APPENDIX 8-8

HEN HARRIER & PEATLAND HABITAT ENHANCEMENT PLAN

Appendix 8-8 –Hen Harrier and Peatland Habitat Enhancement Plan

Proposed Cahermurphy Two Windfarm

DOCUMENT DETAILS

Client:	Mid Clare Renewable Energy Wind Farm Ltd.
Project Title:	Proposed Cahermurphy Two Windfarm
Project Number:	170238
Document Title:	Appendix 8-8 – Hen Harrier and Peatland Habitat Enhancement Plan
Document File Name:	170238 – HHPP - 2020.09.18 – F
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Rev	Status	Date	Author(s)	Approved By
01	Draft	15/11/19	PC	PR/JH
02	Draft	02/03/20	PC	PR/JH
03	Draft	18/09/20	PC	PR/JH

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1. INTRODUCTION

1.1 Background

The proposed development is located at the western edge of a non-designated regionally important area for hen harrier in West Clare (Ruddock et al., 2016). Whilst the dominant habitat across much of the Wind Farm Site is mature forestry; open habitat along the eastern margins of the site were utilised by foraging hen harrier during the breeding season, as per Figure 8.1.2 Appendix 8-4. A hen harrier territory was recorded during the 2017, 2018 and 2019[1] breeding seasons to the south of Doo Lough. This Doo Lough territory is located within forestry and peatland. It is to the east and within c.5 kilometres of the Wind Farm Site and adjacent to the Craghnashingaun Bog Natural Heritage Area (NHA), as provided in Figure 1.11 Confidential Appendix 8-7.

The potential for effects on hen harrier was assessed in full within the Ornithology chapter of the EIAR including potential loss of foraging habitat. Effects predicted to result from the proposed development on hen harrier are mitigated by the permanent removal of forestry (c. 28.2 hectares) and restoration of the underlying peatland habitats to provide more favourable habitat than will (potentially) be lost within the proposed development area. Furthermore, the removal of the forestry will improve connectivity between the hen harrier territory to the south of Doo Lough and optimal foraging habitat present within the Craghnashingaun Bog NHA.

In addition, it is proposed to manage 30 hectares of the farmland specifically to improve the value of the habitat for foraging hen harrier.

The enhancement areas are located in an area where no existing or permitted wind farms are proposed and where the available habitat within the area can be maximised, as per Figure 1.11 Confidential Appendix 8-7.

[1] In 2019, the pair's breeding attempt failed early in the season.

2. IDENTIFICATION OF HABITAT ENHANCEMENT AREAS

The following sections outline the methodology used to identify and quantify the quantum of foraging habitat proposed for enhancement.

2.1 Identification of Foraging Habitat Enhancement Area

2.1.1 Assessment of potential foraging habitat loss for Hen Harrier

The proposed development area is located on the western most edge of a non-designated regionally important area for hen harrier (North and West Clare) as identified by the National Parks & Wildlife Service (NPWS). The majority of the foraging recorded onsite was recorded during the breeding season and these are likely associated with the hen harrier territory to the south of Doo Lough. As the majority of hen harrier activity has been recorded within 5 kilometres of the known nest site and this is the typical foraging range surrounding an Irish nest site (Wilson et al. 2015), turbines within 5 kilometres of the known nest site are included within this habitat loss calculation.

Following the precautionary principle, for the purposes of this calculation, it has been assumed that hen harrier will exhibit total avoidance of areas of suitable habitat within 250 metres of the turbines within 5 kilometres of the nest site (Pearce-Higgins 2009).

Closed canopy forestry does not provide suitable habitat for hen harrier. As such, areas of this habitat have not been included in the calculation of habitat displacement. As the amount of closed canopy forestry within 250 metres of the proposed turbines varies with the rotational cycle of forestry, calculations have been made using Coillte felling plans to determine the average amount of potentially available hen harrier habitat that will be unavailable on an annual basis throughout the operational phase of the wind farm. These calculations are presented in Appendix 1 and 2 of this document.

Based on the precautionary assumption that hen harrier will avoid all areas within 250 metres of a turbine and having calculated the amount of foraging habitat available on an annual basis (taking into account Coillte forestry management practices), the estimated quantum of habitat from which hen harrier will be displaced is **63 hectares**. This potential habitat loss is likely at the edge of the foraging range of the Doo Lough territory, given the c.5 kilometres separation distance between the territory and the Wind Farm Site. Details of the calculations undertaken are provided in Appendix 2 of this document.

Therefore, taking into consideration this predicted impact and the significance of the study area to foraging hen harrier; a habitat enhancement plan has been devised with the aim of creating suitable foraging and breeding habitat for the species within the North and West Clare area.

2.1.2 Rationale for Selecting Enhancement Areas

The aim of the foraging habitat enhancement is to identify forestry plots, occurring on peatland that could be reverted to suitable open moorland by permanent deforestation. In addition, the selected farmland enhancement area was selected based (inter alia) on its proximity to the Doo Lough hen harrier territory. The rationale for selecting the proposed enhancement areas included:

- Most hunting by males and females is carried out within 2 kilometres and 1 kilometres from nests, respectively (Arroyo et al. 2014) (SNH 2016). The area proposed for permanent felling

of forestry is location c.700 metres from the hen harrier territory to the south of Doo Lough. The selected farmland enhancement area is c. 1.5 kilometres from the hen harrier territory at Doo Lough. Location details are provided in Figure 1 Confidential Appendix 1.

- The selected enhancement areas are located significantly closer to the Doo Lough territory than the foraging habitat that will be potential lost at the proposed development area, i.e. c.5 kilometres separation distance between the territory and the Wind Farm Site.
- As per Figure 1.11 Confidential Appendix 8-7, the north section of the Cragnashingaun Bogs NHA is intersected by a large area of forestry. The proposed permanent felling of this forestry will increase the amount contiguous open habitat available to foraging hen harrier.

3. HABITAT ENHANCEMENT

3.1 Permanent Forestry Removal and Peatland Restoration

On the 13th of February 2020, a site visit was undertaken of the forestry felling and peatland restoration area. The site visit involved a walkover of the c. 28.2 hectares proposed enhancement area. The dominant habitat recorded within the site was commercial forestry which contained crags with remnant stands of heather. Management prescriptions to be implemented by the applicant include:

- The identified area of existing forestry will be permanently removed. The brash will be collected and placed in windrows 12m apart in the mound drains which will be blocked at their discharge point to prevent nutrient runoff. This measure will help to block internal mound drains and thus aid in raising ground water levels. The area will be allowed to revert to peatland habitat. This process will be aided by drain blocking as discussed below. This will create suitable foraging habitat for hen harrier and its associated prey species. Pre-mature felling of forestry will be undertaken before the first breeding season of the construction phase of the project programme. This would allow time for the clear-felled site to revegetate in advance of the operational phase. Thereby ensuring replacement habitat would be available should the predicted displacement effect occur.
- Forestry in the north western corner of the proposed enhancement area has failed to thrive and is stunted in places. This has allowed heather to persist in this section of the site, as per Plate 3-1 below. In addition, the boundary fencing is dilapidated and is no longer a barrier to livestock. This area is heavily grazed, and the vegetation is trampled, as per Plate 3-2. With the reinstatement of livestock proof fencing the existing mature heather would be free of grazing pressure and could re-vegetate. Nesting habitat will therefore be provided in the short term as part of these enhancement measures. Hen harrier nest in mature stands of heather and scrub.
- As previously discussed, heather has persisted within the existing forestry, following the felling of forestry these remnant stands of heather will seed into adjacent newly felled areas. Re-vegetation with native vegetation is therefore expected to occur naturally within the enhancement area.
- Forestry drainage channels will be blocked, using peat dams or plastic dams, as appropriate. In flat areas drain blocks should be placed every 15 metres and more frequently when accounting for a slope. When drains are blocked this reinstates the waterlogged conditions which are crucial for the survival of peatland plants.
- Self-seeding conifers originating as windblown seedlings from adjacent and nearby commercial conifer plantations are a threat to the viability of the enhancement area. They gradually take hold, and if unmanaged, would eventually make the area unsuitable for nesting/foraging hen harrier. Habitat maintenance of the enhancement area will involve the eradication of self-seeding conifers, and removal off-site. It is envisaged that the enhancement areas will require maintenance twice during the life of the wind farm, once after approximately 10 and 20 years. The monitoring provided for in Section 3.5 below will monitor the level of encroachment by self-seeding conifers and will bring the scheduled removal forward by a number of years as required.
- No invasive species were recorded onsite during the February 2020 site visit. A confirmatory pre-commencement survey for invasive species will be undertaken as part of preparatory work. In the event of any invasive species being recorded within the area identified for enhancement measures, an invasive species management plan will be put in place to eradicate any stands of such species.
- Enhancement and maintenance works will be undertaken outside of the nesting season as per the Wildlife Acts 1976 – 2012 as amended.

Plate 3-1 Stands of existing mature heather along forestry edge in the north western corner of area proposed for permanent forestry felling.

Plate 3-2 Stands of existing mature heather along forestry edge in the north western corner of area proposed for permanent forestry felling. This image shows heavily grazed and trampling heather in foreground.

3.2 Management of Farmland for Hen Harrier

In addition to the enhancement plan, local landowners have been engaged in a programme to farm in a hen harrier friendly manner. An area of c. 30 hectares of farmland has been identified for enhancement measures (Plate 3-3). This area is located 1.5 kilometres from the traditional hen harrier territory to the south of Doo Lough, as per Figure 1.11 Confidential Appendix 8-7. The aim of the programme will be to safeguard existing hen harrier habitat and promote the creation of new supporting habitat for hen harrier and their prey. The programme will broadly follow the approach taken by the Hen Harrier Project (www.henharrierproject.ie).

On the 13th of February 2020, a site visit was undertaken to the farmland proposed for management. The high points of the site are located on the eastern and northern margins of the management area. These areas gently slope towards the center of the site and Boleybeg Lough. The farmland is predominantly wet grassland with frequent stands of rushes (*Juncus spp.*). Hedges fringe the road that provides access to the management area.

The applicant has entered an agreement with landowners to manage land for the benefit of hen harrier. Measures will be put in place in advance of the first breeding season of the operational phase of the project programme. Thereby ensuring management measures are in place should the predicted displacement of foraging hen harrier from the development footprint occur.

Management prescriptions to be implemented include:

Creating Hen Harrier Foraging Habitat
Establishing linear strips of wildlife cover to increase the availability of foraging habitat for hen harrier locally. This measure will involve the sowing/planting of a wildlife seed crop.

Wildlife seed crops will be sown by May 31st each year. Recommended crop species include linseed, rye and triticale. These species have been selected to attract hen harrier passerine prey species. The crop will be planted in a 9 metre wide strip along the sheltered side of existing hedges. The crop must be left in situ until March 15th the following year but its location can alternate between years. Crop strip must be a minimum of a 100 metres in length and fenced to prevent livestock grazing. An adaptive management approach will be instituted. A minimum of ten strips will be created. Passerine point counts will be undertaken monthly April to July inclusive in each monitoring year (See Appendix 8-9 for further details) at each of the ten-wildlife seed crop strips. The aim of the monitoring is to investigate to what extent seed crops increase the availability of prey species for hen harrier.

Hen harrier show a strong preference for foraging in dense hedgerows ideally 3 to 4 metres wide. Landowners will restore hedgerows to these conditions. Hedgerow/liner strips of scrub occur along the road that intersects the management area and around Boleybeg Lough. These will be widened by parallel planting of native hedgerow species.

Restoring hedgerows will increase the availability of foraging habitat locally and establish connectivity between otherwise discrete land parcels. To ensure biodiversity; restored hedgerows should contain a minimum of two (woody plant) species per 10 metres. Suggested woody plant species could include hawthorn, blackthorn, willow spp., and holly. Existing vegetation will not be cleared to plant the new hedgerow and under no circumstance should herbicides be used. New hedges will be protected from grazing.

New foraging habitat will not be created at the expense of existing supporting habitat, e.g. those habitats that are likely to support the highest density of prey species: including brambles, bilberry and heather. This habitat is present in the northern corner of the farmland as per Plate 3-4.

Low intensity grazing, to ensure cover for prey species is present. Landowners will maintain a stocking density of no greater than 0.15 livestock units per forage hectare for seven consecutive months within the calendar year, as defined by the Department of Agriculture, Food and the Marine.

Management of rushes (*Juncus spp*) to promote a diverse sward in rough and wet grassland.

Safeguarding existing heather and scrub

The selected areas will be on a slope, at least 250 metres from forestry and contain heather/scrub. The measure will promote vegetation succession towards tall heather/scrub to provide nesting habitat for hen harrier and their prey. The area will be fenced off to control grazing. The aim of this measure is to create safe nesting habitat for hen harrier. The area selected for this measure is presented in Plate 3-4.

Plate 3-3 Shows selected farmland for enhancement measures

Plate 3-4 Shows crag within the selected farmland for enhancement measures. It is proposed to preserve this existing mature heather as potential hen harrier nesting habitat.

4. MONITORING

The plan will be the subject of ongoing monitoring to assess the effectiveness of the measures proposed and employed and to contribute to advances in habitat management methods, which can be applied to future similar projects.

The monitoring measures will include:

- The area proposed for enhancement will be the subject of ongoing monitoring during the operational phase of the wind farm to ensure it is offering supporting habitat for breeding hen harrier. The ongoing monitoring will take place during the breeding bird season. The monitoring will seek to identify whether hen harrier are utilising the areas under active management for breeding and will be conducted by way of vantage point surveys. These surveys will be undertaken once a month March to August inclusive. This is discussed in detail in Appendix 8-9.

The efficacy of the enhancement measures employed will be reviewed in years 1, 2, 3, 5, 10 and 15 following commencement of the plan on the basis of the results of bird surveys. Analysis of the data collected will be the basis for a review of the measures and techniques employed. Should any adjustments to the plan be deemed necessary or advisable, these will be the subject of consultation with the NPWS prior to any alterations to the plan.

Additional monitoring measures will include:

- Vegetation sampling: A number of fixed relevé sites (i.e. permanent quadrats) will be set up in the enhancement areas. Data will be recorded prior to the commencement of habitat enhancement activities. The character of each relevé will be recorded (e.g. species proportions present using Domin scale, vegetation structure) and photographs will be taken of each relevé from a fixed point. These relevés will then be re-examined during years 1, 2, 3, 5, 10, 15 and 25 following commencement of the plan in place to establish the extent of habitat improvement resulting from management practices.

- Hydrological monitoring: Water levels within areas where drains are blocked will be recorded quarterly for two years. Phreatic stand pipes will be installed (prior to restoration) to allow monitoring of water levels within the restoration area and outside the restoration area. In this way, any positive impacts on the local hydrology can be verified and quantified.

The efficacy of the habitat enhancement measures employed will be reviewed in years 1, 2, 3, 5, 10, 15 and 25 following commencement of the plan.

Reports detailing the monitoring works carried out, the results obtained and a review of their success, along with any suggestions for amendments to the plan will be prepared and submitted to the planning authority in years 1, 2, 3, 5, 10 and 15 following commencement of the plan.

5. CONCLUSION

The successful implementation of the measures outlined above will produce more favourable breeding habitat for local hen harrier than is currently available within the Wind Farm Site. The lands proposed for the permanent felling of forestry and the farmland management area are located significantly closer to the hen harrier territory to the south of Doo Lough than the habitat that will be (potentially) lost within the Wind Farm Site. In addition, the removal of the forestry will improve connectivity between the hen harrier territory to the south of Doo Lough and optimal foraging habitat present within the Craghnashingaun Bog NHA. The dynamic management approach proposed will be monitored to both ensure as much benefits as possible are provided for hen harrier and to contribute to advances in habitat management methods. The proposed enhancement measures are not only proposed for hen harrier but also for peatland habitat restoration.

And most significantly the implementation of the proposed enhancement measures will safeguard a significant resource for biodiversity for the 30-year lifespan of the proposed wind farm site.

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APPENDIX 1

HABITAT ENHANCEMENT CALCULATION

1. QUANTIFICATION OF POTENTIAL HABITAT LOSS

1.1 Background

Hen harrier show small scale avoidance of operational turbines resulting in a relatively small loss of potential foraging habitat (Haworth and Fielding, 2012). In the worst-case scenario, it can be assumed that all lands within 250m of operational turbines are unavailable to foraging hen harrier (Pearce-Higgins et. al., 2019). The flight activity of foraging hen harrier is provided in Figure 8-10 Appendix 8-4.

1.2 Calculation Procedure

The areas of habitat, within a 250-metre radius of the proposed turbine layout will be individually identified and classified as suitable or unsuitable as hen harrier foraging habitat in a tabulated format. A radius of 250 metres from a turbine base equates to an area around each turbine of roughly 20 hectares. The individual areas of habitats, including forestry compartments with different planting and felling years will be individually measured, for each turbine within the core foraging range of the hen harrier nest to the south of Doo Lough.

Average annual suitable habitat areas will be calculated using a 30-year average, to account for the forestry rotation cycles during the operational phase of the windfarm. The habitat enhancement requirement for the commissioning and decommissioning date of the windfarm, as well as all intervening years will be quantified, to allow for flexibility in the commissioning date and potential for revising the calculations.

As previously stated, turbine avoidance by hen harriers observed at one wind farm installation extended to within 250m of turbines (Pearce-Higgins et al. 2009). The assessment of displacement provided below relies on the following precautionary assumptions:

- 100% displacement within the 250m buffer of the turbines;
- Forestry plantations in their initial years, prior to closed canopy, have potential to support foraging hen harrier. Therefore, as forestry matures/is felled there is potential for ongoing loss/creation of supporting habitat for hen harrier; and
- The non-designated area North and West Clare corresponds to the area utilized by the local hen harrier population.

Following analysis of Coillte's felling/replanting schedule it has been determined that an average of 8.6ha within the 250m buffer zone would be available for hen harrier in any given year during the operational phase of the development (i.e. 2024-2054). Additionally, there is 54.4ha of open habitat within the 250m buffer zone of turbines. This means that hen harrier could potentially be displaced from 63ha of potential suitable habitat on average per year between 2024 and 2054. The non-designated regionally important area North and West Clare has contracted since 2010 (Ruddock, 2015). The potential area of avoidance (i.e. 63ha) is considered a low to moderate loss/avoidance of suitable habitat.

APPENDIX 2

HABITAT FORAGING CALCULATION

				Forestry Information																																
T2	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	CHF	SS	5.47	Y	2012 & 2057																															
B2	Biodiversity	biodiversity	1.43	N		1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	1.431	
B3	CHF	LS	0.58	Y	2012 & 2057																															
B4	CHF	SS	1.48	Y	2034											1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475											
B5	CHF	SS	2.51	Y	2012 & 2057																															
B6	CHF	SS	2.45	Y	2038															2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45							
B7	Biodiversity	biodiversity	0.45	N		0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	0.445	
B8	CHF	SS	3.20	Y	2008 & 2053																														3.197	3.197	
B9	MHF		0.24	Y	2017	0.2436	0.2436	0.2436																													
B10	Biodiversity	biodiversity	0.12	N		0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	0.116	
B11	CHF	SS	0.15	Y	2040																	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471	0.1471						
B12	CHF	LS	0.14	Y	2015	0.1379																														
B13	Wet Grass	Wet Grass	1.33	N		1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.33	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	1.333	
B14	CHF	SS	0.09	Y	2040																	0.08891	0.08891	0.08891	0.08891	0.08891	0.08891	0.08891	0.08891	0.08891	0.08891						
	Total Area:		**19.63**			**3.71**	**3.57**	**3.57**	**3.33**	**3.33**	**3.33**	**3.33**	**3.33**	**3.33**	**3.33**	**4.80**	**4.80**	**4.80**	**4.80**	**7.25**	**7.25**	**7.49**	**7.49**	**7.49**	**7.49**	**6.01**	**6.01**	**6.01**	**6.01**	**3.56**	**3.56**	**3.33**	**3.33**	**3.33**	**6.52**	**6.52**	
																																				151.95
																																				4.90

T3	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	WD4	Private	11.40	Y	N/A																																
B2	CHF	SS	0.93	Y	2038															0.9293	0.9293	0.9293	0.9293	0.9293	0.9293	0.9293	0.9293	0.9293	0.9293								
B3	CHF	SS	1.11	Y	2038															1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106	1.106								
B4	Bare PL		0.31	N		0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	0.3071	
B5	Wet Grass	Wet Grass	2.42	N		2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	2.416	
B6	Heath/Bog/Wet Grass		3.47	N		3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	3.465	
	Total Area:		**19.62**			**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**8.22**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	**6.19**	
																																				212.18
																																				6.84

T4	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B2	CHF	SS	0.45	Y	2014 & 2059																																
B3	CHF	NF	0.35	Y	2011 & 2056																																
B5	BLOWN		0.60	N		0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	0.59735	
B7	CHF	SS	2.00	Y	2011 & 2056																																
	Total Area:		**3.39**			**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	
																																				18.52
																																				0.60

T5	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	Wet Grass	Wet Grass	1.16	N		1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	
B2	CHF	SS	0.80	Y	2040																	0.8011	0.8011	0.8011	0.8011	0.8011	0.8011	0.8011	0.8011	0.8011	0.8011						
B3	CHF	SS	7.41	Y	2011 & 2056																																
B4	CHF	LS	0.08	Y	2015	0.08																															
B5	FELLED	XC	0.39	Y	2008 & 2053																														0.3858	0.3858	
B6	CHF	NF	0.91	Y	2011 & 2056																																
B7	CHF	SS	2.43	Y	2040																	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43						
B8	CHF	SS	0.98	Y	2040																	0.979	0.979	0.979	0.979	0.979	0.979	0.979	0.979	0.979	0.979						
B9	CHF	SS	1.79	Y	2016	1.792	1.792																														
B10	FELLED	XC	0.01	Y	2017	0.01445	0.01445	0.01445																													
B11	CHF	SS	1.49	Y	2016	1.49	1.49																														
B12	WD4	Private	2.20	Y	N/A																																
	Total Area:		**19.65**			**4.54**	**4.46**	**1.18**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**1.16**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**5.37**	**1.16**	**1.16**	**1.16**	**1.55**	**1.55**	
																																				85.56
																																				2.76

T6	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	Bare PL		15.55	N		15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	15.55	
B2	CHF	SS	0.82	Y	2016	0.82	0.82																														
B3	WD4	Private	3.26	Y	N/A																																
	Total Area:		**19.63**			**16.37**	**16.37**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	**15.55**	
																																				483.69
																																				15.60

T7	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	CHF	SS	1.10	Y	2011 & 2056																																
B2	BLOWN		0.06	N		0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	0.0556	
B3	BIOD	BARE PL	0.16	N		0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	0.1624	
B4	BIOD	BARE PL	0.49	N		0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	0.4885	
B5	FELLED	XC	8.68	Y	2017	8.679	8.679	8.679																													
B7	CHF	SS	0.24	Y	2028					0.2392	0.2392	0.2392	0.2392	0.2392	0.2392	0.2392	0.2392	0.2392	0.2392																		
B9	CHF	SS	2.70	Y	2017	2.7049	2.7049	2.7049																													
B11	CHF	SS	0.04	Y	2014 & 2059																																
	Total Area:		**13.47**			**12.09**	**12.09**	**12.09**	**0.71**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.95**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	**0.71**	
																																				58.45
																																				1.89

T8	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	FELLED	XC	3.65	Y	2017	3.65	3.65	3.65																													
B2	Wet Grass	Wet Grass	7.24	N		7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.24	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	7.243	
B3	CHF	SS	6.19	Y	2040																	6.186	6.186	6.186	6.186	6.186	6.186	6.186	6.186	6.186	6.186						
B4	CHF	SS	0.47	Y	2040																	0.4659	0.4659	0.4659	0.4659	0.4659	0.4659	0.4659	0.4659	0.4659	0.4659						
B5	CHF	SS	0.35	Y	2040																	0.3488	0.3488	0.3488	0.3488	0.3488	0.3488	0.3488	0.3488	0.3488	0.3488						
B6	WD4	Private	1.74	Y	N/A																																
	Total Area:		**19.64**			**10.89**	**10.89**	**10.89**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**14.24**	**7.24**	**7.24**	**7.24**	**7.24**	**7.24**	
																																				305.49
																																				9.85

T9	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B2	CHF	SS	2.82	Y	2017	2.82	2.82	2.82																													
B3	CHF	SS	0.40	Y	2034											0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404												
B4	CHF	SS	0.64	Y	2034											0.6444	0.6444	0.6444	0.6444	0.6444	0.6444	0.6444	0.6444	0.6444	0.6444												
B5	CHF	SS	0.99	Y	2034											0.9866	0.9866	0.9866	0.9866	0.9866	0.9866	0.9866	0.9866	0.9866	0.9866												
B6	WD4	Private	0.48	Y	N/A																																
	Total Area:		**5.33**			**2.82**	**2.82**	**2.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**2.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
																																				28.81
																																				0.93

T10	**Habitat**	**Habitat/Forestry Block**	**Area (Ha)**	**Forestry Y/N?**	**Felling Year**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**Totals**
B1	BARE PL		19.63	N		19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	
	Total Area:		**19.63**			**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	**19.63**	
																																				608.53
																																				19.63

				Annual Totals		**77**	**77**	**73**	**54**	**55**	**55**	**55**	**55**	**55**	**55**	**58**	**58**	**58**	**58**	**62**	**62**	**74**	**74**	**74**	**74**	**70**	**70**	**70**	**70**	**66**	**66**	**54**	**54**	**54**	**58**	**58**	**63.01**
					Forestry	22.44	22.22	18.11	0.00	0.24	0.24	0.24	0.24	0.24	0.24	3.75	3.75	3.75	3.75	8.00	8.00	19.44	19.44	19.44	19.44	15.93	15.93	15.93	15.93	11.45	11.45	0.00	0.00	0.00	3.58	3.58	**8.60**
					Open	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	54.40	**54.40**