

**Glasnamullen Commonage**

**2020 Ecological Survey**



**Final Report**

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## Glasnamullen Commonage

### 2020 Ecological Survey

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## Glasnamullen Commonage

### 2020 Ecological Survey

#### 1. Introduction

A baseline habitat condition and ecological survey and habitat management plan was prepared for the Glasnamullen Commonage in 2018<sup>1</sup> and the measures within same underwent screening for Appropriate Assessment<sup>2</sup>.

A Commonage Management group was established for the commonage and the implementation of the management prescriptions in the plan began in 2019.

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 **4030 Dry Heath** and **4060 Alpine and Boreal Heath**.

The major negative impacts on these habitats arise from under grazing, lack of active shepherding, lack of vegetation management, and recreational access resulting in localised peat erosion. Self seeding of Sitka spruce and rhododendron in the southern part of the commonage and the encroachment of bracken into grassland areas are also being addressed.

The extent of habitats present within the commonage and their affinities to either Fossitt (Level 3) or Annex I habitats on the Glasnamullen 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)**.

#### 2. SUAS Vegetation Management Measures

The proposed management measures for the Glasnamullen commonage set out in 2019 under SUAS were as follows:

##### Year 1 (2019)

1. Cut/burn a number of small sections in areas 1 & 2. Cut up to a maximum of 18ha, in sections of approx. 2-3ha in size. These areas should be dispersed around areas 1 & 2 to encourage sheep to spread out more over these areas. Fire control lines, at least 3m wide shall be cut around each section, either by tractor mounted machine or by hand, to ensure these controlled burning areas are contained. This controlled burning will help build up experience among the farmers and in future years they may be able to work with much smaller control lines. Controlled burning may be carried out either in the spring or the autumn (or both) so long as it is within the legal burning season and has the approval of NPWS.
2. Cut/mulch a firebreak in area 2 west joining the forestry. Approx. 30m wide area to be cut (400m long X 30m wide = 1.2ha).
3. Cut/burn gorse in plot 2 west.
4. Spray Bracken in area 11. A number of small areas, totalling up to 2ha, to be trialled in 2019.

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<sup>1</sup> Wilson, F. (2019). Ecological Baseline Survey prepared for Glasnamullen Commonage as part of the Commonage Management Plan for SUAS. 27th January 2019. Unpublished report for SUAS EIP.

<sup>2</sup> Wilson, F. (2019). Report for Screening for Appropriate Assessment for a Commonage Management Plan at Glasnamullen, Roundwood, Co. Wicklow in accordance with the requirements of Article 6(3) of the EU Habitats Directive. 11th February 2019. Unpublished report for SUAS EIP.

**Year 2 (2020)**

1. Cut or burn a further number of sections in areas 1 & 2 (up to a max of 20ha). Follow the guidelines for year 1 in relation to the size and distribution of controlled burning/cutting areas.
2. Control gorse in area 2 by either cutting or burning
3. Spray a section in area 11, up to 10ha for bracken during 2020.
4. Control the rhododendron and cut out the self-seeded Sitka spruce plants in area 1.

**Year 3 (2021)**

1. Cut or burn a further number of sections in areas 1 & 2 (up to a max of 20ha). Follow the guidelines for year 1 in relation to the size and distribution of controlled burning/cutting areas.
2. Spray a section in area 11, up to 10ha for bracken during 2021.

**Year 4 (2022)**

1. Cut or burn a further number of sections in areas 1 & 2 (up to a max of 20ha). Follow the guidelines for year 1 in relation to the size and distribution of controlled burning/cutting areas.
2. Spray a section in area 11, up to 10ha for bracken during 2022.

**Shepherding**

**Average time per shepherding:** 6 Hours

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

**Identified objective of the shepherding;**

- Sheep are to be kept from straying off the commonage onto surrounding areas.
- Move off sheep from other commonages.
- 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**

Repair the sheep gathering pen in area 2 in year 1. New wire fence to replace the old one, some new gates, a race and a sorting gate shall be required.

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.**

**Ecological Assessment**

The commonage was surveyed in October 2020 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. 2020 Walkover Survey

The following observations, comments on same and recommendations on the works completed in 2020 are presented.

#### 3.1 Bracken Control

Bracken control was first implemented in 2019 in Area 11. This was done on 22<sup>nd</sup> August 2019 by spraying from a tractor. A rate of 11 litres of Asulox per ha was applied and an area of 2 ha was treated. In 2020 an additional 2ha bracken control (approx.) was carried out on the 27<sup>th</sup> August 2020 using a tractor sprayer and a hand lance.



**Plate 1. Bracken control in Area 11.**

The bracken appears to have been knocked back here somewhat and there is recovery of some of the bilberry below but this is under pressure from browsing.



**Plate 2. Bracken control in Area 11 – looking north of the Glasnamullen Stream.**

### **3.2 Flaied Areas/Firebreaks for Controlled Burning**

Fire breaks were first cut around proposed burning areas on the 14<sup>th</sup> and 16<sup>th</sup> February 2019. A flail mulcher on the back of a tractor was used, and two widths of the machine were cut. On the inside of the cut area, it was cut a second time in the opposite direction to the first cut to see what difference that made to the creation of fire breaks and also to the recovery rates. These firebreaks can be seen in the Bing Maps imagery of the commonage from early 2020 as presented on **Figure 1** below.

The areas prepared for control burning in 2019 were located up towards the top of the commonage to encourage the sheep up away from the hill ditch (on the advice of the farmers who are aware of how their sheep use the hill). The cut areas prepared in 2019 generally avoided those areas which were previously burnt, which is very welcome, and were constrained as to where the machine could safely travel and work. It was recommended following the site survey in 2019 that in general the areas prepared for burning may possibly be too large and subsequent areas should be prepared towards the Ballinastoe end of the commonage which is where we ultimately want sheep to move to.

These areas (approx. 2.24ha) were subsequently cut on 27<sup>th</sup> February 2020 and were much smaller in size as advised. Within these flailed areas there was already some good regeneration of ling heather and bilberry. Other areas which were cut as firebreaks in 2019 in preparation for burning in 2020 were also examined. There is a variation in results here – some areas show marginal recovery and regrowth, others show good regrowth of both ling and bilberry, whereas some areas have begun to recover but browsing pressure is knocking back the regrowth of the heath habitat and hence these areas are becoming dominated by acid grassland.

**Table 1. Detail of cutting & controlled burning carried out and proposed**

<b>Year</b>	<b>Cutting</b>	<b>Controlled Burning</b>
2019		1.20
2020	2.25	2.52
2021	5.0 - 6.0	1.2

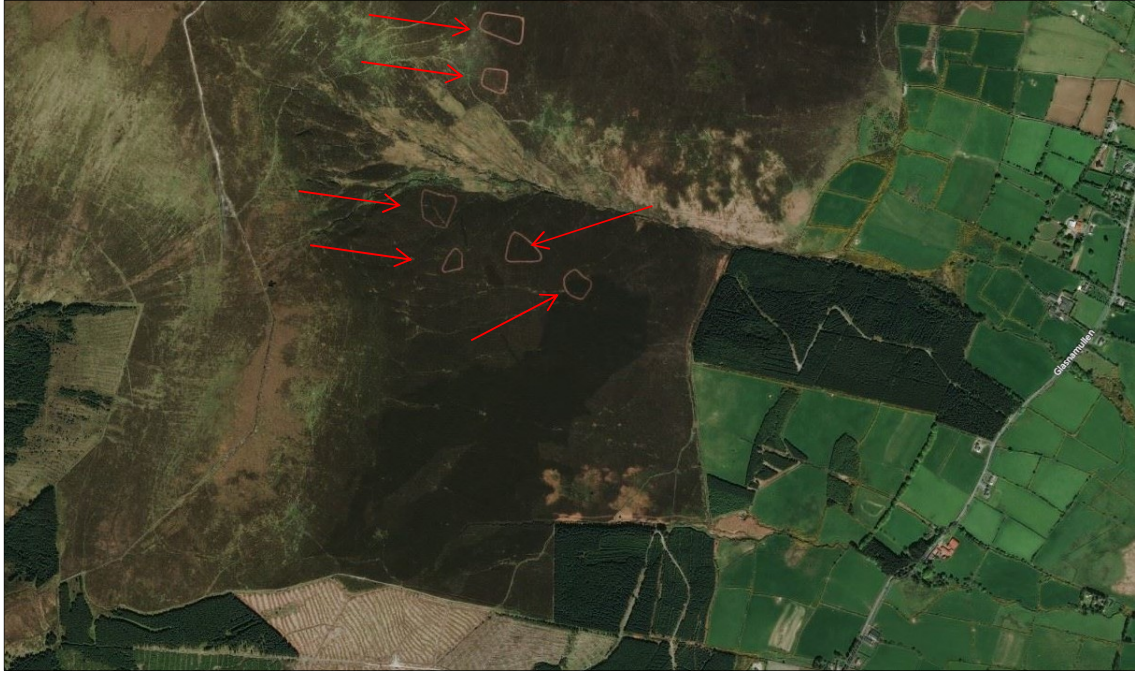


Figure 1. Firebreaks cut on Glasnamullen Commonage in 2019 (Bing Maps).



Plate 3. Areas cut in 2020 were smaller in size and extended south towards Ballinastoe.



Plate 4. Regeneration of ling heather and bilberry in areas flailed in 2020.



Plate 5. Regeneration of the moss layer in areas flailed in 2019 has recovered well in 2020.



**Plate 6. Browsing pressure is impacting the regrowth of dry heath in some flailed areas and coupled with dunging is causing acid grassland to dominate.**



**Plate 7. Very little regeneration of ling heather has occurred in some areas flailed in 2019.**

### 3.3 Burnt Areas

It was initially unclear to the ecologist in 2019 as to why the areas where the controlled burning had taken place in 2019 had been chosen as the heather was not that tall and sheep could move through and graze the area. This was a combination of where the machine could travel and this was also to reduce risk of a fire getting out of control with a large fuel loading.

The burning that was completed within the areas which were burnt in 2019 was favourable in that not every patch of vegetation within the prepared area had been burnt and some areas of tall standing heather were left. This resulted in a nice mosaic of differing vegetation heights and material was left to provide seed source for regeneration and ensure stability of the soil. It is understood that it actually proved quite difficult to get the fire established but there are lessons to be learned here in terms of a favourable outcome from burning... These areas are very slowly recovering following the 2019 burn.



Plate 8. Looking south across the Glasnamullen Stream in 2019 – area prepared for burning on the slope above the watercourse. The recommendation in 2019 was that the lower part of this large area should not be burnt due to risks for the watercourse.

The area prepared for burning on the southern slope above the Glasnamullen Stream in 2019 had been burnt in 2020 contrary to recommendations. There has obviously been a miscommunication in this regard as it was agreed that this area would not be burnt.

An area upslope of the Glasnamullen Stream on the northern side of the valley was burnt on 18th & 19th Sept 2020 (approx. 2.52ha). The burn here was quite intensive and would be deemed less favourable than that conducted in 2019 as the ground and bryophyte layer has been burnt.



**Plate 9. This area was burnt in 2020 contrary to recommendations.**



**Plate 10.** Area on the northern side of the Glasnamullen Stream burnt in 2020. The patch below this was burnt in 2019.



**Plate 11.** Vegetation burnt during 2020 – note intensity of burn into the ground layer.

### 3.4 Acid Grassland Habitats

The areas of acid grassland within the commonage are overgrazed (Areas 2, 9, 16 and 17) and in some areas are at risk of erosion. Grazing pressure in these areas needs to be managed through active shepherding and hunting out of sheep from these areas. These habitats are also under pressure from trampling associated with hill walkers but this is very localised compared to the grazing pressure (and more easily rectified).



**Plate 12. Overgrazed acid grassland at the base of the commonage in Area 2.**

There was some burning of gorse within the acid grassland in Areas 2 and 9. This is encouraging a proliferation of gorse seedlings which will simply regrow in the absence of competition from any other species allowing gorse to dominate here.

Sheep numbers on Glasnamullen are still too high even though some of them graze on surrounding hills.

Feed buckets on Glasnamullen were used in the period Dec-Feb to encourage sheep into the taller heather areas away from the overgrazed areas.



**Plate 13. Overgrazed acid grassland on the slopes above the Glasnamullen Stream in Area 17.**



**Plate 14. Burning of gorse on the lower slopes of Area 2.**



**Plate 15. Prolific regeneration of gorse on the lower slopes of Area 2.**

### **3.5 Sitka Spruce Removal**

Sitka spruce removal from within the commonage has not yet been tackled.



**Plate 16. Sitka spruce regeneration will be tackled in 2021.**

### **3.6 Rhododendron Control**

Rhododendron removal from within the commonage has not yet been tackled.

### **3.7 Track Repairs**

Ground on either side of the railway sleeper boardwalk on the ridge between White Hill and Djouce Mountain is showing signs of trampling pressure and will need upgrading. The section of Wicklow Way walking track in Area 17 that skirts below the summit of Djouce and extending into Powerscourt Paddock also needs repairs. The track within the Glasnamullen Stream valley in Area 16 and 11 is also eroding.



**Plate 17. Trampling pressure on either side of the boardwalk on the ridge between Djouce and White Hill.**



**Plate 18. Trampling pressure on either side of the boardwalk on the ridge between Djouce and White Hill.**



**Plate 19. Water movement is further eroding peat on either side of the boardwalk and needs to be ameliorated through localised blocking of the gullies which are beginning to form.**



**Plate 20. Erosion on the Wicklow Way Track in Area 17.**



**Plate 21. Track erosion in Area 11.**

### 3.8 Dystrophic Pools

Any works to the tracks on the ridge between White Hill and Djouce needs to be cognisant of potential impacts on the hydrology of the areas of dystrophic pools.



**Plate 22. Dystrophic pools, which have formed on areas of eroded peat on the ridge.**

### 3.9 Faunal Observations

Two pairs of red grouse were flushed during the walkover. Grouse were favouring the newly flailed areas on the hill. Snipe were recorded on the ridge.



**Plate 23. Red grouse droppings.**

Tall leggy heather such as that shown in **Plate 24** is suitable for nesting hen harrier so it is important that some areas of tall vegetation such as these are retained in the commonage in the long term.



**Plate 24. Tall heather provides suitable habitat for ground nesting birds such as hen harrier so it is important that some of this habitat remains within the commonage.**

### 3.10 Management for 2021

A review of the works which were proposed for 2020 in the plan, coupled with the outcomes from the 2020 walkover was conducted. This has informed the proposed works for 2021 which are presented below.

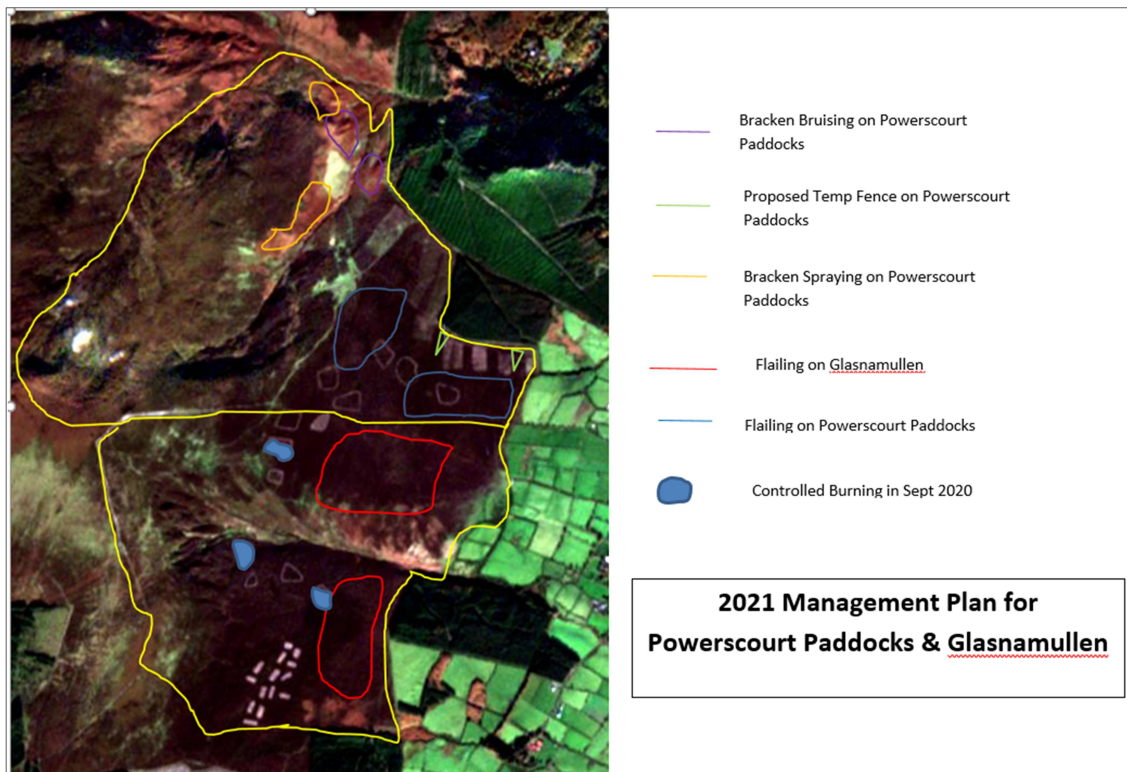
#### 2020

1. Cut/burn gorse in plot 2 west, marked "B" on the map.
2. Carry out Controlled Burning in the areas on map 3 below inside the firebreaks.
3. Cut the vegetation on a number of areas, up to 0.2ha in size, on Area 1, marked A on the map. Use a suitable machine and cut areas to be spread out and not joined up to create variation in the structure of the vegetation.
4. Control the rhododendron in Area 3.
5. Cut or pull the self-seeded Sitka spruce plants in Area 1

Actions coloured red were not completed.

#### 2021

1. Carry out Controlled Burning in the remaining areas with firebreaks prepared.
2. Cut the vegetation on a number of areas, up to 0.2ha in size, distributed throughout the areas outlined in red on the map below. Use a suitable machine and cut areas to be spread out and approx. 15-20m by 15-20m in size, to create variation in the structure of the vegetation.
3. Control the rhododendron in Area 3.
4. Cut or pull the self-seeded Sitka spruce trees in Area 1.
5. Sheep numbers need to be reduced to sustainable levels in the late summer period.
6. Consultation with NPWS and other stakeholders regarding track condition and develop plan for same.
7. Plant 150 native trees along the river gullies in spring 2021.



#### **4. Appendix 1. Maps & Management Recommendations**

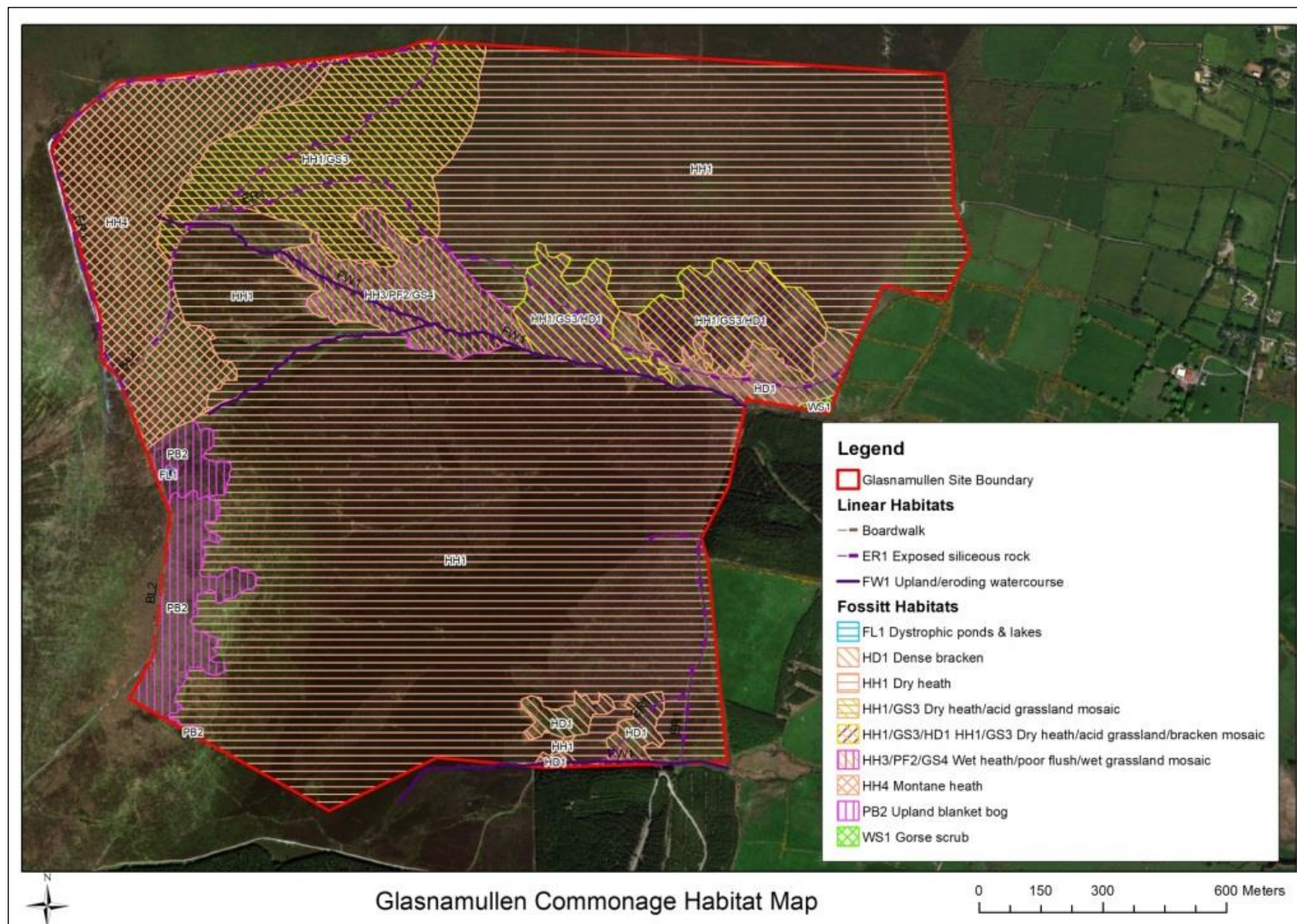


Figure 1. Habitats mapped to Level Three (Fossitt, 2000) within the Glasnamullen commonage.

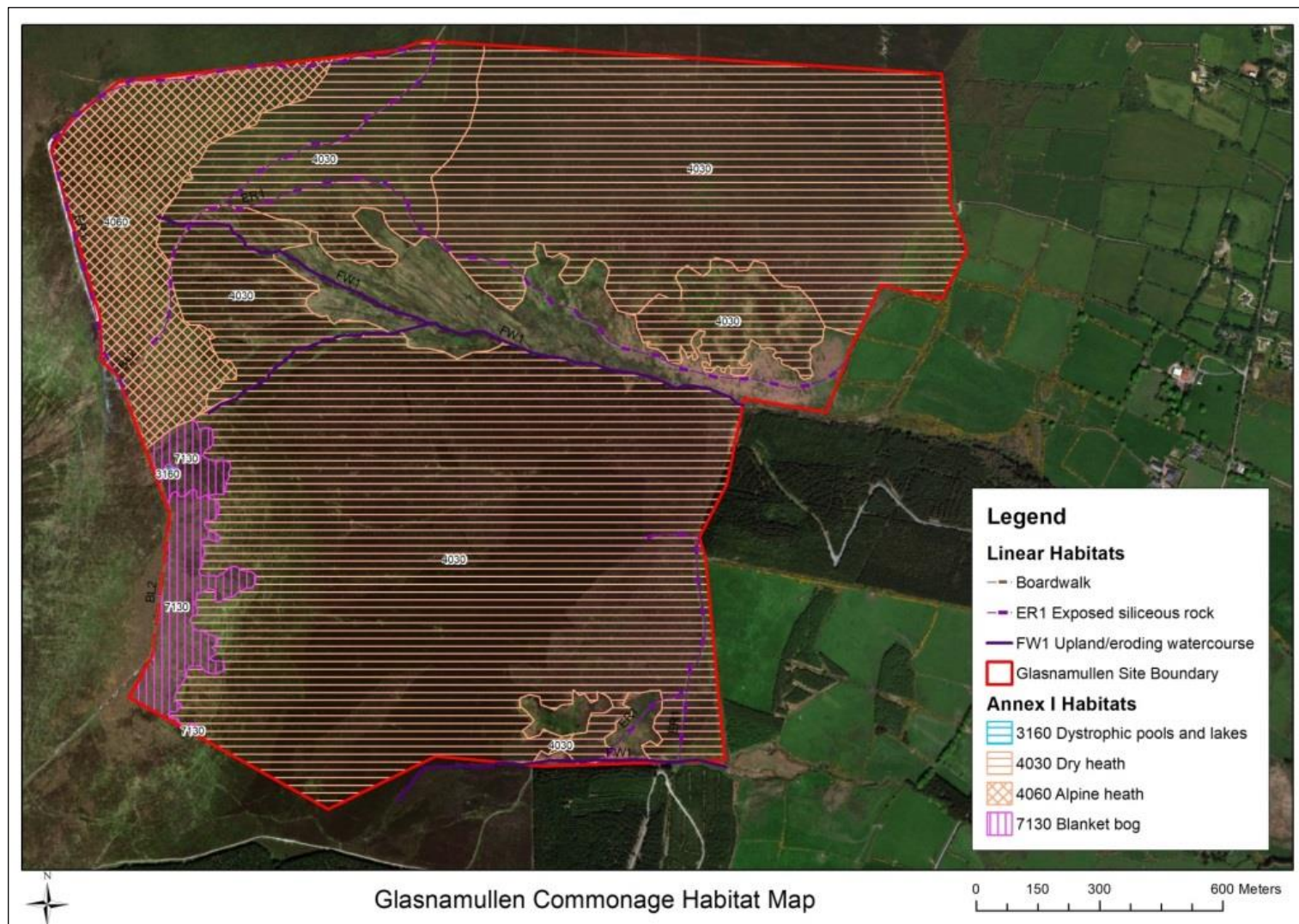


Figure 2. Habitats mapped according to their correspondence with Annex I habitats within the Glasnamullen commonage.

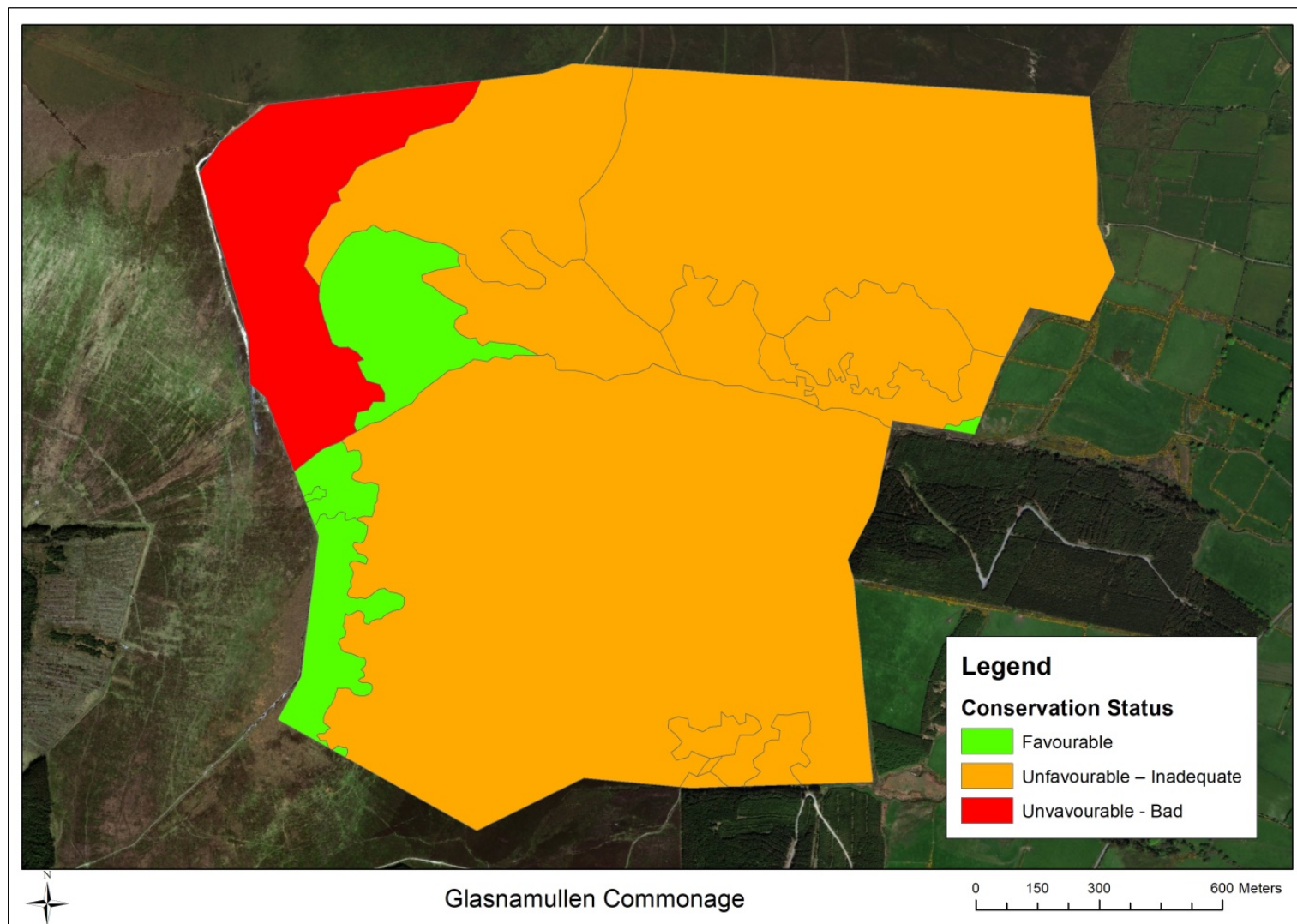


Figure 3. Habitat Condition Assessment for Glasnamullen Commonage.

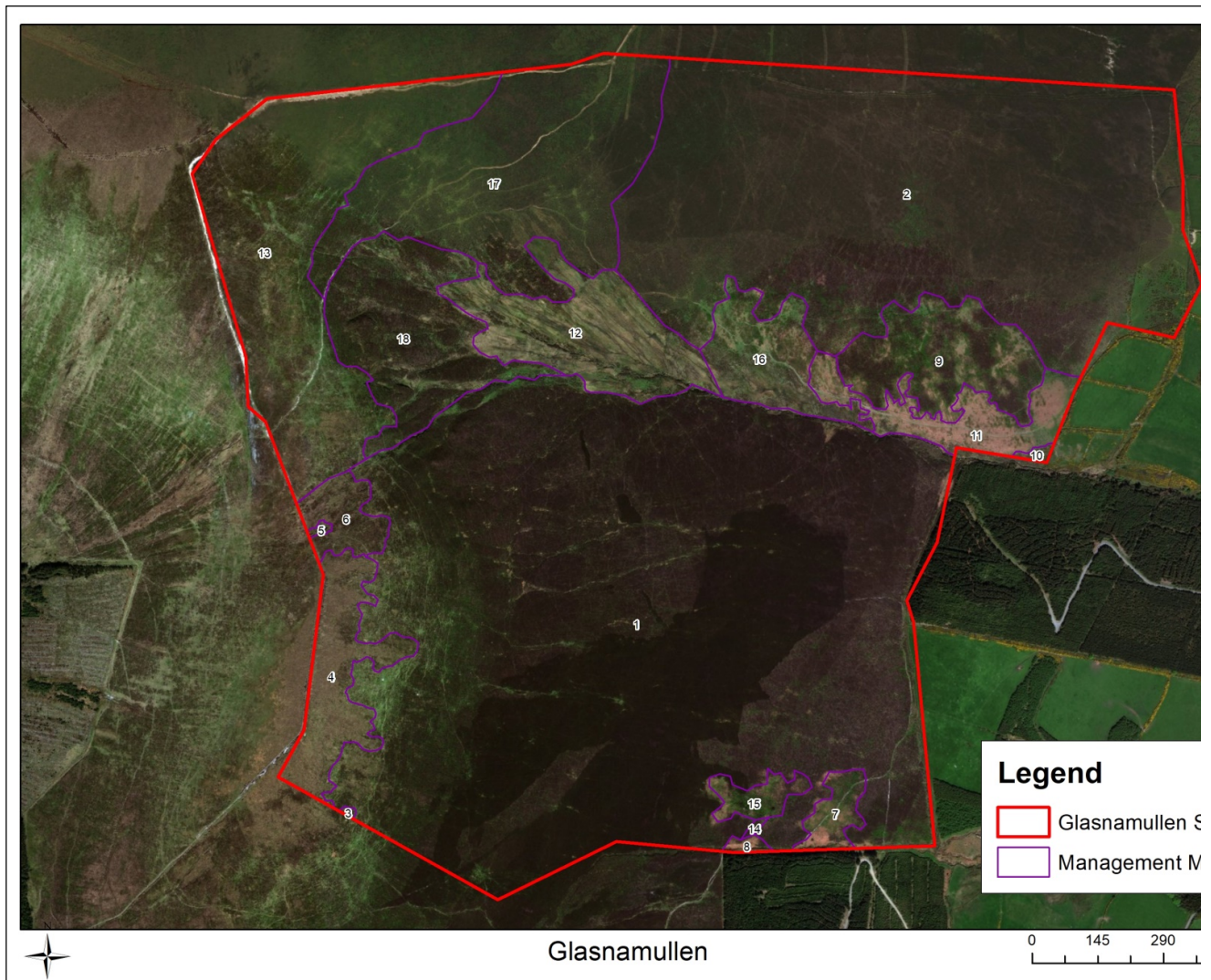


Figure 4. Management measures for Glasnamullen.

**Table 1. Habitats present on Glasnamullen Commonage and Management Recommendations.**

<b>Id</b>	<b>Annex I Code</b>	<b>Fossitt Code</b>	<b>Conservation Status</b>	<b>Habitat</b>	<b>Area (m Sq)</b>	<b>Area (hectares)</b>	<b>Management Measure</b>
1	4030	HH1	Unfavourable - Inadequate	Dry Heath	1201285	120.13	Controlled burning measures as detailed above. Removal of Sitka spruce and rhododendron regeneration.
2	4030	HH1	Unfavourable - Inadequate	Dry Heath	669959	67.00	Controlled burning measures as detailed above.
3	7130	PB2	Favourable	Upland Blanket Bog	598	0.06	Monitor grazing and sheep movements to keep in good condition.
4	7130	PB2	Favourable	Upland Blanket Bog	65059	6.51	Monitor grazing and sheep movements to keep in good condition.
5	3160	FL1	Favourable	Bog Pool	1117	0.11	Monitor grazing and sheep movements to keep in good condition.
6	7130	PB2	Favourable	Upland Blanket Bog	24676	2.47	Monitor grazing and sheep movements to keep in good condition.
7		HD1	Not assessed but needs management	Dense Bracken	16654	1.67	Control bracken.
8		HD1	Not assessed but needs management	Dense Bracken	2955	0.30	Control bracken.
9	4030	HH1/GS3/HD1	Unfavourable - Inadequate	Dry Heath/ Acid grassland/ Bracken	83534	8.35	Monitor grazing and sheep movements. Control bracken.
10		WS1	Retained for breeding birds	Gorse Scrub	1973	0.20	No measures required.
11		HD1	Not assessed but needs management	Dense Bracken	51663	5.17	Control bracken.
12		HH3/PF2/GS4	Unfavourable - Inadequate	Wet Heath/ Flush/ Wet Grassland	103105	10.31	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
13	4060	HH4	Unfavourable - Bad	Montane Heath	251955	25.20	Restoration work to the walking path.
14	4030	HH1	Unfavourable - Inadequate	Dry Heath	982	0.10	Very small area – monitor.
15		HD1	Not assessed but needs management	Dense Bracken	14494	1.45	Control bracken.
16		HH1/GS3/HD1	Unfavourable - Inadequate	Dry Heath/ Acid grassland/ Bracken	55680	5.57	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate. Control bracken.
17	4030	HH1/GS3	Unfavourable - Inadequate	Dry Heath/ Acid grassland	238734	23.87	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate. Monitor erosion along the walking track.
18	4030	HH1	Favourable	Dry Heath	116876	11.69	Monitor grazing and sheep movements. Move sheep out of this area if it begins to get overgrazed.