attaining **Favourable status** for the Annex I habitats present on the site – principally **4010 Northern Atlantic Wet Heaths with *Erica tetralix*** and **4030 Dry Heath**. The areas of upland blanket bog are now so badly damaged from burning that they no longer correspond to the habitat **7130 Blanket Bog** and are best described as eroding blanket bog.

However, in the long term, **Favourable status** should be aimed for, as well as the protection for the legally protected plant species, Bog Orchid (*Hammarbya paludosa*).

The major impacts arise from a legacy of decades of uncontrolled burning, inappropriate grazing (from both sheep and also from deer) which has not allowed burnt areas to recover and has also favoured the development of acid grassland over heath, lack of control of bracken, and to a lesser extent recreational access on the ridge from quad, scrambler, ATV bikes and mountain bikes, resulting in localised peat erosion along the track, coupled with natural exposure and erosion following burning activities.

The management prescriptions in the SUAS plan for the commonage also need to ensure that **Favourable status** is achieved for the Annex I bird species, which form the Special Conservation Interests for this SPA:

- Peregrine falcon (*Falco peregrinus*),
- Merlin (*Falco columbarius*).

The extent of habitats present within the commonage and their affinities to either Fossitt (Level 3) or Annex I habitats on the Glassavullaun Commonage were mapped as presented on **Figures 1 and 2 (See Appendix 1)** and their conservation status was assessed and mapped as shown on **Figure 3 (See Appendix 1)**. A series of management prescriptions were drawn up for the commonage as detailed in **Table 1** below and mapped on **Figure 4 (See Appendix 1)**.

¹ Wilson, F. (2019). Ecological Baseline Survey prepared for Glassavullaun Commonage as part of the Commonage Management Plan for SUAS. 5th December 2019. Unpublished report for SUAS EIP.

² Wilson, F. (2019). Report for Screening for Appropriate Assessment for a Commonage Management Plan at Glassavullaun, Co. Wicklow in accordance with the requirements of Article 6(3) of the EU Habitats Directive. 15th November 2019. Unpublished report for SUAS EIP.

2. SUAS Vegetation Management Measures

The proposed management measures for the Glassavullaun commonage in 2019 under SUAS were as follows:

Year 1 (2020)

1. Carry out repairs to the track in areas 27 & 28 to allow improved access by quad for management purposes.
2. Spray bracken alongside the track in area 27 to allow sheep to be moved more easily along the track, as it is currently closed in in a lot of places. Spray 2-3m wide each side of the track.
3. Spray bracken (approx. 3ha in total) with Asulox to control Bracken. Start in areas 33 & 39 where bracken is encroaching on dry heath areas. Use a bracken bruiser on slopes where it is possible to travel with a quad. Spray area of bracken in area 27, enclosed by walls and owned by Glen Jones, to see how practical & successful it is.
4. Cut back encroaching scrub in plots 1, 2 & 3.
5. Reduce sheep grazing pressure in areas that were burned in recent years, especially in the late summer/early autumn period. Use feed buckets and active shepherding to encourage more grazing in areas of taller heather and bracken areas.
6. Plant some areas of native trees along Slade Brook to help prevent erosion and provide some protection from flooding. Fence off a few areas and allow to self-seed, may need bracken control there.
7. Fence off at least 2 enclosure areas in areas 20 & 29 to see if we get natural regeneration of trees.

Year 2 (2021)

1. Carry out further bracken control in areas 16, 20, 39, using asulox herbicide and by bruising.
2. Cut back encroaching scrub in plots 1, 2 & 3
3. Reduce sheep grazing pressure in areas that were burned in recent years, especially in the late summer/early autumn period. Use feed buckets to encourage more grazing in areas of taller heather and bracken areas.
4. Carry out controlled burning in N/W of area 33 to control tall heather.

Year 3 (2022)

To be reviewed at the end of year 2

Shepherding

Average time per shepherding: 6 Hours

No of times sheep are to be shepherded: 2-3 Times per week from 1st May to 30th November.

Identified objective of the shepherding;

- Move off sheep from neighbouring commonages.
- Sheep to be moved off area recently burned areas and along ridges regularly to reduce grazing pressure there and allow vegetation to recover. Move sheep into the taller vegetation regularly to get them to graze these areas.
- Monitor sheep health for signs of tick diseases.
- Count numbers of deer grazing the commonage and areas they are grazing.

Other works to be carried out for entire commonage

Use feed buckets to encourage more sheep grazing the commonage in the Jan/Feb and the April/May period.

Use the feed buckets to move grazing pressure to overgrown areas in Jan/Feb time.

Set up a number of enclosures for deer & sheep in the bare peat areas to see if natural regeneration will take place.

Details of sheep stocking rates proposed

Sheep numbers grazing the commonage shall be accurately monitored in year 1, in conjunction with shepherding and use of feed buckets to control location of grazing. Based on a review of these numbers, sheep grazing numbers may be amended for the following year based on the condition of the commonage and rate of recovery of damaged areas.

Ecological Assessment

The commonage was resurveyed in September 2021 by Faith Wilson to examine and review the implementation of the proposed measures and make any recommendations regarding same. The observations and recommendations from this visit are set out below.

3. 2021 Walkover Survey

The following observations, comments on same and recommendations on the works completed in 2021 are presented.

3.1 Bracken Control

Additional bracken control was implemented in 2021 in Area 27 adjoining the track. This was done by spraying using a quad sprayer with a hand lance on various dates between 15th Aug and 15th September 2021. No bracken bruising carried out in 2021.



Plate 1. Bracken regrowth following bracken bruising in 2020 in Area 27.

The bracken control measures implemented in 2020 were probably implemented a little late but the bracken does appear to have been knocked back quite successfully in Area 27 with the regrowth of bracken showing half the vigour of areas which were not rolled with the bracken bruiser.

The bracken is much reduced in the larger area that was treated in 2020 – it's only about 90cm high whereas on the other side of the small area of purple moor grass and heather the bracken in some places is almost 1.8m high. So, although we still have bracken it is a lot smaller and a lot reduced. Thus, the work seems to have been successful.

Coming up underneath the bracken that was bruised last year we can still see a lot of dead bracken stems and material from the bruising but underneath that there is some bilberry regeneration plus tormentil and heath bedstraw. There is also glaucous sedge and some grasses. In some parts there is quite deep leaf litter because the bracken was so dense before, so that will take a while to regenerate yet but it is successful in comparison to it being unbruised.



Plate 2. Bracken control in Area 27.



Plate 3. Bracken control in the eastern part of Area 27.



Plate 4. Access track downslope into the eastern part of Area 27.



Plate 5. Dense litter below bracken in the eastern part of Area 27.



Plate 6. Regeneration of bilberry under treated bracken.

3.2 Upland Gully Woodland Restoration

The establishment of gully woodland along watercourses in the commonage began in 2021 with tree planting. The planting has been executed very well along the river and the terrain along the watercourses will provide some shelter for trees from exposure and wind and the tree shelters and stakes should provide protection from browsing pressure and deer.

There are some further areas of existing scattered trees that we could fence off and enclose and allow the woodland to spread into or even do a little bit of establishment within it.

As was recommended in 2020 at the edge of area 27 there are some rocky areas in the bracken dominated areas above the wet heath slopes with isolated trees which would be suitable to fence and allow tree cover here to expand.

The ongoing planting of trees to link up areas of mature stands of gully woodland, and to expand and connect these to remnant areas with additional planting and tree establishment measures should continue.



Plate 7. Looking down over areas of untreated bracken to the new planting along the Slade Brook linking up mature gully woodland habitat.

Ground around scattered trees and shrubs on the rocky slopes in Area 20 and 29 will be fenced in 2021 to see if natural regeneration from this seed source can become established in the absence of grazing pressure.



Plate 8. Fencing around trees such as these above the gully will allow us to see if natural regeneration from this seed source can become established in the absence of grazing pressure.



Plate 9. A lone mountain ash surrounded by dry heath and rocks. This would be a great place to put an exclosure. There are a whole load of lovely berries ready to fall and spread so we could see some of these measures on the less profitable bits of the hill.

3.3 Access Track

Upgrading of the old existing access track onto and across the hill was an agreed measure as part of SUAS and this work was carried out in 2020 using an 8 tonne digger. This main track has had occasional minor repairs - a small number of drains have been put in to direct water off it. This area is slowly recovering.

An additional track was created running east from this – possibly to provide access for the quad and bracken bruiser to the eastern portion of Area 27. There was removal of stones and other material here with a machine, significant rutting of ground by a machine and general disturbance of vegetation including areas of wet heath all of which provide a pathway for water to erode the underlying peat. This was further exacerbated by the route chosen, which is directly downslope as opposed to contouring across the hill in a gentle zig zag, travelling on drier ground and avoiding Annex I habitats. **These works still require remediation and considered design repairs.** This new track is visible from the public roads coming down from the Featherbeds into the Bohernabreena Valley.

When examined in 2021 the eroded track has been eroding more. There are some very bare areas, and there is a lot of congregation of animals using it. There are a lot of sheep droppings. So, this is what happens when you start something, you create another problem. Probably the fact that the quad is then continuing to use it to access doesn't give it much of a chance to recover either.

I think we need to put in water bars or something like that to try and direct the water off it. There was a lot of movement of rocks and stones off this ground which wasn't part of the plan.

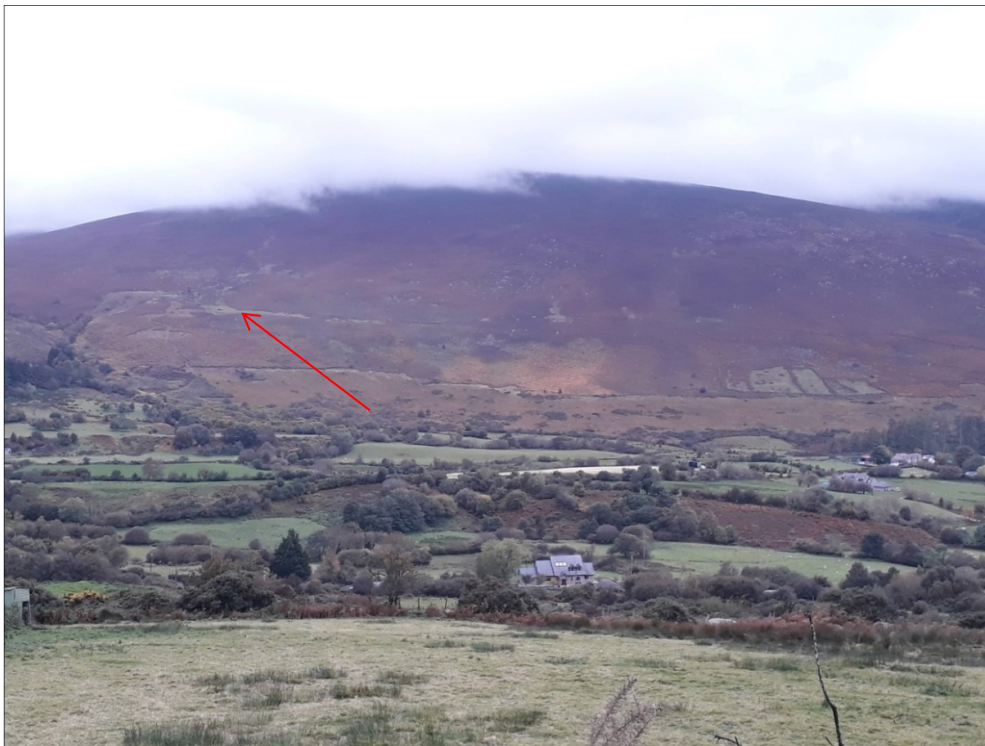


Plate 10. The new track created running directly downslope in Area 27 and the cleared areas of bracken can be seen – repair works are needed here.



Plate 11. Trampling, bare ground and erosion along the new section of track.



Plate 12. Erosion of peat.

3.4 Quad Usage

There has been some localised damage to habitats on the hill from quad access and some areas are at risk of erosion.



Plate 13. Quad access - beginning to pose a threat of erosion.



Plate 14. There should be no quad access across the areas of wet heath and flush at the bottom of the hill.

3.5 Gorse

Gorse removal around existing trees has taken place in Area 1. This allows the trees to be frayed and damaged by deer – the gorse is protecting these trees and should be retained.



Plate 15. Gorse around existing trees should not be removed as it is protecting them from grazing animals.



Plate 16. There was widespread die back of autumn gorse in much of the uplands in 2021 as a result of the late frosts and drought.

3.6 Cattle

The introduction of cattle to the hill is very welcome and initial observations of their impact in terms of opening up dense bracken through trampling is positive. They were favouring the area of wet heath and flush on the hill which reflects the nutritional value of the minerals found in the vegetation there and access to water.



Plate 17. Cattle were encouraged into this area and have opened up what was dense bracken.

3.7 Faunal Observations

A kestrel was seen hunting along the contour line of the access track. Snipe were flushed from the wet ground on the lower slopes in Area 3.

3.8 Deer control

Deer populations on the commonage need to be addressed and culled in a collaborative programme with NPWS, Irish Water, private forest owners, Coillte and adjoining commonage shareholders.

3.9 Management for 2022

A review of the works which were proposed for 2020 and 2021 in the plan, coupled with the outcomes from the 2021 walkover was conducted. Items highlighted in red have not been completed. This has informed the proposed works for 2022.

2020

- | |
|--|
| <ol style="list-style-type: none">1. Carry out repairs to the track in Areas 27 & 28 to allow improved access by quad for management purposes.2. Spray bracken alongside the track in Area 27 to allow sheep to be moved more easily along the track, as it is currently closed in in a lot of places. Spray 2-3m wide each side of |
|--|

the track.

3. Spray bracken (approx. 3ha in total) with Asulox to control Bracken. Start in Areas 33 & 39 where bracken is encroaching on dry heath areas. Use a bracken bruiser on slopes where it is possible to travel with a quad. Spray area of bracken in Area 27, enclosed by walls and owned by Glen Jones, to see how practical & successful it is.
4. Cut back encroaching scrub in plots 1, 2 & 3 by hand as it is too wet for machinery
5. Reduce sheep grazing pressure in areas that were burned in recent years, especially in the late summer/early autumn period. Use feed buckets and active shepherding to encourage more grazing in areas of taller heather and bracken areas.
6. Plant some areas of native trees along Slade Brook to help prevent erosion and provide some protection from flooding. Planting will use appropriate species of local provenance and be based on recommendations from a suitably qualified consultant with appropriate experience. Fence off a few areas along these gullies and allow to self-seed, (may need bracken control there).
7. Fence off at least 2 enclosure areas in areas 20 & 29 to see if we get natural regeneration of trees.

Works in red were not carried out

2021

1. Carry out further bracken control along the margins of 33 & 39 where the bracken is encroaching into the Annex I habitat using asulox herbicide and by bracken bruising with a quad if safe to do so. Spraying to be concentrated where bracken is encroaching into dry heath areas. Plan for 3ha to be sprayed if asulox is available for use in 2021. Additional bracken control to continue in Areas 20, 27, 28 and 29
2. Cut back encroaching scrub in plots 1, 2 & 3 once a licence and approval from NPWS has been granted. The license may require that these works are supervised by an ecologist to ensure the protection of the Bog Orchid. Annual monitoring of this population will be conducted under the SUAS project.
3. Reduce sheep grazing pressure in areas that were burned in recent years, especially in the late summer/early autumn period. Use feed buckets to encourage more grazing in areas of taller heather and bracken areas.
4. Plant at least 150 native trees along the river gullies & in the upland grassland areas around existing/extant trees.
5. Fence off at least 2 enclosure sites to see if natural regeneration of trees occurs, with bracken sprayed in at least one of these enclosures.
6. Further work on the track to ensure no erosion occurs
7. Set up enclosures in bare peat areas to see if areas revegetate

Other works to be carried out for entire commonage

Use feed buckets to encourage more sheep grazing the commonage in the Jan/Feb and April/May period. Discourage grazing in Area 3 as this could impact on the legally protected plant.

4. Appendix 1. Maps & Management Recommendations

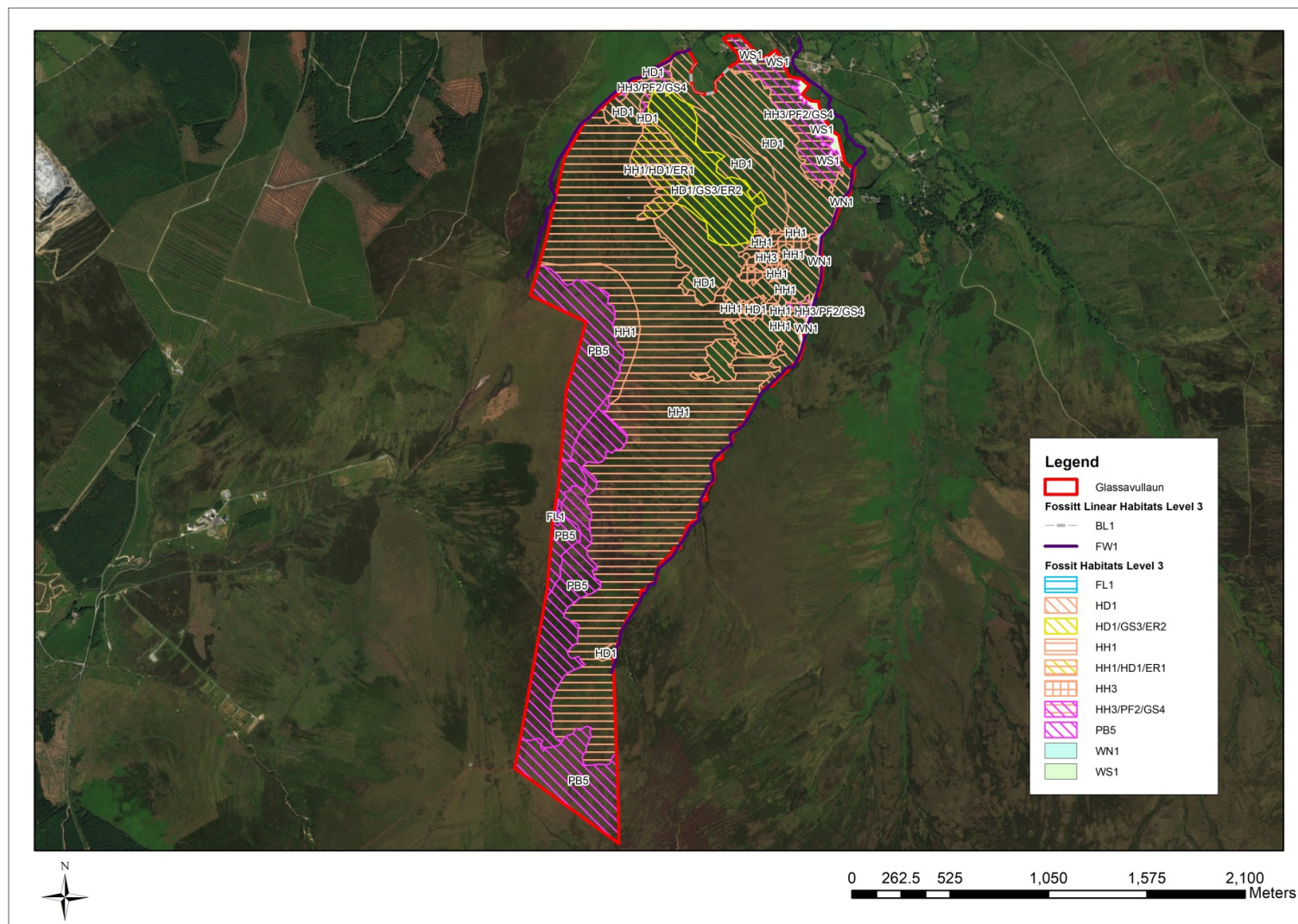
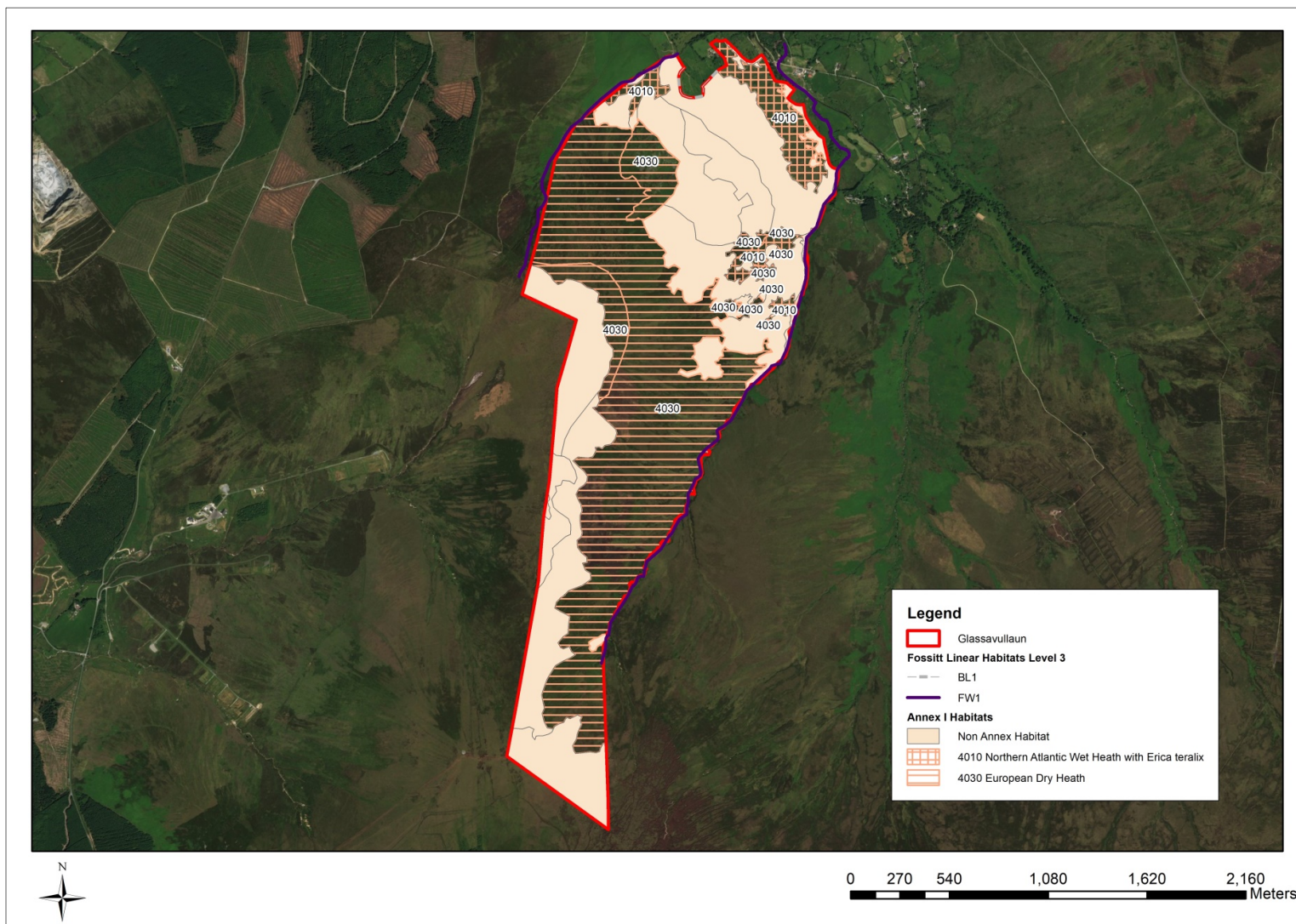


Figure 1. Habitats mapped to Level Three (Fossitt, 2000) within the Glassavullaun commonage.



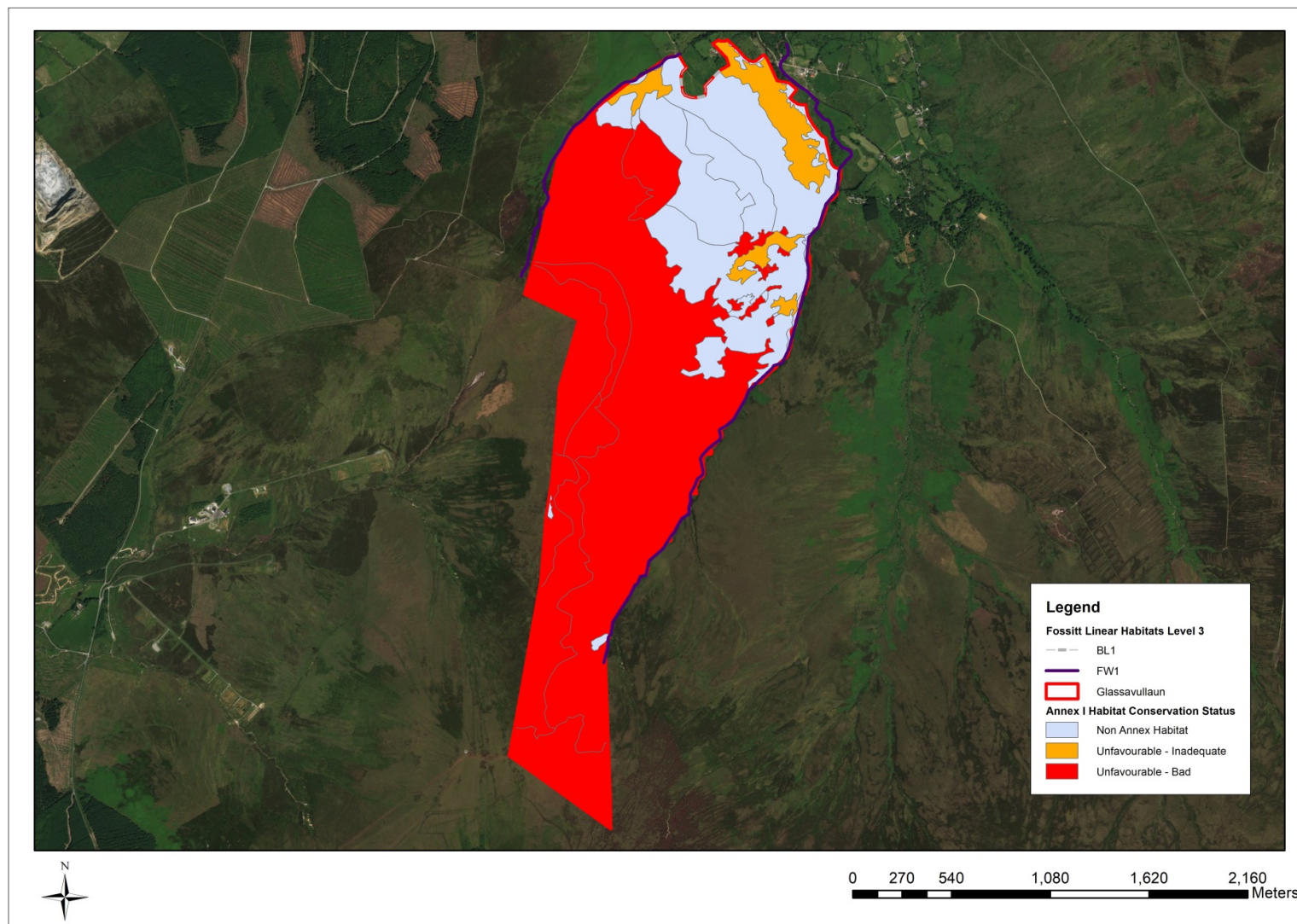


Figure 3. Habitat Condition Assessment for Glassavullaun Commonage.

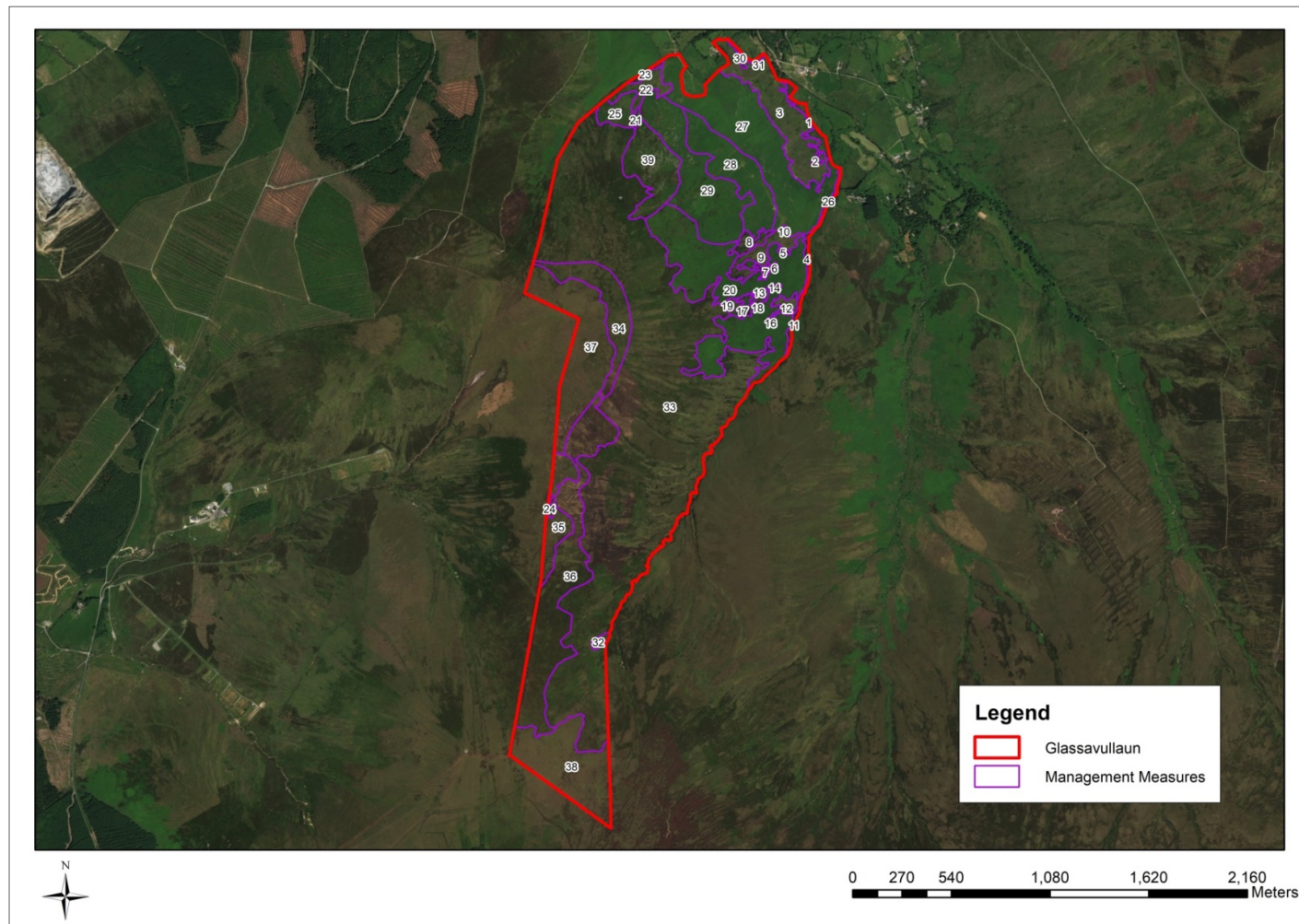


Figure 4. Management measures for Glassavullaun.

Table 1. Habitats present on Glassavullaun Commonage and Management Recommendations.

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
1		WS1	Scrub	18928		Cut and remove encroaching gorse in areas of wet heath/flush
2		WS1	Scrub	2493		Cut and remove encroaching gorse in areas of wet heath/flush
3	4010	HH3/PF2/GS4	Wet Heath/Wet Flush	133468	Unfavourable - Inadequate	No further burning. Cut and remove encroaching gorse in areas of wet heath/flush
4		WN1	Gully Woodland	6592		Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
5	4030	HH1	Dry Heath	1860	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
6	4030	HH1	Dry Heath	1547	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
7	4030	HH1	Dry Heath	3855	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
8	4030	HH1	Dry Heath	14660	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
9	4010	HH3	Wet Heath	34043	Unfavourable - Inadequate	No further burning. Control bracken which is beginning to invade the habitat.

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
10	4030	HH1	Dry Heath	1435	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
11		WN1	Gully Woodland	6735		Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
12	4010	HH3/PF2/GS4	Wet Heath/Wet Flush	9827	Unfavourable - Inadequate	No further burning. Control bracken which is beginning to invade the habitat.
13		HD1	Dense Bracken	1429		Control bracken
14	4030	HH1	Dry Heath	1514	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
15		HD1	Dense Bracken	421		Control bracken
16	4030	HH1	Dry Heath	1763	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
17		HD1	Dense Bracken	7126		Control bracken
18	4030	HH1	Dry Heath	5503	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
19	4030	HH1	Dry Heath	3310	Unfavourable - Bad	No further burning. Control bracken which is beginning to invade the habitat.
20		HD1	Dense Bracken	345190		Control bracken
21		HD1	Dense Bracken	3716		Control bracken

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
22	4010	HH3/PF2/GS4	Wet Heath/Wet Flush	29212	Unfavourable - Inadequate	No further burning. Control bracken which is beginning to invade the habitat. Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
23		HD1	Dense Bracken	4648		Control bracken Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
24		FL1	Bog Pools	2742		No further burning. Exclude grazers from the ridge
25		HD1	Dense Bracken	28162		Control bracken Control bracken which is beginning to invade the habitat. Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
26		WN1	Gully Woodland	4901		Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
27		HD1	Dense Bracken	274421		Control bracken Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken
28		HD1	Dense Bracken	124690		Control bracken
29		HD1/GS3/ER2	Dense Bracken/ Acid Grassland/Exposed Rocks	190236		Control bracken
30		WS1	Scrub	5811		Cut and remove encroaching gorse in areas of wet heath/flush

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
31		WS1	Scrub	565		Cut and remove encroaching gorse in areas of wet heath/flush
32		HD1	Dense Bracken	4891		Control bracken
33	4030	HH1	Dry Heath	1545056	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades including in April 2019. This has resulted in the degradation of the peatland vegetation here and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Control bracken which is beginning to invade the dry heath on the lower slopes</p> <p>Extend woodland area along this watercourse through new planting, protection from browsing, development of exclosures within areas of bracken</p>
34	4030	HH1	Dry Heath	95296	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades including in April 2019. This has resulted in the degradation of the peatland vegetation here and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Control bracken which is beginning to invade the dry heath</p>

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
35		PB5	Eroding Blanket Bog	58408	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades. This has resulted in the degradation of blanket bog vegetation on the ridge and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the blanket bog vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Bad erosion in the vicinity of the track. Track repairs required. The bog surface has been damaged here by a quad/ATV/Scrambler. No further quad/scrambler access to the entire commonage should be allowed – on other commonages this has been controlled through locked gates.</p>

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
36		PB5	Eroding Blanket Bog	277229	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades. This has resulted in the degradation of blanket bog vegetation on the ridge and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the blanket bog vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Erection of deer exclosures to assess deer browsing pressures. Provide grouse flight diverters on fencing if erected to reduce collision risk.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Bad erosion in the vicinity of the track. Track repairs required. The bog surface has been damaged here by a quad/ATV/scrambler. No further quad/scrambler access to the entire commonage should be allowed – on other commonages this has been controlled through locked gates.</p>

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
37		PB5	Eroding Blanket Bog	202667	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades. This has resulted in the degradation of blanket bog vegetation on the ridge and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the blanket bog vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Erection of deer exclosures to assess deer browsing pressures. Provide grouse flight diverters on fencing if erected to reduce collision risk.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Bad erosion in the vicinity of the track. Track repairs required. The bog surface has been damaged here by a quad/ATV/scrambler. No further quad/scrambler access to the entire commonage should be allowed – on other commonages this has been controlled through locked gates.</p>

Id	Annex 1 Code	Fossitt Code	Habitat	Area (m²)	Conservation Status	Management Prescription
38		PB5	Eroding Blanket Bog	172218	Unfavourable - Bad	<p>No further burning.</p> <p>This area was extremely badly burnt over numerous years in the last two decades. This has resulted in the degradation of blanket bog vegetation on the ridge and drying out of the peat which is cracking in several locations and is at risk of erosion and landslide.</p> <p>Restoration of the blanket bog vegetation is required.</p> <p>Destocking and exclusion of grazing is recommended.</p> <p>Regular shepherding to hunt out trespassing sheep.</p> <p>Bad erosion in the vicinity of the track. Track repairs required. The bog surface has been damaged here by a quad/ATV/scrambler. No further quad/scrambler access to the entire commonage should be allowed – on other commonages this has been controlled through locked gates.</p>
39	4030	HH1/HD1/ER1	Dry Heath/Dense Bracken/Exposed Rocks	100557	Unfavourable - Bad	Control bracken which is beginning to invade the dry heath