

Uist Deer Management Group

Deer Management Plan



DRAFT

Monitoring and Review Schedule

Actions	Who?	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021
Foot Count	DMG Members	Spring	Spring	Spring	Spring	Spring
Helicopter Deer Count	DMG Members		Winter Count			Winter Count
Recruitment Count	DMG Members	Spring & Summer	Spring & Summer	Spring & Summer	Spring & Summer	Spring Summer
Habitat Training	DMG Members		Spring/ Summer			
Habitat Monitoring Blanket Bog	DMG Members		Summer			Summer
Habitat Monitoring Dwarf Shrub Heath	DMG Members		Summer			Summer
Habitat Monitoring Native Woodland Review	DMG Members			Summer		
Woodland Expansion Review			Summer			
Review Habitat Results	DMG Members	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Set & Agree Culls	DMG Members	Spring & Autumn	Spring & Autumn	Spring & Autumn	Spring & Autumn	Spring & Autumn
Collate DMG Information & Review Working Plan Actions	DMG Secretary	Bi-annually	Bi-annually	Review DMP- Spring	Bi-annually	Review DMP- Spring
Produce Annual Report	DMG Secretary	Spring	Spring	Spring	Spring	Review DMP - Spring

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1. Introduction

1.1 Sustainable Deer Management and the Public Interest

The management of red deer at a landscape population level as set out in the [Code of Practice on Deer Management](#) (The Deer Code) requires a collaborative approach. Deer are regarded as a natural resource and as such all those who manage them have a 'responsibility' to:

- manage deer as a resource sustainably;
- minimise negative deer impacts on public interest;
- safeguard deer welfare.

The deer management objectives of members of the DMG currently contribute to delivering a wide range of public benefits as set out in The Deer Code. This plan will demonstrate how the DMG is currently contributing to sustainable deer management and will identify further opportunities for the DMG to deliver the Public Interest.

1.2 The purpose of the Deer Management Plan

The overall purpose of this Plan is to provide:

- An agreed framework for the management of wild deer in the area covered by the Group;
- An agreed set of actions;
- An agreed pattern of arrangements to ensure that the actions are implemented and their effectiveness monitored.

1.3 Deer Management Plan Implementation

The plan will identify specific actions for the Group and targets to be delivered by 2021. These will be reviewed on an annual basis in the Working Plan. The DMG will use information gathered from habitat monitoring, population census and cull reporting to agree and set culls on an annual basis. Each management unit is committed to implementing the necessary culls to achieve this.

The Group are committed to working openly, transparently and collaboratively to achieve deliver the objectives of the plan and will meet regularly to discuss deer management and issues that arise in the local and wider area. This Plan will therefore take account of all land management interests as well as those of other Statutory Organisations and the wider public interest.

1.4 Deer Management Plan Adoption, Consultation and Review

This Deer Management Plan has been formally adopted by all the Members of the Group and will run from 2016 to 2021. It has been through a consultation process and a copy of DMP has been given to the local Community Councils. The Plan will be formally reviewed in 2021. (This will be relevant only once plan adopted)

This Plan provides an agreed framework for a coordinated and co-operative approach to deer management in the area. The actual implementation of the Plan will be decided on an ongoing basis at the Group's Spring and Autumn meetings, with scope for the Membership to adjust and adapt the main Plan to meet changing

circumstances. Should any part of the plan require updating, a revised, agreed copy will be circulated to all and updated on the DMG's website. A complete review of the Plan will be conducted in 2021.

Members will complete an annual return which will enable progress towards targets to be monitored and where necessary, changes in management actions will be discussed and agreed. As a result, **The Working Plan** will be continually reviewed and actions agreed and implemented by DMG members on an annual basis.

2. Deer Legislation

Please Note The following summary of legislation and list of authorisations in this section are **not comprehensive**, and is intended for use as a guide only. For a definitive list of offences you should consult the actual legislation. It is also important to note that this is the law in Scotland, elsewhere in the UK the legislation may differ.

How are deer protected?

Deer are protected under the [Deer \(Scotland\) Act 1996](#). The Act sets out when, where, how and by whom deer can be taken or killed. The Act defines the periods of the year when killing of deer is permitted (the open and close seasons). The dates for these seasons vary according to the deer species and whether stags or hinds are targeted.

Deer close seasons in Scotland

- Red Stags: 21st Oct - 30th Jun
- Red Hinds: 16th Feb - 20th Oct
- Sika Stags: 21st Oct - 30th Jun
- Sika Hinds: 16th Feb - 20th Oct
- Fallow Bucks: 1st May - 31st July
- Fallow Does: 16th Feb - 20th Oct
- Roe Bucks: 21st Oct - 31st Mar
- Roe Does: 1st Apr - 20th Oct

The Act also requires that **only certain firearms and bullets** can be used to kill deer.

While deer do not belong to anybody while they are alive, the right to take or kill them is reserved to the landowner. There are additionally a number of other people such as tenants that can take or kill deer for certain purposes.

Authorisations and deer

Authorisations are issued by the Scottish Natural Heritage under the Deer (Scotland) Act 1996 to allow individuals to cull deer in circumstances when they would not normally have the legal right to shoot them, for example to prevent deer damaging natural habitats.

When are authorisations required?

Authorisations are required when shooting deer in the following circumstances:

- During the Closed Season - see below for more details
- At night - the shooting of deer is not permitted outwith **daylight hours** (between one hour after sunset and one hour before sunrise)
- Driving deer with vehicles- in order to take or kill for the purposes of deer management.

Terminology used in the table below.

***Daylight hours** (between one hour after sunset and one hour before sunrise).

****The definition of enclosed woodland** is also of central importance. It is defined by the Deer (Scotland) Act 1996 as meaning enclosed by a stock-proof fence or other barrier and unenclosed shall be construed accordingly. It is for those operating under the general authorisation to satisfy themselves that the woodland is enclosed.

*****"Occupier"** includes any tenant or sub tenant, whether in actual occupation of the land or not. Sporting tenants need to be either controlling deer to prevent damage on behalf of the occupier or if applying on own behalf, the lease needs to make them liable for damage.

Table 1: Summary of Authorisations

Purpose	Authorisation Type	Who?	Restrictions	Application
To to take or kill deer during the Open Season	None	Only those with the legal right to take or kill deer or those who have been given permission from a person having such right.	During open Seasons and daylight hours only. “Land” does not include a dwelling house or any yard, garden, outhouses.	None
To control deer in the close season during daylight hours* to prevent damage to (a) arable land, improved permanent pasture (other than moorland) and land which has been regenerated so as to be able to make a significant contribution to the productivity of a holding which forms part of that agricultural land; or (b) enclosed woodland**	General Authorisation	The occupier*** suffering damage and; if duly authorised in writing by the occupier suffering damage any or all of; (b) the owner in person; (c) the owner's employees; (d) the occupier's employees, or any other person normally resident, on the land; (e) any other person approved in writing by SNH as a fit and competent person for the purpose.	The general authorisation does not allow the culling of female deer, over 1 year old, of any species between the period of the 1st April to the 31st August. Those operating under a general authorisation, must have read and understood the general authorisation and carry out any control in accordance with the conditions listed on the authorisation.	None. You can request a copy by contacting SNH on 01463 725364 or by downloading it from the SNH website
To control deer in the close season during daylight hours* to prevent damage to Unenclosed woodland ***, the Natural Heritage generally or in the interests of public safety	Out of Season Authorisation (5.6)	The owner or the occupier of any land or any person Listed in writing by either of them.	Those operating under an Out of Season (5.6) Authorisation must carry out any control in accordance with the conditions listed on the authorisation. Proposed deer controller must be on the SNH Fit and Competent Register.	Must apply in writing to SNH.

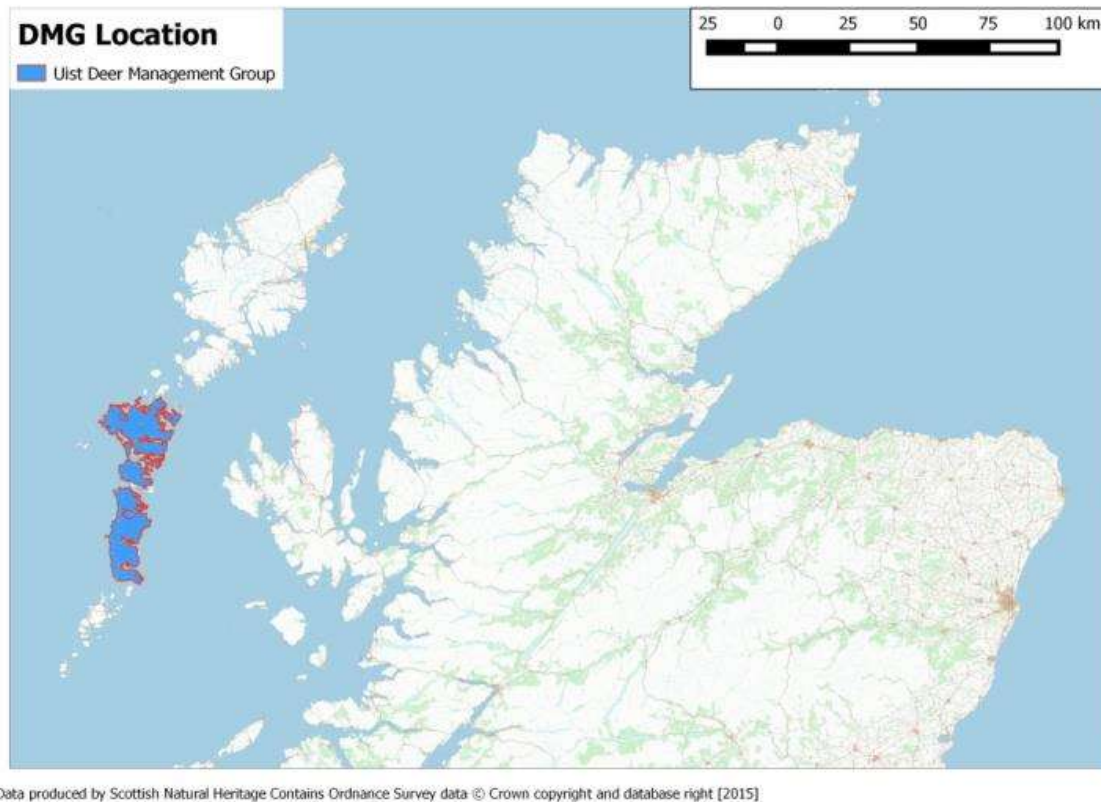
To control deer in the at night* to prevent damage to Improved agriculture land; Enclosed Woodland	Night Shooting Authorisation (18.2)	Occupier or person Listed by the occupier.	<p>Those operating under Night Shooting Authorisation (18.2) must carry out any control in accordance with the conditions listed on the authorisation.</p> <p>Proposed deer controller must be on the SNH Fit and Competent Register.</p> <p>Controllers must follow the Night Shooting Code of Conduct.</p>	Must apply in writing to SNH.
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3. Uist Deer Management Group

3.1 Uist Deer Management Group Location

Recently formed in 2015, Uist Deer Management Group (UDMG) is located in the Outer Hebrides and comprises the main islands of North Uist, Benbecula and South Uist (Figure 1).

Figure 1: Uist DMG



3.2. The purpose of the Deer Management Group

The purpose of the Uist Deer Management Group (UDMG) is to manage deer on a collective basis, in accordance with Scottish Government strategy (Scotland's Wild Deer: A National Approach, 2008), the Code of Practice on Deer Management (2012), Wild Deer Best Practice Guidance and in a manner that integrates different land-use objectives, recognising that compromises over objectives may be required where conflict occurs.

3.3 DMG Vision Statement

The vision of Uist DMG is to maintain a healthy deer population at a density which:

- *recognises habitats in good condition;*
- *minimises impacts on public health and crofting interests;*
- *maintains jobs and supports the local economy; and*
- *provides a range of positive benefits both to those living locally and to those visiting the area.*

3.4 Deer Management Units

There are 2 main deer management units (North Uist Estate & South Uist), and smaller units within the DMG area that also provide cull returns to SNH.

Table 1: Deer Management Units

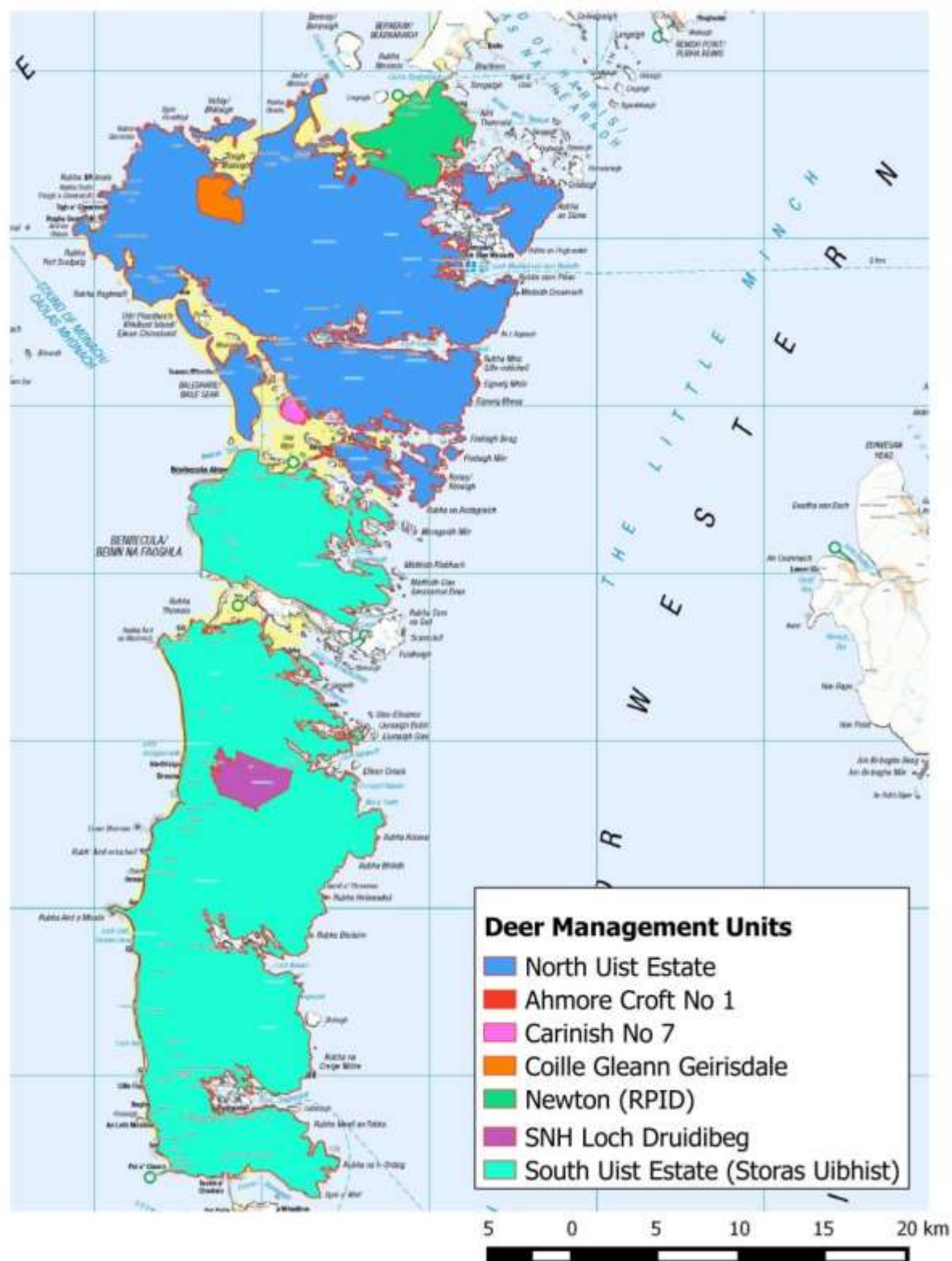
Property Name	Area(ha)	Comments
North Uist Estate	24,805	
Newton (RPID)	5,500	Deer control carried out by North Uist Estate
Coille Gleann Geirisdale	540	
Other Crofts	189	
South Uist Estate	37,700	
Loch Druidbeg (SNH)	1,032	
Total North Uist	31,034	
Total South Uist (including Benbecula)	38,732	

3.5 Key Stakeholders/Members:

The DMG is comprised of the following representatives:

- North Uist Estate (including Ronay)
- Storas Ubhist (South Uist Estate)
- Rural Payments and Inspectorate Division (RPID).
- Scottish Natural Heritage (SNH)
- N Uist woodland,
- Bays of Harris
- Community Councils
- Tourism providers,
- Vallay
- Scottish Crofting Federation Representatives for North Uist, Benbecula
- SNH Wildlife Management Officer
- Benbecula Rifle Club
- Police Scotland
- Individual Controllers/Deer Managers.

Figure 2: Uist DMG Boundary and Management Units



Data produced by Scottish Natural Heritage. Contains Ordnance Survey Data © Crown copyright and database right [2016].

4. Land Ownership, Uses and Management

There are two main land owners within the DMG: North Uist Estate (Privately owned) and South Uist (Community owned). Information relating to these are detailed in 3.1 and 3.2.

4.1 Individual Estate Information: North Uist Estate

Name of landholding	North Uist Estate
Size of land-holding	<ul style="list-style-type: none"> 29,285 Hectares (plus Sporting Rights on Newton and Ronay)
Owner	<ul style="list-style-type: none"> North Uist Estate Trust (Sporting leased to Lochmaddy Hotel Ltd)
Deer Management Contact/s	<ul style="list-style-type: none"> George H Macdonald (Resident Factor) and Niall Leveson-Gower (Stalker). Contact Number : 01876 500329 (Estate Office)
Land uses on property	<ul style="list-style-type: none"> Stalking red deer, shooting snipe, geese, ducks and woodcock, angling, fish farming, forestry, peat cutting and sheep rearing Approx 1/4 of the Estate is held under grazing tenancies and the rest is held under crofting tenure with a small portion of in-hand land held by Estate at Langass and the Monach Isles.
Deer Management Objectives	<ul style="list-style-type: none"> To manage the deer herd sustainably to continue to underpin the economic base of the Estate whilst minimising the impact of deer of crofting interests.
Future Objectives	<ul style="list-style-type: none"> Stalking is one of very few income streams open to the owners of the estate to offset the administrative costs associated with managing a fairly large crofting estate. It is important that this income stream is continued and the herd managed in a sustainable way to preserve the viability of the estate and continue the employment opportunities associated with some local hotels who are dependent on sporting clients to enable them to remain open during the winter months. The Estate is committed to taking an adaptive management approach throughout the term of the plan to reducing the current population to a level that is deemed sustainable and appropriate to local circumstances.
Natural Heritage Designations	<ul style="list-style-type: none"> 2 SPAs, 12 SSSIs, 1 SAC and 2 RAMSAR sites

Woodland	<ul style="list-style-type: none"> • There are very few woodlands on the Island and those that exist are enclosed conifer plantations . • All the woodlands, with the exception of the one planted by the Southern Isles Amenity Trust, are predominately coniferous woodlands [however the deciduous trees have not taken very well in this woodland]. • It is not anticipated that any significant part of the existing open hill will be given over to forestry or apportionments as the current grant scheme for apportionments is not attractive and there are no plans to plant woodlands
Land management	<ul style="list-style-type: none"> • Very few crofters place sheep on the common grazing and the grazing tenants have reduced the number of sheep that were formerly held on the hill • Some muirburn carried out by crofters. • Estate is interested in Peatland Restoration Schemes.
Deer Impacts	<ul style="list-style-type: none"> • Deer (predominantly stags) marauding on croft ground. The estate deploy 3-4 deer chasers during the spring to help alleviate problems with marauding deer • Around 5-6 notices of Deer Vehicle Collisions a year. • Deer dropping infected ticks which subsequently lay eggs on occupied land.
Supplementary feeding	<ul style="list-style-type: none"> • None at present
Deer Distribution and Movements	<ul style="list-style-type: none"> • Issues relating to deer impacts are principally from stags migrating to the crofters reseedings in the spring particularly after fertiliser has been applied. These reseedings are located principally in the North West (Tigharry – Bayhead) of the island and along the North Coast (Sollas-Amhore) and there are also stags and hinds that encroach on croft land at Clachan Sands on the Newton Estate. • Hinds and stags also trouble the crofters at Locheport throughout the year where there is less crofting activity and the land is of poorer quality. • Garden damage tends to occur at specific locations but the main area is Lochmaddy where there is a larger centre of population backing on to the moor.
Access	<ul style="list-style-type: none"> • There are no Munros on North Uist with the highest peak Eabhal (347m). • Stalking takes place between 1st July and 20th Oct. No stalking on Sundays. Access via the main paths and ridges is always OK.

Socio-economics	<ul style="list-style-type: none"> • 45-50 mature stags required to be sustainably harvested annually • 1 Full-time employee and 2 Part-time employees associated with deer management (plus 2-4 deer chasers during the months of April – June). • An additional Estate Handyman plus several people employed on a seasonal basis. • Aspiration to continue the sporting aspects of the estate to underpin the economic base of the Estate owned hotels in harmony with community aspirations, the desire to develop tourism, access and environmental considerations. • 3 Hotels (35 rooms). 224 bed nights associated with stalking.
Venison production	<ul style="list-style-type: none"> • Larder unit with chiller at Langass and access to a slaughterhouse with chiller in Lochmaddy. The estate holds a venison dealers license from the local council • All of the 222 deer shot last year were sold locally or cut up at Langass larder and sold as small cuts at butchered prices.

4.2 Individual Estate Information: South Uist Estate

Name of landholding	South Uist Estate
Size of land-holding	<ul style="list-style-type: none"> 37,700 Hectares
Owner	<ul style="list-style-type: none"> The community owned South Uist Estate (www.storasuibhist.com) extends across the islands of South Uist, Eriskay, Flodda and the majority of Benbecula, as well a number of outlying islands.
Deer Management Contact/s	<ul style="list-style-type: none"> Graeme Sinclair/ Daniel Underdown Contact Number: 01878 700101 (Office)
Land uses on property	<ul style="list-style-type: none"> The Estate manages approximately 1,000 crofts as well as a number of grazing leases and a 2,200 acre tenanted farm. The Estate has a resident population of 3000 with over 850 tenant crofters and numerous businesses, in the aquaculture, agriculture, fishing, food processing, construction, tourism and service sectors.
Deer Management Objectives	<ul style="list-style-type: none"> To maintain a stable and balanced deer herd in order to maximise the value of red deer as a resource (tourism, commercial harvesting and venison) whilst reducing the impact of deer on crofting interests and public health.
Future Objectives	<ul style="list-style-type: none"> Storas Uibhist is undertaking a management options appraisal to look at the most effective way of managing the deer herd. (See Section 7.2).
Natural Heritage Designations	<ul style="list-style-type: none"> 3 SPAs, 8 SSSIs, 1 SAC and 1 RAMSAR site
Woodland	<ul style="list-style-type: none"> Possible future woodland creation schemes being considered.
Land management	<ul style="list-style-type: none"> A number of sheep clubs i.e Ben Mor Sheep Club have access to grazing on the open hill. Some muirburn carried out. No supplementary feeding of deer at present.
Deer Impacts	<ul style="list-style-type: none"> Deer (predominantly stags) marauding on croft ground. Deer dropping infected ticks which subsequently lay eggs on occupied land.
Supplementary feeding	<ul style="list-style-type: none"> None at present

Deer Distribution and Movements	<ul style="list-style-type: none"> • 237 stags, with a proportion spending 7 months feeding on west side of the island. • 362 hinds, the majority behind Hecla, Ben Mor and Corrodale.
Access	<ul style="list-style-type: none"> • There are no Munros. The main summits are Thacla (347m), Beinn Mhor (525m) and Buail a' Ghoill (620m). • Stalking takes place between 1st July and 20th Oct. No stalking on Sundays. Access via the main paths and ridges is always OK.
Socio-economics	<ul style="list-style-type: none"> • 40 mature stags required to be sustainably harvested annually • 2 Full-time employees associated with deer management. An additional 6 employees associated with land management. • Grogarry Lodge provides accommodation for visitors and local businesses.
Venison production	<ul style="list-style-type: none"> • Storas Uibhist is planning to build new carcass handling and meat-processing facilities by end of 2018. Plans to sell venison locally.

4.3 Land Use: Crofting



Crofting is the predominant form of land use in the Western Isles and is the foundation of the way of life, the language and the culture. The quality of land and sizes of crofts and grazings vary considerably throughout the area but generally, the smallest crofts are to be found on the poorest land and most of the large full-time crofts are in Uist.

On North & South Uist in 2007, there were some 1,410 registered crofts. Approximately 1000 of these are on South Uist. On **North Uist**, approximately 1/4 of North Uist Estate is held under grazing tenancies and the rest is held under crofting tenure with a small portion of in-hand land held by Estate at Langass and the Monach Isles.

Over 95% of the **South Uist Estate** landholding is under crofting tenure, including most of the 55,000 acres of hill land on the east side of the islands of South Uist & Benbecula.

Rearing of store lambs and calves as store or as hardy breeding stock is the most important crofting product in the Western Isles. In 2005 there were 4,272 cattle and 60,640 sheep on North & South Uist.

Table 2: Crofting Summary 2002-2007 (Western Isles Crofters Commission office 2007)

Area		2002	2003	2004	2005	2007
North & South Uist	Total number of crofts registered with the Crofters Commission	1,405	1,405	1,405	1,406	1,410
	Total number of cattle	4,361	4,130	4,159	4,272	
	Total number of sheep	71,268	64,401	61,548	60,640	
	No. of owner occupied crofts	-	-	-	-	42

5. Deer Populations

5.1 Deer Species

Red deer (*Cervus elaphus*) are the only deer species found throughout the DMG area, and along with sheep provide the main grazing impact over much of the hill ground. Although always present on North Uist, in 1975 they were reintroduced onto South Uist from the island of Rum.

Roe deer (*Capreolus capreolus*), Fallow Deer (*Dama dama*) and Sika deer (*Cervus nippon*) are not currently established in the Group area.

5.2 Deer Populations on North Uist

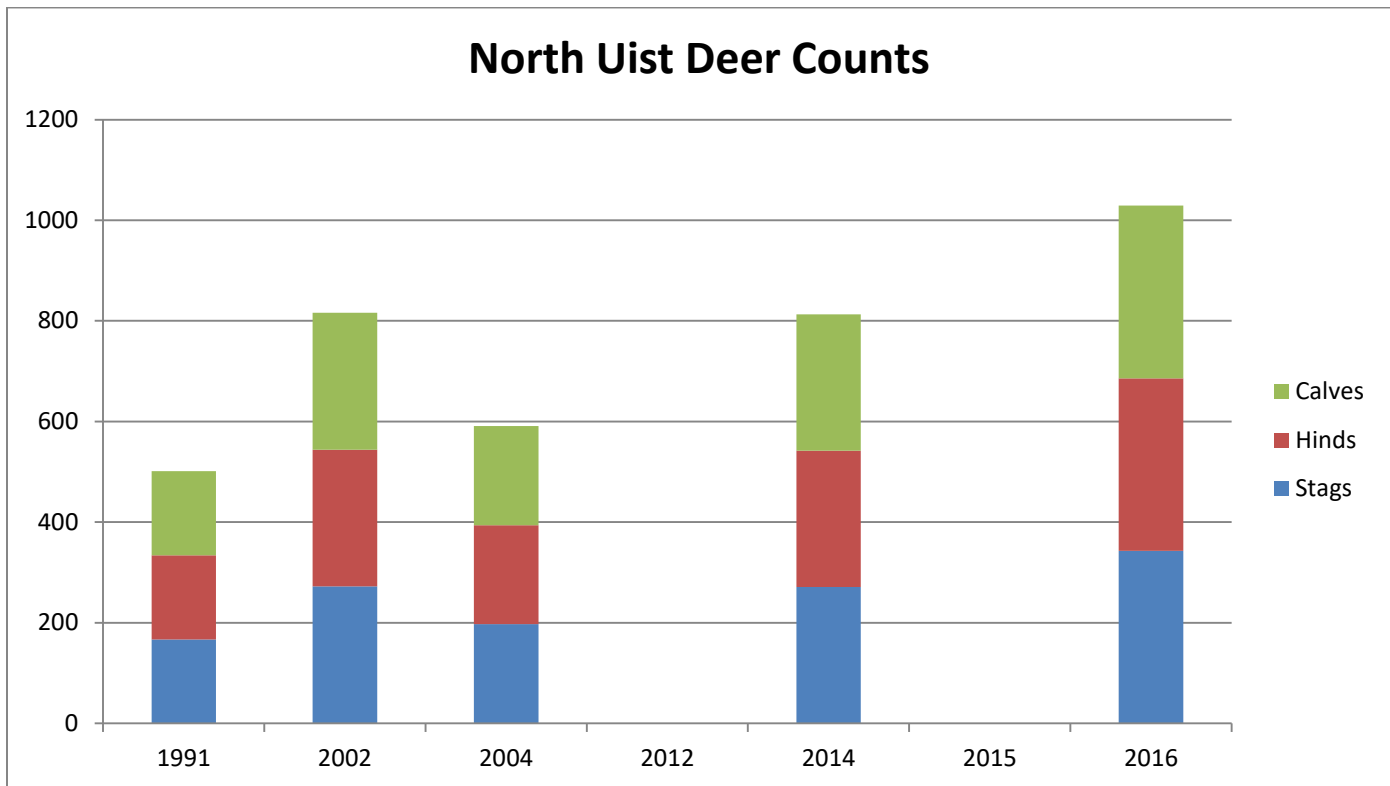
In order that culls can be set to achieve a target density that enables all objectives of the Group to be met, it is essential to be able to estimate the current deer population.

The last foot count of North Uist Estate in April 2016 (Table 2) estimated a population of 343 stags, 539 hinds and 163 calves (a Density of 4.58 deer per km²). Numbers of deer specifically hinds have been increasing on North Uist Estate since 1991 (Figure 3).

Table 3: Count Figures North Uist (excluding Lochportain and Ronay)

North Uist Total (deer range 21689 ha)							
Count	Year	Stags	Hinds	Calves	Total	Density (deer km ²)	Calving %
Foot	1991	142	289	86	517	2.38	0.30
Foot	2002	272	386	146	804	3.71	0.38
Foot	2004	197	231	112	540	2.49	0.48
Foot	2012	0	0	0	900	4.15	0.00
Foot	2014	271	579	143	993	4.58	0.25
Foot	2015						
Foot	2016	343	539	163	1,045	4.82	0.30

Figure 3: North Uist Deer Counts



A baseline four count was carried out on Lochportain and Ronay in 2016 (Table 3 & Figure 4). Ronay is approximately 563 ha in size and holds a population of deer equivalent to 24.3 deer per km².

Table 4: Count Figures for Lochportain & Ronay

Lochportain & Ronay Total							
Count	Year	Stags	Hinds	Calves	Total	Density (deer km ²)	Calving %
Lochportain	2015	11	21	4	36	0.00	0.19
Ronay	2015	27	95	15	137	24.3	0.16

5.3 Deer Populations on South Uist

The last helicopter count of South Uist Estate was carried out in 2015 and estimated a total population of 778 deer (2.01 deer per km²) (Table 5).

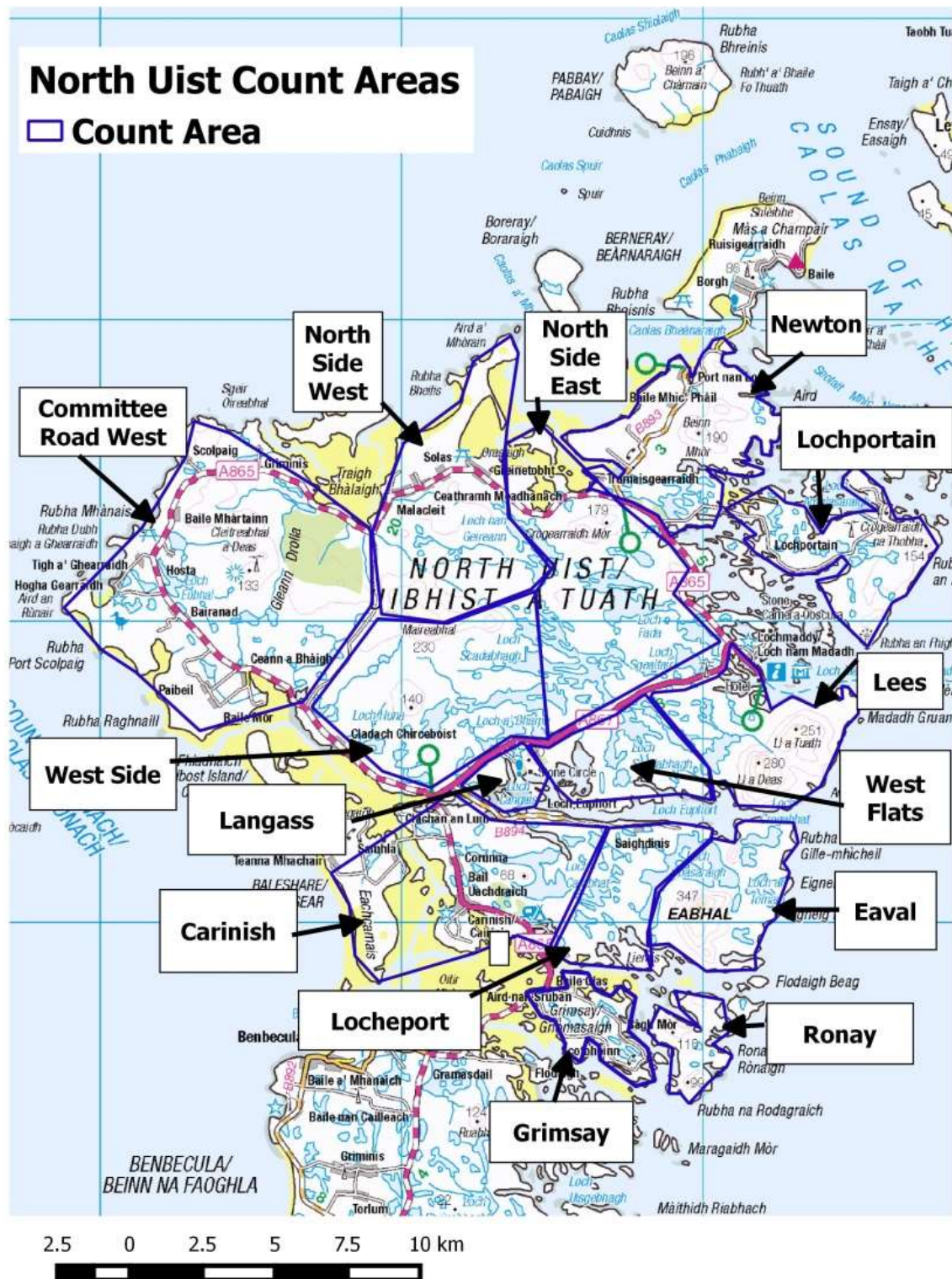
Table 5: Count Figures South Uist (Including Benbecula)

South Uist Total (deer range 38732 ha)							
Count	Year	Stags	Hinds	Calves	Total	Density (per km ²)	Calving %
Helicopter	2015	237	362	179	778	2.01	0.49

5.4 Other herbivores

On North Uist, in the 20 years there has been a reduction in sheep numbers on the hill due to changes in the way subsidies are delivered. However, it is also true to say that numbers have been declining since the 1970s when many crofters took advantage of the IDP grants to enclose parts of the common grazings and form reseeded apportionments which now provide the summer grazing for stock in the manner that the hill grazing did in the past.

Figure 4: North Uist Count Areas



Data produced by North Uist Estate. Contains Ordnance Survey Data © Crown copyright and database right [2016].

6. Deer Culls

6.1 Deer Culls North Uist

Cull data on Red Deer have been recorded for the last 10 years (Table 6). The number of stags being reported as shot Out of Season fluctuates annually at one point in 2013 reaching 47% of the total number of stags shot.

Table 6: Historic Group Open Range Red Deer Culls

Season	North Uist Total Cull							
	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S
2004-2005	35	8	41	1	0	85	43	18.6%
2005-2006	37	6	34	4	0	81	43	14.0%
2006-2007	41	5	36	4	2	88	46	10.9%
2007-2008	42	4	48	0	0	94	46	8.7%
2008-2009	37	38	45	3	0	123	75	50.7%
2009-2010	50	26	57	1	4	138	76	34.2%
2010-2011	39	17	66	1	1	124	56	30.4%
2011-2012	27	9	52	9	1	98	36	25.0%
2012-2013	40	17	83	0	2	142	57	29.8%
2013-2014	57	51	88	15	2	213	108	47.2%
2014-2015	80	45	152	0	5	282	125	36.0%
2015-2016	56	18	140	2	48	264	74	24.3%

Table 7: Deer Culls by Property on North Uist

Season	North Uist Estate								Coille Gleann Geirisdale								Other Properties - Crofts on N Uist							
	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S
2004-2005	35	8	41	1	0	85	43	18.6%	0	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0.0%
2005-2006	37	6	34	4	0	81	43	14.0%	0	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0.0%
2006-2007	36	2	30	2	0	70	38	5.3%	5	3	6	2	2	18	8	37.5%	0	0	0	0	0	0	0	0.0%
2007-2008	42	2	44	0	0	88	44	4.5%	0	2	4	0	0	6	2	100.0%	0	0	0	0	0	0	0	0.0%
2008-2009	33	37	42	3	0	115	70	52.9%	4	1	3	0	0	8	5	20.0%	0	0	0	0	0	0	0	0.0%
2009-2010	50	24	49	1	3	127	74	32.4%	0	2	8	0	1	11	2	100.0%	0	0	0	0	0	0	0	0.0%
2010-2011	34	17	62	1	0	114	51	33.3%	5	0	4	0	1	10	5	0.0%	0	0	0	0	0	0	0	0.0%
2011-2012	22	8	48	9	1	88	30	26.7%	2	1	3	0	0	6	3	33.3%	3	0	1	0	0	4	3	0.0%
2012-2013	33	14	74	0	0	121	47	29.8%	5	0	2	0	0	7	5	0.0%	2	3	7	0	2	14	5	60.0%
2013-2014	43	22	70	10	0	145	65	33.8%	0	0	6	0	0	6	0	0.0%	14	29	12	5	2	62	43	67.4%
2014-2015	55	21	126	0	0	202	76	27.6%	1	0	5	0	0	6	1	0.0%	24	24	21	0	5	74	48	50.0%
2015-2016	45	10	127	1	41	224	55	18.2%	1	0	6	0	2	9	1	0.0%	10	8	7	1	5	31	18	44.4%

6.2 Deer Culls South Uist & Benbecula

Since 2004, the numbers of red deer culled on South Uist and Benbecula has fluctuated between 67 and 152.

Table 8: Deer Culls on South Uist & Benbecula

Season	South Uist Total Cull								South Uist Estate								Other Properties - Crofts on Benbecula							
	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S	S In	S Out	H In	H Out	C	Total	Total Stags	% Stags O/O/S
2004-2005	26	33	45	2	6	112	59	55.9%	26	30	45	2	6	109	56	53.6%	0	3	0	0	0	3	3	100.0%
2005-2006	16	9	42	1	14	82	25	36.0%	16	9	42	1	14	82	25	36.0%	0	0	0	0	0	0	0	0.0%
2006-2007	12	14	28	2	11	67	26	53.8%	12	14	28	2	11	67	26	53.8%	0	0	0	0	0	0	0	0.0%
2007-2008	16	17	31	2	5	71	33	51.5%	14	14	31	2	5	66	28	50.0%	2	3	0	0	0	5	5	60.0%
2008-2009	19	37	32	1	4	93	56	66.1%	16	34	29	1	4	84	50	68.0%	3	3	3	0	0	9	6	50.0%
2009-2010	20	17	30	3	6	76	37	45.9%	18	17	30	3	6	74	35	48.6%	2	0	0	0	0	2	2	0.0%
2010-2011	16	24	30	0	9	79	40	60.0%	13	24	30	0	9	76	37	64.9%	3	0	0	0	0	3	3	0.0%
2011-2012	28	42	32	1	2	105	70	60.0%	22	39	30	1	2	94	61	63.9%	6	3	2	0	0	11	9	33.3%
2012-2013	24	37	31	1	4	97	61	60.7%	21	36	31	0	4	92	57	63.2%	3	1	0	1	0	5	4	25.0%
2013-2014	38	33	31	1	2	105	71	46.5%	29	29	30	0	2	90	58	50.0%	9	4	1	1	0	15	13	30.8%
2014-2015	33	27	30	0	4	94	60	45.0%	33	25	30	0	4	92	58	43.1%	0	2	0	0	0	2	2	100.0%
2015-2016	56	27	46	0	23	152	83	32.5%	55	25	46	0	23	149	80	31.3%	1	2	0	0	0	3	3	66.7%

7. DMG Target Densities and Population Models

The use of population models can aid deer management planning by indicating the cull levels required to deliver a target density over a realistic 5 year period. These population models will however require to be updated on a yearly basis based on up to date information on culls, counts and recruitment rates. Cull targets will require to be agreed in advance on an annual basis with suitable provision to allow deer to be controlled effectively to reduce agricultural damage.

7.1 North Uist Population Model

The population model for the North Uist makes the following model assumptions

- Model based on foot count data from 2016.
- Stag cull is based on a desired commercial harvest of 50 stags by North Uist Estate and allowing for an additional 20 to be shot initially to prevent damage to agricultural interests but this number decreasing annually. A sustainable harvest of mature stags (aged 7 – 8 years old) would require a total population of around 375 stags.
- Hind cull has been increased to bring the sex ratio closer to 1:1 and a target population of 300 hinds.
- Calving rate is 30% allowing for mortalities (2% of adults and 6% of calves) increasing to 35% in 2020 and 2021 as hind density decreases. Annual recruitment information will help fine-tune the model.
- The Estate wished to adopt an adaptive management approach to deer management and population targets post 2019 will be informed by on-going gathering of evidence of deer impacts on occupied land, habitat and agriculture.

		Stags	Hinds	Calves	Density
2016	Spring Population	343	539	163	4.8
	Summer Population	425	621	186	5.7
	Cull	70	130	39	
	Mortality	8	12	11	
2017	Spring Population	346	478	136	4.4
	Summer Population	414	546	164	5.2
	Proposed Cull	65	130	39	
	Mortality	8	11	10	
2018	Spring Population	341	405	115	4.0
	Summer Population	398	463	139	4.6
	Proposed Cull	60	130	39	
	Mortality	8	9	8	
2019	Spring Population	330	323	91	3.4
	Summer Population	376	369	129	4.0
	Proposed Cull	50	45	16	
	Mortality	8	7	8	
2020	Spring Population	318	317	106	3.4
	Summer Population	371	370	129	4.0
	Proposed Cull	50	45	16	
	Mortality	7	7	8	
2021	Spring Population	314	317	106	3.4
	Summer Population	367	370	130	4.0

7.2 South Uist Population Model – Note this model is for illustrative purposes only and will be updated according to the outcome of the Strategic Land Management Plan in 2017.

The population model for the South Uist makes the following model assumptions

- Model is based on helicopter count data from 2015 plus the known reported cull from 2015/16.
- Stag cull is based on a desired commercial harvest of 40 stags and allowing for an additional 15 to be shot to prevent damage to agricultural interests. A sustainable harvest of mature stags (aged 7 – 8 years old) would require a total population of 300 stags.
- Hind cull has been increased to bring the sex ratio closer to 1:1 and a target population of 300 hinds.
- Calving rate is 40% allowing for mortalities (2% of adults and 6% of calves)

		Stags	Hinds	Calves	Density
2015	Spring Population	237	362	179	2.0
	Summer Population	327	452	181	2.5
	Cull	83	46	23	
	Mortality	7	9	11	
2016	Spring Population	237	396	147	2.0
	Summer Population	310	470	188	2.5
	Proposed Cull	55	90	36	
	Mortality	6	9	11	
2017	Spring Population	249	370	141	2.0
	Summer Population	319	441	176	2.4
	Proposed Cull	55	90	36	
	Mortality	6	9	11	
2018	Spring Population	258	342	130	1.9
	Summer Population	323	407	163	2.3
	Proposed Cull	55	90	36	
	Mortality	6	8	10	
2019	Spring Population	261	309	117	1.8
	Summer Population	320	367	147	2.2
	Proposed Cull	55	90	36	
	Mortality	6	7	9	
2020	Spring Population	259	270	102	1.6
	Summer Population	310	321	128	2.0

8. Deer Management Issues and Potential Conflicts

Within the Uist DMG, the planning process has identified a number of areas of potential conflicts surrounding deer and their management. The DMP will seek to identify these potential conflicts and outline a series of Actions to be undertaken by the Group. These are summarised in Table 9 but are discussed in more detail in the relevant section of the plan.

Table 9: Summary of Deer Management Issues

Deer Management Issues	Resolutions	Section of the Plan
<p>Lack of transparency and communication.</p> <p>Through a series of open meetings with the wider community and one to one meetings conducted as part of the planning process, it was evident that more could be done to improve working relationships and communication on deer matters across the DMG area.</p>	<p>The Deer Management Plan will identify specific actions to foster collaboration and good working relationships built on trust, openness and transparency. The effective functioning of the wider DMG and improved communication will be critical.</p>	<p>Sections 8 and 10</p>
<p>Negative impacts of deer on Crofting and Agricultural Interests.</p> <p>Through the planning process, it was evident that the impacts of deer on croft ground have been increasing and attempts by land owners to address these issues (ie through the continuous scaring of deer of fields at critical times) had been regarded as ineffective. Faced with escalating impacts, Crofters in particular have become frustrated at lack of action and have resorted to implemented their own methods of control largely through the use of Nominated controllers. Without proper planning, the use of Out of Season Authorisations could potentially impact on the future sustainable management of deer as a shared resource.</p>	<p>As well as improving communication through the wider deer DMG there are a number of key actions that could help address this issue. Facilitation of Sub Group meetings on North Uist, and Benbecula & South Uist to deal with specific issues and agree future culls and management actions will be critical. The appointment of agreed Nominated Controllers to control deer Out of Season where required (within agreed cull targets) could also be a useful step.</p> <p>On South Uist, an Options Appraisal will consider a range of deer management options to manage deer impacts.</p>	<p>Section 9</p>

<p>Possible impacts on Human Health and Safety through Ticks</p> <p>Increases in deer movements (likely caused by changes in deer numbers and land-uses practices) have resulted in increased interactions with deer and the wider community. The issue of increased exposure to ticks (and the high prevalence of those being diagnosed with Lyme Disease) is of major concern to the wider community.</p>	<p>South Uist Estate will consider these issues as part of the The Options Appraisal being undertaken by Storas Uibhist.</p> <p>Actions to areas of human occupation will be implemented to reduce the risk of deer spreading ticks.</p>	<p>Section 12</p>
<p>Possible impacts on Human Health and Safety through Deer Vehicle Collisions.</p> <p>Increases in deer movements (likely caused by changes in deer numbers and land-uses practices) have resulted in increased interactions with deer and the wider community. Increased movement of deer crossing road to access croft ground also increases the risk of Deer Vehicle Collisions (DVCs).</p>	<p>South Uist Estate will consider these issues as part of the The Options Appraisal being undertaken by Storas Uibhist.</p> <p>Actions to identify hotspots and measures to mitigate risk will be undertaken to reduce the risk of DVCs.</p>	<p>Section 12</p>
<p>Environmental Impacts of Deer.</p> <p>Whilst the impacts of deer on Designated Sites and woodland are not of major concern, the impacts of deer on wider habitats (such as moorland, blanket bog and machair) and their associated biodiversity (particularly bird life) required attention.</p>	<p>Land owners will implement Habitat Impact Assessments to help inform ongoing management. The DMG will seek engagement with stakeholders such as the RSPB to foster good working relationships and collaborative working.</p>	<p>Sections 12- 16</p>
<p>Deer Welfare.</p> <p>The health and welfare of individual animals and the wider deer population as a whole is absolutely integral to deer management. Welfare may be compromised where deer are being controlled by individuals without adequate training or experience or where deer are excluded from areas for feeding/shelter through the use of fencing.</p>	<p>The plan will outline provisions to ensure that all deer are being culled by skilled and competent controllers. Storas Uibhist will consider the welfare implications of any fencing proposals as part of the Options Appraisal.</p>	<p>Sections 17 - 18</p>

9. Actions to develop mechanisms to manage deer

9.1 Background

To manage deer populations at a landscape scale a collaborative approach is required and the need to negotiate and compromise may be necessary. This requires a Deer Management Group to be functioning effectively, to be inclusive and to operate in the spirit of openness and transparency. The Association of Deer Management Groups (ADMG) has provided some guiding principles through the [ADMG Benchmark](#).

9.2 Plan Objectives

The Deer Management Plan (DMP) will aim to identify specific actions to deliver local public interest and ownership objectives. The DMP should also ensure that representation and Membership of the Deer Management Group enables greater integration of different land-uses at a local level. The planning process should also be consultative, transparent and open.

9.3 Current Delivery.

- **Deer Management Plan:** An agreed Deer Management Plan is in place which was adopted in 2016.
- **Membership:** Uist Deer Management Group (UDMG) is made up of all the members who manage deer across the main properties within the DMG area plus a range of stakeholders with an interest in deer management. On all properties public health and conservation are common objectives but deer are also managed as a resource. Other objectives include farming and livestock production, forestry, renewable energy and tourism.
- **DMG Constitution:** The DMG formally adopted the Constitution in March 2017(see Section 22).
- **Main DMG Meetings:** UDMG has a strong level of participation from all members of the group with a good attendance at meetings and all properties being represented by owners and or stalkers/managers. The main business of the main full DMG meetings will be to carry out an AGM (Spring) and to keep deer matters across the DMG area under review at a landscape level. A detailed review of the previous season is undertaken at a practical, localised level and any current problems or issues in the Group area will be discussed. If necessary, issues will be prioritised and a plan of action agreed upon.
- **WDNA, Best Practice & The Code:** Group members support and fully endorse:
 - The long term vision for deer populations and their management as laid out in "[Scotland's Wild Deer - A National Approach](#)".
 - [Code of Practice on Deer Management](#)
 - [Wild deer Best Practice Guidance](#)

- **ADMG Principles of Collaboration:** Group members support and fully endorse the ADMG Principles of Collaboration.
- **Deer Counting:** To achieve an overall target population density that delivers sustainable deer management, it is essential to be able to estimate the current deer population. North Uist Estate has carried out sporadic foot counts since 2001, the last count being in the Spring of 2016. South Uist conducted a helicopter deer counts over the whole of South Uist (supplemented with a foot count of Benbecula) in 2015. A detailed description of trends in deer numbers and historic annual cull figures can be found in Section 2.
- **Controllers and Cull Reporting.** In order that deer can be managed in the most effective way possible, it is absolutely **essential** that deer management is forward looking and that cull targets are agreed at the start of the season. Out with the cull taken by the two main Estates during the season, it is accepted that there will be those who control deer on croft land or on their own individual property. Mostly these culls will be “reactive” culls in order to prevent damage out of season and therefore difficult to precisely quantify in advance. However, these culls need to be anticipated as much as possible in advance in order that they can be included in population modelling. In order to plan effectively, it is essential therefore that all those managing deer or controlling deer on behalf of others are identified, and where appropriate attend the DMG meeting.

Figure 5: ADMG Principles of Collaboration

ADMG Principles of Collaboration

As member 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 to resolve these.

9.4 Targets to be delivered by 2021

Actions to develop mechanisms to manage deer	When?	Who?	How?
9.4.1 Repeat DMG Assessment.	By Spring 2017 and ongoing	DMG Chair and Secretary	<i>Use baseline DMG Assessment carried out in 2016.</i>
9.4.2 DMG Constitution and ADMG Principles of Collaboration adopted	Spring 2017	DMG Members	Adopted as part of DMP.
9.4.3 Culls will be delivered and reported on accurately. Cull targets will be set by the Estates and discussed with the DMG based on information relating to habitat condition, population census, deer welfare and any other relevant information (i.e. where deer are impacting negatively on the Public Interest).	Annually	Group Members	<i>Population models will be updated annually and cull targets set, agreed and delivered accordingly.</i>
9.4.4 A helicopter count will be conducted over South Uist and Benbecula in Winter 2018 and in Winter 2021 by Storas Uibhist.	Winter 2018 & 2021	DMG Secretary and DMG Members	<i>Storas Uibhist will ensure adequate resources in place for repeat helicopter count in 2018 and 2021 and liaise with North Uist to coordinate count at the same time if possible. Possible 50% funding contribution from ECAF being explored.</i>
9.4.5 Foot counts (where practical) and recruitment counts will be carried out annually.	Ideally first two weeks in April but by May.	DMG Members	<i>Stalkers will undertake sample counts of groups of deer recording locations, stags, hinds and calves. Information will be used to support population modelling.</i>
9.4.6 Group will encourage representatives from the local community to attend meetings as well as local agricultural/ woodland/ conservation interests such as the RSPB.	Annually	DMG Chair. Stakeholder list to be compiled.	<i>Meeting dates and Agendas will be publically available on DMG website and circulated to community councils and organisations in advance.</i>

<p>9.4.7 Group will ensure adequate resources are available to fund the administration and aspects of delivery of the DMP including need for research.</p>	<p>Ongoing</p>	<p>DMG Chair and Secretary</p>	<p><i>DMG will ensure adequate resources for the ongoing delivery of the plan and necessary research through private funding and through a possible Environmental Cooperation Action Fund (ECAAF) application.</i></p>
<p>9.4.8 Group will create a database of all those who control deer and a Hotmail account will be used to log deer culled on an ongoing basis.</p>	<p>By March 2017 and Ongoing</p>	<p>DMG Secretary and All Deer Controllers</p>	<p><i>Group will collectively identify all deer controllers who will be approached by the DMG. A Hotmail account will be set up and all controllers asked to provide an ongoing cull update throughout the year. Information requested for each deer culled will be date, location, sex, and approximate age (calf, young, medium and old).</i></p>

10. Actions to minimise the economic costs of deer, and ensure deer management is cost-effective

10.1 Background

- Wild deer are considered a resource and can play an important role in promoting and sustaining economic activity (see Section 19). However they can also create costs to other land-use objectives and have a negative impact on other economic activities including agriculture and forestry.
- Within the UDMG area, deer largely have access to roam freely. From late Winter/early Spring, pasture on Croft ground becomes extremely attractive to deer, particularly stags. Attempts by Crofters throughout the DMG area to improve the quality of pasture (including the use of lime) or the planting of feed crops for livestock are increasingly being negatively impacted on by deer. Whilst deer have always had access to Croft ground, it is likely that increasing numbers of deer as well as changes in sheep and cattle grazing practices on the open hill have increased the pressure of deer coming onto Crofts.
- The **actual economic loss** to Crofters through deer is extremely difficult to quantify however it includes loss of pasture and grazing for livestock (particularly where lime has been applied at a cost per acre) as well as loss of crops and damage to croft infrastructure such as fences/walls. In addition, there is potentially an indirect environmental cost of over-grazing of certain habitats including machair (Section 15). It can also be argued that the impact of ticks on public health and on livestock carries an economic cost. The role of deer as a tick vector and the issue of tick borne disease is detailed in Section 12.
- Under the [Deer \(Scotland\) Act 1996](#) the close seasons for Red Deer in **Scotland** are:
 - Red Stags: 21st Oct - 30th Jun
 - Red Hinds: 16th Feb - 20th Oct
- In legal terms, wild deer belong to no-one and can only be shot by those who own or manage the land or with their permission. . However there are a number of other people such as tenants that can take or kill deer for certain purposes. but Authorisations are issued by the Scottish Natural Heritage under the Deer (Scotland) Act 1996 to allow individuals to cull deer in circumstances when they would not normally have the legal right to shoot them, for example to prevent deer damaging agricultural ground. More information on the legal status of deer and the use of Authorisations is contained in Section 26.

10.2 Plan Objectives

- The DMP will seek to minimise the economic cost of deer through identifying issues and implementing management to reduce or mitigate deer impacts where this results in an economic cost.
- The plan will aim to identify where deer are having an economic cost particularly with regard to agricultural impacts. Incidents of Deer Vehicle Collisions (DVCs) will be monitored. Opportunities to work collaboratively to reduce these costs will be identified and actioned.

10.3 Current and Future Delivery: North Uist.

- Deer are considered an important resource for North Uist Estate whose objective is to sustainably harvest 45 to 50 mature stags per annum for commercial purposes.
- Attempts by North Uist Estate to minimise the impacts of deer on Crofts, have largely been considered to be ineffective. Methods have included Out of Season control by Estate staff and a policy of scaring deer off Crofts at vulnerable times (at a cost in staff time to the Estate).
- The numbers of stags being shot Out of Season have been increasing since 2011. Every stag shot out of season represents a lost commercial opportunity for the Estate. Hence the current Status Quo is potentially unsustainable both in terms of economic losses to Crofters and to the Estate.
- A deer count conducted by North Uist Estate in 2016 (Table 9 and Figures 7 & 8) highlighted areas of the highest concentrations of stags and hinds during the Spring (a time when deer have the potential to have the greatest impact).
- As part of the planning process, meetings with North Uist Estate and with local Crofters in July 2016 identified and agreed to explore a number of possible mechanisms to address the issues.
- These mechanisms and actions include:
 - An annual foot count and the population model will be used to set stag and hind culls for the season.
 - Stag culls will include an agreed proportion of stags which may be shot Out of Season on Crofts where required.
 - Areas of highest concentrations of hinds and calves (eg in 2016 Lees, West Side and Lochport – see Table) will be identified from the count and deer control will be concentrated by the Estate on these areas during the Open Season.
 - Controllers acting on behalf of Crofters and Crofters managing deer Out of Season will be identified.

- It will be up to individuals to agree terms and conditions and a collaborative way forward.
- All those controlling deer on Uists will report back to the DMG through the Hotmail email address in an attempt to account for all deer being shot in and out of season.

Figure 6: Historic Stag Culls on North Uist

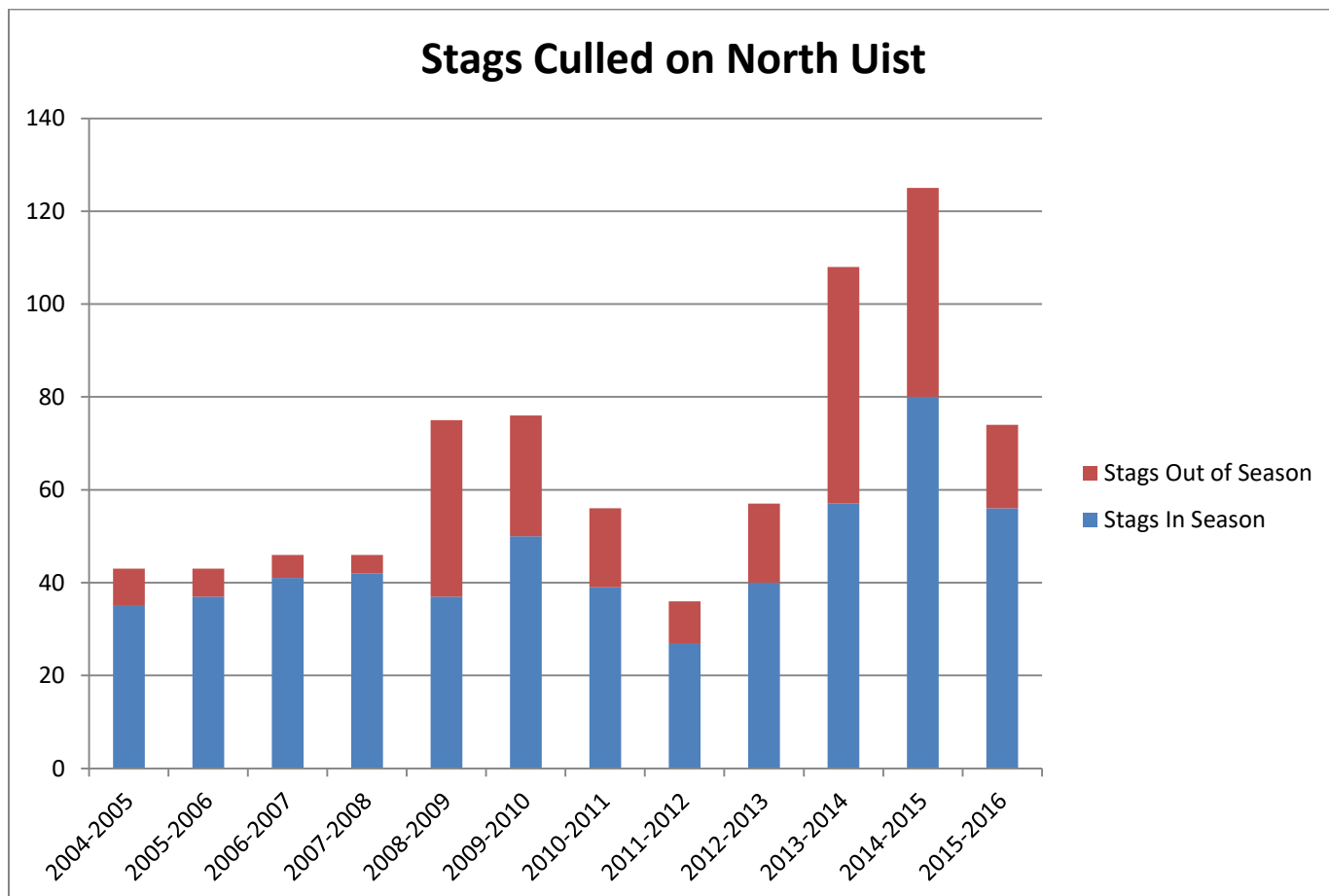
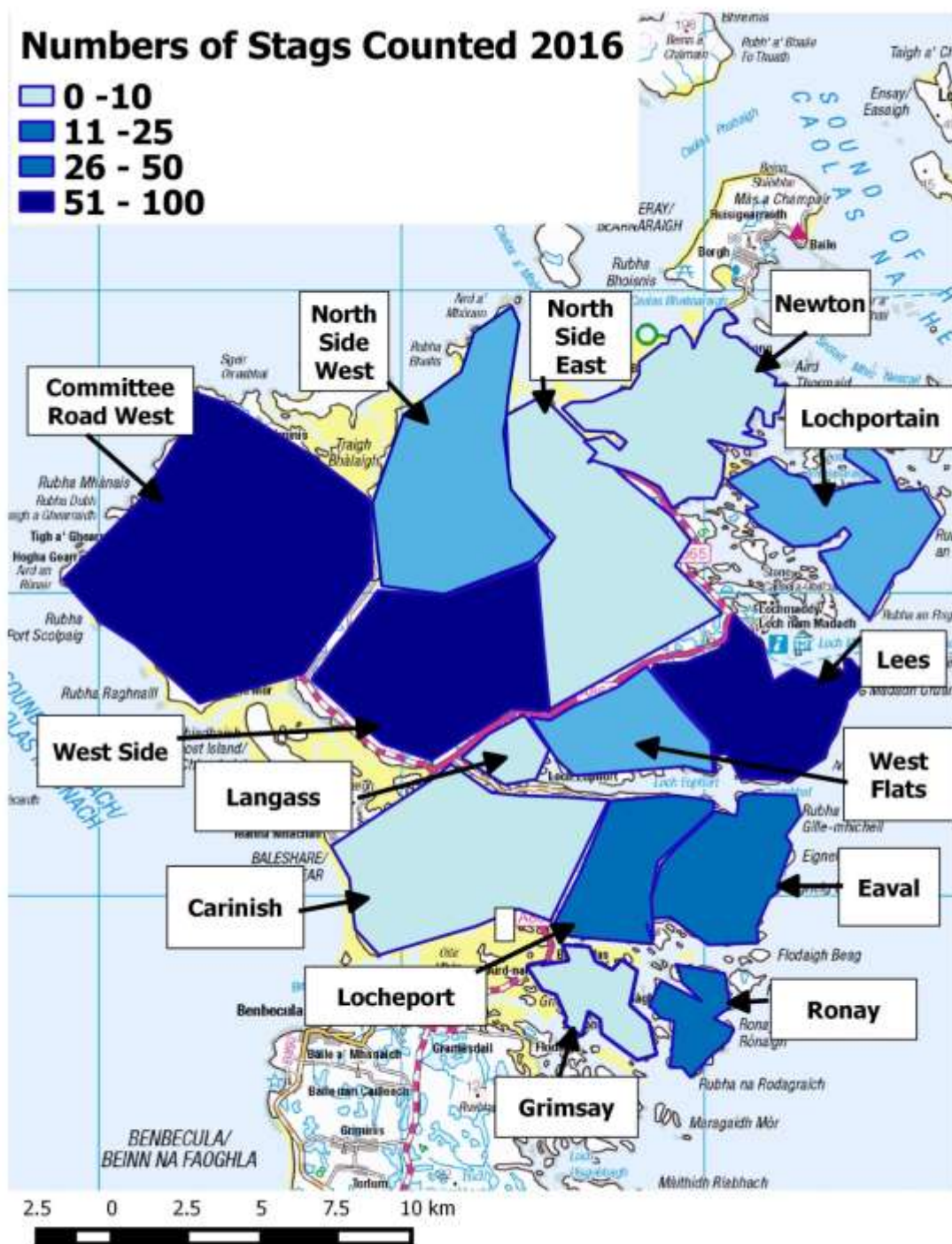


Table 9: North Uist Deer Count by Area

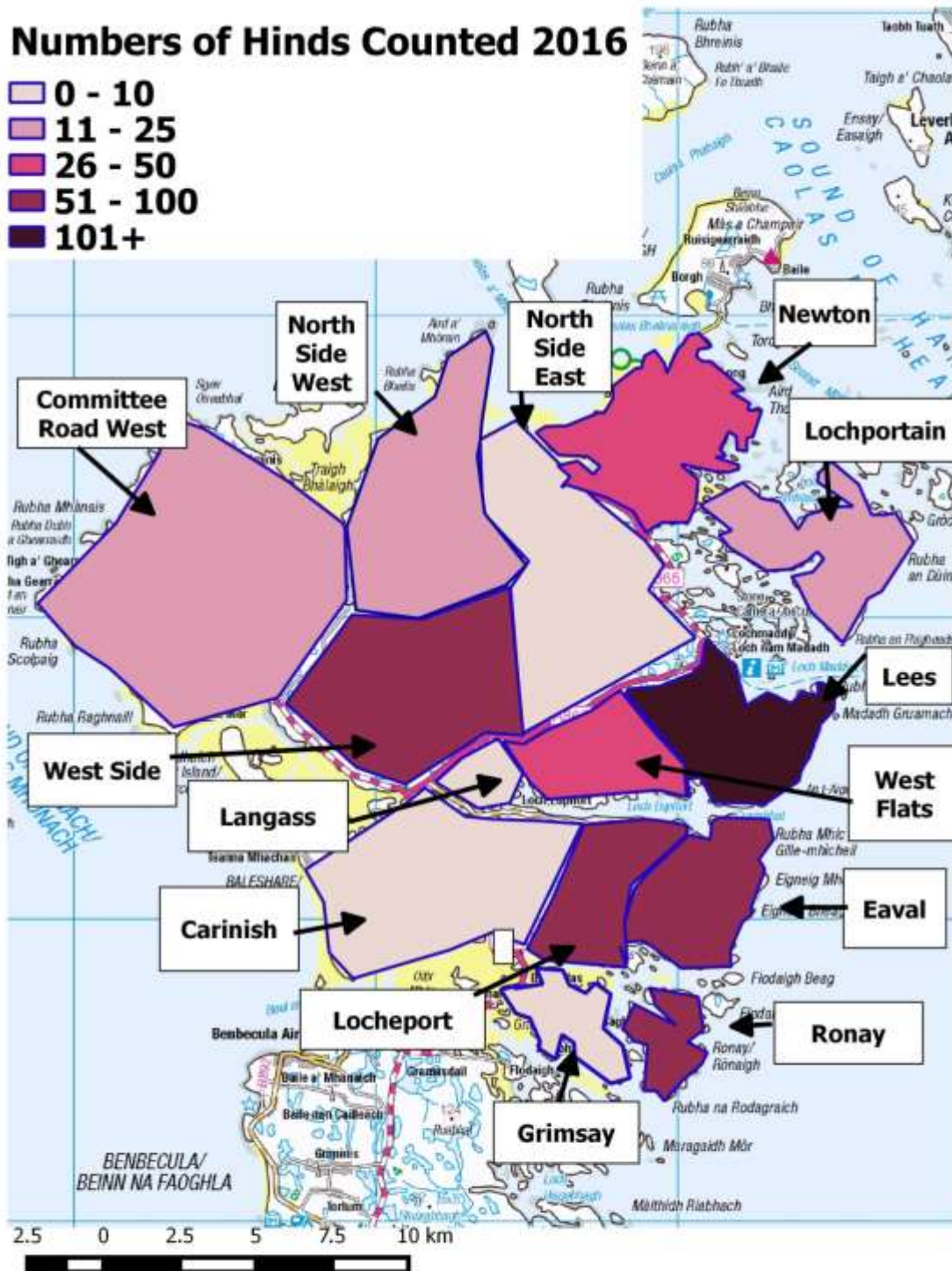
	Count Areas North Uist										
Area	2014				2016						
	Stags	Hinds	Calves	Total	Stags	Hinds	Calves	Total			
West Side	7	49	14	70	53	96	10	159	Number	Stags	Hinds
Committee Road	48	32	3	83	85	17	7	109	0 - 10		
North Side West	26	34	5	65	25	25	10	60	11 - 25		
North Side East	7	15	8	30	10	49	2	61	26 - 50		
Newton	12	38	16	66	8	50	12	70	51 - 100		
Lochmaddy	12	0	0	12	0	0	0	0	101+		
West Flats	18	78	24	120	23	39	4	66			
Lees	76	135	29	240	54	119	47	220			
Langass	3	20	6	29	1	10	4	15			
Carinish	13	45	7	65	7	9	6	22			
Locheport	21	38	15	74	37	74	36	147			
Eaval	28	97	14	139	43	51	22	116			
Lochportain					11	21	4	36			
Rona					27	95	15	137			
Grimsay					0	0	0	0			
Total				993				1218			

Figure 7: North Uist Stag Distribution Map



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Figure 8: North Uist Hind Distribution Map



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10.4 Current and Future Delivery: South Uist.

- Since their re-introduction in 1975, numbers of deer on South Uist have been increasing. A helicopter deer count conducted by South Uist Estate in 2015 indicated a population estimate of 778 deer.
- The numbers of stags being shot Out of Season have historically represented a significant proportion of the total numbers of stags shot. Every stag shot out of season represents a lost commercial opportunity for the Community. Hence the current Status Quo is potentially unsustainable both in terms of economic losses to Crofters and to Storas Uibhist.
- The existence and the size and of the deer herd is an economic as well as social and ecological matter. Therefore, the democratically elected Directors of SnBM will define the size of the deer herd taking all considerations into view. This will require an extensive study which will be conducted in 2017. Deer are considered to be resource for Storas Uibhist whose ideal objective is to sustainably harvest 40 mature stags per annum for commercial purposes as well as providing a source of revenue through venison production.
- Attempts by South Uist Estate to minimise the impacts of deer on Crofts, have largely been considered to be ineffective. Methods have included Out of Season control by Estate staff and a policy of scaring deer off Crofts at vulnerable times (at a cost in staff time to Storas Uibhist).
- The topography of South Uist makes it logistically difficult to control hinds during the season as there is a significant proportion of the population in the east of the island hefted to an area largely inaccessible except for boat.
- Storas Uibhist is committed to working with the DMG in a collaborative manner. Storas Uibhist are currently undertaking an Options Appraisal to identify the most appropriate management tools/solutions in order to reduce impacts of the South Uist deer population. Elements that the Options Appraisal should consider are highlighted in Table 10. A new CEO and Estate Manager were appointed in late 2016, and a Strategic Land Management plan is being developed in 2017, which will necessarily encompass all aspects of the DMP. Tenants and the local community will be consulted widely in the plan and two events are being planned on the Estate in February 2017 to present both the DMG findings and the Estates plans regarding deer and land management. All options will be considered, addressed and made public.

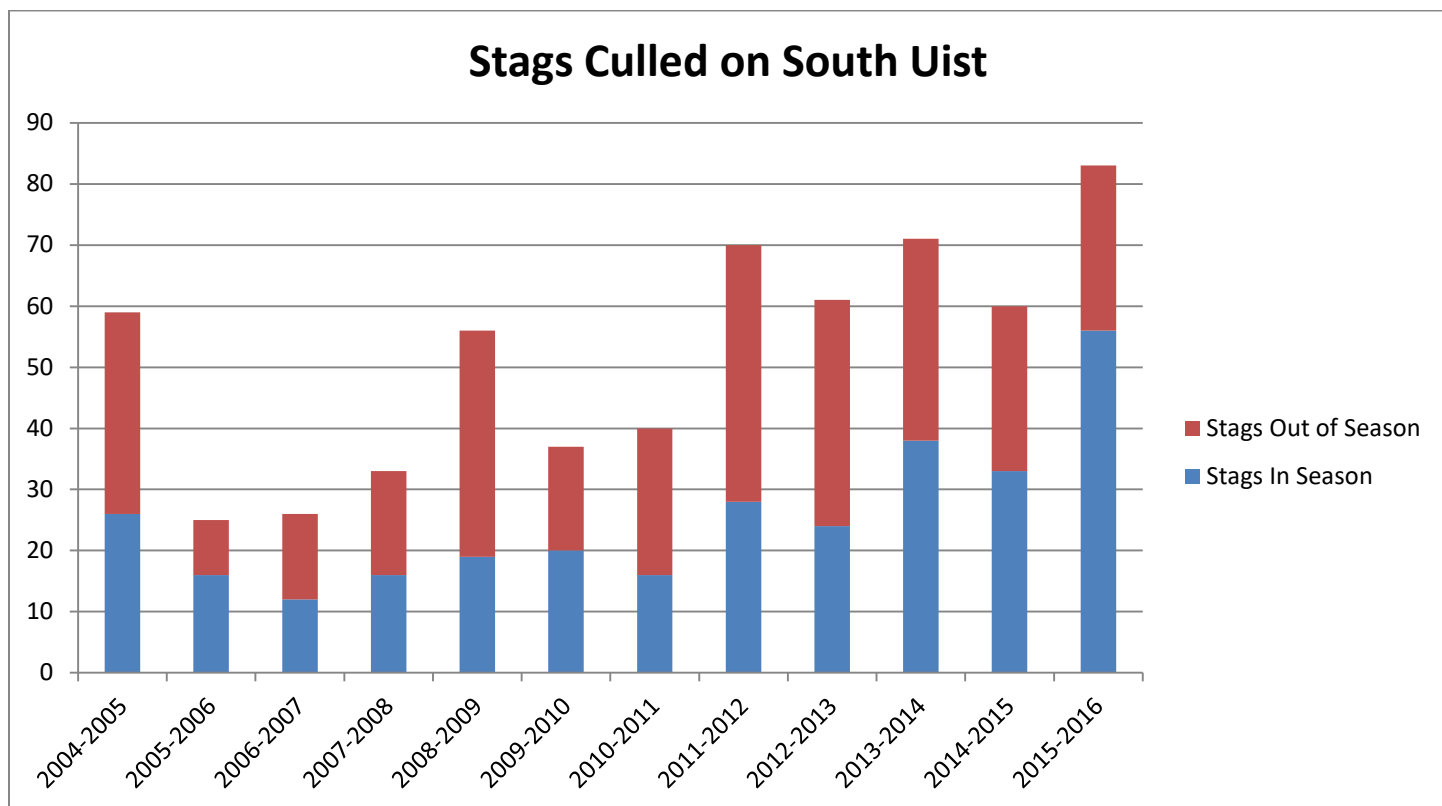
Table 10: Options Appraisal for Deer Management on South Uist

Proposal	Benefits	Costs /Risks to Consider
<p>Option 1: Large-Scale Fencing: Storas Uibhist are considering a proposal for a strategic deer fence. Different options are being considered for the fence location but it could entail between 23 to 28 km of deer fence intended to provide a significant barrier to prevent deer movement onto Crofts.</p>	<p>Reduction in negative impacts of deer. Deer would be almost entirely excluded from Croft ground and gardens.</p> <p>Reduced Risk of DVCs: The fence would reduce the movement of deer thus potentially reducing the risk of Deer Vehicle Collisions.</p> <p>Lyme Disease Epidemiology: Deer are just one host of ticks (a vector of Lyme Disease). It is thought however that restricting the movement of deer could have a positive effect on reducing tick transmission from deer.</p> <p>Maintenance of a sustainable deer population. It may be possible to maintain a sustainable herd of red deer on the ground behind the fence.</p>	<p>Effectiveness: it is unlikely that any large scale strategic deer would be 100% effective in excluding deer from croft land.</p> <p>Costs: Deer fence costs would roughly equate to £17,000 - £23,000 per year, depending on how large an area is fenced off, over the 15 year guarantee which will be 15 years minimum. It would also free up time resources currently spent chasing deer off Crofts.</p> <p>Welfare: the welfare of deer traditionally used to accessing Croft ground would have to be considered. It is also possible that without access to improved pasture, the quality of the stag herd may decline.</p> <p>Visual/Environmental Impacts: any fencing proposal would have to consider potential negative impacts on the landscape or on the environment.</p> <p>Access: Fencing proposals will have to consider public access.</p>

<p>Option 2: Use of small scale localised fencing and the trialling of electric fencing during times of highest impact risk.</p>	<p>Costs: by targeting particular, localised areas to be deer fenced, this could significantly reduce fencing costs, particularly if this could be combined with fenced woodland schemes.</p> <p>Electric Fencing: this could be trialled for use when grazing/crops are most vulnerable to deer grazing and removed at other times.</p>	<p>Effectiveness: the use of any electric fencing would have to be trialled for effectiveness.</p>
<p>Option 3. Hill and Habitat Improvement:</p> <p>Storas Uibhist are considering opportunities for woodland creation the Croft Woodland Project. In the long term this would provide shelter and an attractive habitat for deer (either with or without a strategic fence).</p> <p>Opportunities of improving the hill grass and heather moorland through flailing are also being considered. A sample area on the hill flats East of Mingarry is being created. If the outcome is positive then flailing mowers could be bought that attach to quads and argocats.</p>	<p>Shelter provision: The creation of woodland would be valuable to deer in the long-term as it would provide an attractive habitat mainly in terms of the shelter it would provide.</p> <p>Better Quality Grazing: improvements to either moorland or hill grass could be highly beneficial to deer in providing a source of food.</p>	<p>Time-scales for woodland creation would unlikely provide habitat for another 15 to 20 years.</p> <p>Diversionary Grazing: Even with the provision of shelter and improved grazing it would seem unlikely that this alone would prevent deer moving onto Crofts during late winter/spring when grazing/food meant for livestock becomes highly attractive.</p>

<p>Option 4. Deer Reduction: a possible option is to reduce the deer herd to a level where the impact of deer on Crofts is at a tolerable level. Possibly combined with Option 2. “Problem deer” could be targeted first to reduce impacts where they are occurring.</p>	<p>Reduced Impacts. Deer would still be present on South Uist as an important aspect of biodiversity but only in such numbers as to minimise negative impacts on the wider community.</p> <p>Employment/Venison Income: Deer would still have to be controlled/ managed by Storas Uibhist/ Crofters and would provide some return on venison.</p>	<p>Loss of Revenue: the opportunities for revenue through commercial letting of stag/hind stalking would be reduced.</p> <p>Cost of Reduction: a significant reduction in the deer herd would likely require additional resources in the form of skilled controllers and the necessary equipment needed to safely extract hinds from inaccessible areas.</p>
<p>Option 5. Opportunities for Deer Farming. A possible option may be for Storas Uibhist to investigate opportunities to use some of the marginal hill areas for deer farming. This could be combined with proposals from Storas Uibhist to build a carcass processing unit.</p>	<p>Reduced Impacts. The open range deer herd could be reduced significantly or used as stock. Deer would still be present on South Uist as an important aspect of biodiversity but only in such numbers as to minimise negative impacts on the wider community.</p> <p>Economic Benefits: deer farming could provide economic benefits to the local community in terms of jobs and venison production. Tourism could also benefit from Farm Tours.</p> <p>Woodland Creation: The deer fencing required could also be used to create areas of woodland for shelter.</p>	<p>Costs: Set up costs associated including deer fence costs.</p> <p>Visual/Environmental Impacts: any fencing proposal would have to consider potential negative impacts on the landscape or on the environment.</p> <p>Loss of Revenue: the opportunities for revenue through commercial letting of stag/hind stalking would be reduced.</p>

Figure 9: Stag Culls on South Uist & Benbecula



10.5 Targets to be delivered by 2021

Actions to minimise the economic costs of deer, and ensure deer management is cost-effective	When?	Who?	How?
10.5.1 Listed controllers to be compiled by DMG.	By Spring 2017	DMG Chair, Estate Owners, Crofters and Listed Controllers	<i>Estate stalkers (and where applicable outside contractors/controllers) to act as a point of contact for the land-owners and crofters. Listed controllers will cull deer Out of Season within agreed cull targets.</i>
10.5.2 North Uist to reduce the number of hinds to an overall summer population density of 4 deer per km ² . North Uist Estate to target hind cull in areas of highest hind density.	On-Going	North Uist Estate	<i>Deer Count information will be discussed at DMG meetings and North Uist Estate will report back to DMG.</i>
10.5.3 Proposed culls will be discussed annually (including any indication of likely numbers of stags to be controlled out of season).	Annually	Group Members	<i>Deer Count and cull information will be discussed at meetings.</i>
10.5.4 All those controlling deer will be requested to provide annual returns to SNH and to the DMG through a dedicated email address for the DMG. All those controlling deer will be requested to report on out of season and night shooting authorisations.	Annually for returns to SNH. On a weekly basis for deer shot Out of Season.	DMG Members	<i>Members to inform DMG Chair/Secretary in advance of intention to apply for authorisations or likelihood of shooting deer under General Authorisation. Members to report on deer culled Out of Season on a weekly basis..</i>
10.5.5 Storas Uibhist to consider and scope all options to resolve deer management issues in the wider community.	By Spring 2017	Storas Uibhist	<i>All options will be considered to provide clear direction for future deer management in South Uist. A Strategic Land Management Plan is being developed in 2017.</i>

11. Actions to ensure effective communication on deer management issues.

11.1 Background

Effective collaborative deer management requires effective communication on deer management issues both within the DMG and throughout the wider community in order to promote better awareness and education of deer and deer management.

11.2 Plan Objectives

To ensure that the DMG is inclusive, open, transparent and that local issues have been addressed. DMP will include a Communications policy to encourage participation and collaboration and to communicate the public benefits being delivered through local deer management activity. DMG Constitution will set out methods for conflict resolution.

11.3 Current Delivery.

- DMG has a web site (uistdmg.deer-management.co.uk)
- Minutes of meetings, Agendas and a copy of the plan will be available on the web site as well as contact details and a summary of DMG information. A link to the web site is also available on the [Association of Deer Management Groups](#) web site.
- DMG works in close collaboration with the local Crofting Community.
- The DMG currently works in Partnership with Government Agencies including **Scottish Natural Heritage** (SNH), **Rural Payments and Inspectorate Department** (RPID), The Scottish Crofting Federation and the Local Community.
- The DMG is discussing possible membership of the Association of Deer Management Groups.
- The DMG held a full public consultation of the draft plan. Meetings were held on South Uist, Benbecula and North Uist as part of the planning process. A public consultation meeting was held on 6th March 2017 to discuss the draft plan and the local Community Councils were sent copies of the Draft

11.4 Targets to be delivered by 2021

Actions to ensure effective communication on deer management issues	When?	Who?	How?
11.4.1 Stakeholders consulted on draft plan.	Autumn 2016	DMG Secretary	Draft DMP made available on public website. Relevant stakeholders identified and invited to consult. Interested parties invited to attend a consultation meeting.
11.4.2 Final Plan and Minutes of Meetings will published on DMG Website.	Spring 2017	DMG Secretary	DMG Website.
11.4.4 Agree and adopt a DMG Communications Policy (Figure 10)	Spring 2017	DMG Members	Adopted as part of DMP.
11.4.4 Agree and adopt a DMG Information and Data Protection Policy (Figure 11)	Spring 2017	DMG Members	Adopted as part of DMP.

Figure 10: Information Management and Data Protection Policy

Information Management and Data Protection Policy

DMGs are subject to the The Data Protection Act 1998 (DPA) which regulates the use of "personal data". "Personal data" covers any data that can be used to identify a living individual including their name and address, telephone number or e-mail address.

The DMG will only hold and use those details of its members which it needs in order to contact them, i.e. name, address, phone number and email address, in as far as each member is willing to supply those details. These details should normally only be available to those in the DMG who need to have them, e.g. Chair, Secretary or Treasurer, as appropriate.

Communications Policy

Members of the Deer Management Group will promote and encourage effective communication on deer management issues both within the DMG and throughout the wider community in order to promote better awareness and education of deer and deer management through the following actions:

- *Deer management planning is open, inclusive and seek local consultation;*
- *DMG web-site will be regularly updated to include the Deer Management Plan, Minutes and Agendas for meetings as well as any other relevant information which seeks to promote openness and transparency;*
- *The DMG will ensure that contact details are available for anyone seeking information or wishing to raise concerns;*
- *DMG will actively seek opportunities to promote deer management through training, educational or awareness raising events*

12. Actions to Identify and promote opportunities contributing to public health and wellbeing.

12.1 Background

- Deer are of great **social and cultural value** to Scotland. As one of Scotland's top iconic wildlife species they provide a range of benefits, for example through their contribution to tourism and people's enjoyment of the outdoors. Venison is also a healthy meat enjoyed by many. Actions relating to venison production are included in Section 19. Deer can, however, also lead to health and safety risks e.g. road traffic accidents and deer related disease such as Lyme disease.
- **Deer Vehicle Collisions** (DVCs) may also incur an economic as well as social cost. Although relatively infrequent, these occur predominantly on the main A865 road which connects North and South Uist. Although this road is predominantly single tracked with passing places, on long straight stretches increased vehicle speed may increase chances of DVCs.
- **Lyme disease** is caused by a spiral-shaped, spirochaetal bacterium of the *Borrelia* genus. There are hundreds of strains of *Borrelia* bacteria, many of which remain unstudied. Lyme disease (also termed Lyme borreliosis or Borreliosis) is spread to humans (and other mammals and birds) through the bite of infected ticks. In the UK, there are two families of ticks, hard ticks and soft ticks. It is usually hard ticks that spread Lyme disease. The most common ticks to transmit Lyme disease to people and companion animals in the UK are *Ixodes ricinus* (also known as the sheep tick, deer tick, wood tick, and castor bean tick) and *Ixodes hexagonus* (the hedgehog tick). More information on Lyme Disease and deer can be found at <http://www.bestpracticeguides.org.uk/people/lyme-disease>.
- There are significant concerns from the wider Community that incidences of Lyme disease on the islands have been increasing exponentially.
- Uist is a popular tourist destination, and **wildlife tourism** in particular is important to many of the DMG properties as well as the local economy as a whole. Deer, as one of Scotland's top iconic species, are an important element of this.
- **Responsible access** is encouraged and welcomed by all properties within the DMG with walkers being encouraged to stick to ridges and avoid descending into corries where possible during the main stag stalking season (July 1st to 20th October).

12.2 Plan Objectives

The aim of the plan is to:

- Identify and promote opportunities contributing to public health and wellbeing benefits associated with deer and deer management;
- Identify, raise awareness and where possible minimise the local health and safety risks;
- Identify and increase the opportunities for people to enjoy and benefit from deer;
- DMG should raise awareness of road safety issues associated with deer to reduce the risks of road traffic accidents;
- Co-ordinate action to minimise deer-related human disease risks;
- Promote responsible Access and the following of the Scottish Outdoor Access Code.

12.3 Current Delivery.

- Tick awareness already discussed widely in the community and with estates and staff on all estates. A Lyme Disease Subgroup has been set up in 2016 and will inform the DMG of issues or actions relating to deer management. Tick information is provided for visitors through accommodation providers. DMG website to provide downloadable information leaflets.
- At a DMG meeting on 12th December 2016, the Group agreed that a zero-tolerance approach be adopted to deer on ground in immediate proximity to human residence or confined public spaces such as gardens, villages, school playgrounds, parks etc. All means possible will be used to exclude deer (including lethal control) from these areas. Individuals in the community will be encouraged to contact the landowner or the DMG in the first instance.
- A Lyme Disease Subgroup has been set up to discuss the issue of Ticks and Public Health. A paper has been produced by the Subgroup (Appendix 1) which sets out the issues and proposed recommended actions.
- DMG collectively signed up to principles of Best Practice which provides guidance on safeguarding public safety and food safety.
- South Uist are considering proposals to implement a Ranger Service which would provide opportunities for camera stalking, wildlife tours, etc.
- Police Scotland attend the DMG meetings and provide information on occurrences of DVCs.
- Access is encouraged across the DMG.

12.4 Targets to be delivered by 2021

Actions to Identify and promote opportunities contributing to public health and wellbeing.	When?	Who?	How?
12.4.1 Make information leaflets on Ticks and Risks of Lyme Disease available on DMG website and to relevant tourism operators. A representative from the Lyme Disease Subgroup will attend DMG meetings and inform the DMG of progress and raise any issues relevant to Deer Management.	Ongoing	DMG Secretary	<i>Information made available on DMG website.</i>
12.4.2 Exclude all deer by whatever means from areas of human settlement, i.e. villages, vicinity of house, gardens, and other isolated places such as village halls.	By end of 2017	Estate owners, Crofters, Nominated Controllers, DMG Members	<i>By lethal control, reduction in the deer populations, and exclusion by fencing where practical.</i>
12.4.3 Request that the local vets explore protocols for reducing spread of tick-borne diseases being spread from the Uists to other parts of the Western Isles and the UK.	By end of 2017	DMG Members, SNH	<i>DMG to liaise with SIVP to explore means of delivery.</i>
12.4.4 Development and delivery of awareness and prevention campaign by NHS Western Isles.	By end of 2017	DMG Members, NHS Western Isles, Health Protection Scotland	<i>Make information on risk of Lyme disease from ticks available on websites and leaflets on ferries and tourism outlets as well as generally throughout islands.</i> <i>NHS Western Isles to organise conference / seminar on tick and Lyme disease.</i>

12.4.5 The Deer Management Group should establish links with relevant research organisations and funding bodies.	By end of 2017	DMG Members, SNH, Health Protection Scotland	<i>DMG to make formal contact with research bodies such as The James Hutton Institute to enable information exchange with a view to future research. SNH and HPS to assist in this respect.</i>
12.4.6 Determine environmental factors that influence tick abundance and <i>Borrelia burgdorferi</i> infection using large-scale survey across the Uists by means of a research project.	Aim to begin project in Spring 2018 and finish by end of 2019.	DMG Members, Research institute to be selected by proposal and tender.	<i>DMG to explore means of undertaking research project, e.g. whether DMG, SNH or HPS should lead.</i> <i>Seek project funding, draft project enquiries and tender suitable candidates.</i> <i>Delivery of project by successful candidate.</i>
12.4.7 Cease all muirburn until an expert assessment has determined its significance regarding the large host/tick vector/ small mammal or bird/ pathogen cycle.	By end of 2017	Estate owners, crofters, SNH	<i>It is thought that by encouraging new vegetation on concentrated areas of moorland, a hot-spot for deposition and uptake by deer of infected tick is created thereby increasing likelihood of tick being distributed on populated land.</i> <i>DMG and SNH to explore requirement for expert assessment.</i>
12.4.8 Following conclusion of research, develop and deliver an action plan specifically designed to address the findings of the project.	End of 2019 and ongoing.	DMG Members, Estate owners, Nominated Controllers, Crofters	<i>To be determined following outcomes of project.</i>
12.4.9 Ensure relevant Access information available to visitors. There is no information required for the Heading For the Scottish Hills initiative. North and South Uist Estates to continue to provide Estate Access Information and ensure it is up to date.	By end 2017	Secretary & Relevant DMG Members	<i>Relevant information on Access to be made available on DMG web site.</i>

12.4.10 Raise awareness of threats relating to Chronic Wasting Disease and sign up to CWD Biosecurity Policy (Figure 12).	By beginning of 2017 and ongoing	DMG Members	<i>Members to raise awareness of CWD with Clients and Visitors from USA, Canada and Scandanavia</i>
12.4.11 Investigate opportunities for awareness raising/educational events for the local community.	Ongoing	DMG Members	<i>Members to discuss opportunities. Open events to be advertised on DMG website.</i>
12.4.12 Provide opportunities for any concerns from the local community to be addressed.	Ongoing	DMG Chair and Secretary	<i>Meeting dates and Agendas will be publically available on DMG website and circulated to community councils in advance. DMG Chair and Secretary contact details will be available on website.</i>
12.4.13 Explore opportunities for greater liaison/collaboration with access takers including Scottish Mountaineering Club and other Organisations such as Mountaineering Council for Scotland, Ramblers Association etc.	By Spring 2017	DMG Chair and access organisations	<i>DMG to explore opportunities to work together to improve information provision through social media</i>
12.4.14 Set up monitoring and reporting of DVCs through website, DMG meetings and local Police contact.	Spring 2017 and ongoing	DMG Secretary	<i>Members of the public asked to report DVCs to DMG Secretary on website. Members record and report DVCs to meetings.</i>
12.4.15 Implement actions to mitigate against DVC hotspots including localised deer management, use of signage, fencing etc.	Ongoing	DMG Members	<i>Where hot-spots occur, DMG to discuss appropriate actions at meetings.</i>

Policy for Chronic Wasting Disease

Chronic wasting disease (CWD) is a highly contagious and fatal transmissible spongiform encephalopathy (TSE) disease that affects deer. It has had devastating effects on many populations of wild and farmed deer in the USA, Canada and has recently been reported in Scandinavia. It is not known to affect humans. There is no evidence of TSEs in deer in the UK but if it were to become established in the wild deer population it would have major consequences for the UK deer industry. Chronic wasting disease is a notifiable disease. This means that if you suspect it you must tell your nearest Animal and Plant Health Office (APHA) office immediately. Failure to do is an offence. For information on how to spot CWD see <https://www.gov.uk/chronic-wasting-disease>

Members of the Deer Management Group will see to prevent the establishment of CWD through implementing the following:

- *Ensuring that all visitors from the USA and Canada are aware of the risks and undertake the appropriate Bio-Security protocols prior to their visit.*
- *Raising awareness within the DMG and across the wider community about the risks and the symptoms of CWD.*

13. Actions for the delivery of designated features into Favourable Condition.

13.1 Background

- Nationally, there are around 356 designated features (15.8% of total) within the current DMG network where herbivores impacts are contributing to the unfavourable condition of the feature. It is expected that the SDMG will contribute to the Scottish Government target of achieving 80% of features in Favourable or Unfavourable Recovering condition by 2016 by facilitating the reduction of herbivore impacts where this is contributing to the unfavourable condition.

13.2 Plan Objectives

The Deer Management Plan (DMP) will monitor deer impacts and manage deer to continue to deliver favourable condition on designated sites in the area.

13.3 Current Delivery.

- There are two **National Scenic Areas**: South Lewis, Harris and North Uist NSA and South Uist machair NSA.
- There are **152 Features** within **33 Sites** (Tables 11, 12, 13 & 14).
- There are **20 Sites of Special Scientific Interest** (Figures 13 & 14), **5 Special Areas of Conservation**, **5 Special Protection Areas** (Figure 15) and 3 RAMSAR sites).
- Of these 152 features 15 are considered to be in Unfavourable Condition
- Of these Unfavourable sites only **Baleshare and Kirkibost Machair SSSI** is in Unfavourable condition due to over-grazing. Baleshare is under crofting tenure and is used for rotational strip cultivation, and grazing for sheep and cattle. Kirkibost is uninhabited and relatively inaccessible. It has not been cultivated for many years and is used for seasonal grazing of cattle. Much of Baleshare common machair has been apportioned.

Table 11: North Uist Designations Summary

Type of Designation	No of Sites	No of Features	Unfavourable Features	Unfavourable Features where herbivore grazing an issue.
Site of Special Scientific Interest	10	45	2	1
Special Area of Conservation	4	20	1	0
Special Protection Area	2	11	1	0
RAMSAR	2	7	1	0

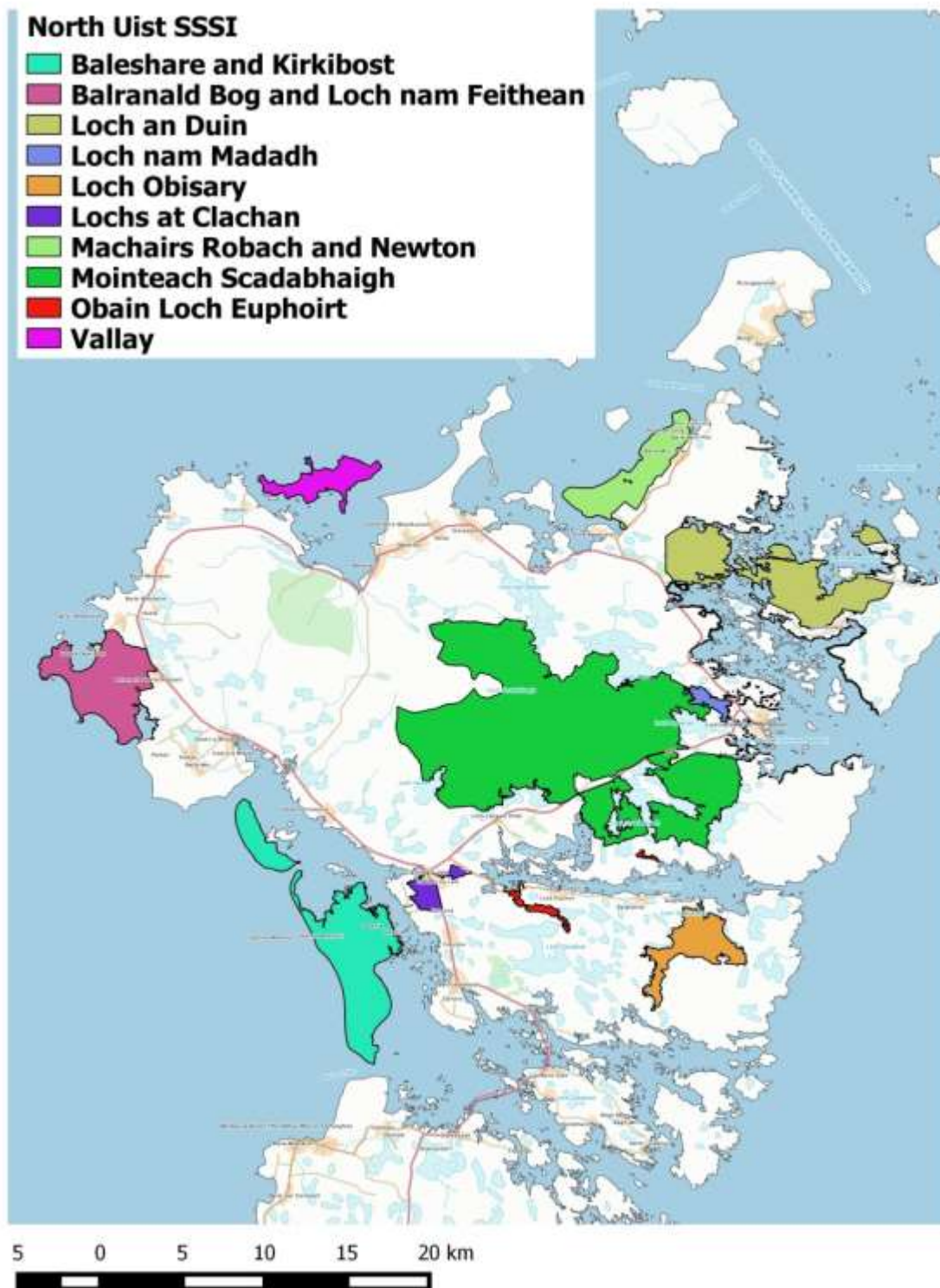
Table 12: South Uist Designations Summary

Type of Designation	No of Sites	No of Features	Unfavourable Features	Unfavourable Features where herbivore grazing an issue.
Site of Special Scientific Interest	10	38	2	0
Special Area of Conservation	1	12	1	0
Special Protection Area	3	10	3	0
RAMSAR	1	9	4	0

13.4 Targets to be delivered by 2021

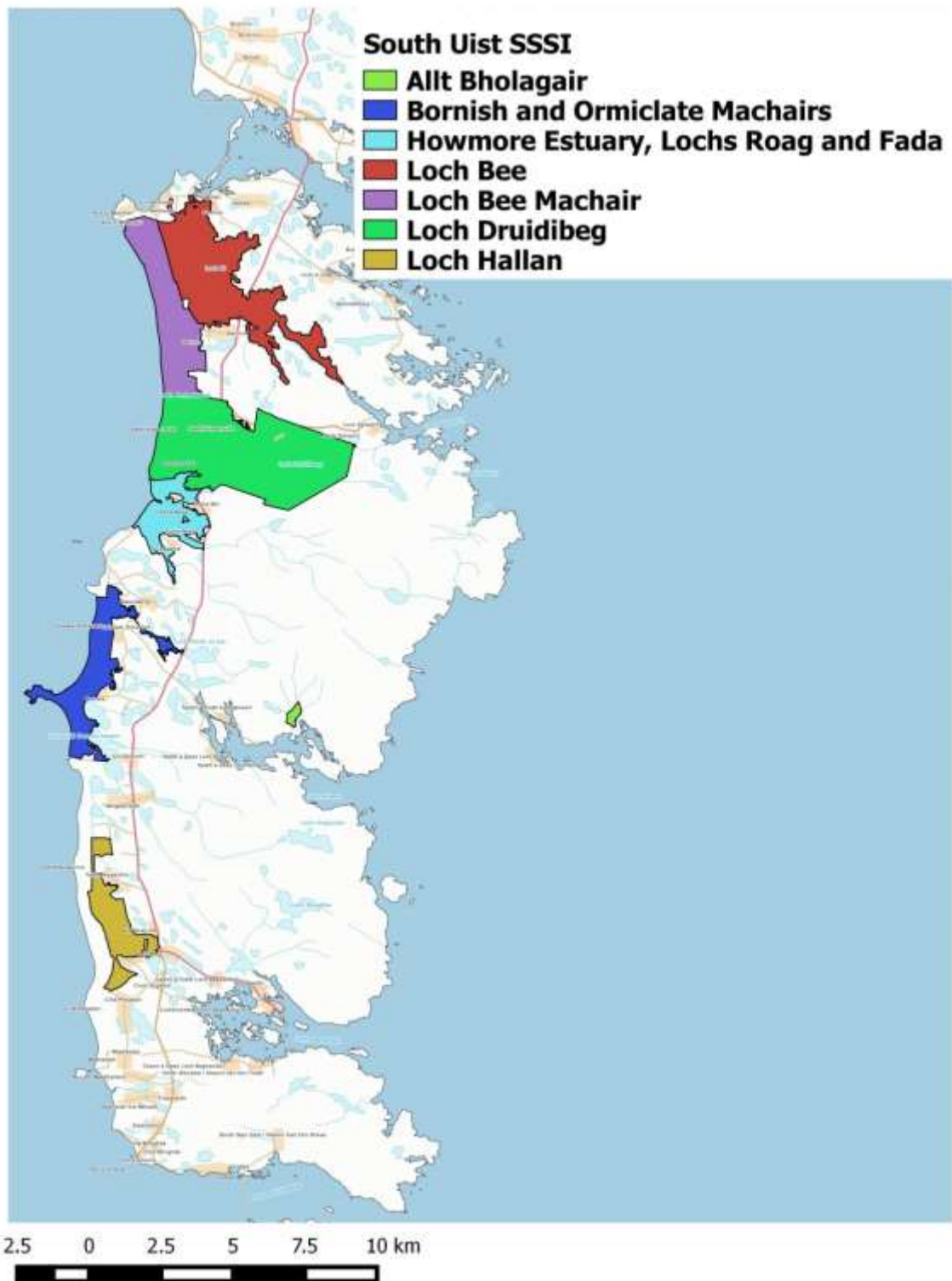
Actions for the delivery of designated features into Favourable Condition	When?	Who?	How?
13.4.1 All Designated Sites: To continue to implement deer management to prevent negative impacts on Designated Sites.	Ongoing	DMG Members	<i>The DMG will work with SNH monitor deer impacts on Designated Sites and to identify sites where deer grazing or trampling may be having a detrimental effect. DMG will implement Actions where required.</i>

Figure 13: SSSI Designated Sites on North Uist



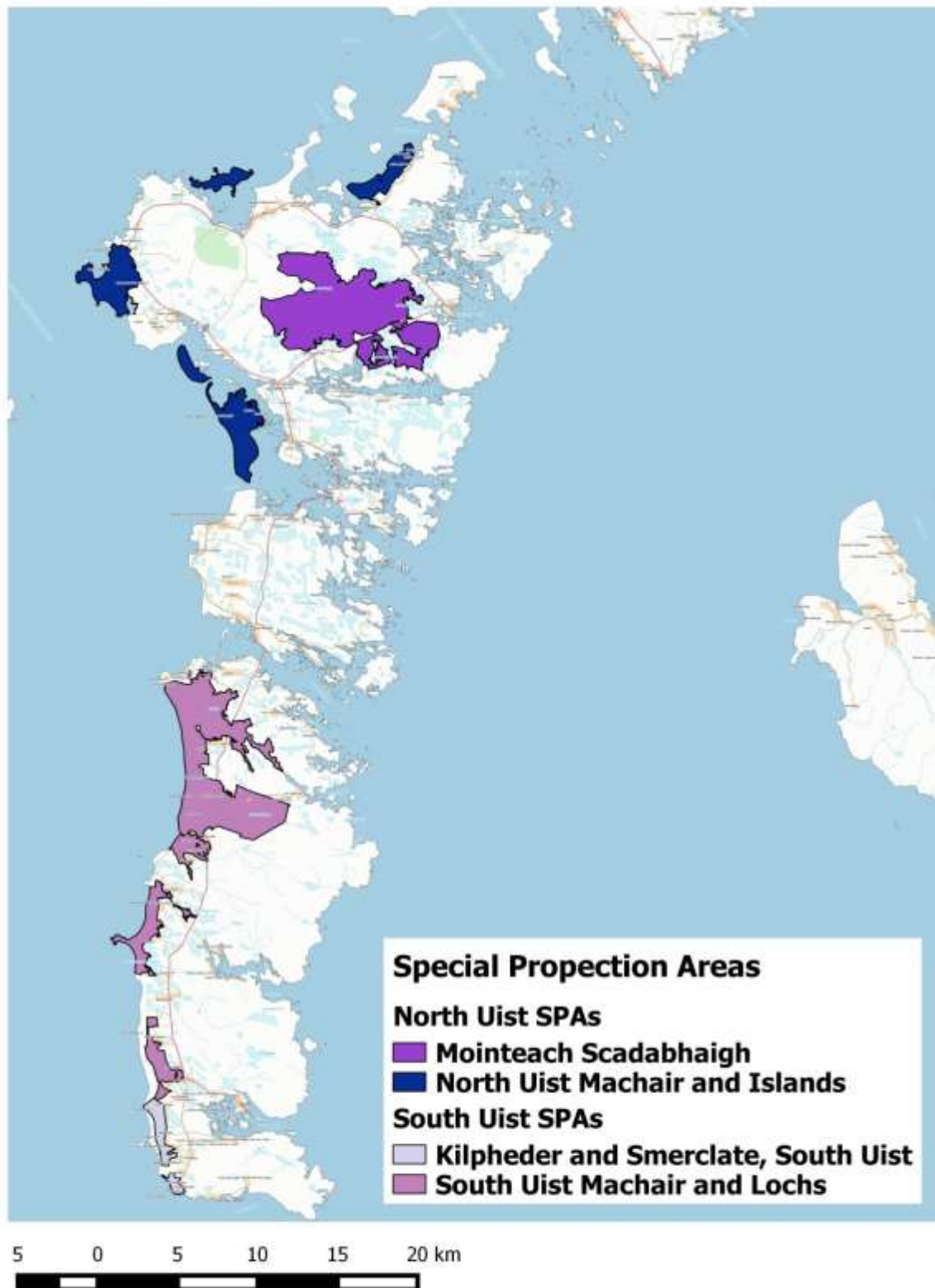
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Figure 14: SSSI Designated Sites on South Uist



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Figure 15: SPA Designated Sites on North and South Uist



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Table 13: Designated features within North Uist

Name	Designation	Feature	Assessed Condition
Baleshare and Kirkibost	SSSI	Machair	Unfavourable Declining
Baleshare and Kirkibost	SSSI	Sand dunes	Favourable Maintained
Baleshare and Kirkibost	SSSI	Saltmarsh	Favourable Declining
Baleshare and Kirkibost	SSSI	Breeding bird assemblage	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Eutrophic loch	Unfavourable No change
Balranald Bog and Loch nam Feithean	SSSI	Machair	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Sand dunes	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Mudflats	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Saltmarsh	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Breeding bird assemblage	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained
Balranald Bog and Loch nam Feithean	SSSI	Basin fen	Favourable Maintained
Berneray	SSSI	Machair	Favourable Maintained
Berneray	SSSI	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained
Boreray	SSSI	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained
Boreray	SSSI	Greylag goose (<i>Anser anser</i>), non-breeding	Favourable Maintained
Loch an Duin	RAMSAR	Tidal rapids	Favourable Maintained
Loch an Duin	RAMSAR	Saline lagoon	Favourable Maintained
Loch an Duin	SSSI	Tidal rapids	Favourable Maintained
Loch an Duin	SSSI	Saline lagoon	Favourable Maintained
Loch an Duin	SSSI	Brackish water cockle (<i>Cerastoderma glaucum</i>)	Favourable Maintained
Loch an Duin	SSSI	Breeding bird assemblage	Favourable Maintained
Loch an Duin	SSSI	Otter (<i>Lutra lutra</i>)	Favourable Maintained
Loch an Duin	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Loch nam Madadh	SAC	Shallow inlets and bays	Favourable Maintained
Loch nam Madadh	SAC	Intertidal mudflats and sandflats	Favourable Maintained
Loch nam Madadh	SAC	Reefs	Favourable Maintained
Loch nam Madadh	SAC	Lagoons	Favourable Maintained
Loch nam Madadh	SAC	Subtidal sandbanks	Favourable Maintained
Loch nam Madadh	SAC	Otter (<i>Lutra lutra</i>)	Favourable Maintained
Loch nam Madadh	SSSI	Rocky shore	Favourable Maintained
Loch nam Madadh	SSSI	Mudflats	Favourable Maintained
Loch nam Madadh	SSSI	Tidal rapids	Favourable Maintained
Loch nam Madadh	SSSI	Saline lagoon	Favourable Maintained
Loch nam Madadh	SSSI	Foxtail stonewort (<i>Lamprothamnium papulosum</i>)	Favourable Maintained
Loch nam Madadh	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Lochs at Clachan	SSSI	Dystrophic loch	Favourable Maintained
Lochs at Clachan	SSSI	Saline lagoon	Favourable Maintained
Machairs Robach and Newton	SSSI	Machair	Favourable Maintained
Machairs Robach and Newton	SSSI	Sand dunes	Favourable Maintained
Machairs Robach and Newton	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Mointeach Scadabhaigh	SAC	Blanket bog	Unfavourable Recovering
Mointeach Scadabhaigh	SAC	Depressions on peat substrates	Favourable Maintained
Mointeach Scadabhaigh	SAC	Acid peat-stained lakes and ponds	Favourable Maintained
Mointeach Scadabhaigh	SAC	moderate nutrient levels	Favourable Maintained
Mointeach Scadabhaigh	SPA	Black-throated diver (<i>Gavia arctica</i>), breeding	Favourable Maintained
Mointeach Scadabhaigh	SPA	Red-throated diver (<i>Gavia stellata</i>), breeding	Favourable Maintained
Mointeach Scadabhaigh	SSSI	Blanket bog	Unfavourable Recovering
Mointeach Scadabhaigh	SSSI	Dystrophic and oligotrophic lochs	Favourable Maintained
Mointeach Scadabhaigh	SSSI	Breeding bird assemblage	Favourable Maintained
Mointeach Scadabhaigh	SSSI	Black-throated diver (<i>Gavia arctica</i>), breeding	Favourable Maintained
Mointeach Scadabhaigh	SSSI	Red-throated diver (<i>Gavia stellata</i>), breeding	Favourable Maintained

Name	Designation	Feature	Assessed Condition
North Uist Machair	SAC	dominated by pondweed	Unfavourable No change
North Uist Machair	SAC	Annual vegetation of drift lines	Favourable Maintained
North Uist Machair	SAC	Shifting dunes	Favourable Maintained
North Uist Machair	SAC	Dune grassland	Favourable Maintained
North Uist Machair	SAC	Humid dune slacks	Favourable Maintained
North Uist Machair	SAC	Machair	Favourable Maintained
North Uist Machair	SAC	Shifting dunes with marram	Favourable Maintained
North Uist Machair	SAC	Atlantic salt meadows	Favourable Declining
North Uist Machair	SAC	Slender naiad (<i>Najas flexilis</i>)	Favourable Declining
North Uist Machair and Islands	RAMSAR	Dunlin (<i>Calidris alpina schinzii</i>), breeding	Favourable Declining
North Uist Machair and Islands	RAMSAR	Ringed plover (<i>Charadrius hiaticula</i>), breeding	Unfavourable Declining
North Uist Machair and Islands	RAMSAR	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	RAMSAR	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	RAMSAR	Turnstone (<i>Arenaria interpres</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Corncrake (<i>Crex crex</i>), breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Dunlin (<i>Calidris alpina schinzii</i>), breeding	Favourable Declining
North Uist Machair and Islands	SPA	Oystercatcher (<i>Haematopus ostralegus</i>), breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Redshank (<i>Tringa totanus</i>), breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Ringed plover (<i>Charadrius hiaticula</i>), breeding	Unfavourable Declining
North Uist Machair and Islands	SPA	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Purple sandpiper (<i>Calidris maritima</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
North Uist Machair and Islands	SPA	Turnstone (<i>Arenaria interpres</i>), non-breeding	Favourable Maintained
Obain Loch Euphoirt	SAC	Lagoons	Favourable Maintained
Obain Loch Euphoirt	SSSI	Saline lagoon	Favourable Maintained
Obain Loch Euphoirt	SSSI	Foxtail stonewort (<i>Lamprothamnium papulosum</i>)	Favourable Maintained
Vallay	SSSI	Machair	Favourable Maintained
Vallay	SSSI	Sand dunes	Favourable Maintained
Vallay	SSSI	Saltmarsh	Favourable Maintained
Vallay	SSSI	Breeding bird assemblage	Favourable Maintained
Vallay	SSSI	Greenland Barnacle goose (<i>Branta leucopsis</i>), non-breeding	Favourable Maintained

Table 14: Designated features within South Uist

Site Name	Designation	Feature	Assessed Condition
Aird and Borge, Benbecula	SPA	Corncrake (<i>Crex crex</i>), breeding	Favourable Maintained
Allt Bholagair	SSSI	Upland mixed ash woodland	Favourable Maintained
Allt Bholagair	SSSI	Blanket bog	Favourable Maintained
Allt Bholagair	SSSI	Dystrophic and oligotrophic lochs	Favourable Maintained
Bornish and Ormiclate Machairs	SSSI	Loch trophic range	Unfavourable Declining
Bornish and Ormiclate Machairs	SSSI	Machair	Favourable Maintained
Bornish and Ormiclate Machairs	SSSI	Sand dunes	Favourable Maintained
Bornish and Ormiclate Machairs	SSSI	Breeding bird assemblage	Favourable Maintained
How more Estuary, Lochs Roag and Fada	SSSI	Oligotrophic loch	Favourable Maintained
How more Estuary, Lochs Roag and Fada	SSSI	Machair	Favourable Maintained
How more Estuary, Lochs Roag and Fada	SSSI	Saline lagoon	Favourable Maintained
How more Estuary, Lochs Roag and Fada	SSSI	Breeding bird assemblage	Favourable Maintained
Kilpheder and Smerclate, South Uist	SPA	Corncrake (<i>Crex crex</i>), breeding	Favourable Maintained
Loch Bee	SSSI	Machair	Favourable Maintained
Loch Bee	SSSI	Saline lagoon	Favourable Maintained
Loch Bee	SSSI	Brackish water cockle (<i>Cerastoderma glaucum</i>)	Favourable Maintained
Loch Bee	SSSI	Breeding bird assemblage	Favourable Maintained
Loch Bee	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Loch Bee	SSSI	Mute swan (<i>Cygnus olor</i>), non-breeding	Favourable Maintained
Loch Bee Machair	SSSI	Machair	Favourable Maintained
Loch Bee Machair	SSSI	Breeding bird assemblage	Favourable Maintained
Loch Bee Machair	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Loch Bee Machair	SSSI	Dunlin (<i>Calidris alpina schinzii</i>), breeding	Unfavourable Declining
Loch Druidibeg	SSSI	Scrub	Unfavourable Recovering
Loch Druidibeg	SSSI	Subalpine dry heath	Favourable Maintained
Loch Druidibeg	SSSI	Blanket bog	Favourable Maintained
Loch Druidibeg	SSSI	Machair loch	Favourable Maintained
Loch Druidibeg	SSSI	Oligotrophic loch	Favourable Maintained
Loch Druidibeg	SSSI	Machair	Favourable Maintained
Loch Druidibeg	SSSI	Sand dunes	Favourable Maintained
Loch Druidibeg	SSSI	Breeding bird assemblage	Favourable Maintained
Loch Druidibeg	SSSI	Coastal Geomorphology of Scotland	Favourable Maintained
Loch Hallan	SSSI	Open water transition fen	Favourable Maintained
Loch Hallan	SSSI	Machair loch	Favourable Maintained
Loch Hallan	SSSI	Machair	Favourable Maintained
Loch Hallan	SSSI	Breeding bird assemblage	Favourable Maintained
Loch Hallan	SSSI	Transition open fen	Favourable Maintained

Site Name	Designation	Feature	Assessed Condition
South Uist Machair and Lochs	RAMSAR	Machair loch	Unfavourable Declining
South Uist Machair and Lochs	RAMSAR	Oligotrophic loch	Favourable Maintained
South Uist Machair and Lochs	RAMSAR	Loch trophic range	Unfavourable Declining
South Uist Machair and Lochs	RAMSAR	Machair	Favourable Maintained
South Uist Machair and Lochs	RAMSAR	Saline lagoon	Favourable Maintained
South Uist Machair and Lochs	RAMSAR	Dunlin (<i>Calidris alpina schinzii</i>), breeding	Unfavourable Declining
South Uist Machair and Lochs	RAMSAR	Greylag goose (<i>Anser anser</i>), breeding	Favourable Maintained
South Uist Machair and Lochs	RAMSAR	Ringed plover (<i>Charadrius hiaticula</i>), breeding	Unfavourable Declining
South Uist Machair and Lochs	RAMSAR	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
South Uist Machair and Lochs	SPA	Corncrake (<i>Crex crex</i>), breeding	Favourable Maintained
South Uist Machair and Lochs	SPA	Dunlin (<i>Calidris alpina schinzii</i>), breeding	Unfavourable Declining
South Uist Machair and Lochs	SPA	Little tern (<i>Sternula albifrons</i>), breeding	Unfavourable Declining
South Uist Machair and Lochs	SPA	Oystercatcher (<i>Haematopus ostralegus</i>), breeding	Favourable Maintained
South Uist Machair and Lochs	SPA	Redshank (<i>Tringa totanus</i>), breeding	Favourable Declining
South Uist Machair and Lochs	SPA	Ringed plover (<i>Charadrius hiaticula</i>), breeding	Unfavourable Declining
South Uist Machair and Lochs	SPA	Ringed plover (<i>Charadrius hiaticula</i>), non-breeding	Favourable Maintained
South Uist Machair and Lochs	SPA	Sanderling (<i>Calidris alba</i>), non-breeding	Favourable Maintained
West Benbecula Lochs	SSSI	Open water transition fen	Favourable Maintained
West Benbecula Lochs	SSSI	Eutrophic loch	Favourable Maintained
West Benbecula Lochs	SSSI	Breeding bird assemblage	Favourable Maintained
South Uist Machair	SAC	Calcium-rich nutrient-poor lakes, lochs and pools	Unfavourable Declining
South Uist Machair	SAC	Naturally nutrient-rich lakes or lochs which are often dry	Favourable Maintained
South Uist Machair	SAC	Clear-water lakes or lochs with aquatic vegetation and	Favourable Maintained
South Uist Machair	SAC	Nutrient-poor shallow waters with aquatic vegetation or	Favourable Maintained
South Uist Machair	SAC	Annual vegetation of drift lines	Favourable Maintained
South Uist Machair	SAC	Dune grassland	Favourable Maintained
South Uist Machair	SAC	Humid dune slacks	Favourable Maintained
South Uist Machair	SAC	Machair	Favourable Maintained
South Uist Machair	SAC	Shifting dunes with marram	Favourable Maintained
South Uist Machair	SAC	Lagoons	Favourable Maintained
South Uist Machair	SAC	Slender naiad (<i>Najas flexilis</i>)	Favourable Maintained
South Uist Machair	SAC	Otter (<i>Lutra lutra</i>)	Favourable Maintained

14.Actions to manage deer to retain existing native woodland

14.1 Background

- Total area of native woodland in Scotland is 311,153 ha. 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.
- [Wild Deer- A National Approach \(WDNA\)](#) and the [2020 Challenge for Scotland's Biodiversity](#) has set a national targets that 60% of native woodlands should be considered to be in "satisfactory condition" by 2020 and that approximately 10,000 ha of native woodland should be in satisfactory condition through Deer Management Plans.
- There is approximately **798 ha** of woodland within the DMG area which is 1.2% of the total area of the DMG (Table 15).
- Of this woodland, the NWSS has identified approximately **115 ha (0.1% of total DMG area)** of native woodland within the DMG area (Table 4, Figure 12).

14.2 Plan Objectives

- DMG Members will implement management to reduce the proportion of native woodland area identified within the 'High' and 'Very High' categories of herbivore impact in order to contribute to targets set by Scottish Government Agencies.

14.3 Current Delivery.

- Currently **77.1 ha (67%)** of native woodlands are considered to have **Low/Medium Impacts** (Table 16 and Figure 16).

Table 15: National Forest Inventory Woodland Type

	National Forest Inventory Woodland Type (ha)							
	Assumed woodland	Broadleaved	Conifer	Grass	Ground prep	Low density	Young trees	Total
North Uist	75.5	0.6	450.7	1.8	42.0	1.4	42.8	614.7
South Uist	182.3	1.4						183.7
Total	257.8	2.0	450.7	1.8	42.0	1.4	42.8	798.4

Table 16: Native Woodland Survey for Scotland Herbivore Impacts

	NWSS Herbivore Impact Class				
	Low	Medium	High	Very High	Total
North Uist Estate	41.7			1.6	43.3
Carinish Common Grazing Woodland	1.5				1.5
Storas U	34.9	0.5	28.6	7.7	71.7
Total	76.6	0.5	28.6	9.3	115.0
Percentage	66.6%	0.4%	24.9%	8.1%	

14.4 Targets to be delivered by 2021

Actions to manage deer to retain existing native woodland cover and improve woodland condition	When?	Who?	How?
14.4.1 Group will implement management to reduce negative impacts including use of Forestry Grant Schemes where practical and appropriate.	By 2021	DMG Members	<i>Monitoring results used to inform management actions. Entry into SRDP Schemes.</i>

Figure 16: Native Woodland Survey Scotland Herbivore Impacts



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15. Actions to demonstrate DMG contribution to the Scottish Government woodland expansion target of 25% woodland cover.

15.1 Background

- Woodland and forest covers over 1.3 million ha in Scotland (around 16% of Scotland).
- The Scottish Government woodland expansion target of 25% woodland cover will require 10,000 ha of woodland per year to be created. Priority should be given to expansion opportunities where this improves habitat networks. It is expected that DMGs will be proactive in contributing to this target.
- The Plan assumes that the state of deer fences remains constant. Members are encouraged to report any changes in fencing policies, particularly those which will affect the free movement of deer between estates.

15.2 Plan Objectives

- Plan will identify all new woodland in last 5 years and beyond (Woodland Grant Schemes) and the potential for/ any new proposals likely to be adopted during the life of the plan.
- Plan will consider future impact of woodland expansion and timetable for removal/erection of fences and possible expansion/reduction of deer range, where there may be changes in deer densities or movements as a result.
- Plan will consider need for new woodland from a DMG perspective- ie are there areas short of shelter?

15.3 Current Delivery.

- The extent of boundaries of woodland schemes is **1040 ha** - Table and Figure 17) with **818 ha** approved for new planting.
- There are currently eight small woodlands on **North Uist Estate**,
 - two of which were planted by the Forestry Commission in 1969 [totalling 7.29 ha] and now belong to the North Uist Woodland Trust;
 - four that were planted by North Uist Estate Trust in 1991 [totalling 17.10 ha];
 - one planted by the Southern Isles Amenity Trust in 2000 [totalling 102.48 ha];
 - and two in private ownership that were planted in 1990 [totalling 536 ha] and 2000 [2.64 ha].
- Storas Uibhist are considering implementing new woodland schemes to provide shelter for deer in the long-term.

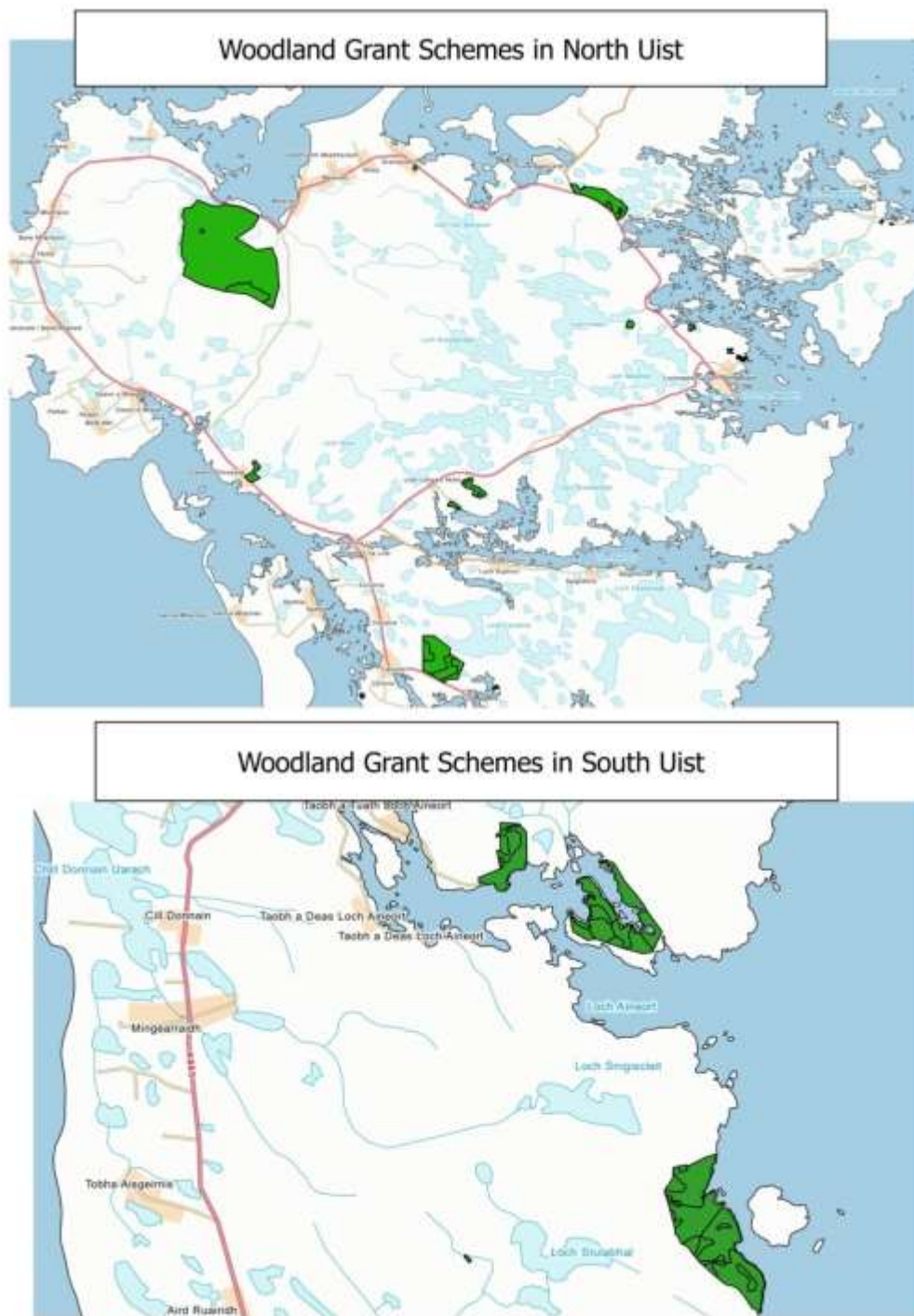
15.4 Targets to be delivered by 2021

Actions to demonstrate DMG contribution to the Scottish Government woodland expansion target of 25% woodland cover.	When?	Who?	How?
15.4.1 Inform the DMG about any future woodland proposals and incorporate in the DMP - taking account of potential implications for deer management.	Ongoing	DMG Members	<i>Members will circulate/present proposals to DMG for discussion.</i>

Table 17: Summary of Woodland Grant Schemes.

Scheme Type	Scheme Name	Approved for New Planting (ha)	Scheme Boundary (ha)
WGS1	CROFT 7 CHEESEBAY, NORTH UIST	1.0	1.0
WGS1	LANGASS PLANTATION	15.8	15.8
WGS1	SOLLAS	529.5	563.1
WGS1	SOUTH UIST ESTATES	0.5	0.5
WGS2	4 Ardnasturban	0.9	0.9
WGS2	5 Knock Quien	1.0	1.0
WGS2	412 Smerclate		0.9
WGS2	Coille Na Baighe-Dubha		9.1
WGS3	Carinish	67.5	103.0
WGS3	Grenitote Township	1.0	1.0
WGS3	Loch Steinavat	50.0	53.9
WGS3	Rudha Nan Gall	2.3	2.7
WGS3	Sponish 2	1.4	1.4
WGS3	Meall Mor, South Uist	32.9	71.0
WGS3	Milton Common Grazings - Airdh A Mhullin Township	28.9	35.0
WGS3	Milton Common Grazings - Frobost Township	28.8	35.1
WGS3	Milton Common Grazings - Kildonan Township	28.4	34.6
WGS3	Milton Common Grazings - Milton Township	29.0	35.2
SFGS	10 CLADDACH, KIRKIBOST (WILP)		11.7
SFGS	6 CARINISH (WILP)		1.5

Figure 17: Historic Woodland Grant Schemes



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16. Actions to monitor and manage deer impacts in the wider countryside.

16.1 Background

- A key element of a demonstrably effective and environmentally responsible management plan is that it should highlight habitats relevant to deer management, set out clear objectives for those habitats, carry out monitoring and detail the actions and reporting to be implemented to achieve the targets set.
- As a part of the DMG's ongoing commitment to carrying out environmentally responsible deer management in line with the [Code on Deer Management](#), the aim is to implement a programme of herbivore impact assessment across the DMG in order to better inform future deer management. The environmental objectives of the Plan will be linked to Scottish Government policy but the DMG will be expected to manage localised deer impacts to deliver and sustain good condition of a range of designated and non-designated habitats.
- Blanket bog and peatland (which covers approximately **23855 ha**) and heather moorland (dwarf shrub heath methodology) (covering approximately **17096 ha**) are two of the habitats that Scottish Natural Heritage have recommended upland deer managers monitor for herbivore grazing and trampling impacts (Table 18 and Figure 18). The DMGs will take responsibility for the monitoring of herbivore impacts on across the deer range and seek to manage these to contribute to wider ecosystem health.

Table 18: Distribution of Habitat Type (Land Cover Scotland 88 Data)

	Habitat Type (ha)			
	blanket bog & peatlands	heather moor	improved grassland	montane vegetation
COILLE GLEANN GEIRISDALE	65			
NORTH UIST ESTATE	14784	7131	4004	
SNH LOCH DRUIDIBEG	47	9		
SOUTH UIST ESTATE	8960	9956	4718	1241
Total	23855	17096	8722	1241

16.2 Plan Objectives

- Plan will seek to implement a programme of monitoring to assess herbivore impacts and manage those impacts within acceptable ranges ([MacDonald et al 1998¹](#)).
- The **habitat targets** set by SNH are as follows

Habitat Type	Impact Target
Blanket bog, Dwarf Shrub Heath (including dry heath and wet heathland with cross-leaved heath).	90% of survey samples (overall impacts: grazing/browsing and trampling) will be in the range of Low to Moderate/Low.
Native Woodland	A minimum of 60% of herbivore impacts to be in the Low, Moderate category.

- Different habitats will require different levels of grazing to deliver these targets e.g woodland regeneration without fencing may require densities of less than 4 deer per km² whereas upland features such as Dwarf Shrub Heath may withstand grazing at much higher densities of deer, which will be informed by habitat monitoring.

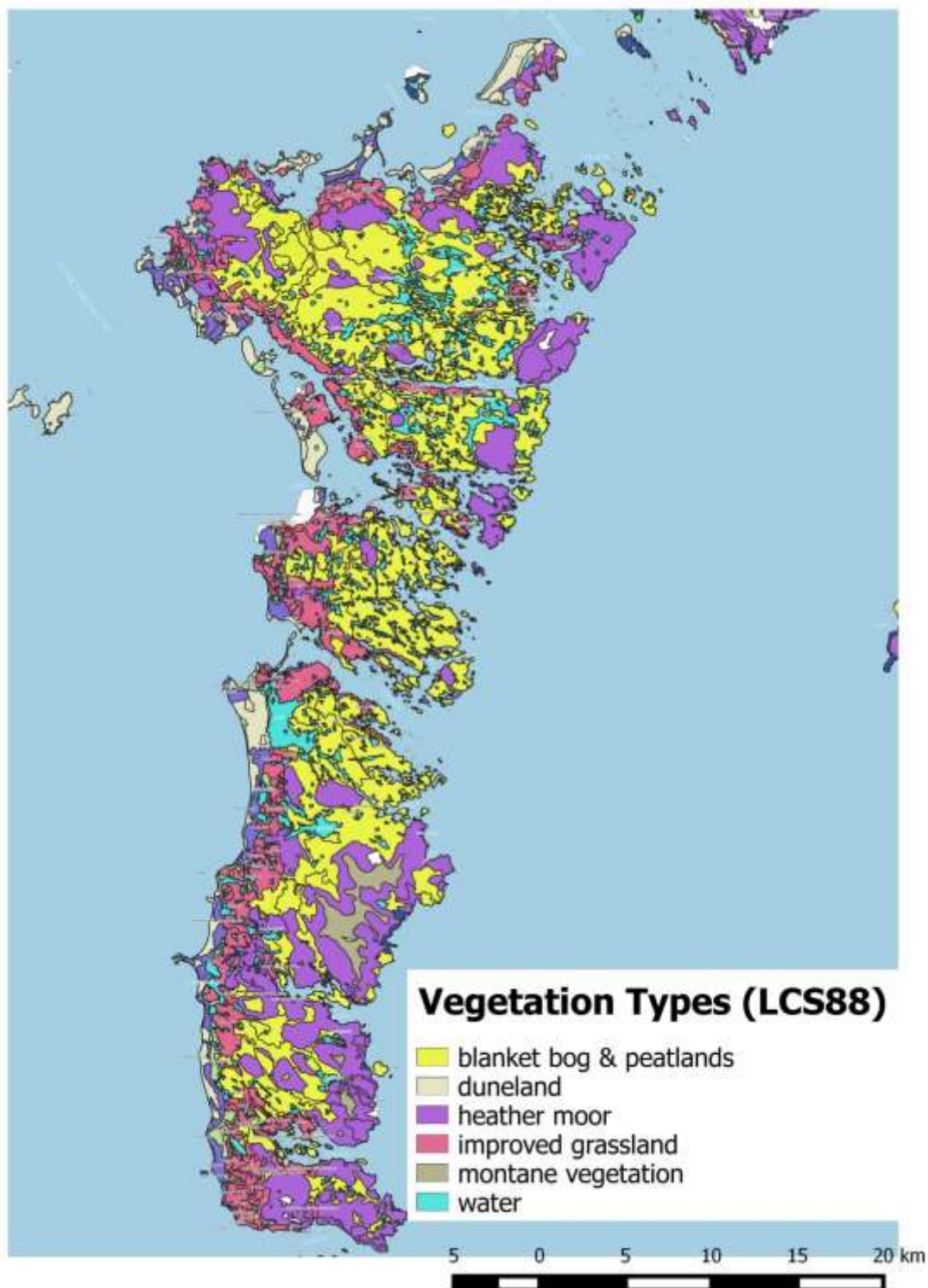
16.3 Current Delivery.

- All main members of the DMG will have implemented monitoring by Summer 2017 and will use Habitat Impact Targets as recommended by SNH. Results are being used to inform deer management.

16.4 Targets to be delivered by 2021

Actions to monitor and manage deer impacts in the wider countryside	When?	Who?	How?
16.4.1 Using revised BPG Guidance undergo training, set up plots and carry out a baseline habitat impact assessment (HIA) of the current grazing and trampling impacts on blanket bog & dwarf shrub heath.	By Autumn 2017	North Uist Estate, South Uist Estate and other members as appropriate.	<i>DMG to set up random plots and to carry out monitoring with the production of a report (see Section 24).</i>
16.4.2 Summary of assessment results reported to DMG. Management actions agreed and implemented.	Ongoing	North Uist Estate, South Uist Estate and other members as appropriate.	<i>Secretary will combine HIA data for Group and produce a map. DMG will agree management decisions based on overall Habitat Baseline Reports and Habitat Targets.</i>
16.4.3 Repeat HIA and management actions agreed.	May & June 2020 and Ongoing	DMG Chair and Secretary	<i>Members will collect repeat monitoring data. Secretary will provide assistance with data analysis and the production of a report. Members will use report to inform management.</i>

Figure 18: Blanket Bog and Heather Moor Habitat across the DMG



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17. Actions to improve Scotland's ability to store carbon

17.1 Background

- 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](#). Soils are the main terrestrial store of carbon in Scotland and Peatlands hold most of our carbon store (53%). The depth of peat is important: the deeper the peat soil the more carbon it stores. Undisturbed, active peatlands accumulate about 0.25 tonnes of carbon per hectare per year which is broadly equivalent to around 10% of the amount of carbon accumulated over the duration of a forest crop.
- [Blanket bog](#) is a type of peatland found in the uplands. Although Blanket bog is a rare habitat globally and is restricted to cool, wet, typically oceanic climates, Scotland holds a significant proportion of the European and world resource. It is one of the most extensive semi-natural habitats in Scotland, covering some 1.8 million hectares, 23 % of our land area. Blanket bog is found throughout the Scottish uplands but is most extensive in the North Highlands and Western and Northern Isles in areas with gentle slopes and poor drainage. Growing trees is another way to increase the natural carbon reservoir.
- In partnership with Government agencies, DMGs are expected to contribute to research and implement and deliver actions to deliver optimum habitat condition for carbon capture and storage.

17.2 Plan Objectives

- The plan will aim to acknowledge all contributions to carbon storage through woodland and peatlands within the DMG area and detail actions to address any negative herbivore impacts.
- The plan will identify opportunities to secure carbon by quantifying areas of Blanket Bog which could be restored by drain blocking and through the re-profiling and revegetating of haggard peat.

17.3 Current Delivery.

- DMG manages around **1600 ha of woodland** (Section 14) and an area of **23855 ha of blanket bog** (see Section 15) has been identified within the DMG Area.
- The actions currently being undertaken by the DMG to retain existing native woodland and encourage woodland expansion have been detailed in Sections 13 and 14.
- The DMG has not been asked to contribute to River Basin Management Planning.

17.4 Targets to be delivered by 2021

Actions to improve Scotland's ability to store carbon by maintaining or improving ecosystem health.	When?	Who?	How?
17.4.1 Using revised BPG Guidance set up plots and carry out a baseline habitat impact assessment (HIA) of the current grazing and trampling impacts on blanket bog and native woodland.	As per monitoring schedule in the Working plan	DMG Members	<i>As per Actions for woodland and managing impacts in the wider countryside. Members to provide existing survey reports or conduct baseline monitoring and reports.</i>
17.4.2 Potential areas for Peatland Restoration identified and options for Peatland restoration or management considered.	By end 2017	North Uist Estate & South Uist Estate	<i>North and South Uist Estates to explore opportunities for Peatland Restoration on areas identified.</i>
17.4.3 Contribute to River Basin Management Planning as appropriate	Ongoing	DMG Members	<i>DMG will contribute as required.</i>

18. Actions to contribute to delivering higher standards of competence

18.1 Background

The DMG recognises the importance of delivering higher standards of competence in deer management through:

- promoting and offering opportunities for Members to take up formal training opportunities;
- facilitating continuous professional development activities;
- and ensuring Wild Deer Best Practice guidance is adopted in deer management activities throughout the DMG.

18.2 Plan Objectives

- DMP to ascertain training levels among Group Members and to develop a training policy and programme.

18.3 Current Delivery

There are currently at least 7 individuals within the DMG involved in carrying out practical deer management. Of these 6 (**86% of individuals**) involved in practical Deer Management have DSC Level 1 and 4 (**57%**) have Level 2.

18.4 Targets to be delivered by 2021

Actions to contribute to delivering higher standards of competence in deer management.	When?	Who?	How?
18.4.1 DMG will adopt the training policy statement (Figure 19).	Spring 2017	DMG Members	<i>Adopted as part of DMP.</i>
18.4.2 Ascertain training requirements among DMG Members and investigate opportunities for Training/Continuous Professional Development. Report on progress on an annual basis.	Annually	DMG Secretary and Members	<i>Verbal report at Spring meeting.</i>
18.4.3 Develop and implement a training programme to assist in the provision of training for DMG Members who lack the necessary qualification or for individuals who wish to enhance their skills.	Annually	DMG Chair and Secretary	<i>Annual training programme to be agreed at Spring meeting. Secretary to organise courses/events.</i>

Competence & Training Policy

Members of the Deer Management Group recognise the need for deer to be managed by trained personnel. A Trained Person is an individual who can produce evidence of training to cover the requirements of Regulation (EC) No 852/2004, and Regulation (EC) No 853/2004 as they apply to wild game. Approved qualifications such as the Deer Stalking Certificate Level 1 & Level 2, and the Certificate in Wild Game Meat Hygiene (large game), is the most robust way in which stalkers can show that they have the appropriate knowledge.

The Group recognises that the requirement for deer to be culled by competent and qualified personnel is in the public interest. The DMG will promote and encourage competence in undertaking deer management activities through the following actions:

- *All those involved in the culling of deer, will be suitably experienced or will have attained a formal qualification to meet the minimum standard.*
- *Members will be encouraged to highlight changes in competency qualifications in the annual return.*
- *The DMG will assist where possible in the provision/facilitation of training for anyone lacking necessary qualifications or for individuals who wish to enhance their skills.*

19. Actions to ensure deer welfare is taken fully into account at individual animal and population level.

19.1 Background.

The definition of welfare in relation to wild deer is 'concern for their physical and psychological well being'. This definition can be applied to both the individual animal and population level. [Wild Deer Best Practice Guidance](#) states that with increasing intervention (e.g. fencing, feeding, culling) comes increasing responsibility for their welfare.

- **Fencing:** This is a management tool that is used extensively throughout the DMG. The exclusion or prevention of deer movements to areas of natural areas of shelter in winter through the erection of enclosures or use of strategic fenced may pose a threat to welfare. Similarly, areas where fencing is no longer required and can be removed, can open up areas of natural shelter which will be attractive to deer.
- **Supplementary Feeding:** Within the DMG, supplementary/diversionary winter feeding specifically for deer is used.
- **Winter Mortality :** Members will monitor and report any significant levels of winter mortality to the Group, as well as any significant health issues encountered. It is considered that mortality within the group is approx 6% for calves, and 2% hinds for hinds and stags. These figures are used in the current population models for the DMG, but will be varied depending on the location and practical experience.

19.2 Plan Objectives

DMP will promote and safeguard deer welfare through effective planning and the undertaking of training for deer managers and the carrying out of deer management activity to [Wild Deer Best Practice Guidance](#) industry standards.

19.3 Current Delivery.

- Members will monitor and report on levels of winter mortality as well as any other significant health issues encountered.

19.4 Targets to be delivered by 2021

Actions to ensure deer welfare is taken fully into account at individual animal and population level	When?	Who?	How?
19.4.1 Agree and adopt welfare policy (Figure 20).	Spring 2017	DMG Members	<i>Implemented through every day Best Practice in deer management.</i>
19.4.2 Consider opportunities for CPD/Training in relation to deer welfare.	By 2021	DMG Members	<i>DMG will run at least one event to share Best Practice Management.</i>
19.4.3 Provide information on welfare indicators annually. Baseline information established in year 1 of DMP and welfare indicators reported on annually. Any resulting management actions agreed and implemented by members.	Ongoing	DMG Members	<i>Deer managers to provide information on hind reproduction and average larder weights.</i>
19.4.4 Any new fencing in DMG area will consider welfare implications in design and extent and the appropriate management undertaken.	Ongoing	DMG Members	<i>New fencing proposals will be consulted with DMG.</i>
19.4.5 Monitoring and reporting of significant levels of winter mortality.	Ongoing	DMG Members	<i>Deer managers will provide information (figures & location) on winter mortality.</i>

Figure 20: Welfare Policy

Welfare Policy

Members of the Deer Management Group will promote and encourage the safeguarding of deer welfare both at the scale of the individual animal and at a population scale through the following actions:

- Carrying out all deer management activity to Wild Deer Best Practice Guidance industry standards;*
- Promoting the undertaking of deer management training, continual professional development and industry recognised qualifications (e.g. Deer Stalking Certificate Levels 1 & 2);*
- Discouraging/reporting illegal stalking activity;*
- Ensuring that the natural habitat supports good welfare through the provision of adequate habitat and shelter;*
- Ensuring that any land management operations take into consideration possible effects on deer movements or the availability of shelter; and*
- Ensuring that the necessary precautions and checks are undertaken to prevent the spread of diseases.*

20. Actions to maximise economic benefits associated with deer

20.1 Background

- Wild deer are considered a resource and can play an important role in promoting and sustaining economic activity, especially in rural areas where they can contribute to businesses, particularly tourism and food production. For the main Estates the need to uphold strong conservation objectives is balanced with maximising the potential value of deer as a resource – through stalking, tourism and venison production.
- Collectively, some 90 stags are ideally required by the group to be harvested annually. In order to achieve a sustainable harvest of stags, a minimum total population of around 1550 deer is required across the whole DMG area.
- In terms of commercial deer stalking, the Uists have a Unique Selling Point in providing good quality premium stags in a beautiful, remote and rugged landscape. The sale of stalking opportunities during the Open Season could potentially command a premium and provides considerable commercial opportunity not just to landowners but also the wider community by bringing visitors to the island.
- Typically the commercial stalking value for mature stags up to 12 points is between £450 to £700. However, the trophy quality of some of the stags with over 14 points will invariably be significantly more. Hinds stalking is usually in the region of £200 - 300 per day.
- SQWV Ltd (Scottish Quality Wild Venison Ltd) is an independent company which exists to maintain, develop and promote Quality Assurance Standards throughout the whole Venison industry. As a result of the assessments and checks made throughout the food chain on members of the SQWV Assurance schemes consumers know more about the venison they purchase and consume. Group Members will explore opportunities to become members of the scheme (<http://www.sqvv.co.uk>).

20.2 Plan Objectives

DMP to identify the economic interests of DMG ownership and identify opportunities to maximise these including employment, stalking, tourism, venison.

20.3 Current Delivery

- Currently 90 stags are let for stalking. As well as direct income derived from the selling of stag stalking opportunities and venison income is also derived the provision of accommodation and meals for stalking clients and partners.
- Over a 5 year cull average of 309 carcasses the potential income derived from sale of Venison within the DMG is estimated to be around £38,635 annually.
- There are 4 full-time equivalent deer management employees with an additional 10 part-time employees associated with estate management activities.
- Last year North Uist provided 224 bed nights related to stalking in 3 Hotels and South Uist has a Lodge providing accommodation.
- All properties use local services - such as shops, fuel, hotels and B&Bs, local tradesmen, vets, livestock feed suppliers.
- The main Estates have access to larders with South Uist Estate having access to venison processing facilities.
- South Uist Estate have plans to build a new larder/venison processing unit which could service both North and South Uist.

20.4 Targets to be delivered by 2021

Actions to maximise economic benefits associated with deer	When?	Who?	How?
20.4.1 Investigate opportunities for membership of SQWV Quality Assurance Scheme.	By 2021	DMG Members	<i>On-going discussion at DMG meetings.</i>
20.4.2 Investigate opportunities to add-value to deer management in particular for more effective collection of carcasses and possible collaborative processing of venison/game.	Annually	South Uist Estate	<i>Discussion at DMG meeting.</i>
20.4.3 DMG Members to seek opportunities to market venison locally.	Ongoing	DMG Members	<i>Individual members undertake.</i>
20.4.4 DMG Members to continue to monitor sustainable harvest of sporting stags (including provision of age-class information).	Ongoing	Secretary & DMG Members	<i>Population model used to monitor sustainable harvest of stags. Members report stag cull according to 4 age-classes at Sub-Group meetings.</i>

21. Actions to reduce or mitigate the risk of establishment of invasive non-native species

21.1 Background

Law on non-native species in Scotland

Scotland leads the way in the battle against non-native species. New legislation came into force in July 2012.

The Wildlife and Natural Environment (Scotland) Act 2011 made significant amendments to the law in Scotland. It contains the following offences:

- Releasing an animal to a place out with its native range.
- Allowing an animal to escape from captivity to a place out with its native range.
- Otherwise causing an animal out with the control of any person to be at a place out with its native range.
- Planting a plant in the wild at a place out with its native range.
- Otherwise causing a plant to grow in the wild at a place out with its native range.

Sika deer and “Refugia Islands”

- Sika were introduced as an ornamental species during the late 19th and early 20th centuries and have now become established on mainland Scotland, occupying more than 40% of the red deer range.
- They are genetically closely related to red deer and hybrids are common. Given the adaptability of sika, they have steadily expanded their range and are likely to continue to do so. This is likely to result in continued hybridisation with red deer.
- There are also ‘deer refugia’ – islands where it is an offence to release deer to protect the genetic integrity of native deer populations. These include Arran, Islay, Jura, Rum and the Outer Hebrides.

Feral pigs or feral goats

Feral pigs or feral goats have not so far established within the DMG area

21.2 Plan Objectives

- The plan will aim to reduce or mitigate the risk of establishment of invasive non-native species of deer (Sika and Muntjac).
- Plan to highlight other invasive species such as Feral Pigs and Feral Goats.
- Plan to detail an agreed policy and actions required by DMG to monitor.

21.3 Current Delivery.

- DMG have adopted the Non-Native Policy (Part 2: 2.12.4) to manage Sika Deer, Feral Pigs and Feral Goats.

21.4 Targets to be delivered by 2021

Actions to reduce or mitigate the risk of establishment of invasive non-native species	When?	Who?	How?
21.4.1 Muntjac Deer managed as per the Non-native Species Policy.	Ongoing	DMG Members	<i>Members will contact local SNH Wildlife Management Officer immediately on suspected sighting of Muntjac.</i>
21.4.2 Sika Deer managed to prevent their establishment within the DMG area and managed as per the Non-Native Species Policy.	Ongoing	DMG Members	<i>Members will shoot Sika on sight (within current legal restrictions) to prevent their spread.</i>
21.4.3 Feral Pigs and Feral Goats managed according to DMG Policy and future Policy Guidelines currently being agreed by SNH.	Ongoing	DMG Members	<i>Members will report sightings of feral pigs and feral goats and shoot on sight (subject to welfare considerations) within DMG area. Implement Feral Pig and Feral Goat management policy once agreed by SNH.</i>
21.4.4 Encourage control of invasive plants species.	Annually	DMG Members	<i>Members will inform DMG of invasive plant species at annual meetings and will report on control undertaken.</i>

Non Native Species Policy

Sika: The Uists have been designated by SNH as Refugia Islands in order to preserve and maintain the genetic integrity of the Red Deer living there. The Wildlife and Natural Environment (Scotland) Act 2011 makes it an offence to release an animal to a place outwith its native range or to allow an animal to escape from captivity to a place outwith its native range. The Group will endeavour to ensure that Sika populations do not become established in the DMG area will manage suspected Sika in accordance with the [Non-Natives Species Code of Practice](#) (made by the Scottish Ministers under Section 14c of the Wildlife and Countryside Act).

Muntjac: Muntjac are not native to Scotland and as such possible threats to their introduction or establishment must be managed. As such, Muntjac will be managed in accordance with the [Non-Natives Species Code of Practice](#) (made by the Scottish Ministers under Section 14c of the Wildlife and Countryside Act).

Feral Pigs and Feral Goats: Feral Pigs and Feral Goats are not present on North Uist, Benbecula or South Uist. Should they become established, they will be managed according to SNH Policy Guidance (currently in development). In the meantime, sightings of feral pigs and goats will be reported to the DMG and members will manage them to prevent their establishment (taking into consideration welfare of dependent young).

22. Actions to protect designated historic and cultural features

22.1 Background

- Certain types of historic or culturally significant features may be impacted positively from deer and deer management activity through for example, grazing to keep sites exposed. Impacts may also be negative however, where deer may cause damage through trampling or by jumping over stone-work for example. DMGs should contribute to conserving and enhancing the cultural and historic landscape e.g. ensure that trampling of sites is avoided particularly in the case of protected designated historic features.
- Historic and cultural features within the landscape are important to the group and the group undertakes to protect these from negative impacts by deer. Red deer, because of their size and herding behaviour are the species with most potential to cause negative impacts to these sites.
- There are a range of archaeological features some of which appear on the [CANMORE](#) website.

22.2 Plan Objectives

- Plan to consider deer management actions which contribute or impact on delivery of conserving and enhancing the local cultural and historic landscape.

22.3 Current Delivery.

- The DMG is currently unaware of any cultural or historic features that are being impacted on by deer.
- Any woodland creation projects are currently required by Forestry Commission Scotland to carry out this assessment
- 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 however impact the landscape and public access. **Joint-Agency Guidance** has been developed to help land managers decide what is the best management option for their land <http://www.snh.gov.uk/land-and-sea/managing-wildlife/managing-deer/sites/fencing>.
- There are two National Scenic Areas within the DMG which fencing proposals will have to consider according to Joint Agency Guidance.

22.4 Targets to be delivered by 2021

Actions to protect designated historic and cultural features from being damaged by deer e.g. by trampling.	When?	Who?	How?
22.4.1 Identify any features within DMG area that may be impacted on by deer.	By end of 2017	DMG Members	<i>DMG members to report at Autumn DMG meeting on features identified.</i>
22.4.2 If features identified, ensure the appropriate management is implemented and report to DMG.	Ongoing	DMG Members	<i>Verbal report/update to DMG.</i>
22.4.3 All future fencing proposals to follow Joint Agency Guidance	Ongoing	DMG Members	<i>DMG area does fall within two National Scenic Areas so new fencing proposals will be reported to DMG.</i>

23. DMG Constitution

The Uist Deer Management Group (UDMG) is constituted as a stand-alone Deer Management Group (DMG), this being adopted in **2016**.

DMG Constitution

Name

The Group name shall be the Uist Deer Management Group.

Objectives

The Group's objective is to promote the sustainable management of deer in the Uist DMG area in accordance with the Uist DMG Deer Management Plan.

Group Area

The geographic area covered by the Uist DMG is as depicted on the attached map. The boundary may be open to amendment should the Group so decide.

Membership

The Members of Uist DMG will be the owners of land within the Group area or their authorised representatives. For the avoidance of doubt private, public sector, voluntary body or corporate land owners are entitled to be Members of the Group. Members may be represented at Group meetings in their absence by an individual nominee on notification to the Secretary in writing.

Representatives from relevant public bodies, NGOs and local bodies may be invited to attend meetings of the Group.

Members' obligations

Members agree to support the effective running of the Group by:

- Attending or being represented at all DMG meetings.
- Supplying information required for the administration, writing and review of the Group Deer Management Plan and for the other purposes of the Group.
- Paying an annual subscription to Uists DMG at such rates as may be agreed.
- Collaborating with other Members and other relevant interests as set out in the ADMG Principles of Collaboration.
- Advising the Group of any relevant changes in terms of ownership or land management in respect of their individual landholdings.

Constitution (continued)

WDNA, Code of Practice on Deer Management & Wild Deer Best Practice Guidance

Group members support and full endorse:

- The long term vision for deer populations and their management as laid out in "[Scotland's Wild Deer - A National Approach](#)".
- [Code of Practice on Deer Management](#)
- [Wild deer Best Practice Guidance](#)

Office Bearers

Office bearers will comprise a Chair and, if required, Vice Chair, who shall be elected annually at the Group AGM. Re-election on a rolling basis is permitted with no restriction on the period of time that an office bearer may serve.

The administrative positions of Secretary and Treasurer (which may be combined) and external Auditor are appointed positions and such appointments and any terms of employment shall be for approval annually at the Group AGM.

Meetings

- The Group will meet twice annually or more frequently as may be necessary.
- The Secretary will take a Minute of all meetings and circulate copies to all Members.
- An Annual General (AGM) meeting shall be held at such a place, date and hour as the Group shall decide. Advance notice will be given to Members not less than 28 days in advance of the AGM.
- A voting majority shall be defined as a simple majority of the full Membership of the Group.
- Only Members or representatives of Members with a mandate submitted in writing to the Secretary are entitled to cast a vote.

Constitution (continued)

Funding and Financial Arrangements

The Group will be self-financing and the subscription will be set annually at the AGM. The basis of subscription calculation shall be agreed by the Group and approved by members at an AGM.

Subscriptions will be set a rate sufficient to cover all the operating expenses of the Group. Subscriptions will be payable at a date to be determined by the Group. Notwithstanding the above the Group may apply for public grants, subsidies or other funds in order to meet the objectives of the Group.

The Treasurer will operate a Bank Account for the Group and all financial transactions will be made on this account. Joint signatures of the Treasurer and Chair will be required on all cheques or debits drawn on the account in excess of £500.

A financial Statement will be prepared by an Auditor appointed by the Group and presented at the AGM for approval by Members. In the event of funds being left upon the winding up of the Group the disbursement of these funds will be determined by the Members. The Auditor shall be a Chartered Accountant.

Membership information, records and data

Storage of membership information will be the responsibility of the Secretary, such information to be used solely for the administration of the Group and stored in accordance with the law.

The Group shall determine such deer management and related data as will be required to fulfil the objectives of Uist DMG. Such data will be collected by all Members and submitted to the Secretary for storage and analysis and shall be regarded as the property of the Group.

Conflict resolution

It shall be the duty of all Members to seek agreement in respect of Group objectives and, where a dispute arises between Members, to resolve such dispute by negotiation and compromise. When agreement cannot be reached it shall be in the option of the Chairman to refer the matter to arbitration by the Chairman of the Association of Deer Management Groups or such other independent expert as the parties may agree.

24. DMG Operation and Function

24.1 Deer Count Protocols

It has been agreed that where possible, the DMG will continue to count deer either annually by foot or by helicopter every 3 years.

Where helicopter counts are being used, Group members are encouraged to undertake a sample recruitment count, every year in the spring around March/beginning of April. This will allow more accurate population monitoring. An indication of winter mortality will be provided for each management unit along with the cull returns for the spring meeting of the Group.

24.2 Cull and Larder Information Protocols

Members will complete an annual return, which will include cull data and some larder data for the purposes of monitoring stag age structure and deer welfare.

25. Habitat Monitoring Protocols

25.1 Habitat Monitoring Protocols

In addition to delivering the cull plan as set out in this document, those properties which do not currently have monitoring in place have agreed in principle to undertake habitat impact assessments, particularly in those areas where there are designated sites.

Habitat Impact Assessment will be conducted so as to:

- Collect and interpret habitat data on a regular basis to inform deer management;
- Set up a baseline to allow changes in impacts to be measured over time;
- Understand the methods used by government agencies.

A further aim will be to map habitat types across estates, particularly with a view to establishing areas of high carbon-sensitive habitats across the DMG range. All estates should establish areas within their boundaries where there is scope for habitat improvement particularly in relation to peatland improvement work.

25.2 Wild Deer Best Practice Guidance & Monitoring data sheets

The Wild Deer Best Practice Guides (<http://www.snh.gov.uk/land-and-sea/managing-wildlife/managing-deer/best-practice>) describe the methods used by SNH to monitor deer impacts. These methods are also a key part of how other agencies monitor deer impacts. The proposed method would involve using Best Practice Guidance Habitat Impact Assessment for Dwarf Shrub Heath (DSH) and Blanket Bog (BB)

Each property/management unit would be required to do a minimum of 30 plots (with the proportion of DSH/BB plots relative to the proportion of habitat present). This would be repeated every 3 years. Following on from this individual Group Members may be in a position to apply for Moorland Management Agri-Environment Climate Scheme or Peatland Restoration schemes.

For those with native woodland, the SNH methodology for the Monitoring of Native Woodland on Designated Sites will be used. The numbers of plots per landholding would likely be a minimum of 30 (depending on the size of area of woodland). This would also be repeated every three years. Following on from this, Members could then seek to apply for one of the Forestry Grant Scheme options.

Subject to funding, a formal Strategic Review of woodland expansion according to the Scottish Government Forest Strategy will also be undertaken to identify opportunities for further woodland expansion (which may be eligible for funding through the Woodland Creation option of the Forestry Grant Scheme).

25.3 Plot Locations

There are two possible options for the location of plots on a property:

- 1) For those already conducting HIA on their own property, then continuation of use of those plots would be advised.
- 2) For those wishing to start monitoring and create a baseline, a series of random plots has been generated by SNH for each property within the DMG to enable individual properties to set up and undertake monitoring which will be representative of significant habitats within the Group area.

25.4 Timescales

Under the initial guidance of SNH, suitable sites will be selected and a monitoring schedule for each habitat agreed. The schedule is detailed in Section. Each property will then be responsible for reporting on the condition of their particular habitat.

26. Acknowledgements

The author would like to thank Scottish Natural Heritage for providing data, reports and advice to assist in the development of this plan. The author would also like to thank the Chairman, Secretary and Members of Uist DMG for their valuable assistance throughout the planning process and input.

27. Useful Contacts:

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28. Appendix 1: Public Health – Lyme Disease. Compiled by The Lyme Disease Subgroup

A sub-group of the Uist Deer Management Group (DMG) was convened to examine the particular incidence of Lyme disease in the human population in the Uists. The sub-group submitted a report to the DMG for discussion and on the basis of its findings that a range of actions should be agreed for inclusion in the Plan.

Some of the main findings of the report are that:

- Incidence of cases of diagnosed Lyme disease in the Uists by far outweighs national statistics;
- Deer are an important host for the sheep tick which is the primary vector of Lyme disease;
- The resident population of deer has increased dramatically over recent years; and,
- There is little or no experimental knowledge within the Uists of the relationship between prevalence and location of ticks (and prevalence of infection in those ticks) and wild and domesticated animals.

Recommendations for action made by the report and subsequently agreed by the DMG are listed below:

Immediate

- Exclude all deer by whatever means from areas of human settlement, i.e. villages, croft land, vicinity of house, gardens, and other isolated places such as village halls.
- Request that the local vets explore protocols for reducing spread of tick-borne diseases being spread from the Uists to other parts of the Western Isles and the UK.

Short-term

- Development and delivery of awareness and prevention campaign by NHS Western Isles.
- The Deer Management Group should establish links with relevant research organisations and funding bodies.
- Determine environmental factors that influence tick abundance and *Borrelia burgdorferi* infection using large-scale survey across the Uists by means of a research project.
- Cease all muirburn until an expert assessment has determined its significance regarding the large host/ tick vector/ small mammal or bird/ pathogen cycle.

Medium-term

- Following conclusion of research, develop and deliver an action plan specifically designed to address the findings of the project.

Further information and resources concerning Lyme disease can be found at www.lymediseaseaction.org.uk.

LYME DISEASE

In nearly all known cases of Lyme disease it is transmitted to humans following the bite of an infected tick. In a population of ticks, only some will carry the infection. The risk of infection is greater the longer the tick remains attached. Tick bites are usually painless, so may easily go unnoticed.

Lyme disease is an infection caused by the bacteria called *Borrelia burgdorferi* that belong to a family of spiral-shaped bacteria called Spirochaetes. Common symptoms of Lyme disease are sometimes a circular red rash that spreads out from the centre of the tick bite. Later, the sufferer might experience headaches, tiredness, fevers or sweats, pains in muscles or joints, or numbness or tingling. Lyme disease can be mild, but it can also be very serious. Lyme disease will not go away on its own and must always be treated, so it is important to seek medical advice as early as possible.

INCIDENCE OF LYME DISEASE

Lyme disease is relatively common in the UK, but it is recognised by health authorities that, because nationally recorded cases are only those confirmed through laboratory testing and clinical notifications are not included, it is not possible to estimate the number of cases of Lyme disease which are misdiagnosed or unreported. Since full recovery may not take place in many cases, the total number of people affected is accumulating.

The statistics that are available for the number of cases of Lyme disease reported by Health Protection Scotland (population ~5.3m) range within two to three hundred per year. The reported cases for the Uists and Barra (population ~6.1k) confirmed by laboratory tests for the years from 2012 to 2015 are: 3; 4; 11; and 6 respectively.

However, following closer investigation, figures provided by NHS Western Isles for diagnosed Lyme disease in the Uists, i.e. laboratory results and erythema migrans (circular red rash), show the following incidence:

Borrelia burgdorferi – laboratory confirmed by serology

Year	Number
2013	<5
2014	10
2015	6
2016	10

Year	Number
2013	20
2014	32
2015	29
2016	20

These figures suggest that by making a comparison with cases of Lyme disease diagnosed in Scotland, proportionately incidence of cases in the Uists by far outweigh those occurring in Scotland.

TICK, PATHOGENS, AND COMMON HOSTS

Deer are an important host for the sheep tick *Ixodes ricinus*, which, in Scotland, is the primary vector of disease-causing zoonotic pathogens such as the Lyme disease agent *Borrelia burgdorferi*; louping ill virus and the tick-borne fever/granulocytic anaplasmosis agent *Anaplasma phagocytophyllum*, all endemic in the Uists. Recognised methods of deer management are, generally, culling and/or exclusion by fencing. Research has been undertaken elsewhere in Scotland into the efficacy of controlling ticks using these methods together with the implication for tick-borne pathogens. It has been demonstrated by this research that areas with fewer deer have fewer ticks and by excluding deer by fencing results in dramatically fewer ticks.

The life cycle of the tick is usually 3 to 4 years and develops from the egg through two immature stages (larva and nymph) to the adult stage. Each immature stage requires a blood meal from a suitable vertebrate host before developing to the next stage and the adult female requires a blood meal before laying 2,000 to 3,200 eggs 15 to 22 days after dropping from the host. Adult females feed preferentially on large mammals such as deer, sheep or cattle whilst the immature stages can also feed on smaller vertebrates such as mice, voles and birds. Mice and many smaller birds act as permanent, competent reservoirs for the Lyme disease agent, i.e. they carry the *B. burgdorferi* infection but are not affected by it themselves. Rats are known to be competent hosts and research has shown that hedgehogs are a competent reservoir. The short-tailed vole, absent on Lewis and Harris but present on the Uists, rabbits and some birds mount an immune response and so act only as temporary hosts.

Tick abundance is positively associated with abundance of large mammals. The relationship between host availability and adult ticks is essential in the persistence of a given population. When the abundance of large mammalian hosts decline, ticks at their larval stage become less abundant in spring which indicates that adult ticks generally failed to feed and reproduce. If the abundance of suitable hosts for adult ticks continues to be marginal, the effect of small cohorts can be continual and reduces the tick population in just a few years. This indicates that the presence of large mammals is a prerequisite for high density tick populations, and both deer and croft livestock are known to be suitable hosts for ticks at all life stages.

The geography of the Uists is very different from many other locations in Scotland where deer are prevalent. Accepting that there are exceptions, generally on South Uist deer are mainly resident in the east while human settlements are located to the west of the island. Similarly on North Uist, deer are to be found on moorland areas to the east and centre of the island with human settlements located around the coastal strips to the west and north. These settlement patterns result in an extremely long interface between deer and humans in terms of distance. Therefore, the opportunity and likelihood of ticks dropping from deer on to land inhabited and used by humans is greatly amplified.

CONCLUSIONS

Research into the relationship between deer, infected tick and Lyme disease has been carried out in Scotland and further afield, but this has been against the background of far lower incidence of Lyme disease than occurring in the Uists, and with a likely different geography. Little or no knowledge has been gathered in the Uists about prevalence and location of tick; percentages of infected tick; what species of *Borrelia* exist; and, apart from deer what mammal and avian species do they feed on.

Given the scale of numbers of people being diagnosed with Lyme disease in the Uists, it is essential that research is carried out and the Deer Management Group should begin to find out which academic bodies have the necessary expertise for this to be undertaken. Organisations such as Scottish Natural Heritage and Health Protection Scotland have a remit and must take a direct role in this respect.