

Powerscourt Paddock
2020 Ecological Survey



Final Report

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Powerscourt Paddock

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Powerscourt Paddock

2020 Ecological Survey

1. Introduction

A baseline habitat condition and ecological survey and habitat management plan was prepared for the Powerscourt Paddock upland farm in 2018¹ and the measures within same underwent screening for Appropriate Assessment².

The implementation of the management prescriptions in the plan began in 2019. The management prescriptions in the SUAS plan for this upland farm set out to address the impacts highlighted in that report so 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***, **4030 Dry Heath** and **4060 Alpine and Boreal Heath**. The major impacts to the habitats in this upland farm arise predominantly from under grazing (and historical overgrazing in the valley areas), lack of movement of sheep across the hill resulting in under-grazing in many areas, lack of controlled burning, vegetation management of dry heath through flailing (which has been successful in some parts but not in others), and recreational access resulting in localised peat erosion.

The extent of habitats present within the Powerscourt Paddock upland farm and their affinities to either Fossitt (Level 3) or Annex I habitats 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 Powerscourt Paddock upland farm as detailed in **Table 1** and mapped on **Figure 4** (See **Appendix 1**).

2. SUAS Vegetation Management Measures

The proposed management measures for the Powerscourt Paddock upland farm under SUAS as set out in 2019 are as follows:

Year 1 (2019)

1. Control burn a number of small sections in area 8. Cut up to a maximum of 13ha, in sections of approx. 2-3ha in size. These areas should be dispersed around area 8, and away from previously cut areas to encourage sheep to spread out more over this area. 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. Spray Bracken in area 4. A number of small areas, totalling up to 1-2ha, to be trialled in 2019. As this area is not suitable for tractors, control will involve the application of asulox herbicide, by means of knapsack sprayer, hand lance or such other handheld device as is

¹ Wilson, F. (2019). Ecological Baseline Survey prepared for Powerscourt Paddock upland farm as part of the Commonage Management Plan for SUAS. 27th January 2019. Unpublished report for SUAS EIP.

² Wilson, F. (2019). Report for Screening for Appropriate Assessment for a Commonage Management Plan at Powerscourt Paddock, 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.

licensed for this product. The use of asulox is subject to emergency licence granting of full licence approval for this product in 2019.

3. Mulch up some of the brash left in the previously cut sections in area 8. This can be done using tractor mounted flail cutter in a number of sections and then the brash removed from part of these areas. It is planned to burn some of this brash in at least one of the cut areas to see how this affects recovery of heath vegetation.

Year 2 (2020)

1. Control burn a number of small sections in area 8. Cut up to a maximum of 13ha in 2020, in sections of approx. 2-3ha in size. These areas should be dispersed around area 8, and away from previously burnt/cut areas to encourage sheep to spread out more over this area.
2. Spray further sections in area 4, up to 5ha for bracken during 2020.

Year 3 (2021)

1. Control burn a number of small sections in area 8. Cut up to a maximum of 13ha in 2021, in sections of approx. 2-3ha in size. These areas should be dispersed around area 8, and away from previously burnt/cut areas to encourage sheep to spread out more over this area.
2. Spray further sections in area 4, up to 5ha for bracken during 2021.

Year 4 (2022)

1. Control burn a number of small sections in area 8. Cut up to a maximum of 13ha in 2022, in sections of approx. 2-3ha in size. These areas should be dispersed around area 8, and away from previously burnt/cut areas to encourage sheep to spread out more over this area.
2. Spray further sections in area 4, up to 5ha 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 1st May to 30th 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

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.

Details of sheep stocking rates proposed

Accurate sheep numbers will be obtained in year 1 and over the remaining 3 years, they will be increased gradually up to GLAS stocking rates.

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 implemented in Area 4 on 5th September 2019 using knapsack sprayers. A rate of 11 litres of asulox per ha was applied and an area of 2 ha was treated. This treatment was very successful as can be seen comparing the photographs from 2020 to 2019.



Plate 1. Bracken control was implemented in Area 4 in 2019.

It is great to see a good dense area of bracken has been successfully treated. The next phase of works should target those areas of bracken which are encroaching on or invading dry heath (as this is compromising the favourable condition of this Annex I habitat) as well as focusing on the farming interests in the acid grassland.



Plate 2. Visible results in 2020 of the bracken control conducted in 2019.

3.2 Firebreaks for Controlled Burning/Flailed Areas

Firebreaks for controlled burning were created on the 12th and 14th February 2019 using a flail mulcher behind a tractor as can be seen in the Bing Maps imagery of the commonage as presented on **Figure 1** below. The older flailed areas near the forestry can also be seen.



Figure 1. Old flailed areas and new firebreaks cut on Powerscourt Paddock (Bing Maps).

The lessons learned from the controlled burning conducted next door in Glasnamullen should be taken on board in terms of the intensity of burning and the objective of leaving varying heights and

some areas unburnt. Smaller areas should be created than as was done on Glasnamullen in 2020. If areas are to be burnt they should be those areas located towards the top of the commonage to encourage the sheep up away from the old flailed areas and the hill ditch near the lower enclosed fields. The maximum area that should be burnt/flailed is 13 ha per year (but note that applies to areas actually requiring burning).

Table 1. Detail of cutting & controlled burning carried out

Year	Cutting	Controlled Burning
2016	14.6ha	0
2019	1.0ha	0
2020	0.0ha	0
2021	2.50 - 3.0	0

Previously Flailed Areas

The areas previously flailed adjoining the forestry were re-examined and recovery here is still being compromised by sheep congregating here as evidenced by their dunging and presence – more shepherding activity may help resolve this. There are still several large areas which show little to no regeneration of vegetation.

Some of the flailed areas prepared for burning show good signs of recovery with growth of ling heather. Some areas within the flailed areas are dominated by bilberry whilst others are dominated by ling.



Plate 3. Some flailed areas have regenerated well with ling heather.

Some of the older (pre-SUAS) flailed areas were examined and have strong regrowth of ling heather. Best professional judgement would indicate that any bilberry that may have recovered here was browsed out of here by sheep allowing ling to dominate.

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



Plate 4. Areas that were flailed prior to the SUAS project are showing very dense regeneration of ling heather but these areas lack bilberry.



Plate 5. The erosion, bare peat and damage on the slope adjoining the forestry will be tackled in 2021.

The erosion caused by the movement of sheep back down towards the lower enclosed fields on the farm (coupled with natural runoff and the slope) will be tackled in 2021 through the erection of a temporary fence to try and encourage sheep away from this area and to allow the peat to stabilise and the vegetation to recover.



Plate 6. Some of the flailed areas are beginning to regenerate.



Plate 7. Regeneration of bilberry in flailed areas.

3.3 Acid Grassland Habitats

The areas of acid grassland within the commonage are overgrazed and in some areas (Area 10, 11 and 21) are at risk of erosion. Some localised erosion is occurring in Area 4.

Feed buckets were used in the period Dec-Feb to encourage sheep into the taller heather areas away from the overgrazed areas. Grazing pressure in these areas also 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).

The successful treatment of bracken from a large portion of Area 4 will further encourage the congregation of sheep in this area on the acid grassland beneath so active shepherding will be required to move sheep out of here.

It was noted that there are too many sheep on Powerscourt Paddocks during the summer months, but there are a lot of trespassing sheep coming in from neighbouring hills.

3.4 Track Repairs

Erosion and severe trampling pressure continues on the Wicklow Way walking track and the track to the summit of Djouce, which urgently needs repairs. Sheep grazing is an issue here also. There was evidence and a direct observation of mountain bike activity on the track.



Plate 8. The Wicklow Way track continues to widen and erode arising from trampling and grazing pressure.



Plate 9. Mountain bike activity is also an issue.

3.5 Faunal Observations

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

3.6 Management for 2021

The main management proposals for 2021 are set out below following a review of the 2020 measures, some of which were not completed in 2020 (highlighted in red).

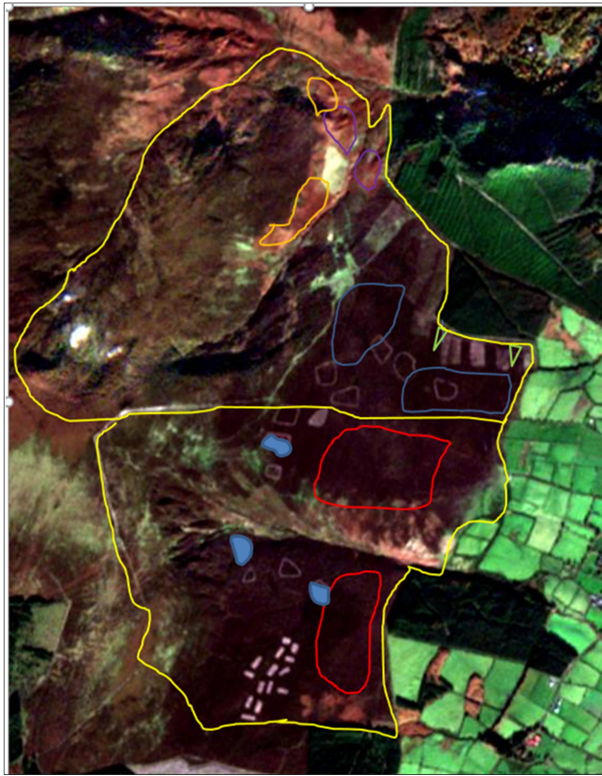
2020

1. Control burn the areas in Area 8 that have firebreaks around them (see map below)
2. If the areas with the fire breaks are burned successfully in spring 2020, cut further fire breaks for up to another 13ha in the autumn of 2020.
3. Spray further sections in area 4, up to 5ha for bracken during 2020.
4. Use bracken bruiser on areas of bracken that are accessible.
5. Use feed buckets to encourage more sheep grazing the commonage in the Jan/Feb and the April/May period.
6. Increase grazing activity across the whole year to work towards a sustainable stocking regime for the commonage.

Management Actions coloured in red were not completed

2021

1. Control burn at least 2 areas that have firebreaks around them, if possible –try to ensure that structure within the sward is retained and the burn is not too intense.
2. Spray further sections for bracken during 2021. Up to 4ha may be done, concentrating on the areas where the bracken is encroaching into the surrounding heath habitats, areas marked in orange on map below.
3. Use bracken bruiser on sections of bracken that are accessible in the areas marked in purple on map below.
4. Cut small sections of tall heather with a suitable tractor & mulcher in the areas marked blue on the map. Approx 3ha to be mulched in total, done in 15-20m by 15-20m sections, distributed throughout the two areas marked blue.
5. Use feed buckets to encourage more sheep grazing the commonage in the Jan/Feb and the April/May period.
6. Increase grazing activity across the whole year to work towards a sustainable stocking regime for the commonage, and reduce the numbers of sheep grazing during the peak (late summer) period.
7. Plant 150 native trees along the river gullies in spring 2021.



- Bracken Bruising on Powerscourt Paddocks
- Proposed Temp Fence on Powerscourt Paddocks
- Bracken Spraying on Powerscourt Paddocks
- Flailing on Glasnamullen
- Flailing on Powerscourt Paddocks
- Controlled Burning in Sept 2020

**2021 Management Plan for
Powerscourt Paddocks & Glasnamullen**

4. Appendix 1. Maps & Management Recommendations

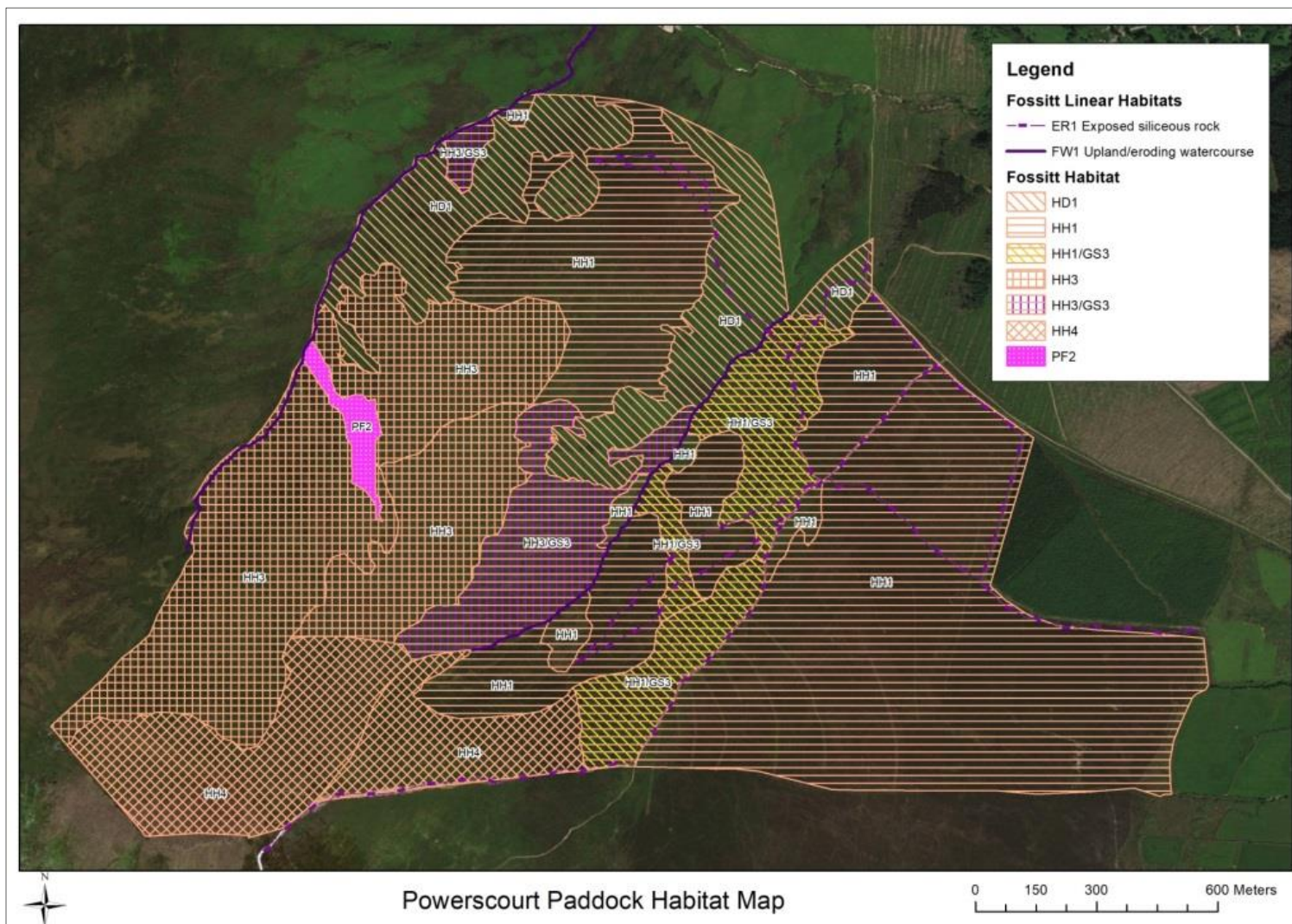


Figure 1. Habitats mapped to Level Three (Fossitt, 2000) within Powerscourt Paddock.

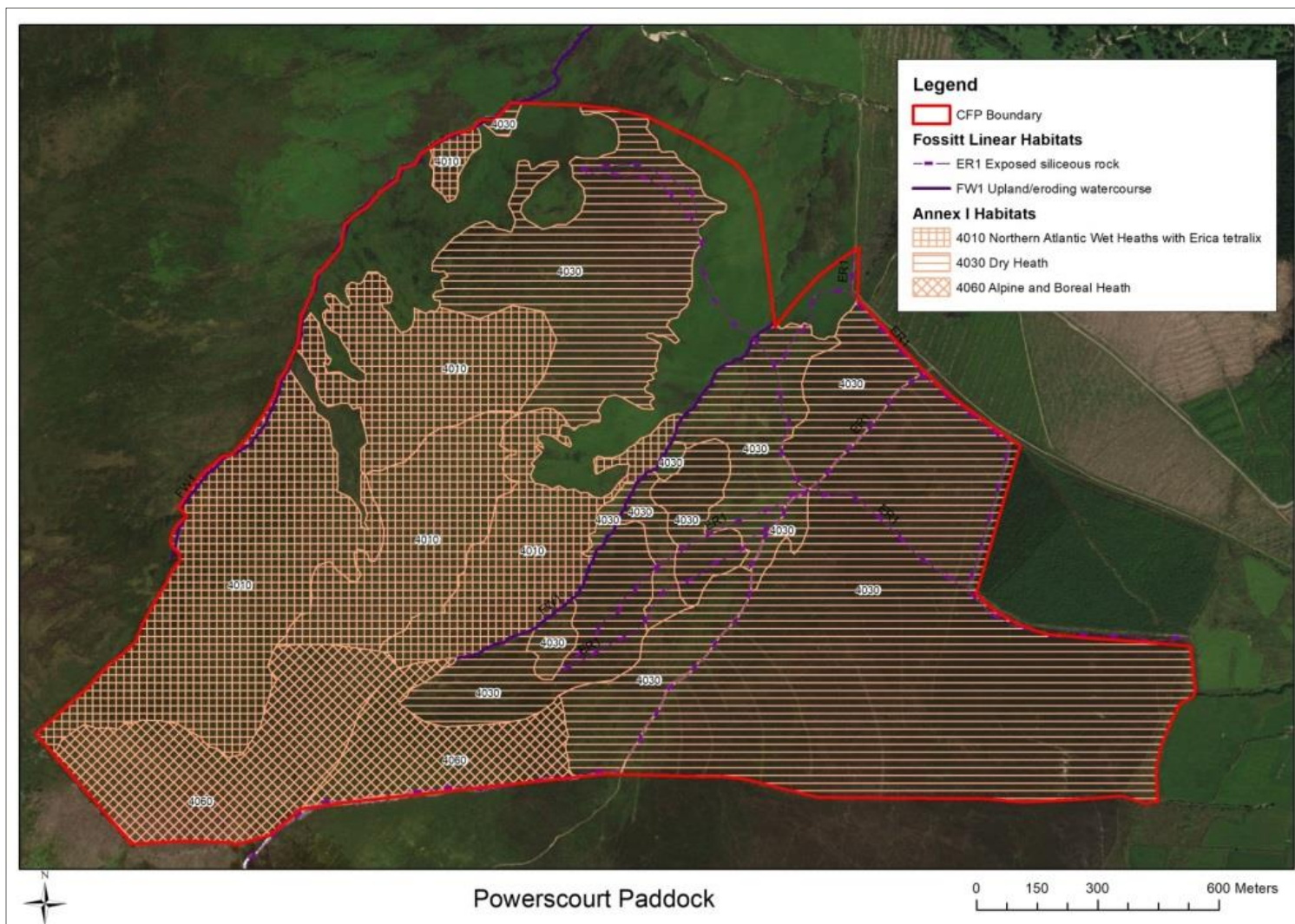


Figure 2. Habitats mapped according to their correspondence with Annex I habitats within Powerscourt Paddock.

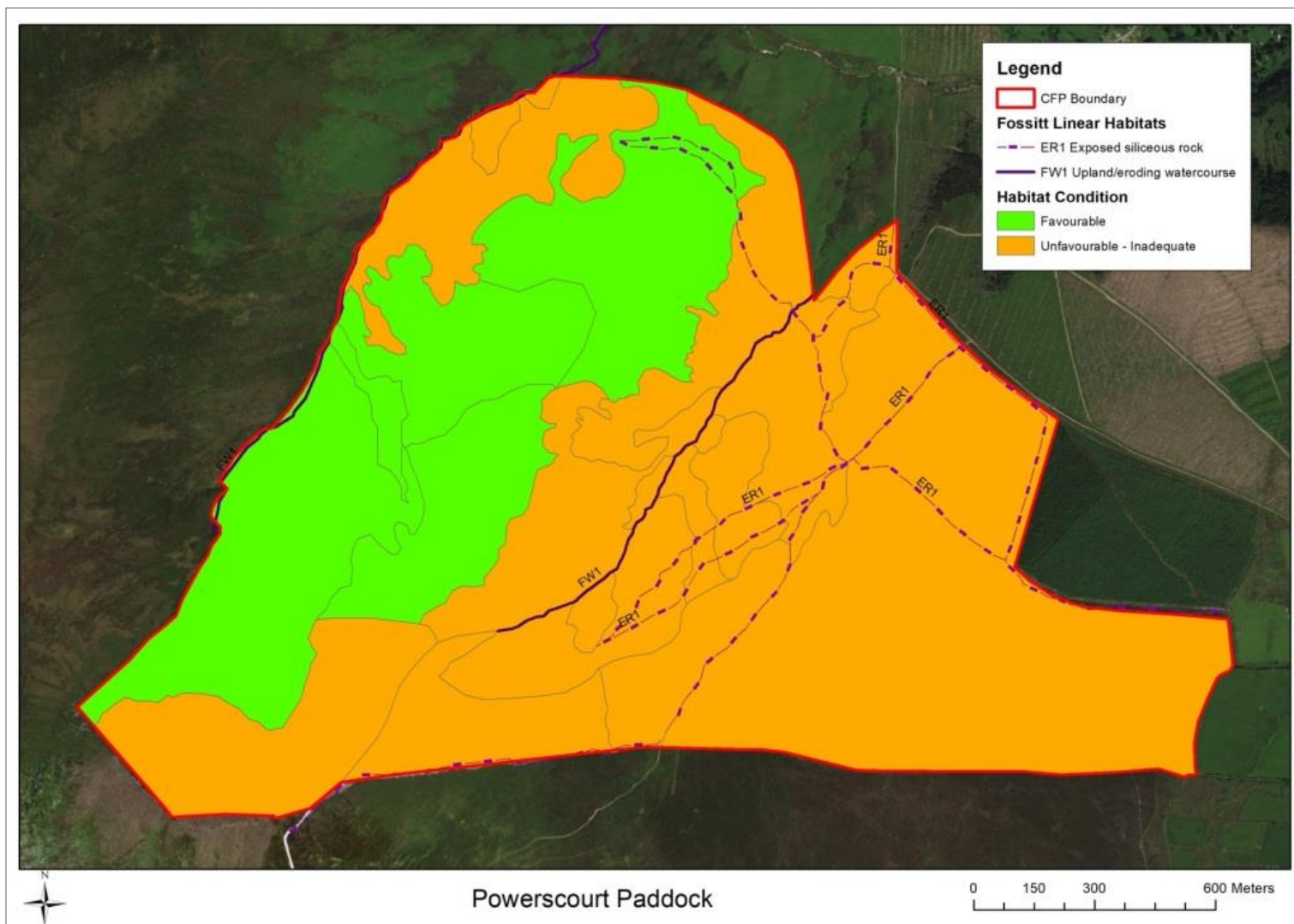


Figure 3. Habitat Condition Assessment for Powerscourt Paddock.

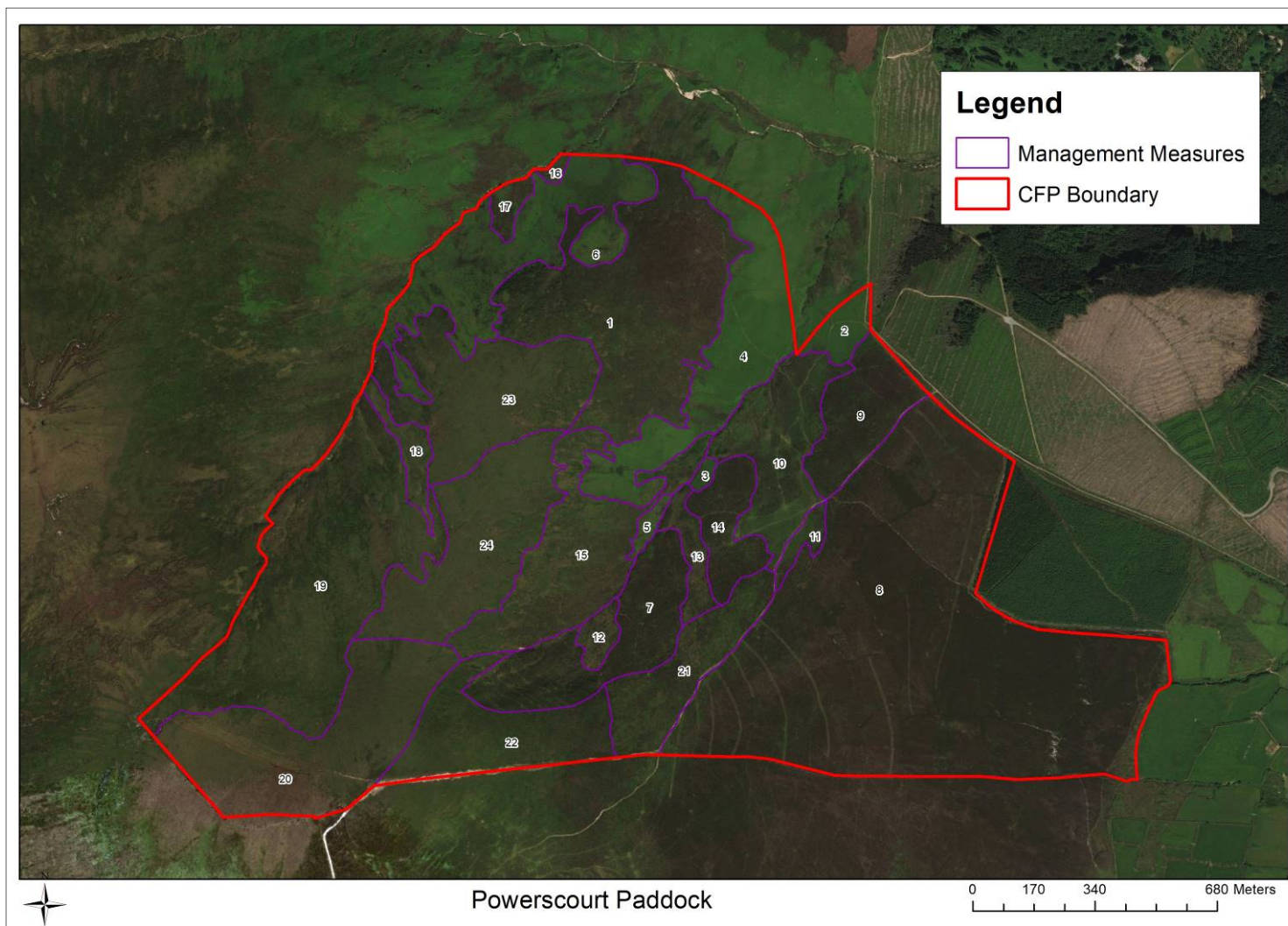


Figure 4. Management measures for Powerscourt Paddock.

Table 1. Habitats present on Powerscourt Paddock and Management Recommendations.

Id	Annex I Code	Annex I Description	Fossitt Code	Habitat	Area (m)	Area (Ha)	Conservation Status	Management Measure
1	4030	Dry Heath	HH1	Dry heath	274984	27.50	Favourable	Ensure no burning Monitor grazing and sheep movements to keep in good condition.
2			HD1	Dense Bracken	22404	2.24	Unfavourable - Inadequate	Bracken Control
3	4030	Dry Heath	HH1	Dry heath	4421	0.44	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
4			HD1	Dense Bracken	156617	15.66	Unfavourable - Inadequate	Bracken Control
5	4030	Dry Heath	HH1	Dry heath	7629	0.76	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
6			HD1	Dense bracken	168820	16.88	Unfavourable - Inadequate	
7	4030	Dry Heath	HH1	Dry heath	118500	11.85	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
8	4030	Dry Heath	HH1	Dry heath	780057	78.01	Unfavourable - Inadequate	Controlled burning of some areas of tall leggy heather further up the slopes away from the bottoms Raking/removal of vegetation from flailed areas where regeneration has failed Trial excluding sheep through fencing from some flailed areas to see what regeneration is like in the absence of grazing (provide flight diverters for grouse on any fencing used) Trial flailing using various methods – working up, down or across the direction of slope Flailing at different heights Flailing with different machines – mulching/shredding as opposed to simply cutting once Controlled burn within previously flailed area
9	4030	Dry Heath	HH1	Dry heath	75370	7.54	Unfavourable - Inadequate	Raking/removal of vegetation from flailed areas where regeneration has failed Trial excluding sheep through fencing from some flailed areas to see what regeneration is like in the absence of grazing (provide flight diverters for grouse on any fencing used)

Id	Annex I Code	Annex I Description	Fossitt Code	Habitat	Area (m)	Area (Ha)	Conservation Status	Management Measure
10	4030		HH1/GS3	Dry heath/ Acid grassland Mosaic	108668	10.87	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
11	4030	Dry Heath	HH1	Dry heath	12710	1.27	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
12	4030	Dry Heath	HH1	Dry heath	14557	1.46	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
13	4030		HH1/GS3	Dry heath/ Acid grassland Mosaic	25364	2.54	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
14	4030	Dry Heath	HH1	Dry heath	51253	5.13	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
15	4010	Northern Atlantic Wet Heaths with <i>Erica tetralix</i>	HH3/GS3	Wet heath/ Acid grassland Mosaic	153800	15.38	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate.
16	4030	Dry Heath	HH1	Dry heath	3972	0.40	Unfavourable - Inadequate	Monitor bracken and control as required.
17	4010	Northern Atlantic Wet Heaths with <i>Erica tetralix</i>	HH3/GS3	Wet heath/ Acid grassland Mosaic	13116	1.31	Unfavourable - Inadequate	Monitor bracken and control as required.
18			PF2	Poor fen and flush	23319	2.33	Favourable	Monitor sheep movements and ensure area remains in good condition
19	4010	Northern Atlantic Wet Heaths with <i>Erica tetralix</i>	HH3	Wet heath	323042	32.30	Favourable	Ensure no burning Monitor grazing and sheep movements to keep in good condition.
20	4060	Alpine and Boreal Heath	HH4	Montane heath	211035	21.10	Unfavourable - Inadequate	Monitor erosion along the walking track and remediate.
21	4030		HH1/GS3	Dry heath/ Acid grassland Mosaic	86773	8.68	Unfavourable - Inadequate	Monitor grazing and sheep movements. Move sheep out of this area where they tend to congregate. Monitor erosion along the walking track.
22	4060	Alpine and Boreal Heath	HH4	Montane heath	117239	11.72	Unfavourable - Inadequate	Monitor erosion along the walking track and remediate.

Id	Annex I Code	Annex I Description	Fossitt Code	Habitat	Area (m)	Area (Ha)	Conservation Status	Management Measure
23	4010	Northern Atlantic Wet Heaths with <i>Erica tetralix</i>	HH3	Wet heath	166822	16.68	Favourable	Ensure no burning Monitor grazing and sheep movements to keep in good condition.
24	4010	Northern Atlantic Wet Heaths with <i>Erica tetralix</i>	HH3	Wet heath	159313	15.93	Favourable	Ensure no burning Monitor grazing and sheep movements to keep in good condition.

