

**WEST ROSS DEER MANAGEMENT GROUP
APRIL 2019**

<u>Contents</u>	<u>Page</u>
1. BACKGROUND	6
1.1 Introduction	6
1.2 Group Members	7
1.3 Timescale	8
2. PLAN OBJECTIVES	8
2.1 Guiding Principles	8
2.2 The Group’s Objectives	9
2.3 Plan Targets (2016 – 2021)	9
2.4 Monitoring (to provide a baseline and inform on trends)	10
2.4.1 DEER POPULATION	10
2.4.2 DEER WELFARE	11
2.4.3 HABITAT	11
2.4.4 SOCIO-ECONOMIC	11
3. DATA AUDIT	12
3.1 Site Designations	12
3.1.1 SITES OF SPECIAL SCIENTIFIC INTEREST	12
3.1.2 SPECIAL AREAS OF CONSERVATION	14
3.1.3 SPECIAL PROTECTION AREAS	15
3.1.4 NATIONAL SCENIC AREA	16
3.1.5/	

<u>Contents</u>	<u>Page</u>
3.1.5 EXISTING AGREEMENTS	16
3.1.6 DELIVERY OF DESIGNATED FEATURES INTO FAVOURABLE CONDITION	16
3.2 Geology	17
3.3 Native Flora and Fauna	17
3.4 Woodlands	18
3.4.1 EXISTING WOODLANDS	18
3.4.2 NATIVE WOODLANDS	20
3.4.2.1 Retaining Existing Native Woodland Cover	21
3.4.3 NEW WOODLANDS	21
3.5 Carbon Sensitive Habitats	23
3.6 River Basin Management Planning	24
3.7 Habitat Types and Monitoring	25
3.8 Historic and Cultural Features	37
3.9 Fencing in the Landscape	38
3.10 Public Access	38
4. WEST ROSS DEER POPULATION	39
4.1 Deer Count Figures	39
4.2 Population Model	43
4.3 Population Model Going Forward	45
4.4 Deer Culls	48
4.5 Deer Vehicle Collisions (DVCs)	50
4.6 Deer Welfare	51
4.7 Non-Native Species	51
5. DEER MANAGEMENT AND THE ECONOMY	52
5.1 Economic Benefit of Deer Management	52
5.2/	

<u>Contents</u>	<u>Page</u>
5.2 Employment	53
5.3 Larder Services, Infrastructure and Marketing	55
5.4 Economic Costs of Deer Management	56
6. PUBLIC HEALTH AND WELLBEING	56
6.1 Bio-Security Measures	56
6.2 Lyme’s Disease	57
6.3 Other Notifiable Diseases	57
6.4 Food Safety	57
7. MONITOR AND REVIEW PROGRESS OF DEER MANAGEMENT PLAN	58
8. COMMUNICATION POLICY/ACTIONS	59
9. BIBLIOGRAPHY	59

Appendices

Appendix I Maps – all produced to 1:250,000 scale. For any projects/proposals arising from the Plan, more detailed mapping would be required.

No	Name	No	Name	No	Name
1	Membership	10	Areas Suitable for Woodland	16A	Deer Count – Total No Hinds, etc 2018
2	Environmental Designations	11	Broad Habitat Types	17	2009 Deer Density
3	SSSI Condition	12	Historic and Cultural Features	17A	2018 Deer Density
4	Existing Woodlands	13	Munros and Walking Routes	18	Deer Vehicle Collisions
5	Native Woodlands	14	Deer Count – Total No Deer 2009	19	HIA – Blanket Bog Av Browsing
6	Native Woodlands - Herbivore Impact	14A	Deer Count – Total No Deer 2018	20	HIA – Dwarf Shrub Heath Av Browsing
7	Newly Planted Woodlands	15	Deer Count – Total No Stags 2009	21	HIA – Blanket Bog Av Trampling
8	Suitability for Woodland	15A	Deer Count- Total No Stags 2018	22	HIA – Dwarf Shrub Heath Av Trampling
9	Carbon – Habitats Map	16	Deer Count – Total No Hinds, etc 2009		

Appendix II/

Appendix II	Estate Details
Appendix III	SSSI Information
Appendix IV	Fencing in the Landscape
Appendix V	SNH Outdoor Access Code Info
Appendix VI	Deer Cull Figures
Appendix VII	CWD Leaflet
Appendix VIII	Lyme's Disease Leaflet
Appendix IX	Section 7 Agreement

WEST ROSS DEER MANAGEMENT GROUP APRIL 2019

I. BACKGROUND

I.1 Introduction

- I.1.1 West Ross Deer Management Group (WRDMG) is situated in the north-west Highlands. It extends to approximately 97,000 ha (238,000 acres). Altitude within the WRDMG ranges from sea level on the west coast to 1,060m at the summit of An Teallach. There are 18 Munros within the Deer Management Group (DMG), as well as many step sided glens and lochs.



I.1.2/

- 1.1.2 The climate is typical of the mountainous regions of north-west Scotland. Compared with the central Highlands and the east of the country, the climate here is windy, wet and mild. At Kinlochewe, the average annual rainfall is approximately 2,211mm. The mountainous terrain causes a great deal of local variability in rainfall which generally increases towards the inland regions and with altitude. At low altitude in the Letterewe area, daily temperature ranges expected in January and July are 0° to 6° centigrade and 10° to 16° centigrade respectively. Snow accumulates on high ground during winter and may persist well into spring in corries and on north and east facing slopes.
- 1.1.3 The WRDMG area supports the characteristic range of plant communities found in north-west Scotland, dominated by relatively slow growing and unproductive wet heath and blanket bog. The diversity of habitat in the area supports several plant species considered to be scarce in the national context but there are no extreme rarities, classified as Red Data Book species.

1.2 **Group Members**

A summary of estates that have provided a copy of their Deer Management Plan (DMP) or have filled in the questionnaire can be seen at Appendix II. Map I shows the West Ross Deer Management Group membership.

Ref	Property	Area (hectares)
1	Dundonnell	13,453
2	Eilean Darach, Little Guinard and Larachantivore	10,964
3	Fannich	3,761
4	Foich	3,945
5	Gruinard Achnegie & Fain	10,142
6	Heights of Kinlochewe	7,566
7	Inverbroom	7,973
8	Letterewe	16,556
9	Lochrosque, Cabuie, Nest of Fannich and Kinlochewe	12,878
10	Longart (FCS)	1,596
11/		

Ref	Property	Area (hectares)
11	Strathbran	4,059
12	Strathvaich and Strathrannoch (part)	1,014
13	Tournaig	2,782
14	Inverewe (NTS)	840
Total		97,527

1.3 Timescale

This is an update to the first collaborative DMP to be prepared by the WRDMG. This Plan has been updated to cover the five year period from 2016-2021, however it is seen as being an ongoing process and actions may be refined and amended as a result of the data collected throughout the period.

2. PLAN OBJECTIVES

2.1 Guiding Principles

As members of this DMG, we:-

- acknowledge what we have in common – namely a shared commitment to a sustainable and economically viable Scottish countryside;
- make a commitment to work together to achieve that;
- accept that we have a diversity of management objectives and that we respect each other’s objectives;
- undertake to communicate openly with all relevant parties;
- commit to negotiate and where necessary compromise in order to accommodate the reasonable land management requirements of our neighbours;
- undertake that where there are areas of disagreement, we will work together as a Group to resolve these;
- endorse/

- endorse and comply with the Code of Practice on Deer Management published by SNH 1st January 2012;
- all deer management will be carried out in accordance with Best Practice Guidance on Management of Wild Deer in Scotland – <http://bestpracticeguides.org.uk>.

2.2 **The Group's Objectives:-**

- To describe the deer management required to ensure that ownership objectives (be they sporting, agricultural, fishing, conservation, etc) are achievable whilst maintaining designated features in favourable condition or working towards favourable/unfavourable recovering condition.
- To maintain a sustainable Group sporting stag cull and associated socio-economic benefits.
- Control the spread of sika and any other non-native deer species, invasive or otherwise, within the DMG area.
- Minimise the incidents of deer poaching.
- Minimise negative impacts associated with access legislation.
- Consider including public interest elements relevant to local circumstances.
- Liaise with SNH with a view to protecting all designated features.
- Seek to identify native woodland condition and potential expansion of woodlands within the Group area.
- Encourage members to undertake a skills and training assessment to establish current skill levels applicable to deer management. A record of skills and competence for each estate is included in Appendix II.
- Promote awareness re: appropriate bio security measures when visitors from areas where CWD are involved with deer management activities.
- Encourage implementation of the Access Code.

2.3 **Plan Targets (2016 - 2021)**

Whilst fostering best practice in all aspects of deer management, the focus of this Plan will be in the following areas:-

- to/

- to agree on and be working towards maintaining a relatively stable deer population capable of sustaining sporting requirements along with other land uses and habitat requirements of the area;
- to develop/fine tune a simple population model based on local conditions to provide guidance on Group and estate cull target setting over the long-term;
- to prepare a summary of actions based on actions within the Deer Management Plan to be considered by the Group at their AGM and thereafter included in the Plan;
- designated sites currently described as “unfavourable” as a consequence of herbivore impacts will have deer management in place to work towards favourable/unfavourable recovering status;
- work towards habitats being deemed by the Group to be under “good management” as a consequence of habitat monitoring;
- DMG membership to include representation from other sectors of the local community whose livelihoods can be affected by deer and their management;
- encourage members to upload information to SNH Outdoor Access Code website;
- make Minutes of Group meetings and this Plan publicly available via Group website – <http://wrossdmg.deer-management.co.uk>;
- provide contact information and liaise with emergency services as required.

2.4 **Monitoring (To provide a baseline and inform on trends)**

In order to define and improve current base data and to undertake various assessments and thereafter to monitor, the following data should be collected:-

2.4.1 Deer Population

- Annual winter foot counts with nominated coordinators, etc.
- Annual recruitment rate counts from a sample of hind groups (late April/early May).

2.4.2/

2.4.2 Deer Welfare

- Recruitment rate (from above).
- Fertility for each of yearlings/two year and mature hinds – cull records.
- Yearling male/mature hind body weights – cull records.

2.4.3 Habitat

- Habitat monitoring following Wild Deer Best Practice methodology, preferably twice in life of a five year plan.
- Prioritise habitat monitoring on designated sites currently classed as unfavourable due to deer impacts.
- Develop a Group habitat monitoring plan to monitor impacts on other sites.
- Once sufficient habitat monitoring data feeds through, impact targets for the various habitat types to be identified on a Group basis.

2.4.4 Socio-economic

- Mature stags/hinds culled by guests/clients – cull records.
- Tourism - B&B/lodge nights let.
- Access issues - number of stalks spoiled by walkers.
- Agricultural/Crofting/Forestry – impacts on each sector summarised, e.g. FCS Nearest Neighbour Damage results on restocks.
- Deer Vehicle Collisions.

2.4.5 The DMP should evolve towards a map-based system to aid visual presentation and understanding. A small working group within the DMG will be set up to update the DMP figures and interpretation. This will need to be achieved through collaboration, cooperation/

cooperation and compromise, given the difference in deer management and land use objectives adopted by the various landowning interests.

2.4.6 The DMP is considered by the Group as a live document which is reviewed and constantly updated. The Group, having updated the Plan, now intends to encourage a dialogue within the Group and wider stakeholders with a view to preparing an action plan to develop mechanisms to manage deer. Roles will be agreed and allocated within the Group.

3. **DATA AUDIT**

3.1 **Site Designations**

The WRDMG area includes a number of conservation designations. Further information on these can be found in Appendix III. Map 2 shows the outline of these sites overlaid onto the ownership boundaries. Map 3 highlights the last assessed condition of the SSSIs.

3.1.1 **Sites of Special Scientific Interest**

SSSI	Hectares	Feature Category	Feature	Visit Date	Last Assessed Condition	Feature Pressures
Wester Ross Lochs	1,503.34	Birds - aggregation of breeding birds	Black Throated Divers - breeding	31/08/2002	Favourable maintained	No negative pressures
Ardlair	9,312.05	Broad-leaved, mixed and yew woodland	Upland oak woodland	29/06/2004	Unfavourable No change	Over grazing
		Mosaic	Upland assemblage	28/06/2006	Favourable Maintained	Invasive species and over grazing
		Broad-leaved, mixed and yew woodland	Upland birch woodland	07/11/2007	Unfavourable No change	Over grazing
Meall an t-Sithe and Creag Rainich	245.97	Structural and metamorphic geology	Moine	19/06/2002	Favourable Maintained	No negative pressures
An Teallach		Earth sciences	Moine	24/09/2013	Favourable Maintained	No negative pressures
An Teallach/						

SSSI	Hectares	Feature Category	Feature	Visit Date	Last Assessed Condition	Feature Pressures
An Teallach	5,141.55	Quaternary geology and geomorphology	Quaternary of Scotland	25/05/1999	Favourable Maintained	Over grazing and recreation/disturbance
		Vascular plants	Vascular plant assemblage	09/08/2009	Unfavourable Declining	Natural event, over grazing and recreation/disturbance
		Mosaic	Upland assemblage	28/07/2012	Unfavourable No change	Over grazing and trampling
Creag Chorcurach	163.02	Structural and metamorphic geology	Moine	21/02/2007	Favourable Maintained	No negative pressures
Dundonnell Woods	337.00	Broad-leaved, mixed and yew woodland	Upland mixed ash woodland	21/11/2013	Unfavourable Recovering	Over grazing and under grazing
Fannich Hills	10,906.85	Mosaic	Upland assemblage	27/06/2014	Unfavourable	Burning, over grazing and trampling
		Quaternary geology and geomorphology	Quaternary of Scotland	11/09/2009	Favourable Maintained	Recreation/disturbance
		Structural and metamorphic geology	Moine	08/06/2010	Favourable Maintained	No negative pressures
		Other invertebrates	Flies	29/09/2010	Favourable Declining	Over grazing and trampling
		Other invertebrates	Beetles	30/07/15	Favourable Maintained	No negative pressures
Achanalt Marshes	208.25	Birds - assemblages of breeding birds	Breeding bird assemblage	30/07/2001	Favourable Maintained	No negative pressures
		Fen, marsh and swamp (Wetland)	Flood-plain fen	09/10/2002	Favourable Maintained	No negative pressures
		Standing open water and canals	Mesotrophic loch	06/07/2004	Favourable Maintained	Invasive species and water quality
Corrieshalloch Gorge	6.93	Broad-leaved, mixed and yew woodland	Upland birch woodland	07/05/2002	Favourable Maintained	Invasive species
		Geomorphology	Fluvial Geomorphology of Scotland	24/03/2015	Favourable Recovered	No negative pressures
		Quaternary geology and geomorphology	Quaternary of Scotland	07/03/2007	Favourable Maintained	No negative pressures
		Other invertebrates	Cranefly (<i>Lipsothrix ecucullata</i>)	01/07/2015	Favourable Maintained	Forestry operations
Fionn Loch Islands	23.35	Broad-leaved, mixed and yew woodland	Upland birch woodland	30/06/2004	Favourable Maintained	No negative pressures
Caileach Head	10.02	Structural and metamorphic geology	Torridonian	08/06/2007	Favourable Maintained	No negative pressures

3.1.2 Special Areas of Conservation

SAC	Hectares	Feature Category	Feature	Visit Date	Last Assessed Condition	Feature Pressures
Fannich Hills	9,638.00	Standing open water and canals	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	17/07/2010	Favourable Maintained	No negative pressures
		Dwarf shrub heath (Upland)	Wet heathland with cross-leaved heath	27/06/2014	Unfavourable No change	Over grazing. Burning.
		Bogs (Upland)	Blanket bog	30/08/2005	Unfavourable No change	Over grazing
		Montane/				
		Montane habitats	Montane acid grasslands	27/06/2014	Favourable Recovered	Over grazing. Burning.
		Montane habitats	Alpine and subalpine heaths	05/09/2005	Favourable Maintained	Over grazing
		Dwarf shrub heath (Upland)	Dry heaths	05/09/2005	Unfavourable No change	Burning and over grazing
		Inland rock	Plants in crevices on acid rocks	14/09/2005	Unfavourable No change	Over grazing
		Inland rock	Acidic scree	14/09/2005	Unfavourable No change	Trampling
Little Gruinard River	1,179.77	Fish	Atlantic salmon (<i>Salmo salar</i>)	18/08/11	Favourable Recovered.	Invasive species and other activities
Loch Maree Complex	15,735.02	Acidic scree	Upland habitat	29/08/14	Favourable Maintained	Trampling
		Alder woodland on floodplains	Woodland	03/07/2004	Unfavourable No change	Over grazing
		Alpine and subalpine heaths	Upland habitat	22/11/2006	Favourable Maintained	Natural event and trampling
		Blanket bog	Upland habitat	13/09/2014	Favourable Maintained	Trampling.
		Bog woodland	Woodland	20/08/2008	Favourable Maintained	Invasive species
		Caledonian forest	Woodland	27/09/2010	Unfavourable No change	Invasive species, over grazing and pro-active on site management
		Clear/				

SAC	Hectares	Feature Category	Feature	Visit Date	Last Assessed Condition	Feature Pressures
		Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	15/07/2010	Favourable Maintained	No negative pressures
		Depressions on peat substrates	Upland habitat	30/08/14	Favourable Maintained	Over grazing.
		Dry heaths	Upland habitat	22/11/2006	Unfavourable No change	Invasive species, over grazing and trampling
		Montane acid grasslands	Upland habitat	22/11/2006	Favourable Maintained	Trampling
		Otter (<i>Lutra lutra</i>)	Mammals (except marine)	30/07/2012	Favourable Maintained	Other
		Plants/				
		Plants in crevices on acid rocks	Upland habitat	30/08/2014	Unfavourable declining.	Invasive species – bracken. Over grazing.
		Plants in crevices on base-rich rocks	Upland habitat	30/08/2014	Favourable Maintained	Invasive species – bracken.
		Tall herb communities	Upland habitat	26/08/2014	Favourable Maintained	
		Western acidic oak woodland	Woodland	24/04/2008	Unfavourable No change	Over grazing
		Wet heathland with cross-leaved heath	Upland habitat	22/11/2006	Unfavourable No change	Over grazing

3.1.3 Special Protection Areas

SPA	Hectares	Feature Category	Feature	Visit Date	Last Assessed Condition	Feature Pressures
Achanalt Marshes	208.25	Birds - aggregations of breeding birds	Wood sandpiper (<i>Tringa glareola</i>), breeding	12/07/2013	Favourable Maintained	No negative pressures
Wester Ross Lochs	1,980.98	Birds - aggregations of breeding birds	Black-throated diver (<i>Gavia arctica</i>), breeding	31/08/2002	Favourable Maintained	No negative pressures

3.1.4/

3.1.4 National Scenic Area

Site	Hectares
Wester Ross	143,880.00

3.1.5 Existing Agreements

- Ardlair Wide Countryside Agreement (5.49) exp 30/10/2024.
- Letterewe Memorandum of Agreement.
- Fannich Hills Section 7 Agreement.
- An Teallach Wide Countryside Agreement (5.49) exp 30/11/2044.
- Fannich Hill SSSI Agreement (5.15) exp 31/07/2019.
- Corrieshalloch Wide Countryside Agreement (5.49) exp 14/03/2093.
- Loch Maree Complex Wide Countryside Agreement (5.49) exp 31/10/2024.

3.1.6 Delivery of Designated Features into Favourable Condition

The Group commits to reviewing the status of all designated sites within the Group area and to facilitate any actions that may be required. As part of this process, the Group has asked all members to advise if they are aware of any designated sites affecting their land currently described as unfavourable as a consequence of herbivore impact. It is acknowledged by members that four properties currently have designated sites described as unfavourable as a consequence of herbivore impacts and, in each case, have also confirmed that steps are being taken in terms of deer management with a view to working towards favourable/ unfavourable recovery status. The steps being taken include fencing areas of land to exclude deer, reducing deer numbers on affected areas, putting a Mooreland Management Plan in place through SRDP/AECS as well as general discussions with SNH over future management.

The/

The Group intends to review matters on an ongoing basis and thereafter to facilitate any actions that may be required.

3.2 **Geology**

3.2.1 The WRDMG area is particularly rugged with a geology dominated by Lewisian gneiss and Torridonian sandstone to the west. To the east of the Moine Thrust the area is characterised by boggy plateau and the less rugged, more open hill characteristic of the Moine series. The area generally is predominantly open moorland, dominated by wet heath vegetation. However, an extensive area of basic Hornblende schist runs across the Beinn Lair range from Beinn Airigh Charr to Loch Garbhaig, giving rise to an area that is richer in plant species than the rest of the region. Alluvial deposits can be found around the larger rivers and lochs.

3.2.2 To the west of the Moine Thrust, the soils belong predominantly to the Lochinver Association derived from Lewisian gneiss, whilst to the east they are of the Arkaig association, derived from Moine schists. In both cases, most soils have a peaty surface horizon. Peaty gleys and peat are extensive, whilst peaty podzols occur on more freely draining sites. Brown forest soils and humus-iron podzols are the richest soils in the area that are of limited distribution along the shore of Loch Maree. Sub-alpine podzols and alpine soils occur on the high ground. Across much of the area dominated by Lewisian gneiss, the soils are shallow with extensive areas of exposed rock.

3.3 **Native Flora and Fauna**

3.3.1 A mosaic of wet and dry heath is the principal land cover. Of the nine national vegetation classification (NVC) moorland communities that are of international importance in Scotland, three are found in the WRDMG area. These are as follows:-

M17 - Blanket mire;
M17 - Wet heath;
H10 - Heath.

3.3.2/

- 3.3.2 In addition, steep, well drained slopes support grassland (U5) and on higher ground where snow lies longest, there is grass heath (U7). Summits are largely covered by moss heath (U10). Lichens and moss are frequent components of all these mid to high elevation vegetation types.
- 3.3.3 Several other plant communities occur on rock ledges, screes, summits and flushes. These include dwarf herb community (CH12), tall herb community (U16 and U17) and rush heath (U9) as well as grassland (U13) and mire (M11). On sites formerly used for agricultural or crofting, grassland (U4) occurs. This community, commonly referred to as “greens” is important because it provides the best quality grazing, although it generally covers less than 1% of the total area.
- 3.3.4 The plant community with the greatest conservation value is undoubtedly the Atlantic Oak Woodland. This occurs on the north shore of Loch Maree together with larger areas of Downy birch and occasional stands of Scots pine. It is rich in epiphytic mosses, liverworts, lichens and ferns. There is very little under storey or shrub layer and no regeneration outside fenced enclosures. In areas dominated by Birch, many trees are approaching maturity and there has been some windthrow. Other tree species, such as Rowan, Holly and Ash are also represented. Aspen and Juniper species of conservation importance that are particularly susceptible to browsing, occur in low numbers along the shore of Loch Maree.

3.4 **Woodlands**

3.4.1 Existing Woodlands

In 2013, Scotland’s woodland and forest cover was 1.4 million ha (18% of the land area). The Scottish Government would like to increase woodland cover in line with other European countries and has set a woodland expansion target of 25% woodland cover by the second half of the 21st Century.

According/

According to the Forestry Commission Scotland datasets, National Forest Inventory 2013 and Native Woodland Survey (2014), 5,691 ha (6%) are under woodland in the West Ross Deer Management Group area. Most of the woodland is on the lower ground to the margins of the group area, along the main roads. Map 4 shows the distribution of the existing woodlands.

Property	Total Area (Ha)	Woodland (Ha)	% Woodland	Native Woodland (Ha)	% of Woodland Native or Nearly Native
Dundonnell	13,453	362	3%	209	58%
Eilean Darach, Little Gruinard and Larachantivore	10,964	190	2%	98	52%
Fannich	3,761	132	4%	12	9%
Foich	3,945	183	5%	49	27%
Gruinard, Achnegie and Fain	10,142	415	4%	142	34%
Heights of Kinlochewe	7,566	322	4%	148	46%
Inverbroom	7,973	224	3%	72	32%
Letterewe	16,556	373	2%	243	65%
Lochrosque, Cabuie, Nest of Fannich and Kinlochewe	12,878	949	7%	221	23%
Longart (FCS)	1,596	999	63%	233	23%
Strathbran	4,059	861	21%	118	14%
Strathvaich and Strathrannoch	1,014	129	13%	129	100%
Tournaig	2,782	449	16%	173	39%
NTS Inverewe	840	102	12%	39	38%
TOTAL	97,528	5,691	6%	1,885	33%

3.4.2/

3.4.2 Native Woodlands

The Native Woodland Survey of Scotland (NWSS) was published in 2014. This maps non-designated native woodland cover, reports condition and highlights herbivore impacts which threaten medium to long term condition of these important woodlands.

From the NWSS 1,885 Ha of the West Ross Deer Management Group area (37% of the total woodland) is considered to be “Native” or “Nearly Native”.

Map 5 shows the distribution of native woodland in the West Ross Deer Management Group area.

The herbivore impact of each of these native woodlands is monitored by FCS and categorised into Very High, High, Medium and Low.

Within the Group area, 68% of native woodlands are considered to have low or medium herbivore impact and 32% high or very high. Map 6 shows the distribution of the herbivore impact on native woodlands.

Herbivore Impact	Hectares	% of native woodland area
Low	247	13
Medium	1,038	55
High	160	8
Very High	440	24
Total	1,885	100

3.4.2.1/

3.4.2.1 Retaining Existing Native Woodland Cover

The Group commits to reviewing the condition of native woodland within the Group area and to facilitate any action that may be required to retain and improve the condition of the native woodland, exploring options for SRDP funding.

As part of this process, the Group has asked all members to advise if they are aware of any native woodland within their land which has been categorised as having high or very high herbivore impact. It is acknowledged by the Group that only one property has existing woodland cover categorised as having a high or very high herbivore impact and in that case, the member has fenced off over 90 ha in some 21 enclosures between 1995 and 2014 at their own cost.

The Group will continue to monitor and review the position with regard to existing native woodland cover.

3.4.3 New Woodlands

Over the last 20 years there has been considerable tree planting activity with the group area. Of the 5,421 ha of woodland, 3,146 ha of woodland have been planted in this period. 58% of the total woodland has been created on the last 20 years.

Woodlands which have been planted in recent years are identified from the FCS grant datasets WGS3 (1994-2003), SFGS (2003-2006) and SRDP Woodland Creation Options (2007-2013). Map 7 shows the extent of these.

Members have also confirmed that the Group’s Woodland Map no 7 within this Plan is fully up to date as at August 2017.

Forestry Grant Scheme	Year	Hectares
Woodland Grand Scheme 3 (WGS3)	1994 - 2003	2,110
Scottish Forestry Grant Scheme (SFGS)	2003 - 2006	437
SRDP Woodland Creation Option	2007 - 2013	599
Total		3,146

The Highland Council Forest and Woodland Strategy aims to direct forestry and woodlands to the most appropriate places within the Highlands. Map 8 shows the suitability of the Group area for woodlands.

Highland Council Forestry Strategy	% of Group Area
Policy A: Suitable for all types of woodland scheme which respect local circumstances and meet current FCS design criteria and guidelines	13.7%
Policy B: Preference for a mixed woodland mosaic with retention of a substantial open space element within the relevant landscape character zone(s)	16.5%
Policy C: Planting primarily for nature conservation and/or amenity	25.9%
Policy D: Limited potential for sensitive woodland development with preference for retention of large scale open space	26.3%
Unsuitable for trees	17.7%

The Group will update the Plan on an ongoing basis to record any woodland expansion by Group members. Group members will continue to be encouraged to explore the possibility of woodland expansion in the context of Deer Management Group needs.

In the event of woodland expansion being undertaken by Group members, consideration will be given to deer population levels via the deer population model. Regard will be had for any changes in range, forage and shelter.

After enquiry with members, it has been established that three members are considering new planting in the next few years, but as at August 2017, no member has yet developed details plans.

Any proposals for woodland expansion will be actioned by individual members and this will be monitored by the Group and the DMP amended accordingly.

The Group will look at what scope there is for woodland expansion and consider where the Group is lacking shelter.

3.5/

3.5 Carbon Sensitive Habitats

3.5.1 Carbon rich soils and peatland areas provide multiple benefits, e.g. good water quality, biodiversity and climate change mitigation as soil carbon stores and through carbon sequestration. Growing concerns with regard to climate change have come to recognise the value of peat as a massive carbon store. Carbon can be locked in upland peat for thousands of years.

Disturbance of peatlands leads to surface breakdown and release of CO² into the atmosphere.

Along with soils on which they stand, trees and woodlands are also a valuable carbon store. They also have the virtue of absorbing CO² from the atmosphere as they grow.

3.5.2 SNH has prepared and consulted on a dataset of carbon rich soil, deep peat and priority peatland habitats in Scotland derived from existing soil and vegetation data. Map 9 shows this draft data for the group area published in July 2014.

3.5.3 57% of the group area is classified as having *all or most of* the vegetation cover indicating priority peatland (classes 1 and 2). The table below shows the percentage of each category over the group area.

Summary Description of the “Carbon and Peatland” Classes		Hectares	% of Group Area
Class 1	<ul style="list-style-type: none"> All vegetation cover indicates priority peatland habitats All soils are carbon rich soils and deep peat 	14,554	15%
Class 2	<ul style="list-style-type: none"> Most of the vegetation cover indicates priority peatland habitats All soils are carbon rich soil and deep peat 	41,146	42%
Class 3	<ul style="list-style-type: none"> Vegetation cover does not indicate priority peatland habitat but is associated with wet and acidic soil types Most soils are carbon rich soils, with some areas of deep peat 	4,969	5%
Class 4/			

Summary Description of the “Carbon and Peatland” Classes		Hectares	% of Group Area
Class 4	<ul style="list-style-type: none"> • Area unlikely to be associated with peatland habitats or wet and acidic soils • Area unlikely to include carbon rich soils 	36,329	38%
Class x	<ul style="list-style-type: none"> • Vegetation cover does not indicate peatland habitats • All soils are carbon rich soil and deep peat 	181	<1%

3.5.4 Map 10 shows the areas of existing woodlands and priority peatlands. This equates to 61% of the Group area.

3.5.5 The Group will consider opportunities and priorities for the creation and restoration of peatlands, identifying funding sources where possible. In addition, the Group will encourage members to minimise surface damage to peatland.

After enquiry with members, it has been established that a small number of members are considering creation/restoration of peatland on their property. The Group has encouraged all members to familiarise themselves with SNH’s Peatland Action Project which offers funding assistance.

3.5.6 Once the means of collating, analysing and presenting the habitat impact assessment data is available, a data sub-set will be created for carbon sensitive habitats.

3.6 River Basin Management Planning

River Basin Management Planning, led by SEPA, aims to protect and improve Scotland’s water environment in a way that balances cost and benefits to the environment, society and the economy. The River Basin Management Plan for Scotland sets out measures to address a range of impacts affecting water quality, physical condition, water flows and levels, accessibility for fish migration by the impact of invasive non-native species on the aquatic and animal communities.

The/

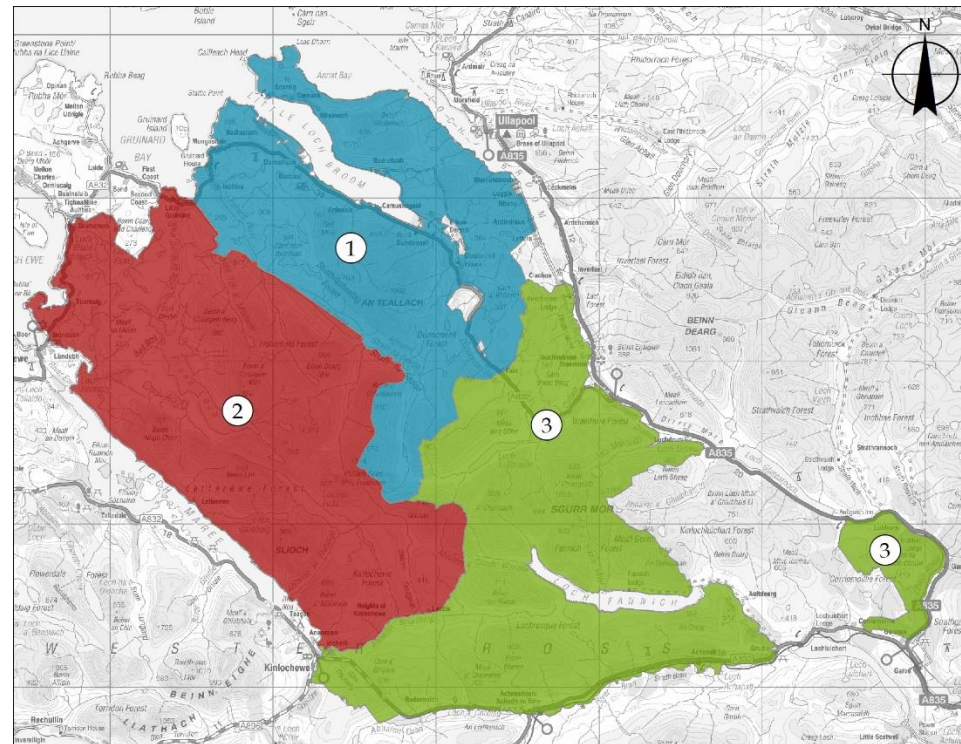
The Group will contribute as appropriate to River Basin Management planning when Group input is sought.

3.7 **Habitat Types and Monitoring**

3.7.1 Map II shows the main habitats by broad type. Heather moor, Blanket bog and peatland, and montane vegetation are the predominant types covering 90% of the group area. The table below shows the area and percentage of each of the broad habitat types. Data comes from the Land Classification Scotland, published in 1988 (LCS88).

Property	Area (Ha)	Blanket Bog & Peatlands		Heather Moor		Montane Vegetation		Water		Total Area	
		Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
Dundonnell	13,453	1,000	7%	10,118	75%	1,428	11%	153	1%	12,698	94%
Eilean Darach, Little Gruinard and Larachantivore	10,964	449	4%	7,626	70%	2,019	18%	437	4%	10,531	96%
Fannich	3,761	989	26%	1,656	44%	861	23%	1	0%	3,507	93%
Foich	3,945	634	16%	2,413	61%	663	17%	31	1%	3,740	95%
Gruinard, Achnegie and Fain	10,142	988	10%	7,011	69%	1,324	13%	354	3%	9,677	95%
Heights of Kinlochewe	7,566	1,475	19%	4,936	65%	718	9%	279	4%	7,407	98%
Inverbroom	7,973	1,657	21%	4,866	62%	846	11%	208	3%	7,577	97%
Letterewe	16,556	494	3%	10,230	62%	3,449	21%	1,521	9%	15,693	95%
Lochrosque, Cabuie, Nest of Fannich and Kinlochewe	12,878	5,603	44%	4,760	37%	1,056	8%	24	0%	11,443	89%
Longart (FCS)	1,596	118	7%	565	35%	-	0%	9	0%	692	43%
Strathbran	4,059	504	14%	2,302	59%	5	0%	16	0%	2,827	70%
Strathvaich and Strathrannoeh	1,014	478	47%	527	52%	-	0%	-	0%	1,006	99%
Tournaig	2,782	237	9%	2,123	76%	-	0%	225	8%	2,585	93%
Inverewe	840	49	6%	632	75%	-	0%	24	3%	705	84%
Total	97,529	14,675	13%	59,765	61%	12,369	11%	3,282	3%	90,088	92%

- 3.7.2 Habitat monitoring will be carried out by each estate on the two main habitat types (blanket bog and dwarf shrub heath) to identify grazing and trampling impacts by deer. The monitoring will be carried out in line with the best practice guidelines.
- 3.7.3 It is proposed that the WRDMG area will be split into three survey areas for the purpose of habitat monitoring (see map below).
- 3.7.4 Each survey area will be allocated a minimum of 26 plots in Blanket Bog and 26 in Dwarf Shrub Heath, giving a total of 78 Blanket Bog and 78 Dwarf Shrub Heath plots split between the estates.



- 3.7.5 Each member estate is to identify a suitable number of habitat monitoring plot sites and agree them with the Group. Overall, the DMG are to agree a minimum of 156 sites such that the two habitat types will be adequately represented in the sample sites.
- 3.7.6 SNH provided a full days training session in April 2013 for each person carrying out survey work to include-
- guide to equipment required (early warning will be given of this to allow estates to get any equipment required);
 - navigating to plot locations;
 - confirming habitat types once at plot location;
 - what to measure when you get there;
 - analysing data.
- 3.7.7 The Group continues to encourage the membership and reinforce the need for Habitat Impact Assessments to be carried out. The Group organised for Colin Morrison of Angus Davidson Ltd to give a talk on habitat surveys at its 2017 AGM.
- 3.7.8 The standard impact classes for habitat monitoring, as outlined in the Best Practice Guidelines, will be adopted by the Group. These are:-

Dwarf Shrub Heath

Browsing on long shoots of ling heather, if ling not present, then blueberry:-

- Light – less than 33% of long shoots in the sample browsed – (L);
- Moderate – 33%-66% long shoots browsed – (M);
- Heavy – greater than 66% long shoots browsed – (H).

Trampling-

If/

If plots are >50m away from a supplementary feeding site, assess the amount of heather stem breakage as a result of trampling and assign as classes for the whole plot:-

- Light/moderate – inconspicuous – (L/M);
- Heavy – conspicuous – (H).

Blanket Bog

Browsing on long shoots of heather, if heather not present, then cowberry:-

- Light – less than 33% of long shoots in the sample browsed;
- Moderate – 33%-66% long shoots browsed;
- Heavy – greater than 66% long shoots browsed.

Trampling:-

- Determine whether bare soil with a deer hoof print is present or not.

3.7.9 Habitat Impact Assessment (HIA) has been carried out on all active estates in the West Ross Deer Management Group area between 2016 and 2018. Some estates had carried out previous assessments, however in order for us to have a baseline assessment, only the most recent results have been included as part of this Plan.

Assessments have been carried out either by estate staff using the best practice methodology or by professional ecologists, some of whom have used the best practice methodology whilst others have used more detailed methodology. However, whichever methodology was used, all surveys recorded the number of quadrats which had been browsed and an average browsing for each quadrat recorded on the low to high scale.

All/

All surveys included plots in both blanket bog and dwarf shrub heath habitats.

3.7.10 Browsing

Blanket Bog

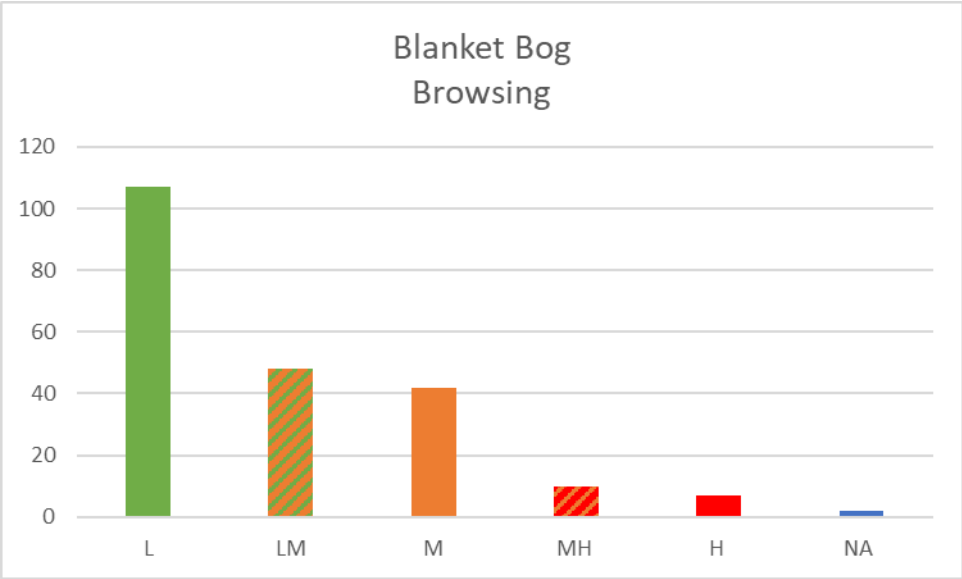
The table below shows the results for Blanket Bog with the number of plots recorded in each impact category. The results of this is also shown in Map 19 attached at Appendix I.

Average Browsing	L	L%	LM	LM%	M	M%	MH	MH%	H	H%	NA	Total
Dundonell	20	50%	7	18%	8	20%	1	3%	4	10%		40
Eilean Darroch	4	29%	6	43%	4	29%						14
Fannich	3	14%	12	57%	4	19%	2	10%				21
Foich	6	46%	3	23%	2	15%	2	15%				13
Gruinard	2	18%	7	64%	2	18%						11
Heights of Kinlochewe	24	80%			6	20%						30
Inverbroom	24	83%	1	3%	1	3%			1	3%	2	29
Letterewe	5	26%	5	26%	2	11%	5	26%	2	11%		19
Lochrosque	13	43%	8	27%	9	30%						30
Strathbran	6	60%			4	40%						10
Total	107	49%	48	22%	42	19%	10	5%	7	3%	2	217

The results of the baseline survey indicate that 197 Blanket Bog plots (91%) exhibit a light to moderate level of browsing, with only 9% moderate to heavy.

The/

The graph below shows the number plots in each category.



Dwarf/

Dwarf Shrub Heath

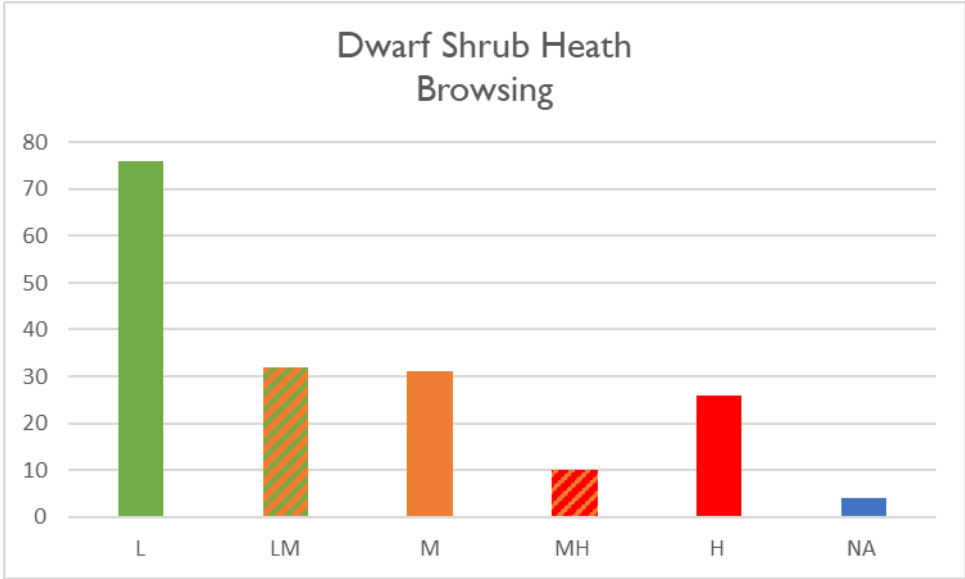
The table below shows the results for Dwarf Shrub Heath with the number of plots recorded in each impact category. The results of this is also shown in Map 20 attached at Appendix I.

Average Browsing	L	L%	LM	LM%	M	M%	MH	MH%	H	H%	NP	Total
Dundonell	19	42%	1	2%	10	22%	2	4%	13	29%		45
Eilean Darroch	3	50%	2	33%		0%			1			6
Fannich		0%		0%	3	30%		0%	7			10
Foich	6	38%	9	56%	1	6%		0%				16
Gruinard	5	83%	1	17%		0%						6
Heights of Kinlochewe												0
Inverbroom	20	67%	6	8%	3	10%			1	3%		30
Letterewe	6	23%	5	19%	5	19%	4	15%	4	15%	2	26
Lochrosque	13	43%	8	27%	3	10%	4				2	30
Strathbran	4	40%			6	60%						10
Total	76	42%	32	18%	31	17%	10	6%	26	15%	4	179

The results of the baseline survey indicate that 139 Dwarf Shrub Heath plots (78%) exhibit a L – M level of browsing, with only 20% Medium to High and High. Dwarf Shrub Heath was not present in 2% of plots.

The/

The graph below shows the number plots in each category.



3.7.11/

3.7.11 Trampling

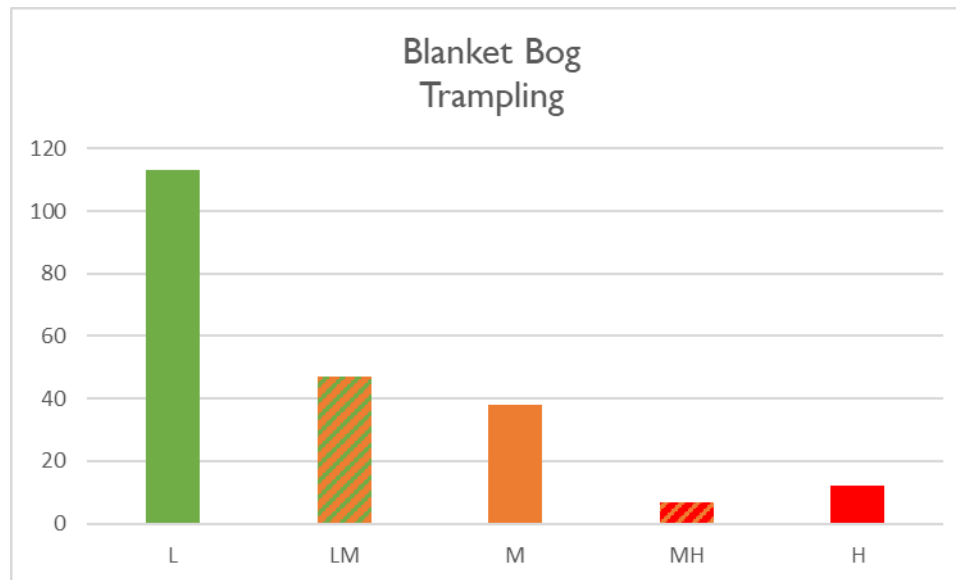
Blanket Bog

The table below shows the results for Blanket Bog with the number of plots recorded in each impact category. The results of this is also shown in Map 21 attached at Appendix 1.

Average Trampling	L	L%	LM	LM%	M	M%	MH	MH%	H	H%	Total
Dundonell	13	33%	4	10%	12	30%	3	8%	8	20%	40
Eilean Darroch	1	7%	8	57%	2	14%	3	21%			14
Fannich	19	90%			1	5%			1	5%	21
Foich	3	23%	7	54%	3	23%					13
Gruinard	2	18%	3	27%	5	45%	1	9%			11
Heights of Kinlochewe	30	100%									30
Inverbroom	13	45%	4	14%	10	34%			2	7%	29
Letterewe	22	92%			1	4%			1	4%	24
Lochrosque	10	29%	21	60%	4	11%					35
Total	113	52%	47	22%	38	18%	7	3%	12	6%	217

The/

The results of the baseline survey indicate that 198 Blanket Bog plots (91%) exhibit a light to moderate level of trampling, with only 9% moderate to heavy.



Dwarf/

Dwarf Shrub Heath

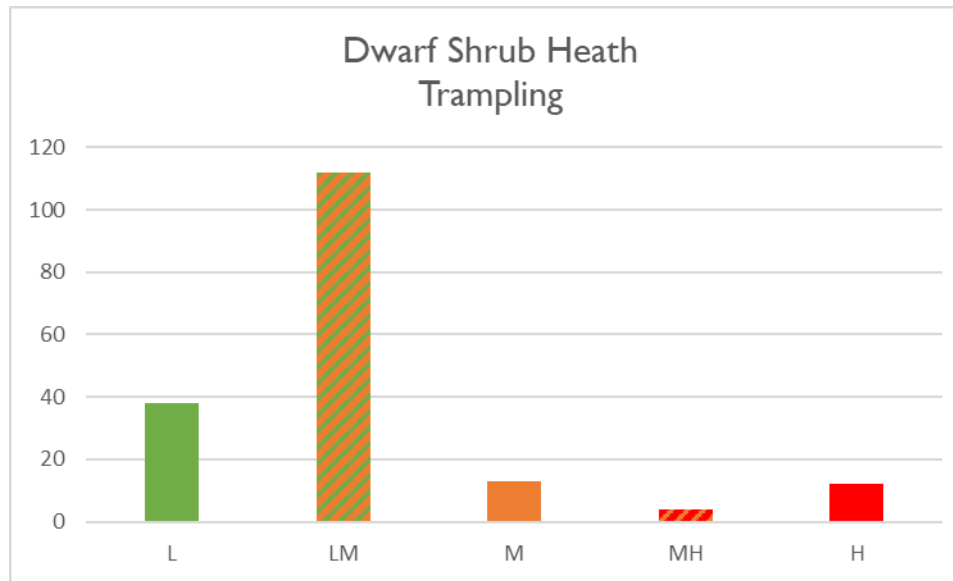
The table below shows the results for Dwarf Shrub Heath with the number of plots recorded in each impact category. The results of this is also shown in Map 22 attached at Appendix 1.

Average Trampling	L	L%	LM	LM%	M	M%	MH	MH%	H	H%	Total
Dundonell		0%	43	96%		0%		0%	2	4%	45
Eilean Darroch		0%	4	67%	1	17%	1	17%			6
Fannich	4	40%	2			0%			4	40%	10
Foich	10	63%	3	19%	2	13%			1		16
Gruinard		0%	6	100%		0%		0%			6
Inverbroom		0%	30	100%		0%				0%	30
Letterewe	9	35%	14			0%			3	12%	26
Lochrosque	5	17%	10	33%	10	33%	3		2		30
Strathbran	10										10
Total	38	21%	112	63%	13	7%	4	2%	12	7%	179

The results of the baseline survey indicate that 150 Dwarf Shrub Heath plots (84%) exhibit a light to moderate level of trampling, with 16% moderate to high.

The/

The graph below shows the number plots in each category.



The Group agrees to continue to monitor these habitats on at least a 3 year cycle with a target of 85% of plots for Browsing and Trampling to be in the light to moderate category.

3.7.12 Habitat targets of 85% being in light to moderate categories have been agreed over all of the survey locations to take into account the natural variation in these due to landform/feeding areas. It is understood that some areas will have a higher impact than others, which is why targets will be set and monitored on a Group-wide basis rather than for individual estates.

3.7.13/

3.7.13 All members, with the exception of the Forestry Commission, have carried out habitat monitoring surveys at three year intervals and monitoring data will be fed back to the DMG for consideration at the AGM. It is acknowledged that the Forestry Commission use different methods to monitor their habitats.

3.7.14 The Group commits to discussing impact data, cull targets, deer population and the DMP will be revised as appropriate.

3.8 **Historic and Cultural Features**

The West Ross Deer Management Group area is very sparsely populated and as a result does not have a large number of historical features of national or regional importance. There are 12 listed buildings, three Scheduled Ancient Monuments and one Garden and Designed Landscape designation within the area. Map 12 shows the distribution of listed buildings, Schedule Ancient Monuments and Garden and Designed Landscapes along with the Highland Council Sites and Monuments Record.

Listed Building	Category
Abhainn Cuileig, Footbridge	B
Achnasheen, Ledgowan Bridge	B
Corrieshalloch Gorge, Suspension Footbridge	B
Dundonnell House	B
Dundonnell House, Garden Ballroom	B
Dundonnell House, Garden Cottage	C
Dundonnell House, Gardens	B
Letterewe House	C
Letterewe House, Furnace	C
Letterewe House, Steading	C
Letterewe House, Watch House	B
Lochrosque Lodge, Old Lodge	C

Scheduled Monument	Status
Fasagh Ironworks, Loch Maree	Scheduled
Dun an Ruigh Ruadh, Broch, Loch Broom	Scheduled
Dun Lagaidh, Fort and Broch, Loch Broom	Scheduled
Gardens and Designed Landscapes	Designated
Dundonnell	1987

Group members will be encouraged to ensure that historic sites are preserved and damages avoided. Site records for all historic sites can be accessed at <https://canmore.org.uk>. Highland Council Historic Environment Record can be accessed via <http://her.highland.gov.uk>.

3.9 **Fencing in the Landscape**

3.9.1 Deer fencing, when properly planned for, constructed and maintained, can be an effective way of controlling deer to allow different land-uses to co-exist in close proximity, and to protect public safety. Deer fencing can impact on wider habitat management as well as the landscape and public access.

3.9.2 SNH has developed guidance to help land owners and their managers decide what is the best management option for their land (Appendix IV). This guidance will be considered by the Group when new fencing is planned.

3.10 **Public Access**

3.10.1 The WRDMG area is popular with walkers. With 18 Munros concentrated around Fisherfield, The Fannichs and An Teallach, there are often walkers to be seen “bagging” the highest peaks.

3.10.2/

3.10.2 Map 13 shows key walked routes and Munros. The Group welcomes responsible outdoor access and promotes the Outdoor Access Code produced by SNH (www.outdooraccess-scotland.com).

3.10.3 The Group will encourage members to upload information to the SNH Outdoor Access Code website (www.outdooraccess-scotland.com/hftsh). The latest version of this for the Northern Highlands is available at Appendix V. The Group will monitor this site to identify Group members using this service.

The Group invited Mark Wrightham of SNH to talk to the 2017 AGM on the “Heading for the Scottish Hills” (HFSH) website. The intention is to have entries for all of the major hills within our Group area on this site within the next 12 months.

3.10.4 All Group members responded to a detailed questionnaire on public access on the use made of estate paths, the availability of paths to give access to high ground and the general consensus was that paths are a benefit to members. Group members also indicated that path reinstatement, signage, footbridges, steps and bridges may help by encouraging walkers to use the paths and cause as little disturbance to wildlife as possible. It is generally acknowledged that irresponsible access still causes problems for the men on the ground through herd disturbance, lost stalking days, erosion, gates being left open, etc. Therefore, the Group will continue to press for responsible access.

4. **WEST ROSS DEER POPULATION**

4.1 **Deer Count Figures**

4.1.1 The principal deer species in the area is Red deer. Roe deer occupy woodland margins but are mainly confined to lower elevations. Sika deer are known to be resident between Lochluichart and Achnasheen and occasional visitors elsewhere.

4.1.2/

4.1.2 Deer counts have not been undertaken every year by all of the estates, but many have identified this as a priority. An SNH Deer census was undertaken for the WRDMG in March 2009 by the Deer Commission for Scotland.

A further helicopter count was undertaken by SNH in spring 2018. The table below shows the figures for both counts by estate.

Property	2009					2018			
	Stags	Hinds	Calves	Uncl	Total	Stags	Hinds	Calves	Total
Dundonnell	234	-	-	596	830	201	285	85	571
Eilean Darach, Little Gruinard and Larachantivore	267	547	156	211	1,181	186	299	100	585
Fannich	150	-	-	488	638	66	167	38	271
Foich	212	-	-	517	729	178	285	91	554
Gruinard, Achnegie and Fain	283	82	25	1,087	1,477	276	759	271	1,306
Heights of Kinlochewe	268	-	-	481	749	304	313	116	733
Inverbroom	146	-	-	525	671	76	338	89	503
Lochrosque, Cabuie, West Fannich and Kinlochewe	517	-	-	1,982	2,499	319	662	194	1,135
Letterewe	425	309	80	861	1,675	748	1,002	314	2,064
Longart (FCS) (revised boundary in 2018)	7	-	-	-	7	-	-	-	-
Strathbran (revised boundary in 2018)	80	-	-	227	307	83	99	19	201
Strathvaich and Strathrannoch	127	-	-	37	164	80	10	5	95
Tournaig	5	-	-	12	17	43	85	35	163
Inverewe (NTS)						65	9	6	80
Non Members						321	425	127	873
Total for Group	2,721	938	261	7,024	10,944	2,946	4,698	1,490	9,134

There/

There was some discussion within the group as to the accuracy of the count as it was considerably lower than the previous count and much lower than the model predicted. The spring count was followed up with summer foot counts by some estates. The numbers between the helicopter count and foot count cannot be compared directly, however these were used to estimate calving rates for the population model.

PROPERTY	Area (Ha)	2018 Helicopter Count (Spring)							2018 Foot Count (Sample) (Summer)											
		Stags	Hinds	Juvenilles	Stag: Hind Ratio	Total	Calving Rate	Density /Km ²	Stags	Stag Cull	Hinds	Juvenilles	Total	Calving Rate	Density/ Km ²					
Dundonnell	13,453	201	285	85	0.7	572	30%	4.25												
Eilean Darach, Little Gruinard and Larachantivore	10,964	186	299	100	0.6	586	33%	5.34												
Fannich	3,761	66	167	38	0.4	271	23%	7.22												
Foich	3,945	178	285	91	0.6	555	32%	14.06	164	-14	25	247	-38	32	-59	443	-112	13%	11.2	
Gruinard, Achnegie and Fain	10,142	276	759	271	0.4	1,306	36%	12.88	230	-46	29	433	-326	57	-214	720	-586	13%	7.1	
Heights of Kinlochewe	7,566	304	313	116	1.0	734	37%	9.70				271	-42	45	-71			17%		
Inverbroom	7,837	76	338	89	0.2	503	26%	6.42	32	-44		319	-19	41	-48	392	-111	13%		
Inverewe	840	65	9	6	7.2	87	67%	10.39	21	-44										
Letterewe	16,556	748	1002	314	0.7	2,065	31%	12.47	506	-242	36	936	-66	169	-145	1,611	-454	18%	9.7	
Lochrosque, Cabuie and Nest of Fannich	12,702	319	622	194	0.5	1,136	31%	8.94	304	-15		932	310	168	-26	1,404	268	18%	11.1	
Longart (FCS)	1,596					-		0.00												
Strathbran/																				

PROPERTY	Area (ha)	2018 Helicopter Count (Spring)							2018 Foot Count (Sample) (Summer)										
		Stags	Hinds	Juvenilles	Stag:Hind Ratio	Total	Calving Rate	Density /Km ²	Stags	Stag Cull	Hinds	Juvenilles	Total	Calving Rate	Density/Km ²				
Strathbran	4,059	83	99	19	0.8	202	19%	4.97	113	30		147	48	12	-7	272	70	8%	6.7
Strathvaich and Strathrannoeh	1,014	80	10	5	8.0	103	50%	10.16	75	-5		31	21	10	5	116	13	32%	11.4
Tournaig	2,782	43	85	35	0.5	164	41%	5.88											
Non Members																			
Aultbea	5,350	13	6	2	2.2	23	33%	0.43											
Cadha Buidhe	301	8	26	8	0.3	42	31%	14.05											
Corriemoillie	1,527	9	2	0	4.5	16	0%	1.01											
Inveran	7,720	3	4	2	0.8	10	50%	0.13											
Loch Luichart	9,611	288	387	115	0.7	791	30%	8.23											
		321	425	127															
TOTAL	121,727	2,946	4,698	1,490	0.6	9,164	32%	7.53										16%	

4.1.3 Maps 14, 15 and 16 show the 2009 deer count and Map 17 deer densities for each estate per km². Maps 14A, 15A and 16A show the 2018 deer count and Map 17A deer densities for each estate per km².

4.1.4 It is important to recognise that these figures are a snapshot of what was happening at the time of the count. There will be significant movement of animals between estates on a regular basis. Ongoing count figures will provide a better indication of deer numbers over time. To assist this, the Group is in the process of preparing and consulting on a simple Population Model (4.2 below).

4.1.5/

4.1.5 The Group understands the importance of coordinated and Group-wide deer count data and appreciates the importance in terms of modelling and managing the deer population. The Group has agreed the importance of annual foot counts and has allocated “count coordinators” to arrange a comprehensive 2019 foot count. This information will be reviewed at the Group meetings and fed into the Population Model.

4.2 **Population Model**

4.2.1 The group has developed a population model using the SNH guidance. Discussion and count information has been collected in order to produce a realistic population model that is based on current data and local conditions and can help the group with the long term cull targets.

4.2.2 The SNH population density model has been used to project forward from the 2018 count.

4.2.3 For information, a forward projection of figures from the 2009 count based on a calving rate of 20%** provided the projected spring population for 2018 as when compared with the actual figures for 2018, the population was considerably lower than the model suggested.

(** Calving rate - number of calves born for every 100 hinds (1+Years) (Scottish Average 20-40%))

4.2.4 The following assumptions are made when using this model:-

- 2% stag mortality each year;
- 2% hind mortality each year;
- 6% calf mortality each year;
- 1 to 1 hind/stag calf ratio;
- No immigration/emigration;
- There is no allowance for local conditions within this model and this needs to be discussed further.

Population Projection 20% Calving				
	Stags	Hinds	Calves	Total
2009 Spring population	3,072	5,504	2,368	10,994
2009 Summer Population	4,256	6,688	1,338	12,282
2009/10 Cull	413	642	219	1,274
2009 Mortality	85	134	80	299
2010 Spring Population	3,758	5,912	1,038	10,708
2010 Summer Population	4,277	6,431	1,286	11,995
2010/11 Cull	422	578	206	1,206
2010 Mortality	86	129	77	291
2011 Spring Population	3,770	5,725	1,003	10,497
2011 Summer Population	4,271	6,226	1,245	11,743
2011/12 Cull	328	413	130	871
2011 Mortality	85	125	75	285
2012 Spring Population	3,858	5,689	1,041	10,587
2012 Summer Population	4,378	6,209	1,242	11,829
2012/13 Cull	343	537	183	1,063
2012 Mortality	88	124	75	286
2013 Spring Population	3,947	5,548	984	10,480
2013 Summer Population	4,440	6,040	1,208	11,688
2013 Mortality	89	121	72	282
2014 Spring Population	3,981	5,385	973	10,339
2014 Summer Population	4,467	5,872	1,174	11,513
2014/15 Cull	404	497	225	1,126
2014 Mortality	89	117	70	277
2015 Spring Population	3,974	5,257	879	10,110
2015 Summer Population	4,413	5,697	1,138	11,249
2015/16 Cull				

4.3/

4.3 **Population Model Going Forward**

A five year population model has been prepared using the 2018 SNH spring count projected forward to 2023.

This is based on maintaining the density across the whole area of 8.7 deer per km² with a slow reduction in the stag:hind ratio. As the count numbers for the Group in the spring of 2018 were 17% lower than they were in 2009, it is felt that maintaining the 2018 spring population would be a good place to start for the forward model. The management area for the population model includes areas that are fenced off as we do not have full data of all fenced off areas across the whole Group and so it has been decided to use the whole area as the management area, giving a target density of 8.7 deer per km².

Following the spring count of 2018, there was a particularly harsh spell of weather and mortality was considered to be particularly high. This has been estimated at 16% for stags and hinds and 36% for calves. The calving rate for 2018 has also been based on a sample summer count done by a number of the estates.

DEER MANAGEMENT PLAN – 2016 TO 2021

				Cull 5 year average						
Target Density	8.7				Stags	Hinds	Calves			
Management Area (Ha)	105153				400	460	175			
				% of 5 year cull	58%	58%	58%			
Target Spring Population	9148			Cull	232	267	102			
	Stags	Hinds	Calves	Stag:Hind Ratio	Total	Density				
Current (Spring) Population 2018	2946	4698	1490	1.59	9134	8.69				
Population Model	Stags	Hinds	Calves	Stag: Hind Ratio	Total	Density	Stag Mortality	Hind Mortality	Calf Mortality	Calving Rate
2018 Spring Population	2946	4698	1490	1.59	9134	8.69				
2018 Summer Population	3691	5443	871		10005					16.0%
2018/19 Cull	232	267	102		600					
2018 Mortality	591	871	314		1775		16.0%	16.0%	36.0%	
2019 Spring Population	2868	4305	456	1.50	7630	7.26				
2019 Summer Population	3096	4533	1269		8899					28.0%
2019/20 Cull	232	267	102		600					
2019 Mortality	186	91	76		353		6.0%	2.0%	6.0%	
2020 Spring Population	2679	4176	1092	1.56	7946	7.56				
2020 Summer Population	3224	4722	1322		9268					28.0%
2020/21 Cull	232	267	102		600					
2020 Mortality	193	94	79		367		6.0%	2.0%	6.0%	
2021 Spring Population	2799	4360	1141	1.56	8301	7.89				
2021 Summer Population	3370	4931	1381		9681					28.0%
2021/22 Cull	232	267	102		600					
2021 Mortality	202	99	83		384		6.0%	2.0%	6.0%	
2022 Spring Population	2935	4566	1196	1.56	8697	8.27				
2022 Summer Population	3534	5164	1446		10143					28.0%
2022/23 Cull	232	267	102		600					
2022 Mortality	212	103	87		402		6.0%	2.0%	6.0%	
2023 Spring Population	3090	4794	1258	1.55	9141	8.69				

From the population model, this gives an annual culling level for the next five years of 232 stags, 267 hinds and 102 calves. This has then been split between each of the estates based on their five year average.

Estate	% of Stags (5 yr average)	Stags Cull	% Hinds (5 yr average)	Hinds Cull	% Calves (5 yr average)	Calves Cull
Dundonnell	7%	16	4%	12	3%	3
Eilean Darach, Little Gruinard and Larachantivore	6%	14	11%	30	15%	16
Fannich	8%	19	7%	19	6%	6
Foich and Strone	9%	20	9%	25	10%	11
Gruinard	8%	18	5%	13	3%	3
Heights of Kinlochewe	6%	14	2%	5	2%	2
Letterewe	9%	21	11%	30	8%	8
Inverbroom	9%	21	10%	27	9%	10
Lochluichart	14%	33	12%	32	14%	15
Lochrosque, Cabuie & West Fannich	11%	25	20%	54	18%	19
Kinlochewe	3%	7	3%	9	3%	3
Strathbran	5%	12	1%	4	2%	2
Strathvaich	1%	1	1%	3	1%	1
Tournaig	0%	0	0%	0	0%	0
Forest Enterprise	5%	12	2%	6	5%	5
Totals	100%	232	100%	267	100%	102

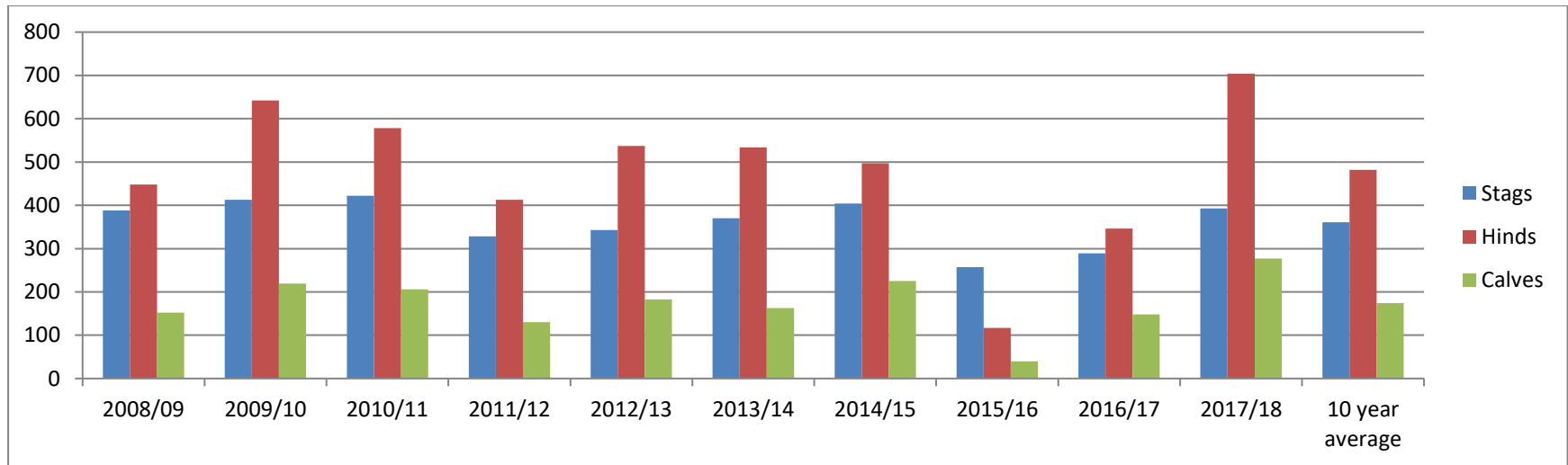
The model will be kept under review and any adjustments will be made each year based on estimated mortality rates and calving rates from foot counts. The population model will also be reviewed in light of the data collected for habitat monitoring and the target population adjusted accordingly to ensure that the habitat impact assessment targets have been met.

4.4/

4.4 Deer Culls

4.4.1 Red deer cull figures recorded in season over the last 10 years for the group area are as follows, full figures are available in Appendix VI.

	Stags	Hinds	Calves
2008/09	388	448	152
2009/10	413	642	219
2010/11	422	578	206
2011/12	328	413	130
2012/13	343	537	183
2013/14	370	534	163
2014/15	404	497	225
2015/16	257	117	40
2016/17	289	346	148
2017/18	393	704	277
10 year average	361	482	174



- 4.4.2 It should be noted that there have been some boundary changes within the group since these figures were submitted and so future cull figures may not be directly comparable with previous data.
- 4.4.3 It is acknowledged that crofters and occupiers of agricultural land may have rights to take deer to protect crops and in-bye improved pasture. It will be necessary, for the sake of completeness, to establish how many deer have been taken.
- 4.4.4 As more data is collected and analysed, the intention is to collate overall cull numbers and also to focus on the use and application of the data.

4.5/

4.5 Deer Vehicle Collisions (DVCs)

4.5.1 It is estimated that there are more than 10,000 deer-related motor vehicle accidents every year in Scotland, on average causing about 70 serious human injuries. The economic value of these accidents is £5 million.

4.5.2 Scottish Natural Heritage manage the Deer Vehicle Collision Project which looks to assess the scale and distribution of DVCs across the country and have provided data for the WRDMG area.

YEAR	Road						Total
	Unknown	A832	A832 /A890	A835	A890	A896	
2005		5	1	64	1		71
2006		6	1	26			33
2007		2		19			21
2008	2	1		16			19
2009				23			23
2010		1		29			30
2011		2		4			6
2012				1	1		2
2013		3		7		1	11
2014		1		2			3
Total	2	21	2	191	2	1	219

4.5.3 Information for the Group area provided by SNH is listed in the table above.

4.5.4 Members will be encouraged to report DVCs on the <http://www.deercollisions.co.uk> website, as well as reporting to the DMG.

4.5.5/

4.5.5 Map 18 shows the distribution of DVCs.

4.5.6 Members directly impacted by DVCs are encouraged to liaise with the local authority and the Group to identify actions to reduce or mitigate DVCs.

4.6 **Deer Welfare**

4.6.1 The Group will continue to encourage members to provide appropriate data on mortality, recruitment and larder weights and to review the data on a Group basis and where appropriate, feed into the deer management planning process.

A standard style of return sheet has been agreed by the Group which will be used to collect data from members.

4.6.2 The Group Secretary will collect/collate this information for input to the Deer Management Plan and deer management process.

4.6.3 The Group encourages all members to have regard for the welfare of their deer population in terms of the provision of food and shelter and as a Group, to incorporate deer welfare as an issue within the planning process and to respond to any mortality event.

4.7 **Non-Native Species**

4.7.1 The Group will encourage members to report Muntjac sightings to SNH.

4.7.2 The Group acknowledges that historically no attempt has been made to count the feral goat population within the Group area. It has been established that feral goats are present on five estates and the population within the Group area at May 2017 is estimated at around 200-210 animals. The Group recognises that feral goats do have an impact on the habitat and that regular counts should be undertaken and their numbers and impact should be controlled.

4.7.3/

- 4.7.3 It has been established that there are no known sightings of feral pigs/wild boar or fallow deer on any of the Group properties.
- 4.7.4 However, it is agreed that Sika deer are widespread within the Group area. Only three members count/monitor the Sika population. It is acknowledged that within the Group, some members seek to cull Sika deer whilst others see them as a sporting asset and therefore the policy for the control of Sika deer will vary from estate to estate.
- The Group understands that it would be useful to collect count data for Sika deer, but recognises the practical difficulties in counting them.
- 4.7.5 The Group reminds members that introducing any species of deer outwith their natural habitat range may be illegal.

5. **DEER MANAGEMENT AND THE ECONOMY**

5.1 **Economic Benefit of Deer Management**

The management of wild deer contributes significantly to the economy of rural Scotland. It provides all year round jobs in fragile and remote areas through sporting shooting and managing deer herds. The sporting shoots bring visitors to the area who require accommodation and other service facilities. The venison produced is exported.

- 5.1.1 The PACEC study, published in February 2016, estimated the value of value of deer sporting activity to the Scottish economy to be £140.8 million per annum, supporting the equivalent of 2,520 full-time jobs.

If and when the PACEC survey information at a local level becomes available, this will be distributed within the Group and included within the DMP.

- 5.1.2 Most of the estates in the group list stalking as part of their key activities. On some, the stalking is let and whilst others provide it for family and friends only.

5.1.3/

- 5.1.3 A 10 year average cull of 389 stags, giving a sporting stag value for the Group area of approximately £175,000 per annum.
- 5.1.4 Based on the cull figures, it is estimated that the value of venison produced within the area amounts to £43,360 (based on £1/per kg and average carcass size of 40kg, with 85% being sold). Venison, not used for private consumption, is sold mostly through local game dealers and onto restaurants and retailers.
- 5.1.5 Members will be encouraged to add value to products from deer management via Scottish Quality Wild Venison, etc, and this will be reviewed by the Group periodically.
- 5.1.6 Wild deer are also an important species for wildlife tourism in Scotland, Red deer stags in particular are considered to be “iconic” of the Scottish Highlands. The Group will consider and discuss any collaborative opportunities that arise to provide wildlife tourism in the area.
- 5.1.7 Members will be encouraged to use the PACEC information to help identify further opportunities to increase and improve revenue for the sector.

5.2 **Employment**

- 5.2.1 There are currently over 18 full and part time jobs provided within the area, that are either fully or partially involved in deer management. This does not include estate staff dealing with management, accommodation and other ancillary services. There is also a positive impact of stalking visitors to the area on local services and facilities.
- 5.2.2 The Group will continue to encourage members to ensure that skill levels applicable to the Deer Management Group are maintained and will endeavour to keep an up to date record for the Deer Management Group. Information on skills and competence will be fed to SNH.
- 5.2.3/

- 5.2.3 The Group has appointed one of the Group stalkers to help identify suitable training and to liaise with all members of staff within the Group with a view to identifying training needs (CPD) and availability.
- 5.2.4 The Group accepts the minimum level of competence should be DMQ1 for those managing deer actively.

Estate	Stalkers	DMQ1	DMQ2	Other
Dundonnell	Alasdair MacDonald	✓		
Eilean Darach, Little Gruinard and Larachantivore	Brian Fraser Stuart Allison	✓ ✓		Best Practice Course Best Practice Course
Fannich	Ruari Matheson	✓	✓	
Foich	Jake Buckthorp	✓	✓	
Gruinard	Bill Whyte Megan Henderson Davie MacLean (occasional)	✓ ✓ ✓	✓	
Heights of Kinlochewe	Norman Kelman	✓		
Inverbroom	Craig McIntosh Craig King	✓ ✓		
Letterewe	Roddy Legge	✓		
Lochrosque, Cabuie, Nest of Fannich and Kinlochewe	Randal Wilson Ronnie Ross Kenny Ross Frank Kalinowski	✓ ✓ ✓ ✓	✓	
Longart	Derick Macaskill Stuart MacDonald	✓ ✓	✓ ✓	
Strathbran	David Bennett	✓		
Strathvaich	Donald Macrae Brian Denoon	✓ ✓	✓ ✓	

5.3/

5.3 **Larder Services, Infrastructure and Marketing**

- 5.3.1 Most properties within the group have their own larder facilities and some larder sharing already goes on. Three properties are members of the SQWV scheme. There may be an opportunity for additional larder/infrastructure sharing. This will be encouraged and discussed further within the group.
- 5.3.2 Whilst there is no compulsion to join, the DMG will encourage its member estates to consider joining the SQWV Assurance Scheme. This Scheme is the result of an 18 month development project commissioned by Forest Enterprise in association with the Association of Deer Management Groups, the Scottish Association of Game Dealers and Processors and the Scottish Gamekeepers Association. It represents the first occasion on which the public and private sectors of the Scottish wild venison sector have worked together on an initiative which encompasses the entire industry.

The SQWV Scheme's aims are to:-

- respond proactively to consumers about the way wild venison is produced;
- improve food safety and meet the requirements of the Food Safety Act 1990;
- address environmental and animal welfare responsibilities.

Furthermore, the scheme is a reaction to the significant negative effect which Foot and Mouth Disease (FMD) has had on the industry.

As at January 2019, we are aware that three of our estates are members of the SQWV.

- 5.3.3 Members will be encouraged to add value to products from deer management via Scottish Quality Wild Venison, etc, and this will be reviewed by the Group periodically.

5.4/

5.4 **Economic Costs of Deer Management**

- 5.4.1 Alongside the economic benefits of deer management, there will be ongoing costs. The total expenditure on deer management in Scotland in 2013/14 according to the PACEC Study respondents was £43.1 million; £7.7 million capital expenditure, £15.2 million on staff and £20.2 million other operational expenditure.
- 5.4.2 There is no accurate data for the economic cost of providing deer management within the group. Estate costs including staff, property maintenance and infrastructure costs are likely to be spread across a number of enterprises. Some properties may run as a profitable business, whereas others accept the cost of deer management as part of the necessary ongoing costs of maintaining their estates and the associated habitats. This will vary so much between properties and that there is no model to fit all.
- 5.4.3 There are costs associated with deer damage within commercial forestry and agricultural crops, however, the Group does not have information on these. Any relevant statistics which come to light during the period of the Plan will be considered and discussed.
- 5.4.4 If and when the PACEC survey information becomes available at a local level, this will be distributed within the Group and included within the DMP.
- 5.4.5 Further information on each estate is found in Appendix II.

6. **PUBLIC HEALTH & WELLBEING**

6.1 **Bio-Security Measures**

- 6.1.1 Chronic wasting disease (CWD) is a highly infectious disease which has devastating effects on many populations of wild and farmed deer. At present it is restricted to the USA and Canada.
- 6.1.2/

6.1.2 A leaflet produced by BASC has been circulated to all group members to raise awareness and limit the spread of CWD. Copies of the leaflet should be given to guests, in particular those from North America. See Appendix VII.

6.2 **Lyme's Disease**

6.2.1 Lyme's disease, or Lyme Borreliosis, is a bacterial infection spread to humans by infected ticks. Ticks that carry the bacteria responsible for Lyme's disease are found throughout the UK and in other parts of Europe and North America.

6.2.2 Lyme's disease can often be treated effectively if it's detected early on, but if it's not treated or treatment is delayed, there's a risk of developing severe and long-lasting symptoms.

6.2.3 A leaflet has been circulated to all group members (Appendix VIII). Individual landowners should ensure that their staff and guests are aware of the symptoms of Lyme's disease and what to do if they think they have been infected.

6.3 **Other Notifiable Diseases**

The Group continues to encourage all members and their staff to be familiar with all relevant notifiable diseases and to ensure that each member has a system for recording.

6.4 **Food Safety**

The Group continues to encourage all Group members to join the Scottish Quality Wild Venison organisation and to ensure that all persons actively involved in deer management have a DMQ I qualification. The training and qualification status will be reviewed periodically.

7./

7. MONITOR AND REVIEW PROGRESS OF DEER MANAGEMENT PLAN

- 7.1 The annual DMG Meetings will provide an opportunity to discuss and review the DMP. Results from deer counts and deer cull data can be compared in order to highlight any potential problem areas.
- 7.2 The stalkers also get together on a regular basis to discuss any issues that arise within the Group area.
- 7.3 In addition to record keeping, regular discussion between neighbouring estates and estate stalkers will help determine the trends with deer. Unacceptable impacts may trigger an increased cull for the following year, targeting the areas where the impacts are greatest. Culls will be addressed, if necessary, through increased effort and a formal review of the DMP will be undertaken at year five.
- 7.4 Fannich Hills SAC – Section 7 Agreement – SNH has confirmed that all data collected under the Section 7 Agreement will be fed back to the DMG so that it can be considered along with other data collected. A copy of the Section 7 Agreement is enclosed at Appendix IX.
- 7.5 Together with SNH, the aim is to carry out a review of the Plan at regular intervals to ensure effectiveness.

Following such assessments, a series of actions may be implemented and, if this is the case, roles will be assigned and actions taken forward after discussion within the Group.

7.6 Record Keeping

7.6.1 Records will be kept and shared with the Group for the following:-

- culled deer;
- deer counts;
- cull targets;
- aspirational/

- aspirational deer densities;
- habitat monitoring.

7.6.2 These records will be maintained by estate stalkers/managers and cull data will be supplied to SNH annually as requested.

8. **COMMUNICATION POLICY/ACTIONS**

- 8.1 The Group has its DMP on its website –<http://wrossdmg.deer-management.co.uk> - together with Minutes of the Group AGM. As the DMP is revised, the revised DMP will be uploaded. Minutes of the Group’s meetings and AGM are distributed to all attendees.
- 8.2 Stakeholders such as local Community Council leaders, SNH, the Police, etc, will to be invited to AGM.
- 8.3 The Group will consult on the Deer Management Plan as required.
- 8.4 Details of estate contacts will be provided to the fire service to provide assistance with hill or woodland fires.
- 8.5 The Group continues to support and promote wider opportunities for further education on deer.

9. **BIBLIOGRAPHY**

- i) A Highland Deer Herd and its Habitat - Milner, Alexander, Griffin
- ii) SNH - Sitelink for Designated sites
- iii) East Sutherland Deer Management Plan - Professor Rory Putman
- iv) Aberuchill Deer Management Plan – Bowlts
- v) Fannich Hills SSSI/SAC Upland Habitat Management Plan – Professor Rory Putman
- vi) SNH Best Practice Guidelines – Habitat Impact Assessment
- vii)/

- vii) FCS online data download
- viii) Highland Council Sites and Monuments Record
- ix) Historic Scotland online data download

17th April 2019

MAPS

ESTATE DETAILS

SSSI INFORMATION

**FENCING IN THE
LANDSCAPE**

**SNH OUTDOOR
ACCESS CODE INFO**

**DEER CULL
FIGURES**

APPENDIX VII

CWD LEAFLET

LYME'S DISEASE LEAFLET

**SECTION 7
AGREEMENT**