



# Beauly-Denny Replacement Transmission Line Restoration Monitoring 2017

Beauly to Denny Project

December 2017

# **TABLE OF CONTENTS**

1	INTRODUCTION	1
1.1	Background	1
1.2	Overview of the Development	1
1.3	Background	2
1.4	Requirements of the CPH	2
2	RESTORATION	5
2.1	Natural Regeneration	5
2.2	Objectives of Restoration	5
3	RESTORATION MONITORING	7
3.1	Percentage Coverage	7
3.2	Species Lists	7
4	RESTORATION MONITROING YEAR 2 2017	8
4.1	Weather Conditions 2017	8
4.2	Monitoring findings	8
4.3	Summary of Restoration Monitoring Year 2	9
5	APPENDIX 1 – RESTORATION MONITORING RESULTS	11

#### 1 INTRODUCTION

#### 1.1 BACKGROUND

The Beauly to Denny Replacement Transmission Line Development is a joint undertaking by Scottish Hydro-Electric Transmission Limited (SHETL) and Scottish Power Transmission (SPT). On 28 September 2005, SHETL applied for consent (under Section 37 of the Electricity Act 1989), and planning permission (under Section 57(2) of the Town and Country Planning (Scotland) Act 1997), to construct a new 400kV transmission line between Beauly Sub-station and the Wharry Burn, near Dunblane.

#### 1.2 OVERVIEW OF THE DEVELOPMENT

The Beauly to Denny Replacement Transmission Line Development<sup>1</sup> consists of:

- Construction of a double circuit 400 kilovolt (kV) overhead transmission line supported on steel lattice towers between Beauly and Denny.
- Removal of the existing 132kV line between Beauly and Denny including restoration and reinstatement.
- Construction of temporary access tracks (of which 7km may become permanent) and working areas.
- Upgrading of existing access tracks.
- Junction works where access tracks join the public road network.
- Various upgrades to the existing public road network to facilitate the required construction traffic.
- Dismantling of the existing substation at Braco.

In addition to the works described above there will be the following associated works:

- Temporary and permanent power line and telecoms diversions.
- A number of rationalisation schemes to improve the landscape and visual conditions associated with existing overhead transmission lines.
- Development at existing substations and construction of new substations.
- Operation and restoration of borrow pits.
- Construction and restoration of site compounds.
- Forestry activities

<sup>&</sup>lt;sup>1</sup> As defined in Annex 1 of the Section 37 Planning Consent.

The Environmental Statement (ES) for the entire Development split the works into four sections from north to south:

- Beauly Substation to Fort Augustus.
- Fort Augustus to Tummel Bridge.
- Tummel Bridge to Braco.
- · Braco to Denny.

However the SHETL section of the overhead line has been divided into 3 sections to facilitate management of the construction process:

- Beauly to Fort Augustus.
- Fort Augustus to Tummel Bridge.
- Tummel Bridge to the Wharry Burn.

#### 1.3 BACKGROUND

This document provides details of the approach proposed for annual monitoring long term restoration of access tracks and compounds (hereafter raftered to as affected locations), following the completion of the main works elements of the Beauly to Denny project. Reinstatement and restoration of the Beauly-Denny project is critical to the long-term legacy of the project.

This document aims to provide a description of the restoration. Within this document the terms reinstatement and restoration are not interchangeable.

The objective of monitoring of the affected locations is to ensure that all necessary measures are taken to achieve the overriding objective of full restoration of the impacted habitat and to achieve this restoration within the shortest timescale.

#### 1.4 REQUIREMENTS OF THE CPH

The restoration Monitoring has been undertaken taking into account all requirements of the CPH where applicable.

Section 5 of the CPH states that all restoration should be carried out in accordance with the environmental commitments listed in Section 2.2 of the CPH. These environmental commitments are listed below:

- Conditions attached to the statutory consents granted by the Scottish Ministers to SHETL;
- Mitigation measures set out in the Environmental Statement (ES); the first addendum to the ES; the second addendum to the ES and as agreed at the Public Local Inquiry;
- Further mitigation measures agreed post publication with consultees;
- Conditions and commitments agreed between SHETL and landowners/occupiers;

- Any conditions of Controlled Activities Regulations (CAR) authorisations:
- Any commitments relating to waste management;
- Any conditions included in European Protected Species (EPS) or other protected species licences;
- Any conditions attached to Scheduled Monument Consents;
- Any specific requirements relating to archaeological sites as agreed with Council archaeologists and Historic Scotland;
- Environmental commitments in the Contractor's Environmental Management System (EMS); and
- Environmental best practice measures including those set out by statutory agencies such as the Scottish Government, SEPA, SNH, HS, Planning Authorities and FCS etc.

Section 5 also provides detail on all documents and sections of the CPH which should be referenced when preparing restoration documents. These include

- Appendix 4 (Environmental Commitments);
- Appendix 10 (Landscape Design Plans); and
- Appendix 31 (Forestry Wayleave Design Plans).

It is noted that Appendices 8 and 24 of the CPH set out key restoration principles which should be followed, including 'lessons learnt' from previous projects. Best practice from Scottish Natural Heritage (SNH) and the Forestry Commission Scotland (FCS) should inform all restoration proposals.

It is important to note that Section 5 of the CPH makes the following comment: 'Reinstatement and restoration are used interchangeably – however it should be noted that each site will be re-instated as close as possible to its original condition and habitats will be restored.' Within this document the terms reinstatement and restoration are not interchangeable.

Appendix 8 of the CPH provides details on the delivery of restoration for the project. It firstly notes that restoration will be more successful if planned in advance and this is the recommendation to be taken forward. Restoration must be discussed in full with the SHETL Environmental Management team and restoration plans should have input from the project Ecological Clerk of Works (ECoW) and the project landscape architect. Allied to this, the restoration plans should take into account the agreements for forestry and landscape as set out in CPH appendices 10 and 18. A plan detailing the way in which the restoration process will be monitored should be developed, and it should set out who will undertake the monitoring and timescales for the monitoring procedures. Consideration should also be given to how deer pressures may affect planting regimes. All restoration plans should be discussed and agreed with SNH prior to works

commencing on site. Appendix 24 of the CPH sets out the importance of using indigenous plant species in restoration. Species typical to the project areas are listed in the appendix and key landscape characteristics are also included for reference.

#### 2 RESTORATION

#### 2.1 NATURAL REGENERATION

It is always better to allow natural regeneration to take place after any major construction project. Plants most suited to that location, its specific soil conditions and micro-climate, will establish quicker and with less requirement for nutrient input or additional works such as strimming or supplementary seeding (where the first attempts at seeding have not proved as successful as hoped).

Furthermore local varieties and unique genetic variants of plants will tolerate local conditions far better than imported material. In addition local pollinating invertebrates will be in situ to accelerate the lifecycles and colonisation of native plants on a formerly bare site..

#### 2.2 OBJECTIVES OF RESTORATION

The objectives for restoration of the habitats along the overhead line route are to:

- Ensure that, as far as possible, the mosaic of valuable plant communities that are present on the site prior to construction are reinstated and continue to grow on the site post-construction;
- Maintain plant species diversity;
- Maintain the value of the site for fauna:
- Avoid the spread of undesirable plants including weed species;
- Avoid the spread of plants that could threaten the conservation value of the plant communities present;
- Maintain the range of hydrological conditions present on this site; and
- Ensure that the restored area is suitable for the management regime that currently exists on the site.

The objectives of the monitoring are as follows:

- To provide data at the completion of monitoring years that would enable SSE and the IEC to assess the regeneration of vegetation within the "affected locations".
- To enable the early identification of deficiencies in the reinstatement so as to enable a programme of remedial action to be agreed.

To enable the end point of aftercare and monitoring to be agreed i.e. full restoration of the impacted habitat. This is expected to be reached within a period of five years for all sites but may be varied on a site-by-site basis subject to the agreement of the consultees.

Both the Cairngorms National Park Authority (CNPA) and Scottish Natural Heritage (SNH) have been fully consulted on the restoration monitoring and continue to be involved as the lead consultees through individual meetings, site visits and through the Environmental Liaison Group forums.

#### 3 RESTORATION MONITORING

The following provides the approach to monitoring that has been taken during year 2 (2017) after construction activity have been completed for Affected Locations on the Beauly to Denny project.

In general, the Affected Locations have full vegetation cover and distinctive structure, the replication of which is fundamental to full restoration. This can be measured through a comparison of estimated cover against that established in the adjacent habitat. Structure can be readily assessed visually through an annual photographic record.

### 3.1 Percentage Coverage

Within a survey area the percentage coverage of vegetation has been recorded into 4 categories;

- 0 25% Sparse
- 25-50% Mediocre
- 50-75% Good
- 75 100% Excellent

When recorded year on year the surveys should show and increase in percentage coverage as full restoration is achieved. Where the percentage coverage is shown to remain the same, revegetation techniques can be used to increase the rate of restoration.

#### 3.2 SPECIES LISTS

Species lists can give some broad indication of change in the floristics of a vegetation type, for instance where there is a completely different set of dominant species.

Within a survey area there are species which are consistently recorded and which are considered to be essential in achieving a similar restored plant community post-construction. These constant species are those which are important in the definition of a particular habitat type. The successful reestablishment of these species is therefore considered to be a fundamental aspect of full restoration.

It is also probable that previously unrecorded species will appear within the reinstated sward. Whilst these are most likely to be undesirable species they may also be desirable species that were present as viable seed / fruit in the seedbank and were encouraged as a result of the construction activity and the change brought about by it.

#### 4 RESTORATION MONITROING YEAR 2 2017

Year 2 of the restoration monitoring began in August 2017 and was completed in October 2017. The information below provides an overview of the monitoring findings within the Cairngorms National Park Area. A full list of findings for each affected location is presented in Appendix 1.

#### 4.1 WEATHER CONDITIONS 2017

Weather patterns can hamper natural regeneration of a habitat. 2017 weather conditions are summarised below:

- Spring This has been a warm and rather dry spring. It was generally warmer than average during March and early April, but the second half of April was cooler, with some cold nights and numerous late frosts. May was predominantly warm, especially early and late in the month. April was much drier than average for most areas, but parts of north-west Scotland were wet. May was somewhat wetter than average in some south-eastern parts, but quite dry in much of the north and west. Sunshine has been above average for spring in most areas.
- Summer This summer was rather wet, with rainfall above average
  for the UK in each individual month. Provisionally this ranks as the
  ninth wettest summer in the UK in a series since 1910. It was also
  slightly warmer than average, but that is largely due to a warm June,
  as from mid-July onwards the weather was often on the cool side
  with an unsettled westerly regime. Sunshine amounts were slightly
  below average for many western areas, but near or above average
  further east.

#### 4.2 MONITORING FINDINGS

The monitoring surveys undertaken have identified that natural regeneration of vegetation is occurring across the project in all habitats surveyed. However, the rate of natural regeneration varies on a site by site basis. Table 1 below, shows the changes in restoration from year 1 (2016) and year 2 (2017)

Table 1: summary of restoration within the national park

Status	Number of Towers	Percentage
Improving in classification (currently at Mediocre in 2017 results)	21	19.63%
Improving in classification (currently at Good in 2017 results)	27	25.23%
Improving in classification (currently at Excellent in 2017 results)	13	12.15%
Flat lining in classification (currently Sparse in 2017 results)	38	35.51%
Flat lining in classification (currently Mediocre in 2017 results)	4	3.74%
Flat lining in classification (currently Good in 2017 results)	4	3.74%
Total	107	

The rate of natural restoration of the ground depends on the habitats present before works, as well as conditions of reinstatement within the compounds and access tracks. Soil management is crucial to successful reinstatement and has been varied across the project. General findings indicate that soils along the access tracks have typically been correctly separated during construction, i.e. turfs, topsoils and subsoils separated, and natural regeneration of vegetation is occurring. Soils in the compounds have been generally mixed during the construction process and the reinstated soil horizons are also mixed, slowing the natural regeneration.

The rate of restoration is higher where levels of soils (rather than solely peat) were higher before construction works began. These areas have revegetated far better than those compounds where deep wet peat predominated prior to construction. Peat is very low in accessible plant nutrients and is thus very slow to be colonised by plants after disturbance. However once plants have established a vegetation cover on peat, this can comprise species-rich semi-natural vegetation communities and be resilient to further disturbance.

Compounds where the pre-construction conditions comprised dry and/or shallow peat have re-vegetated better than where deep wet peat conditions were more typical. However, deep/wet peat will take longer to be colonised by vegetation that shallow/drier peat as it is less likely to support ephemeral and ruderal species.

The level of restoration is being severely hampered in placed by sheep grazing. Throughout the surveys it was noted that sheep are preferentially grazing new growth in the affected areas rather than the adjacent habitat.

#### 4.3 SUMMARY OF RESTORATION MONITORING YEAR 2

In summary it is recommended that the vast majority of compound sites be allowed to re-vegetate naturally with no seed sown or nutrients added; this will help ensure that a good semi-natural plant community develops which is typical of the adjacent plant communities. Further monitoring of these affected locations is expected to show a year on year increase in the percentage coverage and a change in the species composition as natural succession occurs.

Percentage ground coverage in upland areas is generally mediocre (25-50%) although some compounds have low coverage (0-25%) and other affected locations have shown good levels of regeneration (50-75% vegetation coverage). These differences are usually based on soil type and aspect, as well as the composition of adjacent vegetation communities.

It is worth noting that some of the compounds with sparse and mediocre vegetation coverage have heavy levels of sheep and deer grazing

restricting the growth of vegetation and therefore the rate of restoration. In addition there are compounds where works on the line were required in 2017. Vehicle movements in the compounds have disturbed soils and potentially set back the restoration.

## 5 APPENDIX 1 – RESTORATION MONITORING RESULTS

Process   Proc	Track	Construction Tower Number	Tower Working Number	Reinstatement & Restoration Comments Year I 2016	Status	Flag	Reinstatement & Restoration Comments Year 2 2017	Status	Flag	Status	Comments
Part Control of Contro	20	FT77	GYI / GMI 80		М			М		No change	Monitoring
Programme of the company of a medical in the company of a	20	FT78	GYI / GMI 8I		М		identified in the compound and along the access track. approximately 50% of this compound is vegetated and this is mainly accounted for	М		No change	Monitoring
Page 1980 OPI CON I CON I Settlement on the compound is pages.  Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I CON I Set Personal Pages of Page 1981 OPI CON I Set Personal Pages of Page 1981 OPI CON I Set Personal Pages of Page 1981 OPI CON I Set Personal Page 1981 O	20	FT79	GYI / GMI 82	-	М		•	М		No change	Monitoring
The compound a specialists of specialists of specialists of special special control of specialists of special	20	FT80	GYI / GMI 83	Restoration in the compound is sparse.	S		•	М		Recovering	Monitoring
Page 1782 OT 1 GM1 89 Restoration in the compound is reducer through natural regeneration of 1982 and 1983 OT 1 GM1 80 Restoration in the compound is sparse.  S 1 Vegetance cover has reproved from "Sparse" in 2014 to "good" in Compound in Sparse in 2017. Federace of these graving throughout the compound in Sparse in 2017. Federace of these graving throughout the compound in Sparse in 2014 to "good in reducer the Conjugination of the Compound in Sparse in 2014 to "good in reducer the Conjugination of the Compound in Sparse in 2014 to "good in reducer the Conjugination of the Compound in Sparse in 2014 to "good in reducer the Conjugination of the Compound in Sparse in 2014 to "good in reducer the Conjugination of 2017 Federace of these graving through cause the Conjugination of 2017 Federace of these graving through cause in the compound is good intrough natural regeneration of a feature and the compound in the compound is good intrough natural regeneration of the federace in the compound in the compound is good intrough natural regeneration of the federace in the reducer that is regionally pressure.  S 1879 OT 1 GM1 89 Restoration in the compound is good intrough natural regeneration of the federace in the reducer in the compound is in the compound in good intrough natural regeneration of the federace in the reducer in the compound in the compound is good intrough natural regeneration of the federace in the reducer of these graving pressure.  S 1 Restoration is excellent. This compound is in a deer fence and the federace of the federace of these graving pressure.  S 2 Restoration is the compound in the compound is good intrough natural regeneration of the federace of these graving pressure.  S 3 Restoration is excellent. This compound is in a deer fence and the federace of the federace of these graving pressure.  S 4 Restoration is excellent. This compound is in a deer fence and the federace of the fed	20	FT81	GYI / GMI 84	· · · · · · · · · · · · · · · · · · ·	М			G		Recovering	Monitoring
TES SY1 / GM1 86 Secondary in the compound is sparse.  5 Nogetical recovering sparsing many proposed from "Sparse" in 2014 to "Spars" in 2014 to "	20	FT82	GYI / GMI 85		М		-	М		Recovering	Monitoring
The properties of the properties of the proposed is good through natural regeneration	20	FT83	GYI / GMI 86	Restoration in the compound is sparse.	S			G		Recovering	Monitoring
P185 GY1 / GM1 88 Restoration in the compound is good drivough natural regeneration. G therefore has no grazing pressure.    Property	20	FT84	GYI / GMI 87	Restoration in the compound is good through natural regeneration	G			G		Recovering	Monitoring
Help GY   GM   9 Restoration in the compound is good through natural regeneration G   therefore has no grazing pressure.   E   Monitoring   Restoration is excellent. This compound is in a deer fence and therefore has no grazing pressure.   E   Monitoring   Restoration is excellent. This compound is in a deer fence and therefore has no grazing pressure.   E   Monitoring   Restoration in the compound is good through natural regeneration G   Restoration remains good. Evidence of sheep grazing G   Recovering   Monitoring   Required   Restoration remains good. Evidence of sheep grazing G   Recovering   Monitoring   Required   Restoration in the compound is good through natural regeneration G   Restoration is excellent.   E   No Further   Monitoring   Required   Restoration has improved to good in 2017.   G   Recovering   Required   Restoration has improved to good in 2017.   G   Recovering   Required   Restoration in the compound is good through natural regeneration   G   Restoration has improved to good in 2017.   G   Recovering   Required   Restoration is excellent.   A significant increase in vegetative cover   Since 2016; grasses have become much more common at the expense of rushes still remain abundant.   E   Worther   Monitoring   Required   Restoration in the compound is good through natural regeneration   G   Restoration is excellent.   E   Recovering   Monitoring   Required   Restoration in the compound is good through natural regeneration   G   Restoration is excellent.   E   No Further   Monitoring   Required   Recovering   Required   Required   Regulared   Restoration in the compound is good through natural regeneration   G   Restoration is excellent.   E   Restoration in the compound is good through natural regeneration   Restoration is excellent.   E   Restoration in the compound is good through natural regeneration   Restoration is exc	20	FT85	GYI / GMI 88	Restoration in the compound is good through natural regeneration	G		·	E			
Restoration is excellent. This compound is in a deer fence and directfore has no grazing pressure.    Application   Compound   Compo	20	Ft86	GYI / GMI 89	Restoration in the compound is good through natural regeneration	G		•	E			
FT88	20	FT87	GYI / GMI 90	Restoration in the compound is good through natural regeneration	G		·	E			
FT88_I GYI / GMI 92 Restoration in the compound is good through natural regeneration G Restoration is excellent. E Monitoring  Restoration in the compound is mediocre through natural regeneration M Restoration has improved to good in 2017. G Recovering Monitoring Required Required PT90	20	FT88	GYI / GMI 9I	Restoration in the compound is good through natural regeneration	G		Restoration remains good. Evidence of sheep grazing	G		Recovering	Monitoring
Restoration in the compound is mediocre through natural regeneration  Restoration has improved to good in 2017.  G Recovering Monitoring Required  Restoration has improved to good in 2017.  G Restoration has improved to good in 2017.  G Restoration is excellent. A significant increase in vegetative cover since 2016; grasses have become much more common at the expense of rushes/ sedges but these still remain abundant.  G Restoration has improved to good in 2017.  G Restoration has improved to good in 2017.  G Recovering Monitoring Required  Further Monitoring Required  Further Monitoring Required  Figure Figure GYI / GMI 95  Restoration in the compound is sparse.  S Restoration has improved to good in 2017.  G Restoration has improved to good in 2017.  G Recovering Monitoring Required  Further Monitoring Required  No Further Monitoring  Figure Figure GYI / GMI 96  Restoration in the compound is good through natural regeneration G Restoration is excellent.  E No Further Monitoring  No Further Monitoring  Figure Figure GYI / GMI 97  Restoration in the compound is good through natural regeneration G Restoration is excellent.  E No Further Monitoring  No Further Monitoring	21	FT88_I	GYI / GMI 92	Restoration in the compound is good through natural regeneration	G		Restoration is excellent.	E			
FT90 GYI / GMI 94 Restoration in the compound is good through natural regeneration G since 2016; grasses have become much more common at the expense of rushes/ sedges but these still remain abundant.  E No Further Monitoring  Further Monitoring  Further  GYI / GMI 95 Restoration in the compound is sparse.  S Restoration has improved to good in 2017.  GYI / GMI 96 Restoration in the compound is good through natural regeneration  G Restoration is excellent.  E No Further Monitoring  Required  No Further  Monitoring  Restoration is excellent.  E No Further  Monitoring  No Further  Monitoring  Restoration is excellent.  E No Further  Monitoring  No Further  Monitoring  Restoration is excellent.  E No Further  Monitoring  No Further  Monitoring  Restoration is excellent.  E No Further  Monitoring  No Further  Monitoring  Restoration is excellent.	21	FT89	GYI / GMI 93	-	М		Restoration has improved to good in 2017.	G		Recovering	Monitoring
FT91 GY1 / GM1 95 Restoration in the compound is sparse.  S Restoration has improved to good in 2017.  G Recovering Monitoring Required  No Further Monitoring Restoration in the compound is good through natural regeneration  GY1 / GM1 96 Restoration in the compound is good through natural regeneration  GY1 / GM1 97 Restoration in the compound is good through natural regeneration  GY1 / GM1 97 Restoration in the compound is good through natural regeneration  GY1 / GM1 98 Restoration in the compound is good through natural regeneration  GY1 / GM1 98 Restoration in the compound is good through natural regeneration  G Restoration has improved to good in 2017.  G Restoration is excellent.  G Restoration is excellent.  FY93 GY1 / GM1 98 Restoration in the compound is good through natural regeneration  G Restoration is excellent.  FY94 Restoration is excellent.	21	FT90	GYI / GMI 94	Restoration in the compound is good through natural regeneration	G		since 2016; grasses have become much more common at the	E			
FT91C GY1 / GM1 96 Restoration in the compound is good through natural regeneration G Restoration is excellent. E Monitoring  FT92 GY1 / GM1 97 Restoration in the compound is good through natural regeneration G Restoration is excellent. E No Further Monitoring  GY1 / GM1 98 Restoration in the compound is good through natural regeneration G Restoration is excellent. E No Further Monitoring  Restoration is excellent. E	21	FT9I	GYI / GMI 95	Restoration in the compound is sparse.	S		Restoration has improved to good in 2017.	G		Recovering	Monitoring
21 FT92 GY1 / GM1 97 Restoration in the compound is good through natural regeneration G Restoration is excellent. E Monitoring  21 FT93 GY1 / GM1 98 Restoration in the compound is good through natural regeneration G Restoration is excellent. E	21	FT9IC	GYI / GMI 96	Restoration in the compound is good through natural regeneration	G		Restoration is excellent.	E			
21 FT93 GY1 / GM1 98 Restoration in the compound is good through natural regeneration G Restoration is excellent.	21	FT92	GYI / GMI 97	Restoration in the compound is good through natural regeneration	G		Restoration is excellent.	E			
	21	FT93	GYI / GMI 98	Restoration in the compound is good through natural regeneration	G		Restoration is excellent.	E			No Further

21	FT94	GYI / GMI 99	Restoration in the compound is mediocre through natural regeneration	М	Restoration has improved to good in 2017.	G	Recovering	Further Monitoring Required
21	FT95	GYI / GMI 100	Restoration in the compound is sparse.	S	Restoration has improved to good. Although there is not much of an increase in species diversity or vegetation cover since 2016 there is a notable increase in the amount of moss here.	G	Recovering	Further Monitoring Required
21	FT96	GYI / GMI 101	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of light grazing	S	No change	Further Monitoring Required
21	FT99	GYI / GMI 102	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of light grazing	S	No change	Further Monitoring Required
21	FT100	GYI / GMI 103	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of light grazing	S	No change	Further Monitoring Required
21	FTIOI	GYI / GMI 104	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of light grazing	S	No change	Further Monitoring Required
21	FT102	GYI / GMI 105	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of heavy grazing	S	No change	Further Monitoring Required
22	FT103	GYI / GMI 106	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of heavy grazing	S	No change	Further Monitoring Required
22	FT106	GYI / GMI 107	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of heavy grazing	S	No change	Further Monitoring Required
22	FT07	GYI / GMI 108	Restoration in the compound is sparse.	S	Restoration remains sparse. Some evidence of heavy grazing	S	No change	Further Monitoring Required
22	FT108	GYI / GMI 109	Restoration in the compound is sparse.	S	Compound has improved to Mediocre. Was "Sparse" in 2016: a slight increase in vegetative cover and species diversity since then.	М	Recovering	Further Monitoring Required
22	FT109	GYI / GMI 110	Restoration in the compound is mediocre through natural regeneration	М	Compound has improved to Mediocre. Was "Sparse" in 2016: a slight increase in vegetative cover and species diversity since then.	М	Recovering	Further Monitoring Required
22	FTIII	GYI / GMI III	Restoration in the compound is sparse.	S	Restoration remains sparse.	S	No change	Further Monitoring Required
22	FT113	GY1 / GM1 112	Restoration in the compound is sparse.	S	restoration has improved to mediocre. Little change since 2016 but grasses proportionately more frequent at the expense of sedges /rushes.	М	Recovering	Further Monitoring Required
22	FT114	GYI / GMI 113	Restoration in the compound is sparse.	S	A noticeable increase in mosses since 2016; and an improvement from "Scarce" to "Mediocre".	М	Recovering	Further Monitoring Required
23	FT115	GYI/GMI 114	Restoration in the compound is sparse. Sheep grazing is reducing the plant growth	S	restoration remains sparse. A slight increase in species diversity since 2016; the increase in mosses is notable. Much less sheep grazing impact than 2016.	S	No change	Further Monitoring Required
23	FTI16	GY1 / GM1 115	Restoration in the compound is sparse. Sheep grazing is reducing the plant growth	S	An improvement from Sparse to mediocre in 2016. A greater species diversity here too.	M	Recovering	Further Monitoring Required
23	FT117	GY1 / GM1 116	Restoration in the compound is sparse. Sheep grazing is reducing the plant growth	S	Restoration remains sparse.	S	No change	Further Monitoring Required

			Restoration in the compound is sparse. Sheep grazing is reducing the					Further
23	FTI18	GYI / GMI 117	plant growth	S	Restoration remains sparse.	S	No change	Monitoring Required
24	FT119	GYI / GMI 118	Restoration in the compound is sparse. Sheep grazing is reducing the	S	There has been a slight increase in vegetative cover since 2016 (from "Sparse" to "Mediocre") but a more significant increase in species	M	Recovering	Further Monitoring
			plant growth		diversity.			Required
25A	FT122	GYI / GMI 119	Restoration in the compound is sparse.	s	Vegetative cover has improved from "Sparse" in 2016 to "Mediocre" in 2017. Evidence of sheep grazing throughout the compound.	М	Recovering	Further Monitoring
					in 2017. Evidence of sheep grazing an oughout the compound.			Required Further
25A	FT123	GYI / GMI 120	Restoration in the compound is sparse.	s	The restoration remains sparse. Evidence of heavy grazing was identified in the compound and along the access track.	S	No change	Monitoring
								Required Further
25A	FT124	GYI / GMI 121	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of heavy grazing was identified in the compound and along the access track.	S	No change	Monitoring Required
					The restoration remains sparse. Evidence of heavy grazing was			Further
25A	FT125	GYI / GMI 122	Restoration in the compound is sparse.	S	identified in the compound and along the access track.	S	No change	Monitoring Required
25A	FT126	GYI / GMI 123	Restoration in the compound is sparse.	c	The restoration remains sparse. Evidence of heavy grazing was	c	No shongo	Further
23/4	F1120	GTT / GFTT 123	Restoration in the compound is sparse.	3	identified in the compound and along the access track.	3	No change	Monitoring Required
25A	FT127	GYI / GMI 124	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of heavy grazing was	S	No change	Further Monitoring
			·		identified in the compound and along the access track.			Required
			Restoration in the compound is mediocre through natural		Has improved from "Mediocre" in 2016 to "Good" in 2017; however there has been a significant increase in the proportion of rushes and			Further
25A	FT128	GYI / GMI 125	regeneration. Sheep grazing is reducing the plant growth	М	sedges at the expense of grasses. Evidence of heavy grazing was	G	Recovering	Monitoring Required
					identified in the compound and along the access track.			'
					Improved from "Sparse" in 2016 to "Mediocre" in 2017; rushes and sedges have increased as a proportion of the sward but at the			Further
25A	FT129	GYI / GMI 126	Restoration in the compound is sparse.	S	expense of grasses and herbs. Evidence of heavy grazing was	М	Recovering	Monitoring Required
					identified in the compound and along the access track.			
254	FT130	GYI / GMI 127	Decreasion in the same and it seems	c	Has improved to "Mediocre" in 2017 from "Sparse" in 2016; there	м	D	Further
25A	F1130	G11 / GM1 12/	Restoration in the compound is sparse.	3	has also been a slight increase in species diversity. Evidence of heavy grazing was identified in the compound and along the access track.	IM	Recovering	Monitoring Required
					The level of restoration remains sparse due to Very heavily grazed by			Further
25A	FT131	GYI / GMI 128	Restoration in the compound is sparse.	S	sheep; much trampling and dunging too.	S	No change	Monitoring Required
25A	FT132	GYI / GMI 129	Restoration in the compound is good through natural regeneration.	G	Compound remains good, 50-55% restoration. Sheep grazing is	G	No change	Further Monitoring
25/ (	11132	3117 3111 127	restoration in the compound is good through hattiral regeneration.	J	reducing the plant growth	J	1 to change	Required
25B	FT133	GYI / GMI 130	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of heavy grazing was	S	No change	Further Monitoring
					identified in the compound and along the access track.			Required
25B	FT134	GYI / GMI 131	Restoration in the compound is good through natural regeneration.	G	Restoration in the compound is good through natural regeneration, approximately 60% vegetation cover. Evidence of heavy grazing was	G	No change	Further Monitoring
$\vdash$					identified in the compound.			Required Further
25B	FT135	GYI / GMI 132	Restoration in the compound is sparse.	s	The restoration remains sparse. Evidence of heavy grazing was identified in the compound and along the access track.	S	No change	Monitoring
					,			Required

25B	FT136	GYI / GMI 133	Restoration in the compound is sparse.	s	Restoration has improved to Mediocre 30-35%. Evidence of heavy grazing was identified in the compound and along the access track.	М	Recovering	
25B	FT137	GYI / GMI 134	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	_	Further Monitoring Required
25B	FT138	GY1 / GMT 135	Restoration in the compound is sparse. Sheep grazing is reducing the plant growth	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT139	GYI / GMI 136	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT140	GYI / GMI 137	Restoration in the compound is sparse.	S	Has improved from "Sparse" in 2016 to "Mediocre" in 2017. Least well-vegetated under the tower. Heavily grazed by sheep	М	Recovering	Further Monitoring Required
25B	FT141	GYI / GMI 138	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT142	GYI / GMI 139	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT143	GYI / GMI 140	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT144	GYI / GMI 14I	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT145	GYI / GMI 142	Restoration in the compound is sparse. Sheep grazing is reducing the plant growth	s	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	_	Further Monitoring Required
25B	FT146	GYI / GMI 143	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track. No real increase in vegetative cover when compared with 2016 but a slight increase in species diversity.	S		Further Monitoring Required
25B	FT147	GYI / GMI 144	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
25B	FT148	GYI / GMI 145	Restoration in the compound is sparse.	S	The restoration remains sparse. Evidence of grazing was identified in the compound and along the access track. A small increase in vegetative cover since 2016 but a moderately significant increase in species diversity.	S	_	Further Monitoring Required
26A	FT149	GYI / GMI 146	Restoration in the compound is sparse.	S	The level of restoration remains sparse. No increase in vegetative cover since 2016 but there has been a significant increase in species diversity.	s		Further Monitoring Required
26A	FT150	GYI / GMI 147	Restoration in the compound is sparse.	S	The level of restoration remains sparse however sheep are excluded from this compound by a deer fence, thus it has a better quality sward than most other compounds along the Drumochter Pass.  There has been a significant increase in species diversity since 2016.	S		Further Monitoring Required

26B	FT151	GYI / GMI 148	Restoration in the compound is sparse.	S	,	The level of restoration remains sparse. Some evidence of sheep grazing but not as pronounced as in locations further north along the route.	S	· ·	Further Monitoring Required
26B	FT152	GYI / GMI 149	Restoration in the compound is sparse.	S		Vegetation in the compound is excellent however not fully restored.  Some evidence of sheep grazing but not as pronounced as in locations further north along the route.	E	Recovering	Compound is thought to be fully restored within I year. Final Monitoring year 2018
26B	FTI53	GYI / GMI 150	Restoration in the compound is sparse.	S		The level of restoration remains sparse. Vegetative cover is essentially the same as in 2016. However there has been a slight increase in species diversity over this period. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
26B	FT154	GYI / GMI 151	Restoration in the compound is sparse.	S		The level of restoration remains sparse. Very little increase in vegetative cover or species diversity since 2016. Evidence of grazing was identified in the compound and along the access track.	S	No change	Further Monitoring Required
26B	FT156	GYI / GMI 152	Restoration in the compound is sparse.	S		The level of restoration has improved to Mediocre. A very species- rich compound that has evidenced some improvement in vegetative cover since 2016. Sheep grazing pressure seems relatively light.	М	Recovering	Further Monitoring Required
26B	FT157	GYI / GMI 153	Restoration in the compound is sparse.	S		The level of restoration has improved to Mediocre. Evidence of grazing was identified in the compound and along the access track.	М	Recovering	Further Monitoring Required
26B	FT159	GYI / GMI 154	Restoration in the compound is sparse.	S		The level of restoration has improved to Mediocre. A significant increase in vegetative cover since 2016 and a noticeable increase in species diversity over that period too.	М	Recovering	Further Monitoring Required
26B	FT160	GYI / GMI 155	Restoration in the compound is sparse.	S		The level of restoration remains sparse however since 2016 sedges / rushes and mosses have increased markedly at the expense of grasses; the vegetative cover of the compound has not noticeably increased.	S	No change	Further Monitoring Required
26B	FT161	GYI / GMI 156	Restoration in the compound is sparse.	S		The level of restoration has improved to Mediocre. Since 2016 there has been a significant increase in the proportion of sedges /rushes and mosses at the expense of grasses. This may be due to increased moisture content on the site. Very little evidence of grazing pressure.	М	Recovering	Further Monitoring Required
26B	FT162	GYI / GMI 157	Restoration in the compound is sparse.	S		The level of restoration has improved to Mediocre. Since 2016 there has been a significant increase in the proportion of sedges /rushes and mosses at the expense of grasses. This may be due to increased moisture content on the site. Very little evidence of grazing pressure.	М	Recovering	Further Monitoring Required
26B	FT163	GYI / GMI 158	Restoration in the compound is sparse.	S		The level of restoration remains sparse. A considerable increase in the relative abundance of heathers and mosses since 2016, mainly at the expense of grasses and sedges / rushes.	S		Further Monitoring Required
ні	FT164	GYI / GMI 159	Restoration in the compound is sparse.	S		The level of restoration has improved to Good. A considerable improvement in vegetative cover when compared to 2016 and a modest increase in species diversity too. Less dominance by ruderal and ephemeral/short perennial species than in 2016	G	· ·	Further Monitoring Required

ні	FT165	GYI / GMI 160	Restoration in the compound is sparse.	s	Vegetation in the compound is excellent however not fully restored. There has been a very significant increase in vegetative cover since 2016, particularly with regard to grasses. In addition there has also been a marked increase in species diversity.	E	Recovering	Compound is thought to be fully restored within I year. Final Monitoring year 2018
H2	FT166	GYI / GMI 161	Restoration in the compound is sparse.	S	Vegetation in the compound is excellent however not fully restored There has been a very marked improvement in vegetative cover since 2016 although the proportion of sedges / rushes in the sward has declined considerably. There was very little evidence of grazing.	E	Recovering	Compound is thought to be fully restored within I year. Final Monitoring year 2018
H2	FT167	GYI / GMI 162	Restoration in the compound is sparse.	s	The level of restoration has improved to good.	G	Recovering	Further Monitoring Required
Н3	FT168	GYI / GMI 163	Restoration in the compound is sparse.	s	The level of restoration has improved to Mediocre. A moderate increase in both species diversity and vegetative cover since 2016.	М	Recovering	Further Monitoring Required
H4	FT169	GYI / GMI 164	Restoration in the compound is mediocre.	М	The level of restoration has improved to Good. Evidence of grazing was identified in Further Monitoring Required the compound and along the access track.	G	Recovering	Further Monitoring Required
H5	FT170	GYI / GMI 165	Restoration in the compound is sparse.	s	An increase in vegetative cover from "Mediocre" in 2016 to "Good" in 2017.	М	Recovering	Further Monitoring Required
H5	FT171	GYI / GMI 166	Restoration in the compound is mediocre.	М	The level of restoration has improved to Good. This compound is very species-rich and approximately 45% of the site is vegetated.  There has been a notable increase in both vegetative cover and species diversity in this compound since 2016.	G	Recovering	Further Monitoring Required
H5	FT172	GYI / GMI 167	Restoration in the compound is sparse.	S	This compound has increased vegetative cover from "Sparse" in 2016 to "Good" in 2017; there has also been a notable increase in species diversity.	G	Recovering	Further Monitoring Required
H6	FT173	GYI / GMI 168	Restoration in the compound is sparse.	S	Vegetative cover has improved markedly from "Sparse" in 2016 to "Good" in 2017. There has also been a considerable increase in species richness despite this compound being already species-rich in 2016.	G	Recovering	Further Monitoring Required
H6	FT174	GYI / GMI 169	Restoration in the compound is sparse.	S	This compound's vegetative cover has improved from "Sparse" in 2016 to "Good" in 2017. There has also been a considerable increase in species diversity within this compound which was already species-diverse.	G	Recovering	Further Monitoring Required
H6	FT175	GYI / GMI 170	Restoration in the compound is sparse.	s	This compound's vegetative cover has increased from "Sparse" in 2016 to "Mediocre" in 2017; there has also been a considerable increase in species-richness.	М	Recovering	Further Monitoring Required
H7	FT176	GYI / GMI 171	Restoration in the compound is sparse.	s	The compound's vegetative cover has increased from "Sparse" in 2016 to "Good" in 2017; there has also been a considerable increase in species-richness.	G	Recovering	Further Monitoring Required
H7	FT177	GYI / GMI 172	Restoration in the compound is mediocre.	М	The compound restoration remains mediocre however has improved. An increase in species-richness since 2016.	G	No change	Further Monitoring Required
Н7	FT178	GYI / GMI 173	Restoration in the compound is sparse.	S	Vegetative cover within this compound has increased from "Sparse" in 2016 to "Good" in 2017. Species richness has also increased markedly over this period.	G	Recovering	Compound is thought to be fully restored within I year. Final Monitoring year 2018

Н8	FT179	GYI / GMI 174	Restoration in the compound is mediocre.	М	Vegetation in the compound is excellent however not fully restored  E  Recovering  Year. Final  Monitoring year 2018
H8	FT180	GYI / GMI 175	Restoration in the compound is mediocre.	М	This compound's vegetative cover has improved from "Mediocre" in 2016 to "Excellent" in 2017 however these scores do not include the large amount of stone lying about the compound which will not support vegetation. Species richness has also increased since 2016.
Н8	FT181	GYI / GMI 176	Restoration in the compound is sparse.	S	The level of restoration has improved to good. This compound's vegetative cover has increased from "Sparse" in 2016 to "Good" in 2017; its species diversity has also markedly increased over this period.  G  Recovering  Monitoring  Required
H8	FT182	GYI / GMI 177	Restoration in the compound is sparse.	S	The level of restoration has improved to good. In 2016 there was approximately 20% vegetation cover here and the site was "Sparse" however in 2017 vegetation cover was approximately 55% and "Good" –thus a considerable improvement. Species diversity has also increased.
29	FT183	GYI / GMI 178	Restoration in the compound is sparse.	S	In 2016 there was approximately 20% vegetation cover here and the compound was "Sparse". By 2017 the cover had increased to approximately 60% and it was "Good". Species richness had also increased over this period.  G  Recovering  Recovering  Compound is thought to be furestored within 2 years.
29	FT184	GYI / GMI 179	Restoration in the compound is sparse.	S	This compound has witnessed a slight increase in vegetative cover since 2016 from "Sparse" to "Good" and there has been a proportionate increase in the relative abundance of grasses at the expense of sedges/ rushes.  G  Recovering  Monitoring  Required
29	FT185	GYI / GMI 180	Restoration in the compound is sparse.	S	Vegetative cover has increased from 10% (Sparse) in 2016 to 30% (Mediocre) in 2017 however there has been only a very slight increase in species richness.  Further  Monitoring Required
29	FT186	GYI / GMI 181	Restoration in the compound is sparse.	S	Mostly soil and degraded peat although small stones are frequent.  This compound remains very bare under the tower. There has been a considerable increase in both species richness and in vegetative G Recovering Monitoring cover since 2016: from "Sparse" to "Good". The increase in heathers has been particularly notable.
29	FT187	GYI / GMI 182	Restoration in the compound is mediocre.	М	Vegetation is colonising well. The vegetative cover here has improved from "Mediocre" in 2016 to "Good" in 2017; species richness has also improved over this period.  Further Recovering Monitoring Required
30	FT188	GYI / GMI 183	Restoration in the compound is sparse.	S	This compound has seen its vegetative cover increase from "Sparse" in 2016 to "Mediocre" in 2017; species diversity has also increased.  H  Recovering  Monitoring  Required
30	FT189	GYI / GMI 184	Restoration in the compound is sparse.	S	This compound has increased its vegetative cover from "Sparse" in 2016 to "Mediocre" in 2017; species richness has also increased M Recovering Monitoring slightly.
30	FT190	GYI / GMI 185	Restoration in the compound is sparse.	S	This compound's vegetative cover has improved from "Sparse" in 2016 to "Good" in 2017 although species-richness has only increased G  marginally.  Further  Recovering Monitoring  Required
30	FT191	GYI / GMI 186	Restoration in the compound is sparse.	S	This compound's vegetative cover has improved from "Sparse" in 2016 to "Good" in 2017; its species richness has also improved  G  Recovering  Monitoring